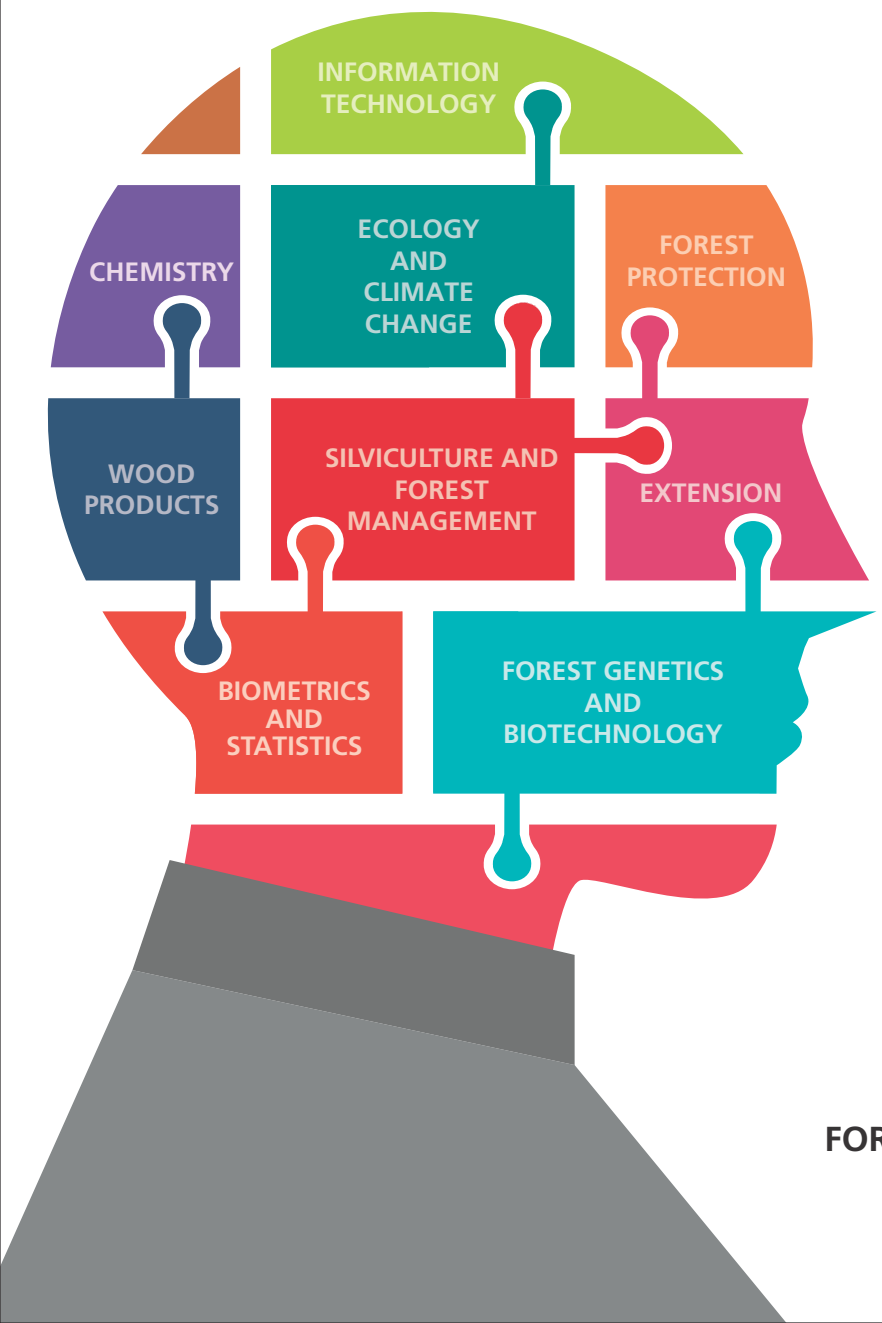
SCIENTISTS OF ICFRE

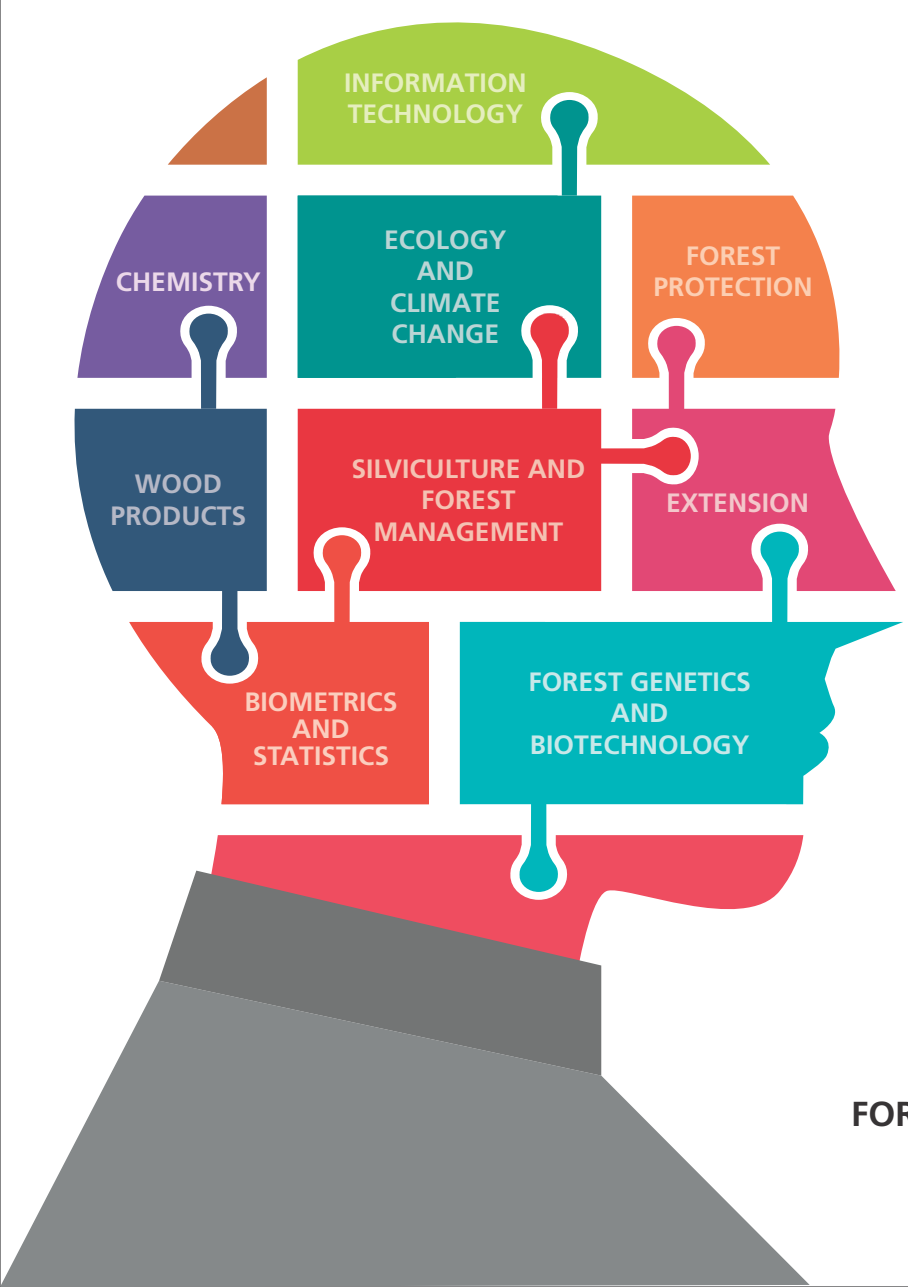
BIODATA



INDIAN COUNCIL OF
FORESTRY RESEARCH AND EDUCATION

SCIENTISTS OF ICFRE

BIODATA



INDIAN COUNCIL OF
FORESTRY RESEARCH AND EDUCATION

डॉ सुरेश गैरोला, भा.व.से
Dr. Suresh Gairola, IFS

सत्यमेव जयते

महानिदेशक
भारतीय वानिकी अनुसंधान एवं शिक्षा परिषद
डाकघर न्यू फॉरेस्ट, देहरादून–248006
(आई.एस.ओ. 9001:2008 प्रमाणित संस्था)
Director General
Indian Council of
Forestry Research and Education
P. O. New Forest, Dehradun – 248006
(An ISO 9001:2008 Certified Organisation)

FOREWORD

Indian Council of Forestry Research and Education has been striving relentlessly towards addressing the national and global concerns of climate change, biodiversity conservation, forest health and productivity, water security and improving rural livelihoods. The Council, through its Institutes and Centres spread over the country, is providing technical skills to stakeholders in efficient utilization of forest resources and augmenting the livelihood opportunities. In recent times, the Council has also collaborated with a number of organizations both in India and other countries to have a holistic approach in addressing complex issues of forestry research, education and extension.

This publication is an effort in this direction and is first such compilation on the diverse scientific expertise available with the Council. This information would not only enable the scientists working on similar issues in various institutions to share the existing knowledge but also help in formulation of collaborative projects by pooling the expertise and resources. I also hope that this database from this publication will be referred by the stakeholders like State Forest Departments, Wood based industries, tree growers and academicians for directly connecting with the concerned experts for seeking solution to the issues faced by them.

I congratulate the Directorate of Education for bringing out this publication. I am sure this will help to enhance the research and extension initiatives of the Council and to assess the future research needs from different parts of the country. I wish them success in their endeavor.

(Dr. Suresh Gairola)
Director General
Indian Council of Forestry Research & Education

विपीन चौधरी, भा.व.से
उप महानिदेशक (शिक्षा)
(शिक्षा एवं भर्ती बोर्ड)
Vipin Chaudhary, IFS
Deputy Director General
(Education)

सत्यमेव जयते

भारतीय वानिकी अनुसंधान एवं शिक्षा परिषद
(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
भारत सरकार की एक स्वायत्त संस्था)
पो0 ऑ0 – न्यू फॉरेस्ट, देहरादून – 248 006
Indian Council of Forestry
Research and Education
(An autonomous Body of Ministry of Environment,
Forest & Climate Change, Govt. of India)
P.O. New Forest, Dehra Dun – 248006

FOREWORD

A strong research institute is the need of the hour in the management of forests and environment and research collaboration is a very valuable tool that not only accelerates the progress but also enhances the quality of the work and extends the repertoire of the partners.

This publication on the Scientists of ICFRE is an attempt in this direction which aims to foster synergy in working amongst the scientists of various disciplines, not only within ICFRE institutes but also with other institutions working in different disciplines, in the country and outside based on their research experience. The specific details of scientists of ICFRE in the form of book has been prepared with the objectives to give more emphasis in future planning and collaborating research amongst the scientists.

This information would also enable the various stakeholders in expressing their field problems directly to the concerned experts and seek solutions. The scientists would also benefit in designing their projects according to their needs as well as in evaluating the effectiveness of the solutions prescribed by them.

I appreciate the efforts put in by Sh. N.C. Saravanan, Assistant Director General (Education and Recruitment Board) and Dr. Anil Negi, Scientist-E and staff of Directorate of Education for bringing out this publication.

(Vipin Chaudhary)
Dy. Director General (Education)
Indian Council of Forestry Research & Education

एन.सी.सरावणन, भा.व.से
सहायक महानिदेशक
(शिक्षा एवं भर्ती बोर्ड)
N.C. Saravanan, IFS
Assistant Director General
(Education & Recruitment Board)

सत्यमेव जयते

भारतीय वानिकी अनुसंधान एवं शिक्षा परिषद
(पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
भारत सरकार की एक स्वायत्त संस्था)
पो0 ऑ0 – न्यू फॉरेस्ट, देहरादून – 248 006
Indian Council of Forestry
Research and Education
(An autonomous Body of Ministry of Environment,
Forest & Climate Change, Govt. of India)
P.O. New Forest, Dehra Dun – 248006

PREFACE

The Indian Council of Forestry Research and Education is mandated with the generation and dissemination of knowledge and technologies to its varied stakeholders including the State Forest Departments, farmers and industries. There are many scientists working in ICFRE in different areas of specialization in research as well as extension activities. There has been a long felt need to make available, the information about the scientists, their areas of expertise and other information, so that it would be easy for the stakeholders to contact the scientists of the respective fields to address their problems. This publication is a compilation of biodata of 226 scientist of 9 major disciplines. This information would also be helpful for scientists of other institutions working on similar areas to share knowledge and work on coordinated research projects for finding possible solutions to the field problems.

I sincerely thank Dr. Suresh Gairola DG, ICFRE, Shri Vipin Chaudhary, DDG and Dr. Neelu Gera and for their guidance throughout the preparation of the document. I also thank all the DDGs, Secretary, ICFRE, Directors of all ICFRE institutes and all the scientists for their cooperation in bringing out this publication. My thanks are also due to Dr. Anil Negi, Scientist, E, Shri Sushant Sharma and Ms. Ruchi for their tireless efforts in drafting and publication of this document.

As this is the first attempt in bringing out a publication on the scientists of ICFRE, we welcome the comments and suggestions for the improvement of this publication. Though due care has been taken to verify all the facts mentioned, errors if any may also be brought to our notice.

N.C. Saravanan
ADG (Edu & RB)

CONTENTS

Sl.No.	DISCIPLINE AND SCIENTISTS
1.	**BIOMETRICS AND STATISTICS** Dr. V. P. Tewari, Raman Nautiyal, Dr. Rajiv Pandey, Dr. Girish Chandra, Dr. Ritesh Tailor, Dr. Jawaid Ashraf, Dr. Manish Kumar.
2.	**CHEMISTRY** Dr. A.K. Pandey, Dr. V.K. Varshney, Dr. Vineet Kumar, Dr. Y.C. Tripathi, Dr. Abha Rani, Dr. Mala Rathore, Dr. Rashmi, Dr. Rakesh Kumar, Dr. S.S. Bisht, Dr. Pradeep Sharma, Pankaj Singh.
3.	**ECOLOGY AND CLIMATE CHANGE** Dr. G. Singh, Dr. Sudhir Kumar, Dr. R.K. Verma, Dr. A.K. Tripathi, Dr. C. Kunhikannan, N. Bala, Dr. Avinash Jain, Dr. V. Jeeva, Dr. Sharad Tiwari, Dr. A.N. Singh, Dr. C. Buvaneswaran, Dr. K.R. Sasidharan, Dr. Kumud Dubey, Dr. Ranjeet Kumar, Dr. A.C. Surya Prabha, S.R. Baloch, Dr. Krishna Giri, Dr. I.P. Bora, D.K. Meena, Ajay Kumar, D.K. Gupta, M.Rajkumar, Dr. Pramanand Kumar, Mamta Meshram, Dr. Hukum Singh, Dr. Manoj Kumar.
4.	**EXTENSION** R.K. Kalita, Dr. Charan Singh, Rambir Singh, Dr. S.N. Mishra
5.	**FOREST GENETICS & BIOTECHNOLOGY** P.H. Chawhaan, Dr. I.D. Arya, Dr. H.S. Ginwal, Dr. R. Yasodha, Dr. B. Nagarajan, Dr. Rajesh Sharma, Dr. K. Palanisamy, Dr. Sarita Arya, Dr. U.K. Tomar, Dr. Modhumita Dasgupta, Dr. Ashok Kumar, Dr. A.Nicodemus, Dr. V. Sivakumar, Dr. Yogeshwar Mishra, Dr. S. Pattnaik, Dr. Arun Kumar A.N., Dr. Tarun Kant, Dr. N.B. Mathish, Dr. Fatima Shriin, Dr. Kannan C.S. Warrier, Dr. Santan Barthwal, Dr. Aajay Thakur, Dr. M.T. Hegde, Dr. R. Rajasugunasekar, Dr. R.R. Warrier, Dr. Animesh Sinha, Dr. B.N. Divakra, Dr. Parveen, Aditya Kumar, Sanjay Kumar, J.M.S. Chauhan, Dr. N. Ravi, Dr. V.K.W. Bachpai, Dr. A. Shanthi, Dr. M.S. Bhandari, Dr. R.K. Meena, Dr. Naseer Mohammad, Dr. Rama Kant, Satyam Bordoloi, A. Mayavel, Dr. D. Thangamani, H.C. Sindhu Veerendre, Mohd. Ibrahim, Tersa Hamalton, K.S. Venkataraman, Dr. Pramod Kumar, Deshameena.
6.	**FOREST PROTECTION** R.Sundararaj, Dr. S. Murugesan, Dr. Sudhir Singh, Dr. Mohd.Yousuf, Dr. Nitin Kulkarni, Dr. A. Balu, Dr. V. Mohan, Dr. Amit Pandey, Dr. S. Chakrabarti, Dr. Ranjeet Singh, Dr. P.B. Meshram, Dr. R.K. Verma, Dr. Shamila Kalia, Dr. J.P. Jacob, Dr. R.K. Borah, Dr. A.P. Singh, Dr. A.Karthikeyan, Dr. N. Senthilkumar, Seema Kumar, Dr. Vipin Parkash, Dr. Ashwani Tapwal, Dr. Sangeeta Singh,Dr. Arvind Kumar, Dr. K.P. Singh, Dr. Pawan Kumar, Rajesh Kumar, Dr. M.K. Arunachalam, Bhawna Shrama, R.R. Rishi, Subhash Chander, Dr. Shailesh Pandey, Hans Raj, Dr. Shiwani Bhatnagar, Dr. Deepa M., Ranjana Juwantha, Dr. Dandeswar Dutta, Dr. N.D. Borthakur, A.J. Asaiya, Shalaini Bhowate.
7.	**INFORMATION TECHNOLOGY** Dr. Harish Kumar, Neelesh Yadav, A.K. Sinha, Jatender Singh, Sudhir Kumar, V. Soundararajan, R.S. Kujur.
8.	**SILVICULTURE AND FOREST MANAGEMENT** Dr. G.R.S. Reddy, Dr. Sangeeta Gupta, Dr. Dinesh Kumar, Dr. Shyam Vishwanath, Dr. Sandeep Sharma, Dr. Maitreyee Kundu, Dr. Geeta Joshi, Neelu Singh, Jagdish Singh, Dr. Sanjay Singh, Dr. Manish Thapliyal, Dr. P.S. Rawat, Dr. R. Anandalakshmi, Dr. Meena Bakshi, Dr. B.P. Tamta, Dr. S.Saravanan, P.K. Kaushik, Dr. Nanita Berry, Dr. Anup Chandra, M.D. Savio, Dr. Anita Tomer, Dr. A. Rajasekaran, Dr. A. Vijayaraghavan, Dr. T.N. Manohara, Chandrashekr B.S., Dr. Vishaka Kumbhare, Vishwajit Kumar, Dr. Malabika Ray, Dr. Devendra Kumar, Dr. Nawa Bahar, Dr. Hariom Saxena, Dr. M.K. Singh, Ranjana Negi, Vedpal Singh, Dr. S.C. Biswas, P.S. Negi, Gaurav Mishra, Dr. Swaran Lata, M.B. Honnuri, Sandeep Yadav, Dr. Anubha Srivashtav, Dr. N.K. Bohra, Dr. M.V. Durai, Ajoy Debbarma, Dr. P.K. Verma.
9.	**WOOD PRODUCT** Dr. Vimal Kothiyal, Dr. K.K. Pandey, Dr. S.K. Sharma, Dr. Sadhna Tripathi, Dr. Kishan Kumar V.S., Dr. N. K. Upreti, Dr. P.K. Aggarwal, Dr. S.P.S. Rawat, Dr. S.S. Chauhan, Dr. P.K. Gupta, Dr. S.R. Shukla, D.P. Khali, Rajesh Bhadari, Ajmal Samani, Dr. Vikas Rana, D. Venmalar, R. K. D. Ram, R.S. Topwal, Dr. Anil Negi, Dr. A.K. Sethy, N.C.M. Rajan, R. Ezhumalai, Ismita Nutiyal, Shalindra Kumar.


INFORMATION TECHNOLOGY
CHEMISTRY
ECOLOGY AND CLIMATE CHANGE
FOREST PROTECTION
WOOD PRODUCTS
SILVICULTURE AND FOREST MANAGEMENT
EXTENSION
BIOMETRICS AND STATISTICS
FOREST GENETICS AND BIOTECHNOLOGY

Dr. V.P. Tewari

1.	**Designation**	Scientist - G
2.	**Date of birth**	31/05/1960
3.	**Institute/Place of Posting**	Himalayan Forest Research Institute, Shimla
4.	**Contact Details**	**(O)** 0177-262677 **(M)** 89418422769
5.	**Date of joining at ICFRE**	24/12/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Level-14 26/05/2014
7.	**Discipline/Specialization**	Forest Biometrics, mensuration, growth modelling Forest Assessment and Monitoring
8.	**Education Qualification (Graduation or above)**	M.Sc.(Physics), Ph.D.

9. Important research contributions

- Developed top height-age model and site index equation to assess site productivity, generalised diameter-height equations and model for natural decline of stem numbers in neem plantations.
- Preliminary growth models have been developed for *Prosopis cineraria* and *Ailanthus excelsa* plantations. Developed Growth & Yield Models for *T. undulata , A. nilotica, E. Hybrid, A. indica , T. grandis* and volume estimation of *Quercus robur, Eucalyptus camaldulensis* and *Dalbergia sissoo*.
- Worked on distribution, assessment and growth of sandalwood in forest areas of Karnataka and developed Stand Density Management Diagram.
- Proposed a new way of modelling the relationship between tree heights and diameters using Johnson SBB distribution, which formulates a median regression model instead of generally used standard mean regression (applied on *A. tortilis* and *Fraxinus excelsior*).
- Studied lopping in many species and prescribed methods for sustainable yield.

10. Important Research Papers/Publications

- Modelling the relationship between tree diameters and heights using SBB distribution, V.P. Tewari and K.v. Gadow, *Forest Ecology and Management, 119, 1999, 171-176.*
- Development of top height model and site index curves for *Azadirachta indica* A. juss, V.P. Tewari and V.S. Kishan Kumar, *Forest Ecology and Management, 165(1-3), 2002, 67-73.*
- Above ground biomass tables for *Azadirachta indica* A. juss., V.S. Kishan Kumar and V.P. Tewari, *International Forestry Review, 1, 1999, 109-111.*
- Total and merchantable volume equations for *Tectona grandis* linn f. plantations in Karnataka, India, V.P. Tewari, K.M. Mariswamy and A.N. Arun Kumar, *Journal of Sustainable Forestry, 32(3), 2013, 213-229.*
- Growth and yield functions for irrigated plantations of *Eucalyptus camaldulensis* in hot desert of India, V.P. Tewari, Amit Verma and V.S. Kishan Kumar, *Bioresource Technology, 85(2), 2002, 137-146.*

11. Awards

- Brandis Prize by the Indian Forester for outstanding paper in Silviculture & Forest Management (1998).

Raman Nautiyal

1.	**Designation**	Scientist - E
2.	**Date of birth**	08/09/1971
3.	**Institute/Place of Posting**	ICFRE (HQ), Dehradun
4.	**Contact Details**	**(O)** 0135- 2224811 **(M)** 9411717722
5.	**Date of joining at ICFRE**	11/02/1998
6.	**Pay level and Date of continuous appointment to the present post/grade**	Level-13 01/01/2010
7.	**Discipline/Specialization**	Statistics Sampling, Multivariate analysis
8.	**Education Qualification (Graduation or above)**	M.Sc. (Statistics)

9. Important research contributions

- Development of a price dissemination system for NTFPs (E-Chaupal).
- Development of a database on Tree-borne oilseeds in India.
- Establishment of a network to facilitate collection, processing and dissemination of statistics pertaining to tropical timber and other forestry parameters in India.
- Sample survey to update rates and ratios of timber and non-timber forest products.
- Studies on Impact of Imported timber on market of India special reference to Agro-forestry
- Modeling the growth of Eucalyptus in Tamilnadu.
- Preparation of Forest Sector Report India 2010

10. Important Research Papers/Publications

- On Ranked Set Sampling Allocation Models for Symmetric Distributions, International Workshop on Environmental Statistics (by Girish Chandra, Neeraj Tiwari and Raman Nautiyal) (March 02-04, 2015) at Indian Statistical Institute, Kolkata.
- Kumar, A., Nautiyal, R., Kaliyathan, N.N., Forest Fire Hazard Zonation of Corbett Tiger Reserve, A future Perspective to Conserve Tiger Habitat using GIS presented in State Science Congress, UCOST, Dehradun.
- Gupta Sangeeta, Singh, M., and Nautiyal Raman (2010). Wood Quality Assessment of Clones of *Populus deltoides* developed by Forest Research Institute, India through Closed and Open Pollination CRA - Open Conference System, Fifth International Poplar Symposium (IPS V).
- Jain, A., Chandra, G., and Nautiyal, R., (2017). Valuating intangible benefits from afforested areas: A case study in India. Economia Agraria Recursos Naturales. 17(1). 89-100.
- Chandra, G., Tiwari, N. and Nautiyal, R., (2014). Assessment of Non Timber Forest Products in India: An Adaptive 122 Cluster Sampling Approach in book Statistical and Mathematical Sciences and their applications.

Dr. Rajiv Pandey

1.	**Designation**	Scientist - E
2.	**Date of birth**	29/07/1972
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224220 **(M)** 09412918634
5.	**Date of joining at ICFRE**	06/04/1996
6.	**Pay level and Date of continuous appointment to the present post/grade**	Level-13 01/01/2010
7.	**Discipline/Specialization**	Climate Change Vulnerability, Adaptation Assessment
8.	**Education Qualification (Graduation or above)**	M.Sc.(Forestry), Ph.D.

9. Important research contributions

- Estimation of carbon in India's forests and tree cover and their relationship with offsetting of GHG emissions.
- Development of climate change social vulnerability index.
- Development of approach for quantitative assessment of climate change adaptation.
- Establishment of linkages between (i) forest transition with social, economic and bio-physical drivers (ii) disturbances regime with vegetation.
- Development of indices for the evaluation of ecosystem goods and services.
- Evaluation of agro ecology as a tool for the climate change adaptation in Himalayan communities.

10. Important Research Papers/Publications

- Rajiv Pandey, Alatalo, J. M., Thapliyal, K., Chauhan, S., Archie, K. M., Gupta, A. K., Jha, S. K., and Kumar, M., (2018). Climate change vulnerability in urban slum communities: Investigating household adaptation and decision-making capacity in the Indian Himalaya. Ecological Indicator 90: 379-391.
- Rajiv Pandey, Kumar, P., Archie, K.M., Gupta, A.K., Joshi, P.K., Valente, D., and Petrosillo, I., (2017). Climate Change Adaptation in the Western-Himalayas: Household Level Perspectives on Impacts and Barriers. Ecological Indicators 84:27-37.
- Rajiv Pandey, Aretano, R., Gupta, A.K., Meena, D., Kumar, B., Alatalo, J.M., (2017). Agroecology as a Climate Change Adaptation Strategy for Smallholders of Tehri-Garhwal in the Indian Himalayan Region. Small-scale Forestry 16(1): 53-63. DOI 10.1007/s11842-016-9342-1.
- Rajiv Pandey and Atin Kumar Tyagi (2012). Particulate Matter Emissions from Domestic Biomass Burning in a Rural Tribal Location in the Lower Himalayas in India: Concern Over Climate Change. Small Scale Forestry, 11(2): 185-192.
- Rajiv Pandey and Shashidhar Kumar Jha (2012). Climate vulnerability index - measure of climate change vulnerability to communities: a case of rural Lower Himalaya, India. Mitigation and Adaptation Strategies for Global Change, 17(6): 487-506.

Dr. Girish Chandra

1.	**Designation**	Scientist - C
2.	**Date of birth**	15/02/1983
3.	**Institute/Place of Posting**	ICFRE(HQ) , Dehradun
4.	**Contact Details**	**(O)** 0135-2225821 **(M)** 9410542274
5.	**Date of joining at ICFRE**	05/03/2010
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-11 05/03/2010
7.	**Discipline/Specialization**	Statistics Sampling Techniques Probability
8.	**Education Qualification (Graduation or above)**	M.Sc. (Statistics), Ph.D.

9. Important research contributions

- Provided the precise method for response estimation (impact assessment) of developmental programs of the government and non-government organizations under successive phases by the use of RSS. International Association of Survey Statisticians conferred Cochran-Hansen Award for this method.
- Proposed the method of two stage adaptive cluster sampling which was based upon sample order statistics.
- Estimated the improved individual's mean Willingness-to-Pay (WTP) using logit model over the conventional contingent valuation method (CVM) for some selected intangible benefits pertaining to broad leaf plantation in and around the National Thermal Power Corporation (NTPC) Dadri, India.
- Proposed an adaptive cluster sampling theory based on ranked sets.

10. Important Research Papers/Publications

- Chandra, G., Bhoj, D. S., and Pandey, R., (2018). Simple unbalanced ranked set sampling for mean estimation of response variable of developmental programs, Journal of Modern Applied Statistical Methods, 17(2): 1-13.
- Chandra, G., Pandey, R., Bhoj, D. S, Nautiyal, R., Ashraf, J. and Verma, M. R., (2018). Ranked set sampling approach for response estimation of developmental programs with linear impacts under successive phases, Pakistan Journal of Statistics, 34(2), 163-176.
- Jain, A., Chandra, G., and Nautiyal, R. (2017). Valuating intangible benefits from afforested areas: A case study in India, Economía Agraria y Recursos Naturales, 17(1), 89-100.
- Chandra, G., Tiwari, N. and Chandra, H. (2011). Adaptive Cluster Sampling Based on Ranked Sets, Metodoloski Zvezki, 8(1), 39-55.
- Chandra, G., Nautiyal, R. Chandra, H., Roychoudhury, N. and Mohammad, N., (Eds.) (2015). Statistics in Forestry: Methods and Applications. Bonfring Publication, Coimbatore.

11. Awards

- Cochran-Hansen Award, International Association of Survey Statisticians - an association of International Statistical Institute, The Netherlands. (2017)
- Young Scientist Award by Venus International Foundations, Chennai (2015)

Dr. Ritesh Tailor

1.	**Designation**	Scientist - C
2.	**Date of birth**	12/12/1974
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bangalore
4.	**Contact Details**	**(O)** 080-22190199 **(M)** 08022190-199
5.	**Date of joining at ICFRE**	08/07/2010
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-11 08/07/2010
7.	**Discipline/Specialization**	Sampling Techniques, Design of Experiment, Sampling Techniques
8.	**Education Qualification (Graduation or above)**	M.Sc.(Statistics), M. Phil., Ph. D.

9. Important research contributions

- nil

10. Important Research Papers/Publications

- Ritesh Kumar, M. Srinivasa Rao, R. Ezhumalai and Ritesh Tailor (2017). "Study on Fuel Property of Important biomass Briquetting Feedstock's in India" Wood is Good Current Trends and Future Prospects in Wood Utilization, pp.. 397-401, Journal of Springer.
- M. Srinivasa Rao , Ritesh Tailor and B. V. Thulasi Ram (2016). "A case Study in Estimation of Wood consumption in Rural Housing in Two Physiographic Regions of Karnataka" My Forest – March-June 2015, Vol.51, pp.57-68, Karnataka.
- Tailor, R., Lakhre, A., Tailor Ritesh and Garg, N. (2015). "An improved ratio-cum-product estimator of population means using coefficient of kurtosis of the auxiliary variates in stratified random sampling". Journal of Reliability and Statistical Studies, Vol. 8, Issue 2, (Dec.-2015) PP. 59-67, Pantnagar, Uttarakhand.
- Rajesh Tailor, Narendra Kumar Jatwa and Ritesh Tailor (2014)."Ratio-cum-Product Estimator of Population Mean in Systematic Sampling using known Parameters of Auxiliary Variates". Journal of Reliability and Statistical Studies, Vol. 7, Issue 2, pp. 129-138, Pantnagar, Uttarakhand.
- Housila, P,. Singh, Ritesh Tailor, Sarjinder Singh and Marcin Kozak (2013). A Generalized method of Estimation of a Population Parameter in Two Phase and Successive Sampling. Journal of Quality and Quantity, Vol.47, no.3, pp. 1733-1760, Netherland.

Dr. Jawaid Ashraf

1.	**Designation**	Scientist - B
2.	**Date of birth**	10/04/1977
3.	**Institute/Place of Posting**	ICFRE (HQ), Dehradun
4.	**Contact Details**	**(O)** 0135- 2224896 **(M)** 9410394438
5.	**Date of joining at ICFRE**	01/09/2009
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-10 01/09/2009

7.	**Discipline/Specialization**	Applied Statistics, Forest Transition, Agroforestry, Forest Fringe
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agricultural Statistics), Ph.D. (Forest Management)

9. Important research contributions

- To understand forest transition, comparative analyses of nine countries (China, India, Indonesia, Japan, Korea, Laos, Malaysia, Philippines and Vietnam) of Asia Pacific region were done.
- An empirical evidence of forest cover change at sub-national level with focus to Uttarakhand state based on the environmental Kuznets curve (EKC) model has been given.
- A sophisticated statistical tool, Neural Network is used to compare the forest transition in Asia pacific region with Indian states. Different drivers responsible for forest transition were identified by using discriminant analysis.
- Factors influencing the decision of farmers of Western UP for adopting agroforestry practices were evaluated using logistic regression model.
- Response Surface Methodology (RSM) for parametric optimization of natural dye isolation from *Pinus roxburghii* needles has been used and the optimum level of factor has been identified for the natural dye isolation.

10. Important Research Papers/Publications

- Ashraf, J., Pandey, R., and De Jong W, (2017). Assessment of Bio-Physical, Social and Economic Drivers for Forest Transition in Asia-Pacific region. Forest Policy and Economics, 76, 35-44.
- Ashraf, J., Pandey, R., and De Jong W, (2015). Factors influencing farmers' decision to plant trees on their farms in Uttar Pradesh, India. Small Scale Forestry, 14(3), 301-313.
- Singh, M. P, Wil de Jong, Ashraf, J., and Reddy, S. R. (2017). Forest Transition in socio-economic development framework for India: An evidence. Forest Policy and Economics, 76, 65-71.
- Bhojvaid, P. P., Singh, M. P., Reddy, S. R. and Ashraf, J. (2016). Forest transition curve of India and related policies, acts and other major factors. Tropical Ecology, 57(2), 133-141.
- Pandey, R., Ashraf, J. and Verma, M. R. (2012). "Proportional Allocation Stratum Weight for Population Units under External Impact Attributed to Binomial Functions in Successive Strata". International Journal of Mathematical Sciences and Applications, 2(2), 867-872.

11. Awards

- Awarded Junior Research Fellow (JRF) by Indian Council of Agricultural Research (1999).

Dr. Manish Kumar

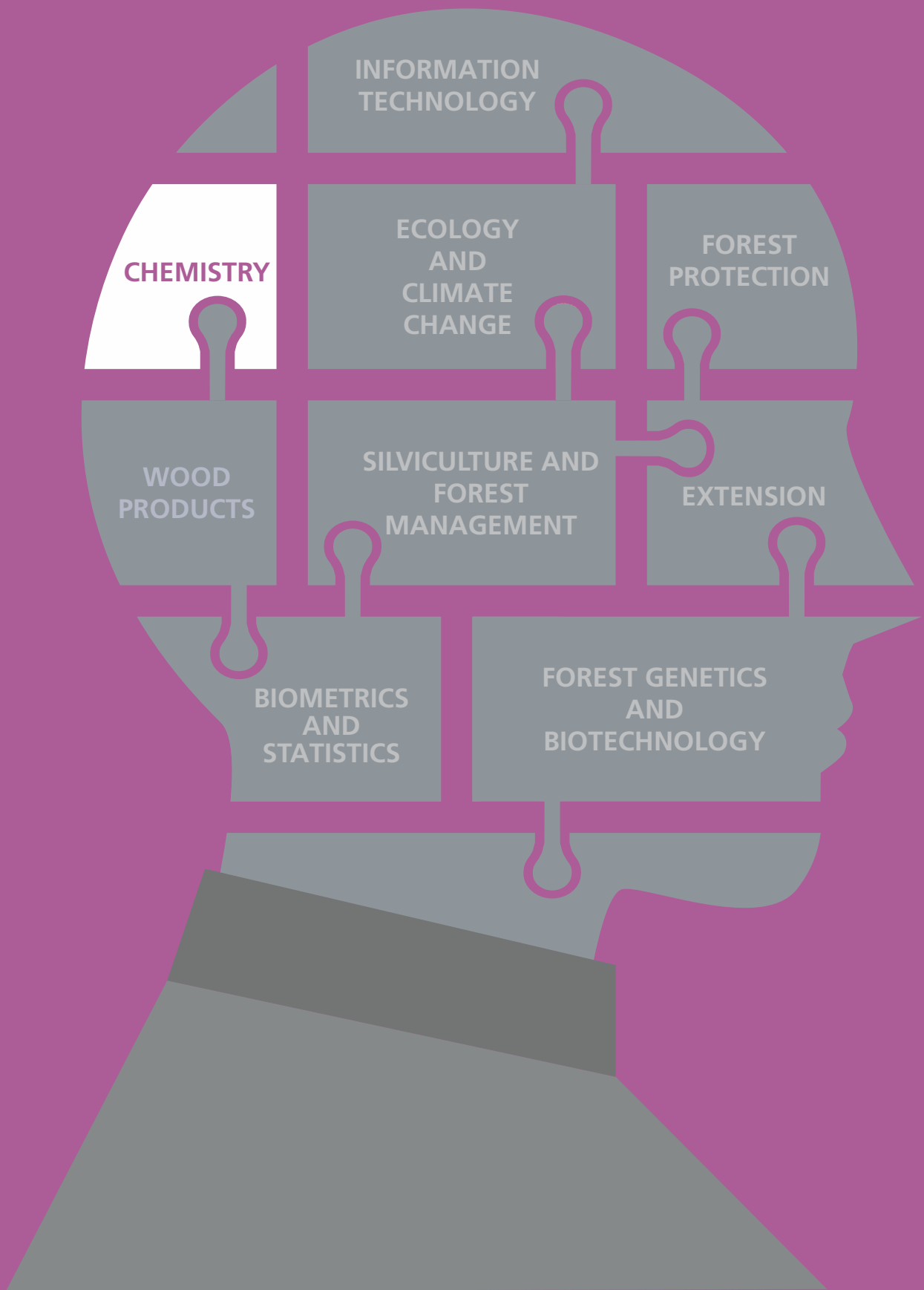
1.	**Designation**	Scientist - B
2.	**Date of birth**	12/07/1977
3.	**Institute/Place of Posting**	ICFRE (HQ), Dehradun
4.	**Contact Details**	**(O)** 0135-2224858 **(M)** 9412054591
5.	**Date of joining at ICFRE**	26/12/2007
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-10 04/09/2015
7.	**Discipline/Specialization**	Statistics, Reliability Modeling, Sampling Design
8.	**Education Qualification (Graduation or above)**	M.Sc., M.Phil, Ph.D. (Statistics)

9. Important research contributions

- Analyzed and documented salient features of Rural Elementary Education in India from 1993-2002. Efficient estimator for population mean has been developed using power transformation technique.
- Developed Dual to Ratio-cum-product estimator for population mean using known parameters of auxiliary variables.
- Stochastic analysis of a two unit parallel system with preventive maintenance revealed that high correlation between time to preventive maintenance and time taken in preventive maintenance of a unit yields the better system performance.
- Consumptions and prediction of bamboo in Kerala by using least square method on time series data.

10. Important Research Papers/Publications

- Singh, V.P. and Kumar, M. (2006). Changing Profile of Rural Elementary Education in Western States /UTs of India: National Journal of Education 10(1):17-38.
- Tailor, R., Kumar, M. and Tailor Ritesh (2006). Estimation of Finite Population Mean Using power Transformation : International Journal of Agricultural and Statistical Sciences 2 (2):341-345
- Kishan, R. and Kumar, M. (2010). Cost Benefit Analysis of A Complex System with Inspection and two Types of Repair: Journal of Rajasthan Academy of Physical Sciences 9 (10:19-30.
- Kishan, R. and Kumar, M. (2010). Stochastic Analysis of A Complex System with Correlated Working and Rest Period of Repairman : Journal of Reliability & Statistical Studies 3(2):31-38
- Tailor, R., Parmar, R., Tailor Ritesh and Kumar, M. (2012). Dual to Ratio-cum –Product Estimator using Known Parameters of Auxiliary Variables: Journal of Reliability & Statistical Stusies 5(1):65-71


INFORMATION TECHNOLOGY
CHEMISTRY
ECOLOGY AND CLIMATE CHANGE
FOREST PROTECTION
WOOD PRODUCTS
SILVICULTURE AND FOREST MANAGEMENT
EXTENSION
BIOMETRICS AND STATISTICS
FOREST GENETICS AND BIOTECHNOLOGY

Dr. A. K. Pandey

1.	**Designation**	Scientist - G
2.	**Date of birth**	10/11/1960
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2758606 **(M)** 8877016268
5.	**Date of joining at ICFRE**	28/09/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/01/2016
7.	**Discipline/Specialization**	Chemistry, Extension, Medicinal Plant, NWFP
8.	**Education Qualification (Graduation or above)**	M.Sc. (Chemistry), Ph.D.

9. Important research contributions

- Standardized methods for estimation of andrographolide from Kalmegh, reserpine from Sarpagandha, colchicine from Kalihari, Gymnemic acid from Gurmar and embelin from Baividang.
- Extracted essential oils from *Curcuma caesia*, *Cymbopogon flexuosus*, *Cymbopogon martinii*, *Cyperus scariosus*, *Mentha arvensis*, *Ocimum basillicum* etc.,and analyzed for their chemical composition.
- Developed non-destructive harvesting practices for many species.
- Studies nutritive values of some bamboo species of central India. Standardized processing methods and prepared value added products from bamboo shoots.

10. Important Research Papers/Publications

- Pandey, A. K. and Shackleton, C. (2012). The effect of harvesting approaches on fruit yield, embelin concentration and regrowth dynamics of the forest shrub, *Embelia tsjeriam*, in central India. Forest Ecology and Management, 266 (2012) 180–186.
- Pandey, A. K. and Mandal, A .K. (2012). Sustainable Harvesting of *Terminalia arjuna* (Roxb.) Wight & Arnot (Arjuna) and *Litsea glutinosa* (Lour.) Robinson (Maida) bark in central India. Journal of Sustainable Forestry, 31(3):294-309.
- Pandey, A. K. and Ojha, V. (2013). Standardization of harvesting age of bamboo shoots with respect to nutritional and anti-nutritional components. Journal of Forestry Research, 24(1):83-90.
- Pandey, Ashok Kumar and Ojha Vijayalakshmi (2014). Precooking processing of bamboo shoots for removal of anti-nutrients. J. Food Sci. Techno. 51(1):43-45.
- Shackleton, C. M. and Pandey, A. K. (2014). Positioning non-timber forest products on the development agenda, Forest Policy and Economics, 38:1–7.

Dr. V.K. Varshney

1.	**Designation**	Scientist - G
2.	**Date of birth**	09/07/1967
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224208 **(M)** 9410548521
5.	**Date of joining at ICFRE**	04/12/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/07/2017
7.	**Discipline/Specialization**	Chemistry of Forest Products, valorization of agroforest biomass residues
8.	**Education Qualification (Graduation or above)**	M.Sc. (Chemistry) ,Ph.D.

9. Important research contributions

- Processes and products: Leaf protein concentrates, mosquito repellent composition for use in incense sticks, odorant Schiff bases for fragrance compositions, herbal immersion oil for malaria microscopy, cellulose derivatives.
- Isolated and characterized chemical constituents from several forest sps. Developed HPTLC methods for quantification of bioactive constituents.
- Screened and identified poorly valorized various agro-forest biomass residues as new and potential sources for recovery of natural antioxidants.
- Identified kairomones for management of sal heart wood borer, biofungicides for management of forest pathogenic fungi, chemical markers for breeding disease resistance in Eucalyptus.

10. Important Research Papers/Publications

- Kaushik Prasoon Kumar, Varshney, V. K., Kumar Pawan, BhatiaPallavi and Shukla, S. V. (2016). Microwave assisted synthesis, characterization and antimicrobial activity of some odorant Schiff bases derived from naturally occurring carbonyl compounds and anthranilic acid. Synthetic Communications, 46(24):2053-2062.
- Pande Himani, Kumar Brijesh and Varshney, V. K. (2016). Phenolic composition and antioxidant capacity of biomass residue (leaves) generated from *Bambusa tulda plantations*. Waste Biomass Valorization, (8): 2349-2362.
- Varshney, V. K., Pandey Amit, Kumar Arvind, Rathod Divyadhara and Kannaujia Pooja (2011). Chemical screening and identification of high cordycepin containing cultured isolate(s) of medicinal chinese caterpillar mushroom, *Ophiocordyceps sinensis* (Berk.) G.H. Sung. et.al. International Journal of Medicinal Mushroom, 13 (4) :327-333.
- .Varshney, V. K., Gupta, .P K., Naithani, S., Khullar, R., Bhatt, A. and Soni, P. L. (2005) Carboxymethylation of α-cellulose isolated from *Lantana camara* with respect to degree of substitution and rheological behaviour. Carbohydrate Polymers, 63(1): 40-45.
- Varshney, V. K., Dayal, R., Bhandari, R. S., Jyoti, A. L., Prasad, A. R. and Yadav, J .S. (2005). Behavioral response of the borer beetle *Hoplocerambyx spinicornis* to volatile compounds of the tree *Shorea robusta*. Chemistry& Biodiversity, (2) : 785-791.

Dr. Vineet Kumar

1.	**Designation**	Scientist - G
2.	**Date of birth**	31/10/1969
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224210 **(M)** 9410555335
5.	**Date of joining at ICFRE**	25/02/1993
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/01/2018
7.	**Discipline/Specialization**	Chemistry of Forest Products, Chemical intervention for value addition of phytoproducts, polysaccharides chemistry
8.	**Education Qualification (Graduation or above)**	M.Sc. (Chemistry), M.Phil, Ph.D.

9. Important research contributions

- Green methods for isolation of compounds, characterization and sustainable utilization of natural products.
- Complete structure elucidation of polysaccharides from many sps.
- Transferred technologies from laboratory to industry on 'substitute of binding material for incense stick making' and 'reshaping of gums' to four entrepreneurs.
- Complete structural analysis of *Pinusroxburgjii* needles wax and lactonisation of terminal hydroxy acids to prepare perfumery lactones.
- Maturation of malt spirit was carried out using woods of Indian origin as substitute to mature spirit prepared from imported American oak wood.

10. Important Research Papers/Publications

- Shanti Devi and Vineet Kumar (2018). Isolation and complete structural analysis of cis- and trans- tiliroside and quercetrin from *Malvastrumcoromandelianum* and their antioxidant activities. Arabian J. Chem. (In press).
- Pallavi Dubey, Pradeep Sharma and Vineet Kumar (2017). Structural profiling of wax biopolymer in *PinusroxburghiiSarg*. needles using spectroscopic methods. International J. of Biological Macromolecules 104, 261–273.
- Ajeet Kumar Lakhera and Vineet Kumar (2017). Monosaccharide composition of acidic gum exudates from Indian *Acacia tortilis* ssp. *raddiana* (Savi) Brenan. International J. of Biological Macromolecules 94, 45-50.
- Vineet Kumar, V. Rana, and P. L. Soni (2013). Molecular Weight Determination and Correlation Analysis of *Dalbergiasissoo* Polysaccharide with constituent oligosaccharides. Phytochemical Analysis 24, 75-80.
- Vineet Kumar, V. Brecht and A. W. Frahm (2004). Conformational analysis of a biflavanoid and polyhydroxylated flavone-chromone of *Cratoxy lumneriifolium*. PlantaMedica70, 646.

11. Awards

- Dr. H.C. Srivastava Young Scientist Award' by Association of Carbohydrate Chemists and Technologists (ACCTI), India (2013).

Dr. Y. C. Tripathi

1.	**Designation**	Scientist - F
2.	**Date of birth**	18/04/1962
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224207 **(M)** 9412050775
5.	**Date of joining at ICFRE**	24/11/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13A 01/01/2013
7.	**Discipline/Specialization**	Chemistry of Forest Products, Development of natural dyes from forest plant biomass.
8.	**Education Qualification (Graduation or above)**	M.Sc. (Chemistry), Ph.D.

9. Important research contributions

- A facile and ecofriendly process for fibre extraction from *Agave sisalana* leaves and Standardized HPTLC protocol for estimation of hecogenin from leaf juice.
- Exploration of some wild edible plants as potential source of luteolin, development of natural dyes from 6 plants and 3 fungal species.
- In-vitro evaluation of antifungal, antiinflammatory, antidiabetic and antioxidant activities of plant extracts.
- Detection of vaccenic acid, an anticancer compound in *Ficus auriculata* fruit fatty oil.
- Analysis of aromatic oils from Patchouli, Nagdona and Sandalwood .

10. Important Research Papers/Publications

- Kumar, V., Nagar Shipra and Tripathi, Y. C. (2014). Do Assorted Approaches aid in Estimation of Uronic Acids? Case Studies on *Tinospora sinensis* Polysaccharides.International Journal of Biological Macromolecules, 7: 360-363.
- Tripathi, Y. C. and Tewari Devesh (2015). Impact of Different Pre-treatments of *Agave sisalana* Leaves on Yield and Anatomical Traits of Fibre. International Journal of Science and Research,4(1): 1357-1360.
- Tripathi, Y. C. and Hazarika, P. (2015). Impact of Harvesting Cycle, Maturity Stage, Drying and Storage on Essential Oil Content of Patchouli Leaves Grown in Northeast Region of India. Journal of Essential Oil-Bearing Plants, 17(6):1389-1396.
- Anjum Nishat and Tripathi, Y. C. (2016). Flavonoid Constituents, Total Polyphenol and Antioxidant Efficacy of *Hippophae rhamnoides L. Berries.* In: Proceedings of 7th Conference of International Seabuckthorn Association, Nov. 24-26, 2015, NASC Complex, New Delhi, India, pp. 383-393.
- Pal Anita, Tripathi, Y. C. , Kumar Rakesh and Upadhyay, L. (2016). Antibacterial Efficacy of Natural Dye from Melia compositeLeaves and Its Application in Sanitized and Protective Textiles. Journal of Pharmacy Research, 10(4): 154-159.

Dr. Abha Rani

1.	**Designation**	Scientist - E
2.	**Date of birth**	28/06/1962
3.	**Institute/Place of Posting**	Institute of Forest Biodiversity, Hyderabad
4.	**Contact Details**	**(O)** 040-66309520 **(M)** 9414071269
5.	**Date of joining at ICFRE**	03/08/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/07/2012
7.	**Discipline/Specialization**	Chemistry of Forest Product
8.	**Education Qualification (Graduation or above)**	M.Sc. (Chemistry), Ph.D. PG Diploma in Personnel Management and Industrial Relations.

9. Important research contributions

- Improved scientific process was developed for maximum yield of starch in forest tubers.
- A cheap and indigenous source of mucilage of *Hyptis suaveolens* (Van tulsi) was identified.
- Determined best harvesting time for maximum yield of starch from *Curcuma angustifolia*.
- Non destructive harvesting technology for *Cyperus scariosus* (Nagarmotha) was developed which is pivotal in harvesting this important NWFP sustainably to ensure adequate regeneration and arrest its depletion in wild.
- Different adventitious rooting response vis-a- vis clonal propagation was done in 5 forest tree species namely *Anogeissus latifolia*, *Boswellia serrata*, *Dalbergia latifolia*, *D. sissoo* and *Gmelina arborea*.
- Vegetation in the vicinity of effluent disposal area of seasonal river Jojari, Bandi and Luni in Rajasthan was studied.
- Identified the potential tree species for phytoremediation of soil for productivity enhancement for effluents disposal areas of Rajasthan.
- Identified 7 good general combiners of Tectona grandis from Gujarat for growth traits.
- Studied geographical variation of total alkaloid and reserpine content in Rauwolfia serpentina germpasm.

10. Important Research Papers/Publications

- Rani Abha and Pravin H. Chawhaan (2012). Extraction and scanning electron microscopic studies of Curcuma *angustifolia Roxb*. starch.Indian Journal of Natural Products and Resources 3(3): 407-410.
- Rani Abha and Pravin H. Chawhaan (2012). Starch of *Curcuma angustifolia Roxb*. in comparison with other starches of forest origin. Indian Forester 138(11): 2012.
- Rani Abha, P.H. Chawhan and Mala Rathore (2010). Extraction and X ray diffraction studies on starches of forest origin. Indian Forester 136 (11): 1688-1690.
- Usmani Gufran, Pravin H. Chawhaan, Yogeshwar Mishra, Abha Rani and Asim Kumar Mandal (2015). Geographical variation of total alkaloid and reserpine content in *Rauwolfia serpentina* (L.) Benth. ex. Kurz. Euphytica 202(3): 427-434.
- Singh Genda, Abha Rani, N. Bala, S. Sukla, Sheraram Baloch and N. K. Limba. Resource availability through rain water harvesting influenced vegetation diversity and herbage yield in hillslope of Aravalli in India. Front. Agric. Chin DOI 10.1007/s 11703-010-0107.

Dr. Mala Rathore

1.	**Designation**	Scientist - E
2.	**Date of birth**	09/05/1966
3.	**Institute/Place of Posting**	Arid Forest Research Institute, Jodhpur
4.	**Contact Details**	**(O)** 0291-2729179 **(M)** 09828070369
5.	**Date of joining at ICFRE**	03/05/1993
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/07/2014
7.	**Discipline/Specialization**	Non-Wood Forest Products, Phytochemical analysis & Value addition
8.	**Education Qualification (Graduation or above)**	M.Sc. (Chemistry), Ph.D.

9. Important research contributions

- Leaf protein concentrated of various arid zone plant species were successfully prepared for use as protein rich food supplement. These can be advocated to school children as midday meal and for soldiers on duty at high altitudes.
- Eight wild edible plants from forest of Rajasthan viz. *Cordia gharaf*, *Grewia tenax*, *Leptadenia reticulate*, *Leptadenia pyrotechnica*, *Calligonum polygonoides*, *Haloxylon salicornicum* and *Cerpegia bulbosa*, were evaluated for their nutritional value for use as food supplement . Their mineral content was found to be much better as compared to the commercial fruits available in the market. Various value added products were prepared for their use over the year.
- New methods of packaging viz. vacuum (the shrink pack) and under nitrogen (the pillow pack) developed for of ker & sangri fruits for their longer preservation. Handling, storage and transportation becomes very easy and convenient with minimal quality degradation and it contributes to an alternate income generation activity for the entrepreneurs.
- Determination of biochemical parameters showed that ash in roots, Sugar in pods and leaves, protein in leaves, bark and roots, phenols in leaves and bark , proline in case of stem bark and potassium in roots can be used as biochemical markers for identifying infection in khejri trees.

10. Important Research Papers/Publications

- Rathore Mala (2009). Nutrient content of important fruit trees from arid zone of Rajasthan. J. Horticulture and Forestry. 1 (7): 103-108.
- Rathore Mala & R. K. Meena (2010). Potential of utilizing *Calotropis procera* flower biomass as a renewable source of energy. J. Phytology, 2(1): 78-83.
- Rathore Mala (2010). Leaf protein concentrate as food supplement from arid zone plants.J Dietary Sup.7(2):97-103.
- Rathore Mala and R. K. Meena (2010).Variation in saponin content of *Tribulus rajasthanensis* Bhandri et Sharma in different developmental stages, Journal of Econ. Taxon.Bot. 34(1):182-185.
- Rathore Mala and Rajendra Meena (2004). Nutritional evaluation of famine foods of Rajasthan, Indian forester, 130(3): 304-312.

Dr. Rashmi

1.	**Designation**	Scientist - E
2.	**Date of birth**	24/07/1975
3.	**Institute/Place of Posting**	Arid Forest Research Institute, Jodhpur
4.	**Contact Details**	**(O)** 0135-2224211 **(M)** 9412318839
5.	**Date of joining at ICFRE**	07/04/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 01/01/2017
7.	**Discipline/Specialization**	Natural Products Chemistry, value addition of NWFPs
8.	**Education Qualification (Graduation or above)**	M.Sc. (Organic Chemistry), Ph.D.

9. Important research contributions

- A novel green chemical formulation 'Samriddhi': A silk productivity enhancer for sericulture farmers/industry.
- Bio-pesticide: Against major defoliators of Poplar.
- An innovative approach for isolation of essential oil from aromatic plants by using enzymes that enhanced yield and quality and reduced the artefacts formation.

10. Important Research Papers/Publications

- Rashmi and K.P. Singh (2014). Phytochemical and Pharmacognostical activities of *Calotropis procera*, Medicinal Plants- International journal of Phytomedicines and related industries, 6 (2),81-86.
- Rashmi, Sapna Bhardwaj and A.K. Singh (2015). New Approach towards Tuning Of Essential Oil Properties by Different Grinding Methods in *Cymbopogon Citratus* and *Eucalyptus Globulus*, World Journal of Pharmacy and Pharmaceutical Sciences, 4 (11), 1646-1655.
- Rashmi and Sapna Tyagi (2015). Phytochemical standardization of *Diploknema butyraceae* seeds by HPTLC techniques, Indian Journal of Natural Product Research, 6 (4), 299-304.
- Rashmi and Sapna Bhardwaj (2015). *Aleurites moluccana* Seeds: A rich source of Linolenic acid, Journal of Natural Products, 8, 123-126.
- Rashmi, Sapna Bhardwaj and P.K. Gupta (2017). A Comparative study of *Cymbopogon Citratus* volatile oil by Conventional method and enzyme interventions, Journal of Essential Oil bearing plants, . 20 (3): 744 – 751.

11. Awards

- SAP Award (2016, 2017): by IUFRO, Austria
- Innovator of the Year Award (2012) and Young Scientist Award (2006 & 2007) by Uttarakhand Council of Science and Technology, Dehradun.

Dr. Rakesh Kumar

1.	**Designation**	Scientist - E
2.	**Date of birth**	06/03/1970
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bengaluru
4.	**Contact Details**	**(O)** 080-22190197 **(M)** 9412973726
5.	**Date of joining at ICFRE**	28/03/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/01/2017
7.	**Discipline/Specialization**	Chemistry, Bio-Prospecting
8.	**Education Qualification (Graduation or above)**	M.Sc. (Chemistry) , Ph.D.

9. Important research contributions

- Developed methods for the extraction of natural dyes from many plant species and standardized the methods of dyeing of different fabrics.
- Range of attractive category shades of natural dyes were developed through finest combination of the natural colourants isolated from the *Pinus roxburghii* needles and *Mallotus philippensis* fruits. The category shades of natural dyes so developed are found suitable for imparting different desirable shades on silk, wool and cotton fabrics with excellent colour fastness qualities. The project work also revealed the potential of *P. roxburghii* needle as partial substitute of scantily available *M. philippensis* in production of acceptable shades of natural dyes at various scales.
- Bright and fast shades of natural dyes on silk, wool and cotton fabrics were developed from dyes extracted from *Fusarium spp*., *Penicilium spp*. *Pycnoporoussanguineous* and *Xylaria polymorpha*.

10. Important Research Papers/Publications

- Kumar, R. and Dayal, R. (2012). Utilisation of *Tagetes minuta* stem for extraction of natural dye. Asian Dyer. (2) Feb.-March. 37-42.
- Kumar, R. and Dayal, R. and Onial, P. (2014) Utilization of *Tagetes minuta* Aerial Parts as a Source of Natural Dyes for Textile Coloration. Waste and Biomass Valorization. 5 (4). 699-707. DOI: 10.1007/s12649-013-9266-3.
- Kumar, R., Anjum, N. and Tripathi, Y.C. (2015). Phytochemistry and pharmacology of *Santalum album L*.: A Review. World Journal of Pharmaceutical Research, 4, (10): 1842-1876.
- Kumar, R., Tripathi, Y. C. and Kaushik, P.K. (2016). Process optimization for extraction of natural dye from *Mallotus philippinensis* fruits and its application on different fabrics. World Journal of Pharmaceutical Research, Vol. 4 (5): 927-945.
- Kumar, R., Tripathi, Y. C., Ambika, Sharma, J., Kumari, B., Pandy, A. (2017). Isolation of Dye from Sporophore of *Xylaria polymorpha* for Textile Dyeing and Spectrophotometric Characterization of Dyed Fabrics, 3(4) :162 – 173.

Dr. S. S. Bisht

1.	**Designation**	Scientist - D
2.	**Date of birth**	24/06/1981
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bengaluru
4.	**Contact Details**	**(O)** 080-22190193 **(M)** 8147334342
5.	**Date of joining at ICFRE**	15/04/2011
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/07/2018
7.	**Discipline/Specialization**	Organic Chemistry, Chemistry of Forest Product
8.	**Education Qualification (Graduation or above)**	B. Sc., M.Sc. and Ph.D. (Chemistry)

9. Important research contributions

- Estimation of total extractives in natural and plantation growth red sanders tree and their comparison by HPLC method.
- A process of acetylation of solid wood with IPA in presence of iodine has been developed. A high level of modification (~ 17% WPG) was achieved and the modified wood exhibited high dimensional stability.
- Identification and development of profile for adulterated Sandalwood oil by Gas Chromatography-Mass Spectrometry method.

10. Important Research Papers/Publications

- Bisht S. S., Anil K. Sethy, Amita Pandey Journal of the Indian Academy of Wood Science (2017). Histo-anatomical and bio-chemical study of *Dendrocalamus brandisii* (Munro) Kurz before, during and after flowering. 14, (2): 122-126.
- Bisht S. S., K. K. Pandey, Gyanesh Joshi And Sanjay Naithani, Cellulose Chem. Technol., (2017). New Route for Carboxymethylation of Cellulose: Synthesis, Structural Analysis and Properties. 51 (7-8): 609-619.
- Joshi Gyanesh, Sanjay Naithani, V. K. Varshney, Surendra S. Bisht, Vikas Rana. Journal of Cleaner Production (2017). Potential use of waste paper for the synthesis of cyanoethyl cellulose: A cleaner production approach towards sustainable environment management. 142, 4, 3759-3768.
- Rajput Gaurav, I. P. Pandey, Gyanesh Joshi, Surendra S. Bisht. Journal of the Indian Academy of Wood Science, (2015). *Cyanoethylation* of *Cassia angustifolia* seed gum in aqueous medium. 12(1): 1-8.
- Joshi Gyanesh, Sanjay Naithani, V. K Varshney, Surendra S. Bisht, Vikas Rana and P.K. Gupta. Waste Management, (2015). Chemical functionalization of waste paper for carboxymethyl cellulose. (38) : 33-40.

Dr. Pradeep Sharma

1.	**Designation**	Scientist - B
2.	**Date of birth**	27/09/1960
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224456 **(M)** 9411312549
5.	**Date of joining at ICFRE**	16/06/1983
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-10 04/08/2016
7.	**Discipline/Specialization**	Chemistry of Forest Products, Natural Product Chemistry, Chemical intervention for value addition of phytoproducts
8.	**Education Qualification (Graduation or above)**	M. Sc. (Chemistry), Ph.D.

9. Important research contributions

- Engaged in research and teaching on natural products chemistry mainly directed towards utilisation of abundantly available phytoproducts encompassing green processes for isolation of bioactive compounds and their complete characterization followed by derivatisation; interventions for sustainable utilization of natural products by development of substitutes of overexploited resources.
- Developed biopesticides from extractive components obtained from milling residues of white cypress.
- Developed a viscosifier and fluid loss control agent for use in oil well drilling from *Cassia tora* and tamarind kernel powder.
- Galactomannans are important industrial products used in various industries. In search of new industrial products, studies on carboxy methylation, carbamoyl ethylation and cyano ethylationof *Cassia occidentalis* seed gum has been carried out.

10. Important Research Papers/Publications

- Dubey Pallavi, Pradeep Sharma, Vineet Kumar (2017). Structural profiling of wax biopolymer from *Pinus roxburghii* Sarg. needles using spectroscopic methods. International journal of Biological molecules (104) : 261-273.
- Sinha, P., S. Mathur, Pradeep Sharma, V. Kumar (2016). Potential of Pine Needles for PLA based composites, Polymer Composites (DOI 10.1002/pc.24074).
- Mathur Smita, Pradeep Sharma, K.S. Shukla, P.L. Soni (2013). Potential of tannins for exterior grade plywood. Forest Products Journal 62 (7/8) : 559-565.
- Goyal, P., V. Kumar and Pradeep Sharma (2008). Cyano ethylation of Tamarind kernel Powder. Starch/Starke, 60 (1): 41-47.
- Goyal, P., V. Kumar and Pradeep Sharma (2007). Carboxy methylation of Tamarind kernel Powder. Carbohydrate Polymers,(69) :251-255.

11. Awards

- Young Scientist Award during 10th and 12th Uttarakhand State Science and Technology Congress (2016 & 2018) .
- Lucid Research Award during XVIII Carbohydrate conference at Indian Institute of Chemical Biology, Calcutta (2003).

Pankaj Singh

1.	**Designation**	Scientist - B
2.	**Date of birth**	20/07/1986
3.	**Institute/Place of Posting**	Institute of Forest Biodiversity, Hyderabad
4.	**Contact Details**	**(O)** 040-66309503 **(M)** 08987725865
5.	**Date of joining at ICFRE**	01/02/2011
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-10 03/08/2016
7.	**Discipline/Specialization**	Chemistry of NTFP, NTFP
8.	**Education Qualification (Graduation or above)**	M.Sc.(Organic Chemistry)

9. Important research contributions

- Determination of nutritional value of leaves of *Moringa oleifera* and efficiency of their leaf extract as biostimulant to increase crop productivity.
- Determination of cynogenic content in edible bamboo shootsby Picrate Paper Method using spectrophotometer
- Proximate nutritional composition of wild edible leaves of Ranchi, Jharkhand.
- Standardization/ HPLC method development for estimation of Gymnesogenin in *Gymnema Sylvestre*, Arjunolic acid in *Terminalia arjuna* bark.
- Proximate nutritional and chemical composition of wild edible mushroom *Astraeus hygrometricus.*

10. Important Research Papers/Publications

- Mishra, Satya Prakash, Pankaj Singh and Sanjay Singh (2012). "Nutritional and Medicinal Value of *Moringa oleifera* Leaves: Potential and Prospects" ENVIS forestry, 11, 46-58.
- Mishra, Satya Prakash, Pankaj Singh, Sanjay Singh, Rameshwar Das and R.S. Prasad (2012). *Moringa oleifera* Leaf Extract as Biostimulant for Increasing Pea Yield. Indian Forester, 139 (6): 562-563.
- Singh Pankaj, Rameshwar Das, Sanjay Singh and Kumari Priya (2014). Chemistry of Cynogenic Content and their Estimation by Picrate Paper Method in Edible Bamboo Shoots.Indian Forester, 140: 143-146.
- Singh Pankaj and Sanjay Singh (2015). "Variability in polyphenol levels in flowers of *Moringa oleifera* Lam."Envis-Jharkhand News,issue no 13, 5-8.
- Varshney, V.K. and Pankaj Singh (2017). Proximate nutritional composition, bioactive compounds and antioxidant potential of wild edible mushroom *Astareus hygrometricus Pers*. Morgan.In Abstract book: The 9th International medicinal mushroom conference.

Singh Pankaj, Ashwani Kumar, Shamim Akhtar Ansari and Sanjay Singh (2018). Proximate nutritional composition of *Acacia auriculiformis A cunn*.Seeds.Indian Forester, 144: 174-178.


INFORMATION TECHNOLOGY
CHEMISTRY
ECOLOGY AND CLIMATE CHANGE
FOREST PROTECTION
WOOD PRODUCTS
SILVICULTURE AND FOREST MANAGEMENT
EXTENSION
BIOMETRICS AND STATISTICS
FOREST GENETICS AND BIOTECHNOLOGY

Dr. G. Singh

1.	**Designation**	Scientist - G
2.	**Date of birth**	15/12/1961
3.	**Institute/Place of Posting**	Arid Forest Research Institute, Jodhpur
4.	**Contact Details**	**(O)** 0291-2729143 **(M)** 9414070025
5.	**Date of joining at ICFRE**	24/11/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-14 01/01/2015
7.	**Discipline/Specialization**	Forest Ecology, Management of Natural Resources, Biodiversity & Climate Change
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- Agro forestry for economic upliftment.
- Use of surface vegetation in controlling sand drift.
- Rainwater harvesting by plantations in biodiversity and productivity enhancement.
- Carbon availability in Rajasthan's forests.
- Species diversity in sacred groves.
- Measures adopted by people of Rajasthan in mitigating climate change effects.

10. Important Research Papers/Publications

Publications:

- Singh, G. and T.R. Rathod (2002). Plant growth, biomass production and soil water dynamics in a shifting dune of Indian desert. Forest Ecology and Management, 171:309-320.
- Singh, G., S. Mutha and N. Bala (2007). Growth and productivity of Prosopis cineraria based agroforestry system at varying spacing regimes in the arid zone of India. J. Arid Environment, 70(1): 152-163.
- Singh, G., M. Bhati, T. R. Rathod (2010). Use of tree seedlings for phytoremediation of a municipal effluent used in dry areas of north-western India: plant growth and nutrient uptake. Ecological Engineering, 36: 1299-1306. DOI: 10.1016/j.ecoleng.2010.06.006.

Books:

- G. Singh (2016). Sacred Groves of Rajasthan: Threats and management strategies. Scientific Publisher (India), Jodhpur. 295p.
- G. Singh, B. Singh, U.K. Tomar and S. Sharma (2017). Scientific Publisher (India), Jodhpur. 642p.

11. Awards

- S.K. Seth Prize in the field of 'Environmental and Ecology' (2002 and 2012) .
- ICFRE Award for Excellence in Forestry Research (2003-04).

Dr. Sudhir Kumar

1.	**Designation**	Scientist - G
2.	**Date of birth**	04/09/1969
3.	**Institute/Place of Posting**	Indian Council of Forestry Research and Education, Dehradun
4.	**Contact Details**	**(O)** 0135-2753882 **(M)** 09412319560
5.	**Date of joining at ICFRE**	20/09/1989
6.	**Pay level and Date of continuous appointment to the present post/grade**	Level-14 01/07/2015
7.	**Discipline/Specialization**	Environment Management, Environment Impact Assessment
8.	**Education Qualification (Graduation or above)**	M.Sc. (Organic Chemistry), Ph.D. (Forest Ecology)

9. Important research contributions

- Conducted and contributed in seed technological research especially for oil yielding species.
- Established clonal seed orchards in Tamil Nadu and Kerala under planting stock improvement program of World Bank Forestry Research Education and Extension Project (FREEP) .
- Conducted and prepared final mine closure plans for Kudermukh Iron Ore Mines, numerous Environmental Impact Assessment, formulated Environmental Management Plan studies, Macro-EIA study for mine districts of Bellary Chitradurga and Tumkur mine Reclamation and Rehabilitation plan (R&R) , carrying capacity study of Saranda mine sector for MoEF&CC Government of India, basin wide cumulative Impact assessment for hydropower in Sutlej, Yamuna &Tons river, Environmental Auditing and Environmental Performance indexing .

10. Important Research Papers/Publications

- Sharma, M.K., Singhal, R.M., Sudhir Kumar and Jeeva, V. (2002). Regional update for India forest genetics resources. Working Papers for the Twelfth Session of the FAO Panel of Experts on Forest Gene Resources, Rome. 78 p.
- Katwal, R.P.S., Srivastva, R.K., Kumar, S. and Jeeva, V. (2003). State of Forest Genetic Resources Conservation and Management in India. Forest Genetic Resources Working Papers, Working Paper FGR/65E. Forest Resources Development Service, Forest Resources Division. FAO, Rome.
- Kumar, Sudhir (2004). Pilot study for assessment of sustainability of forest in India, for area under improved planting stock. Forest Survey of India, Dehradun in collaboration with Food & Agriculture Organization (FAO) , Rome. Page 90-96.
- Mohan, V., Sudhir Kumar, Anish V. Pachu, S.K. Kamboj and H.B. Vasistha (2016). Exploration of diversity status of beneficial microorganisms in iron ore mines of Chitradurga District, Karnataka, and South India. Journal of Academia and Industrial Research (JAIR). 5(2): 31-34.
- Pachu, Anish V., C. Kunhikannan, V. Mohan, Sudhir Kumar and N. Rama Rao (2016). Assemblages of Macrobenthic insect larvae of the Sankosh River basin in the areas boardering India and Bhutan. Indian Forester, 142(5): 493-501.

Dr. R. K. Verma

1.	**Designation**	Scientist - G
2.	**Date of birth**	05/08/1966
3.	**Institute/Place of Posting**	Himalayan Forest Research Institute, Shimla
4.	**Contact Details**	**(O)** 0177-2816110 **(M)** 9418189326
5.	**Date of joining at ICFRE**	20/08/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Level-14 01/01/2018
7.	**Discipline/Specialization**	Forest Ecology, Biodiversity Conservation, Carbon Sequestration and Climate Change
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D.

9. Important research contributions

- Studies on plant diversity and medicinal plant wealth in cold deserts of district Kinnaur, Himachal Pradesh.
- Ecological assessment of floristic diversity in wild life sanctuaries viz; Renuka, Simbalwara, Kalatop- Khajiar, Rakchham-Chitkul of Himachal Pradesh.
- Standardization of nursery techniques for rehabilitation of lime stone mined out area with respect to better growing media for growth, biomass and establishment in lime stone mine spoil.
- Studies related to Environment Impact Assessment and preparation of Environment Management Plan for various developmental/ Hydroelectric Projects in Himachal Pradesh.
- Assessment of biomass and soil carbon stock in different forest types of Shimla forest circle in Himachal Pradesh.

10. Important Research Papers/Publications

- Verma, R.K. and Kapoor, K.S. (2012). Plant diversity in alpine area of Kalatop-Khajjiar Wildlife sanctuary of district Chamba, Himachal Pradesh. Environment & We-An International Journal of Science & Technology, 7:1-7.
- Verma, R.K. and Kapoor, K.S. (2013). Floristic diversity along an altitudinal gradient in Namgia valley of cold deserts in district Kinnaur, Himachal Pradesh. Indian Forester, 139(3): 202-211.
- Verma, R.K. and Tewari, V.P. (2016). Some important medicinal plants of cold desert regions of district Kinnaur of Himachal Pradesh state in India: Their uses and chemical ingredients. Journal of Plant Chemistry and Eco-Physiology, 1(2): 1009.
- Tewari, Vindhya Prasad, Verma, Raj Kumar and Gadow, Klaus von (2017). Climate change effects in the Western Himalayan ecosystem of India: Evidence and Strategies. Forest Ecosystems, 4 (13): 1-9.
- Verma, R.K. and Kapoor, K.S. (2017). Estimation of biomass and soil carbon stock in mixed forest of Abies pindrow Royle – *Picea smithiana (Wallich)* Boiss. and *Betula utilis* D.Don forest of district Shimla, Himachal Pradesh. Indian Journal of Forestry, 40 (2): 117-120.

Dr. A.K. Tripathi

1.	**Designation**	Scientist - G
2.	**Date of birth**	03/07/1969
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2751826 **(M)** 9412050276
5.	**Date of joining at ICFRE**	07/10/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Level-14 01/07/2018
7.	**Discipline/Specialization**	Forest Ecology & Environment, Air Pollution, water Pollution, Solid base management
8.	**Education Qualification (Graduation or above)**	M.Sc. (Chemistry), Ph.D.

9. Important research contributions

- Utilization of fungi for biotreatment of industrial wastewaters.
- Study of bioaccumulation of heavy metals and its impact on different plant species.
- Evaluation of potentialities to reduce green house gas (GHG) emission from municipal dumping sites for effective solid waste management.
- Development of Air Pollution Biomonitoring Station for Air Quality Assessment in Dehradun. Sensitivity index values of *Mangifera indica*, Eucalyptus hybrid and *Cassia fistula* was used for bio-monitoring the air quality of the surroundings of two Bio-monitoring Stations (Shatabdi Van Vigyan Kendra and Selaqui industrial area).

10. Important Research Papers/Publications

- Gautam, Mukesh Kumar, Ashutosh Kumar Tripathi and Rajesh Kumar Manhas (2010). Assessment of Critical Loads in Tropical Sal (*Shorea robusta Gaertn*.) Forests of Doon Valley Himalayas, India Water, Air Soil Pollution. Springer Publication. DOI 10.1007/s11270-010-0638-z(Published online : 06 October 2010).
- Aalok, Asha and Ashutosh Kumar Tripathi (2010). Composting-Vermicomposting of different types of leaves using earthworm species *Eisenia fetida*. Dynamic Plant 4 (Special Issue 1), x-y© 2010 Global science Book.
- Overstory structure and soil nutrients effect on plant diversity in unmanaged moist tropical forest. Acta Oecologica (2016).
- Methane Emission Estimation from Managed and Unmanaged Municipal Solid Waste Dumping Sites of Dehradun Uttarakhand , Indian Journal of Forestry 40 (4): 389-395, 2017.
- Plant species diversity in unmanaged moist deciduous forest of Northern India (Current Science 106 (2): 25 January 2014).

Dr. C. Kunhikannan

1.	**Designation**	Scientist - G
2.	**Date of birth**	23/03/1965
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422- 2484134 **(M)** 09486324148
5.	**Date of joining at ICFRE**	26/10/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Level-14 01/01/2019
7.	**Discipline/Specialization**	Botany, Plant Biodiversity, Plant Taxonomy, Vegetation, Ecology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D. (Forestry)

9. Important research contributions

- Vegetation Ecology of Tadoba National Park.
- Diversity (i) in plantations at Bhata lands at Raipur and Bilaspur, (ii)Teak, *Eucalyptus grandis*, *Acacia mearnsii* in Kerala and Tamilnadu (iii) Floristic diversity of Saranda forests,etc.,
- Threatened Species Recovery research in medicinal plants of MPCAs in Silent Valley and Kolli Hills.
- Natural regeneration in Silent Valley National Park .
- Reclamation and Rehabilitation plans for Iron ore mines in Bellary, Chitradurga and Tumkur, districts in Karnataka
- Phytosociology of Sankosh River Basin, Bhutan.

10. Important Research Papers/Publications

- Kunhikannan, C., Rama Rao N and Bisen, S.S. (2007). Diversity of different plant communities in Tadoba National park, Chandrapur, Maharashtra, India, Indian J. Trop. Biod. 15(2): 107-115.
- Kunhikannan, C. (2008) Diversity of Grasses, Seasonal Variations and Ecological Status of Grasslands in Jabalpur, Madhya Pradesh. Indian Forester, 134(2): 190-202.
- Santhosh Kumar, E.S., Radhakrishnan, K., Kunhikannan, C., Veldkamp, J.F. and Mohanan, C.N. (2008). Rediscovery of *Maesa velutina* Mez (Maesaceae/ Myrsinaceae): An endemic and endangered species of Western Ghats, India. Rheedea 18(1): 39-42.
- Kunhikannan C. Venkatasubramanian, N., Sivalingam, R., Pramod Kumar, N., Salvy Thomas and Sibin Thampan (2011). Diversity of woody species in the Medicinal Plant Conservation Area (MPCA) of Silent Valley National Park, Kerala. Biodiversity 12:2, 97-107.
- Kunhikannan, C., Rama Rao, N. Sumer Chandra, Kamboj, S.K., Sudhir Kumar and Pachu, A.V. (2012). Phytosociological studies of forests in Sankosh River Basin, Bhutan. 333-351. In: Nagarajan, B., Kunhikannan, C., Sasidharan, K. R. and Krisnakumar, N. (eds.) Tropical Ecosystems: Structure, Function and Services. Institute of Forest Genetics and Tree Breeding, Coimbatore.
- Sujanapal, P. and Kunhikannan, C. (2017). The Genus Syzygium in Western Ghats. In: Nair, K.N. (Ed.) The Genus Syzygium: *Syzygium cumini* and other Underutilized Species, CRC Press, Taylor and Francis, USA.

N. Bala

1.	**Designation**	Scientist - F
2.	**Date of birth**	13/01/1965
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224475 **(M)** 98298 90490
5.	**Date of joining at ICFRE**	15/06/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Level-13 A 01/01/2014
7.	**Discipline/Specialization**	Forest Soils, Climate Change
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agriculture)

9. Important research contributions

- Developed technology on reclamation/rehabilitation of waterlogged soil in canal command area of IGNP using principle of bio-drainage.
- Characterized and classified forest soils of Rajasthan.
- District wise digitized maps have been prepared for soil parameters, vegetation composition, regeneration status, carbon stock ,etc., for forests of Rajasthan.
- Evaluated different species for their water use under different level of waterlogging and salinity.
- Studied carbon & nutrient dynamics in plantation forests.

10. Important Research Papers/Publications

- Bala, N., G. Singh, N. K. Bohra and N. K. Limba (2017). Soil nutrients and carbon stock in plantation of different age and species along canal command area in Indian desert. Indian Forester, 143(7): 641-647.
- Bala, N., G. Singh, N.K. Limba and S.R. Baloch (2014). Biodrainage for restoration of canal commnd waterlogged area. Indian forester, 140(5): 462-467.
- Bala, N., Pramod Kumar, N. K. Bohra, N. K. Limba, S. R. Baloch and G. Singh (2009). Production and decomposition of litter in plantation forests of *Eucalyptus camaldulensis* along canal command area in Indian desert. Indian Forester, 136 (2): 163-172.
- Singh, G., N. Bala, T. R. Rathod, S. Chouhan (2003). Effect of adult neighbours on regeneration and performance of surface vegetation in shifting dune of Indian desert for the control of sand drift. Environmental Conservation. 30(4): 353-363.
- Singh, G., Bilas Singh V. Kuppusamy, N. Bala (2002). Variations in foliage and soil nutrient composition in different age classes *Acacia tortilis* plantation. Indian Forester, 128(5): 514-522.

11. Awards

- S. K. Seth prize in the field of Environmental Ecology (2002 & 2012).

Dr. Avinash Jain

1.	**Designation**	Scientist - F
2.	**Date of birth**	07/07/1969
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** 0761-2840008 **(M)** 9826563036
5.	**Date of joining at ICFRE**	14/10/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Level-13A 01/01/2015
7.	**Discipline/Specialization**	Forest Ecology, Climate Change, Carbon Sequestration, Economic valuation of Forests, Ecorestoration of degraded lands.
8.	**Education Qualification (Graduation or above)**	M.Sc. (Chemistry), M.Phil, Ph.D.

9. Important research contributions

- Developed allometric equations to quantify carbon in important tropical tree species by non-destructive method. Assessed carbon stock and annual sequestration in different pools of plantations, agroforestry systems and natural forests.
- Valuated plantations for their tangible and intangible benefits.
- Screened forest tree species against waterlogging along left bank canal of Bargi command area.
- Status of natural regeneration in the Western Ghats of Maharashtra was found 'good'.
- Studies conducted under Energy Mass Exchange in Vegetative Programme in Satpuda, Pench and Panna Tiger Reserves of M.P.
- Screened superior trees of *Azadirachta indica* in M.P., Chhattisgarh and Odisha on the basis of azadirachtin content.

10. Important Research Papers/Publications

- Jain, Avinash, Girish Chandra and Raman Nautiyal (2017). Valuating intangible benefits from afforested areas: A case study in India. Economia Agraria y Recursos Naturales. 17(1) : 89-100.
- Jain, Avinash and S.A. Ansari (2013). Quantification by allometric equations of carbon sequestered by *Tectona grandis* in different agroforestry systems. Journal of Forestry Research. 24(4) : 699-702.
- Jain, Avinash and S.K. Banerjee (2010). Screening of superior provenances of *Azadirachta indica* A. Juss. in central India through azadirachtin, oil and fatty acids content in the seeds. Ecology, Environment and Conservation. 16(2) : 229-234.
- Jain, Avinash and S.K. Banerjee (2008). Impact of protection on degraded forests of Orissa by village suraksha samitis (VSS). Ecology, Environment and Conservation. 14(2-3) : 269-276.
- Jain, Avinash (2003). A solid sample injection device for the analysis of *Shorea robusta (Dipterocarpaceae)* bast volatiles. Journal of Tropical Forest Science. 15(4) : 630-632.

Dr. V. Jeeva

1.	**Designation**	Scientist - F
2.	**Date of birth**	02/07/1960
3.	**Institute/Place of Posting**	ICFRE (HQ), Dehradun
4.	**Contact Details**	**(O)** 0135-2224888 **(M)** 9411528821
5.	**Date of joining at ICFRE**	08/07/1991
6.	**Pay level and Date of continuous appointment to the present post/grade**	Level-13A 01/01/2016
7.	**Discipline/Specialization**	Ecology, Environment Science
8.	**Education Qualification (Graduation or above)**	M.Sc. (Zoology/Environment), Ph.D. (Ecology)

9. Important research contributions

- Conducted socio-economic impact assessment of farm forestry in Tamil Nadu and Kerala and presented Impact assessment for United Nations Development Programme.
- Prepared evaluation of schemes implemented by Department of AYUSH, Ministry of Health & Family Welfare, and Government of India.
- Conducted numerous (i) Environmental Impact Assessment studies (ii)Macro-EIAsin mining sector (iii) basin wide Cumulative Environmental Impact Assessment of hydropower in River Sutlej and Yamuna &Tons in Himachal Pradesh and Uttrakhand respectively and carrying Capacity study for Saranda forest in Jharkhand.
- Conducting environmental auditing and developing environmental compliance for performance indexing for mine firms for Coal India Limited.

10. Important Research Papers/Publications

- Katwal, R.P.S., Srivastva, R.K., Kumar, S. and Jeeva, V. (2003). State of Forest Genetic Resources Conservation and Management in India. Forest Genetic Resources Working Papers, Working Paper FGR/65E. Forest Resources Development Service, Forest Resources Division. FAO, Rome.
- Pal, R.C., V. Jeeva, Sudhir Kumar and Raturi, (2003). Status, Impacts and measures to combat desertification- Indian Scenario, 2003., Published by Daya Publishing House (2003) , Kirorimal College, Delhi University.
- Verma, Dharmendra and V. Jeeva, (2011). Environment Management - in Forestry in the service of Nation: ICFRE technologies. A comprehensive account of R&D of ICFRE.
- Dasgupta, Sabal and V. Jeeva (2015). Environmental Impact Assessment a Tool for sustainbale Development of Natural Resources – Role of ICFRE. Sustainable Forest Mangment for multiple Values: A Paradigm Shift. Edited by P.P. Bhojvaid and Neena Khandekar Vol.II.
- Joyeeta, V. Jeeva, Sudhir Sing and Nirmal Ram (2015). Diversity of Termite fauna in Dehradun District of Urttarakhand with reference to various ecological aspects. Biodiversity and Environment, Edited by M Serajuddin, Madhu tripathi, Amita Kanaujia and M Arshad, Department of Zoology, University of Lucknow.

Dr. Sharad Tiwari

1.	**Designation**	Scientist - F
2.	**Date of birth**	08/02/1969
3.	**Institute/Place of Posting**	Institute of Forest Productivity, Ranchi
4.	**Contact Details**	**(O)** 0651-2526028 **(M)** 9431766404
5.	**Date of joining at ICFRE**	26/11/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Level-13 A 01/01/2016
7.	**Discipline/Specialization**	Physics, Geo informatics, Forest Geo Informatics
8.	**Education Qualification (Graduation or above)**	M.Sc. (Physics), Ph. D. (Physics), M.Sc. Computer Science, PGD in Geo informatics.

9. Important research contributions

- Studies on application of “niche model" on species distribution mapping of invasive species.
- Developed INSPAK, an information system on Insect/Pest Management.
- Developed Species suitability software.
- Developed Android based app on Lac Management Practices.
- FCD Mapping of Doon Valley using Biophysical Spectral Response Model on MODIS data.

10. Important Research Papers/Publications

- Predicting suitability of tree species in various climatic conditions. Sharad Tiwari, Rajesh Mishra, International Journal of Tropical Plant Biodiversity, 3(1):18-32, 2016.
- Introduction of Paulonia species in Dry Deciduous Region of Allahabad, Tiwari, S., Varshney, V. and Dhiman, R. C., My Forest, Sept 1996, Vol 2.
- Agarwal, R., Mishra, R.K., Tiwari, S. (2008). Cosmic Ray Nucleonic Intensity in Low-Amplitude Days During the Passage of High-Speed Solar Wind Streams, Latvian Journal of Physics and Technical Sciences, 45 (2) : 61-66.
- Mishra, R. K., Agarwal, R. and Tiwari, S. (2008). Solar cycle variation of cosmic ray intensity along with interplanetary and solar wind plasma parameters, Latvian Journal of Physics and Technical Sciences,(3): 63-68.

Dr. A. N. Singh

1.	**Designation**	Scientist - F
2.	**Date of birth**	20/11/1967
3.	**Institute/Place of Posting**	ICFRE (HQ), Dehradun
4.	**Contact Details**	**(O)** 0135-2224816 **(M)** 9411173674
5.	**Date of joining at ICFRE**	10/03/1998
6.	**Pay level and Date of continuous appointment to the present post/grade**	Level-13A 01/01/2017
7.	**Discipline/Specialization**	Microbial Ecology, Environment Management
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph. D.

9. Important research contributions

- Pioneering works on seed and nursery diseases of *Dipterocarpus retusus* and *Gmelina arborea* was carried out along with development of disease management strategies during works at RFRI, Jorhat. Seed and nursery diseases of *Dipterocarpus retusus* were identified as prime agents for seed damage and failure of seedling establishment in the natural forest and in the plantations.
- Bamboo deterioration casing fungal pathogens during storage were identified along with their management.
- Worked in more than 50 Environmental Consultancy Projects in the EM Division under the Directorate of Extension, ICFRE HQ.

10. Important Research Papers/Publications

- Singh, A. N., T. R. Borah, G. S. Sarma (2002). Seed pathogens of *Dipterocarpus retusus* and strategies for their management. DFSC News Letter No. 10. Pp. 10-14, Denmark.
- Singh, A. N., G. S. Sarma and T. R. Borah (2002). Integrated disease management of *Gmelina arborea*. In: '*Gmelina arborea*: A technology mission' RFRI Publication No. 13, 2002. Pp. 87-97.
- Singh, A. N., T. R. Borah, G. S. Sarma and N. J. Borah (2004). Nursery diseases of *Dipterocarpus retusus*. The Indian Forester 130 (7): 742-748.
- Kumar, Ashok, A. K. Matharoo, S. Singh and A. N. Singh (2006). Planting improvement programme in *Gmelina arborea*. The Indian Forester, 132 (6): 691-699.
- Singh, A.N., K. G. Prasad and D. Gurung (2009). An Indian Patent No. 231745 dated June 10, 2009 was granted for invention on "An Apparatus for Post Harvest Treatment and Preservation of Bamboo".

11. Awards

- Brandis Prize from 'The Indian Forester' for best research paper (2006).
- Indian Patent on apparatus for preservative treatment of green bamboo (2009).

Dr. C. Buvaneswaran

1.	**Designation**	Scientist - F
2.	**Date of birth**	18/07/1970
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484198 **(M)** 9442245047
5.	**Date of joining at ICFRE**	15/12/1997
6.	**Pay level and Date of continuous appointment to the present post/grade**	Level-13 01/01/2017
7.	**Discipline/Specialization**	Forestry, Production Ecology, Agroforestry
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D.

9. Important research contributions

- Developed and released five superior ideotype clones of *Casuarina junghuhniana* for windbreak agro forestry .
- Developed various agro forestry systems suitable for dry lands under project funded by Tamil Nadu State Planning Commission.
- Developed software - CYCUS v1.0 (Casuarina Yield Calculator Utility Software) - for yield calculation for standing crop of Casuarina plantations to benefit the casuarinas growers in the country.
- Developed volume tables for five short rotation tree crops of Kerala.
- Information generated on intra-specific variation in carbon sequestration potential of tropical tree species under elevated CO2 - beneficial in climate change adaptation.

10. Important Research Papers/Publications

- C. Buvaneswaran, M. George, D. Perez, Markku Kanninen (2006). Biomass of teak plantations in Tamil Nadu, India and Costa Rica compared. Journal of Tropical Forest Science, 18 (3):195-197.
- C. Buvaneswaran, K. Arivoli, T. Sivaranjani, E. Menason, K. Vinothkumar, S. Padmini and S. Senthilkumar (2016). Intra-specific variation in response of Neem (*Azadirachta indica A. Juss*) to elevated CO2 levels and biochemical characterization of differently responding plants. Tropical Plant Research 3(3): 551–557.
- Buvaneswaran, C., Prashanth, R. S., Raghunath, T.P. and Krishnakumar (Eds.) (2013). A Compendium of Silvicultural Technologies. Pages 1-154. Institute of Forest Genetics and Tree Breeding, Coimbatore. (ISBN No. 978-93-82387-06-0).
- Buvaneswaran, C., Anandhalakshmi, R., Rekha R. Warrier, Senthilkumar, S., Krishnakumar, K and Prashanth, R. S. (Eds.) (2015). Advances in Tree Seed Science and Silviculture. Pages 1 – 403. Institute of Forest Genetics and Tree Breeding, Coimbatore. (ISBN No. 978-93-82387-10-7).
- Buvaneswaran, C., Senthilkumar, S., Saravanan, S., Kathirvel, P., Murugesan, S and Prashanth. (Eds.) (2017). Status and Recent Researches on Important Timber Trees of India. Pages 1-442. Institute of Forest Genetics and Tree Breeding, Coimbatore. (ISBN No. 978-93-82387-14-5).

Dr. K. R. Sasidharan

1.	**Designation**	Scientist - F
2.	**Date of birth**	24/06/1961
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484109 **(M)** 8903612484
5.	**Date of joining at ICFRE**	01/07/1988
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 01/01/2018
7.	**Discipline/Specialization**	Forest Entomology, Biodiversity Conservation and Pollination Ecology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Zoology), Ph.D.

9. Important research contributions

- Studies on the insect pest problems of *Acacia nilotica*, *ssp.indica*, *Albizia lebbeck*, *Casuarina equisetifolia*, *Eucalyptus spp*., *Azadirachta indica* and *Tamarindus indica* and evolved management measures.
- Conducted research on host plant resistance of various provenances and families of *Acacia nilotica*, *ssp.indica*, *Albizia lebbeck* and *Casuarina equisetifolia* and identified pest tolerant provenances and families.
- Studied the impact of infestation of the bark eating caterpillar of *Casuarina equisetifolia* in Tamil Nadu and developed eco-friendly management practices.
- Worked on the reproductive biology and pollination systems of tree species.
- Studies on the bee faunal diversity of the Nilgiris & butterfly diversity of Walayar valley in the Western Ghats and strategies for conservation.
- Research conducted on the population structure and regeneration of precious timber species like *Dalbergia latifolia* and *D.sissoides.*

10. Important Research Papers/Publications

- Sasidharan, K.R., Balu, A., Deeparaj, B., Nicodemus, A. and Varma, R.V. (2005). Screening *Casuarina equisetifolia* provenances against the bark caterpillar, *Indarbela quadrinotata* and the possible biochemical factors determining resistance. Journal of Tropical Forest Science 17 (4): 625 – 630.
- Sasidharan, K.R. and Varma, R.V. (2005). Laboratory evaluation of *Beauveria bassiana (Balsamo)* Vuillemin against *Indarbela quadrinotata* Walker (Lepidoptera: Metarbelidae) – a key pest of *Casuarina equisetifolia L.* in Tamil Nadu. J. Biol.Control. 19 (2): 197 –200.
- Sasidharan, K. R. and Varma, R. V. (2008). Insects associated with nurseries and plantations of *Casuarina equisetifolia* L. in Tamil Nadu, India. Indian Journal of Forestry 31 (3): 389 -393.
- Sasidharan, K. R. and Varma, R. V. (2008). Seasonal population variations of the bark eating caterpillar (*Indarbela quadrinotata)* in Casuarina plantations of Tamil Nadu. Tropical Ecology 49 (1): 79-83.
- Sasidharan, K. R., Varma, R. V. and Sivaram, M. (2010). Impact of *Indarbela quadrinotata* on the growth of *Casuarina equisetifolia*. Indian Forester 136 (2):182-186.

Dr. Kumud Dubey

1.	**Designation**	Scientist - E
2.	**Date of birth**	19/11/1972
3.	**Institute/Place of Posting**	Centre of Social Forestry & Eco-rehabilitation, Allahabad
4.	**Contact Details**	**(O)** 0532-2420896 **(M)** 9415214010
5.	**Date of joining at ICFRE**	01/01/1999
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/01/2015
7.	**Discipline/Specialization**	Forest Ecology and reclamation, restoration, Bioremediation Environmental Biotechnology
8.	**Education Qualification (Graduation or above)**	Ph.D. (Forest Ecology)

9. Important research contributions

- Methodology for remediation of water logged sites, bioremediation of bauxite residue, restoration of stone mining affected area, bio-reclamation of silica mining area.
- *Melia dubia* agroforestry introduced in Eastern UP.
- Socio economic Impact study of mining and mining policies on livelihoods of local population in Vindhyan Region of U.P.
- Carbon Sequestration studies on Bamboo. DPR preparations for Forestry Interventions for Ganga etc.
- Executed several projects funded by NITI Aayog, NOVOD Board, UPCAR, MoEFCC, MoWR, DST, ICFRE etc.

10. Important Research Papers/Publications

- Dubey, Kumud, Alok Pandey, Praveen Tripathi and K. P. Dubey (2017). Sustainable Management of Waterlogged Areas through Biodrainage & Microbial Agro-ecosystem. Probiotics.(pp 387-406) Springer Publisher.
- Dubey, Kumud, K. P. Dubey, A. Pandey and P. Tripathi (2017). Microbial Biofertilizer Interventions in Augmenting Agroforestry.In Probiotics.(pp 421-442) Springer Publisher.
- Dubey, Kumud and Kesheo Prasad Dubey (2017). Biotechnology for Sustainability of Forests. Biotech Sustainability 104-116.
- Dubey, Kumud (2012). Swot analysis for the application of Biodrainage technology to phytoremediate water logged sites. International Journal of Social Forestry (IJSF), 5(2):47-59 .
- Dubey, Kumud and K.P. Dubey (2011). "Impact of mining on tree diversity of the silica mining forest area at Shankargarh, Allahabad, India" in Journal of Forestry Research,Volume 22, Number 4, 527-532(2011) Springer Publisher.
- Dubey, Kumud and K.P. Dubey (2011). "A Study of the Effect of Red Mud Amendments on the Growth of Cyanobacterial Species" in Bioremediation J. 15:3, 133-139 (2011) Taylor &Francis.

11. Awards

- Awarded Senior Membership of Asia-Pacific Chemical, Biological & Environmental Engineering Society, Hong Kong (Member NO.:100782).

Dr. Ranjeet Kumar

1.	**Designation**	Scientist - E
2.	**Date of birth**	13/09/1975
3.	**Institute/Place of Posting**	Himalayan Forest Research Institute, Shimla
4.	**Contact Details**	**(O)** 01772816109 **(M)** 8988378338
5.	**Date of joining at ICFRE**	30/05/2008
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 01/07/2016
7.	**Discipline/Specialization**	Forest Ecology and Biodiversity Assessment, Forest Fire
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D.

9. Important research contributions

- Assessment of phytodiversity in representative forests of Assam Valley Wet Evergreen Forest has been done and non spatial database has been compiled.
- Documented the plant diversity of Kibber Wildlife Sanctuary at selected sites in cold desert region in Lahaul & Spiti district in Himachal Pradesh.
- Field experiments to analyze the impact of controlled burning in chir pine forests with proper design have been laid out and the database of first year burning on phyto-sociology, natural regeneration and physico-chemical properties of soil has been recorded, which can also be used for monitoring in future.

10. Important Research Papers/Publications

- Verma, P. K., Rawat, K. K., and Kumar, R. (2014). *Anthoceros subtilis* Steph: A rare disjunct species, New to North East India from Brahmaputra Valley. Proceeding of the National Acadmy of Sciences, India Section-B: Biological Sciences. 84 (3): 811-813.
- Kumar, R. Rajbonshi, B., Das, D. J., Verma, P. K., Bora, H. R. and Yadav, A. (2014). Ground flora in Assam valley tropical wet evergreen forest. Indian Journal of Forestry. 37(4): 457-464.
- Verma, P. K., N. Das., Kumar, V., and Kumar, R. (2013). The effect of Sphagnum species as substrate media on rooting response on *Cinnamomum verum Presl*. (*Syn Cinnamomum zeylanicum Blume*) through air layering. Journal of Non Timber Forest Products. 20(3): 179-182.
- Bora, H. R., Gogoi, G. and Kumar, R. (2012). A systematic census of rattan (cane) in Kaziranga National Park, Assam with emphasis of conservation. Journal of Economic Taxonomic Botany. 36(3): 596-603.
- Bora, H. R., Yadav, A., Das, K. and Kumar, R. (2010). *Balanophora dioicia* R. BR. Ex Royle (Balanophoraceae)- A rare total root parasite reported from Karbi-Anglong district, Assam, Inda. Journal of Economic Taxonomy Botany. 34(2): 298-299.

Dr. V. P. Panwar

1.	**Designation**	Scientist - E
2.	**Date of birth**	12/12/1969
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224470 **(M)** 9719200122
5.	**Date of joining at ICFRE**	01/02/1993
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 01/01/2017
7.	**Discipline/Specialization**	Forest Soils, Ecology, Agroforestry
8.	**Education Qualification (Graduation or above)**	M.Sc.(Botany), M.Phil, Ph.D.

9. Important research contributions

- Evaluated litter fall, nutrient return and soil fertility status under six important indigenous agroforestry tree species of Western Himalayas.
- Estimated carbon Sequestration in the Soils under different Agroforestry Tree Species of Himachal Pradesh.
- Quantified Soil Organic Carbon Pool under different Forest Types in Himachal Pradesh.
- Assessed wild edible plant diversity in *Pinus gerardiana Wa*ll. Ex D. Don forest of Kinnaur district of H.P.
- Screened out the best performer exotic poplars at nursery level for mid hill conditions of Himachal Pradesh.

10. Important Research Papers/Publications

- Panwar, V.P. (2013). Litter fall, nutrient return and soil fertility status under *Albizia chinensis.* An Agroforestry tree species. Ann. For., 21(2): 148-160.
- Panwar, V.P. and M.K. Gupta (2013). Soil Organic Carbon Pool under different Forest Types in Himachal Pradesh. International Journal of Farm Sciences. 3(2): 81-89.
- Panwar, V.P., Gupta, M.K. and Singh, J. (2016) Vegetation Characteristics and Litterfall Pattern of some Important Agroforestry Tree Species in Himachal Pradesh. Acta biologica Malaysia, 5(1): 27-35.
- Gupta, M.K., Panwar, V.P. and Kumar, M. (2017). Carbon sequestration in the soils under coniferous and broad leaved forests in Uttarakhand state of India. Octa Journal of Environmental Research, 5(1): 006-013.
- Gupta, M.K., Panwar, V.P. and Kumar, M. (2017). Status of sequestered organic carbon in the soils under different land uses in central region of Haryana, India. Journal of Scientific Research in Allied Science, 3(2): 148-162.

11. Awards

- Contribution towards facilitation and implementation of IFRIS has been appreciated by ICFRE during September, 2008.
- Awarded with the second best exhibit on stall prize in Kisan Mela hosted by Central Potato Research Institute, Shimla at Kufri on dated 15 June, 2006.

Dr. D. J. Das

1.	**Designation**	Scientist - E
2.	**Date of birth**	02/01/1974
3.	**Institute/Place of Posting**	Rain Forest Research Institute, Jorhat
4.	**Contact Details**	**(O)** 0376-2305119 **(M)** 09435742252
5.	**Date of joining at ICFRE**	30/10/2006
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 01/01/2018
7.	**Discipline/Specialization**	Forest Ecology, Forest Geo-informatics
8.	**Education Qualification (Graduation or above)**	M.Sc. (Ecology), M. Phil , Ph.D.

9. Important research contributions

- Studied post flowering regeneration status of *Melocanna baccifera* (Muli bamboo) in Tripura and also prepared high resolution land use/vegetation and Muli bamboo distribution map.
- Studied and generated high resolution map for Kaziranga National park; studied the ecology of KNP ecosystem and mapped Mimosa invasion in KNP integrating GIS and AHP.
- Prepared GIS based butterfly atlas of Arunachal Pradesh. Distribution map of 414 butterfly species along altitudinal gradients in Arunachal Pradesh was prepared.
- Actively involved in the mega project of ICFRE entitled "Reassessing the forest type of India for better management of forests" and conducted surveys in Arunachal Pradesh. Provided Remote sensing, GIS and GPS support to all the teams of RFRI during field survey and sampling.
- Established Geo-informatics laboratory in RFRI, Jorhat with all basic hardware and software facilities and generated forestry database for the region.

10. Important Research Papers/Publications

- Das, D. J., Bhuyan, T. C., Kaushik, P. K. & Jayaraj, R. S. C. (2017). Post flowering regeneration status of Muli bamboo in Tripura. RFRI Report-1, RFRI publication, Jorhat. Pp 24.
- Das, D. J., Saxena, A. & Roy P. S. (2016). 'Surface area' based above ground woody forest biomass carbon estimation-A case study of Kolasib District, Mizoram, India. Vol. 58, No. 2. Tropical Ecology, 57(3): 583-599.
- Singh, A.P. & Das, D. J. (2016). Butterfly Atlas of Arunachal Pradesh, RFRI publication, Jorhat. ICFRE. Pp 464.
- Das, D. J., Kumar, V., Bora, H. R., Verma, P. K., Gogoi, P., Gogoi, G. and Vasu, N. K. (2014). Landcover mapping and dynamics of Kaziranga national park, Assam, India. Indian Forester. Dehradun.140 (1): 11-17.
- Das, D. J. (2012). Remote Sensing and GIS Application in Mapping and Estimation of Bamboo Biomass in Kolasib District, Mizoram: First Step towards Scientific Resource Management and Sustainable Development. Int. Journal of Innovative Research & Development. 07: 161-169.

Dr. Mridula Negi

1.	**Designation**	Scientist - E
2.	**Date of birth**	26/06/1960
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224417 **(M)** 9456707238
5.	**Date of joining at ICFRE**	08/12/1983
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 01/07/2018
7.	**Discipline/Specialization**	Forest Ecology, Restoration Ecology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D. (Forest Ecology)

9. Important research contributions

- Restored coal mined out areas of Bharat coking coal Limited (BCCL), Dhanbad, Jharkhand and Northern coalfields Limited, Singrauli, M.P. Developed model for ecological restoration of coal mined areas of NCL, Singrauli and BCCL.
- Restoration of biodiversity around sacred groove in the hills of Kunjapuri Siddhpeeth following Badrivan restoration approach.
- Development of regression equations for biomass estimation of some important tree species.
- Conducted studies on Biomass production, nutrient cycling and litter decomposition in plantation/forest ecosystems.
- Studies on adaptive capacity of important tree species under elevated CO2 and temperature.

10. Important Research Papers/Publications

- Singh, H., Verma A., Kumar, M., Sharma, R., Kaur, M., Negi M. and Sharma, S.K. (2017). Phytoremediation: A Green Technology to clean up the sites with low and moderate level of heavy metals. Austin Biochem, 2(2):1012.
- Yadav, Richi, Negi, Mridula and Vasistha, H.B. (2015). Soil microbial biomass carbon as an indicator for post fire soil recovery in restored phosphate mined spoil. eJournal of Applied Forest Ecology, 3(1): 1-3.
- Biswas, Sudeshna, and Negi, Mridula (2017). Physico-chemical properties o soil under *Pinus roxburghii* and *Quercus leucotrichophora* in Garhwal Himalaya. eJournal of Applied Forest Ecology, 5(2):43-47.
- Seema, Soni, Prafulla, Negi, Mridula, Kamboj, S.K. and Rana, B.B. (2010). Floristic inventory of woody plants in fresh water wetland of Doon Valley, Uttarakhand, India. Nature and Science, 8 (11):75-81.
- Manhas, R.K., Singh, Lokender, Vasistha, H.B. and Negi, Mridula (2010). Floristic diversity of protected ecosystems of Kandi region of Punjab, India. New York Science Journal, 3 (4): 96-103.

11. Awards

- Brandis Prize (1986) and S.K. Seth prize (2003), ICFRE for the best paper by the Indian Forester.

Dr. Parul Bhatt Kotiyal

1.	**Designation**	Scientist - D
2.	**Date of birth**	29/11/1981
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224406 **(M)** 9456549936
5.	**Date of joining at ICFRE**	18/01/2010
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/01/2014
7.	**Discipline/Specialization**	Soil Science, Forest Soil Microbiology
8.	**Education Qualification (Graduation or above)**	M.Sc. Agri (Soil Science), Ph.D. (Soil Science)

9. Important research contributions

- Prepared soil health cards from Soil Quality Index (SQI) calculated in the project "Soil Quality Index (SQI) under different landuses in Tehri district of Uttarakhand (UCOST Sponsored).
- Major bacterial species identified under poplar and eucalyptus plantation in Haryana. Four major groups of soil fungi were reported.
- Observation regarding soil carbon emission and number of soil bacterial colonies and their types were recorded under various forest species in Uttarakhand.

10. Important Research Papers/Publications

- Bhatt, P. and Chandra, R. (2014). Inoculation effect of Mesorhizobium ciceri and rhizospheric bacteria nodulation and productivity of Chickpea and soil health.Pantnagar Journal of Research 12:59-64.
- Kotiyal, P.B., Yumkhaibam, B., Sinha, S. (2014). Trace elements in the soils of Ropar and Garhshankar forest division of Punjab.Indian journal of Plant Science. 1:41-47.
- Kotiyal, P.B. and Sinha, S. (2016). Assessment of Nutrient Status and Soil Health under Various Landuses of Tehri District of Uttarakhand.ejafe 3.43-47.
- Kotiyal, P. B. and Bhowmik, Sudipto (2017) . Enumeration Of Soil Bacteria In The Soil Of The Tons River Bank From Different Elevation Octa Journal Of Environment Research Vol. 5(2):149-155.
- Kotiyal, P.B. (2017). Assessment of soil quality index value for different forest of Tehri Garhwal district of Uttarakhand ejafe, Vol 5(2).

11. Awards

- Received young scientist award for best oral presentation under the discipline agricultural sciences in 5th USSTC (2010).
- Received best paper award by the Society for application of forest ecological research for the journal ejafe for the year (2017).

Dr. Shilpa Gautam

1.	**Designation**	Scientist - D
2.	**Date of birth**	01/07/1977
3.	**Institute/Place of Posting**	ICFRE (HQ), Dehradun
4.	**Contact Details**	**(O)** 0135-2224819 **(M)** 9458190236
5.	**Date of joining at ICFRE**	25/06/2010
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/07/2014
7.	**Discipline/Specialization**	Biodiversity, Climate Change Mitigation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D.

9. Important research contributions

- Assessed demand and supply of medicinal plants in India and reported themedicinal plant species in trade and total commercial demand of herbal raw drugs in the county, Necessary recommendations have been made for strengthening the medicinal plant resources of the country.
- Prepared India's Second Biennial Update Report- Forestry Sector: Mitigation and Gaps & Constraints' and submitted to the NATCOM Project Management Cell of Ministry of Environment, Forest and Climate Change for further submission to UNFCCC.
- Designing of SSR primers for *Cedrusdeodara* DNA sequences in research project "Development of DNA-marker based technique for *Cedrusdeodara* for wood/timber forensics" using online software batch3 primer available on the NCBI web site.
- Development of technologies for timber forensics in the project "Development of DNA-marker based technique for *Cedrusdeodara* for wood/timber forensics".

10. Important Research Papers/Publications

- Goraya, G. S., Ved, D. K., Jishtu, V., Rawat, R.S. and Gautam, S. (2017). Raw Drugs Consumption by Rural Household and Folk Healers. In: Medicinal Plants in India: An Assessment of their Demand and Supply (Edited by: G.S. Goraya and D. K. Ved). National Medicinal Plants Board, Ministry of AYUSH, Government of India, New Delhi and Indian Council of Forestry Research & Education, Dehradun, pp: 39-81.
- Kumar Ashwani, Singh, T.P. and Gautam, S. (2017). International and National Framework on Access and Benefit sharing. In: Biodiversity and Sustainable Development (Edited by Laladhas, K.P., Nilayangod, Preetha, V. Oommen). Springer International Publishing, pp: 3-15.
- Gautam, S., Tiwari, S. and Kaushal, R. (2014). Genetic variability and correlation studies among clones of *Dalbergia sissoo* through morphological and physiological traits. ISTS-IUFRO conference on Sustainable resource management for climate change mitigation and social security held at Chandigarh from 13-15 March 2014:89-90.
- Gautam, S. (2012). *Bauhinia variegata* Linn:All purpose utility and medicinal tree. ENVIS Bulletin Vol. 12 (2).
- Bahuguna, V.K., Dasgupta, S., Singh, R. and Gautam, S. (Eds.) (2012). Forest Biodiversity in India. Indian Council of Forestry Research and Education, Dehradun, 174p.

Alok Yadav

1.	**Designation**	Scientist - D
2.	**Date of birth**	04/03/1980
3.	**Institute/Place of Posting**	Forest research Centre for Eco-rehabilitation, Allahabad
4.	**Contact Details**	**(O)** 0532-2440722 **(M)** 9411166881
5.	**Date of joining at ICFRE**	06/03/2007
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/01/2015
7.	**Discipline/Specialization**	Environmental Sciences, Biodiversity Conservation, Wasteland Management
8.	**Education Qualification (Graduation or above)**	M.Sc. (Environmental Sciences)

9. Important research contributions

- Improvement of nutritional value and yield of agro-forestry food plants through bio-fortification of iodine which may help overcome of iodine deficiency in the north east.
- Impact assessment of medicinal plants on local communities and it socio-economic benefits.
- Various on-farm participatory researches were conducted at demo Village to develop locally suitable agro-forestry models and other commercial crops like Muskdana, King Chili etc.

10. Important Research Papers/Publications

- Bryophyte Invasion on famous archeological site of Ahom dynasty 'Talatal-ghar' of Sibsagar, Assam (India) Proc. National. Acad. Sci., India, Sect. Biol. Sci. 84 (1): 71-74 (Springer).
- Air Layering through Sphagnum moss in Guadua angustifolia Kunth, a Commercial Important Bamboo Indian Forester 2013; 132 (12):1088-1091.
- *Balanophora diocia* R.Br.Ex Royle (Balanophraceae)- A rare total root parasite reported from Karbi-Anglong district, Assam Indian Journal of Economic and Taxonomic Botany.
- Ground flora in Assam valley tropical wet evergreen forest. Indian Journal of Forestry 37 (4) :457-464.
- Recent flowering in *Thamnocalamus aristatus (Gamble)* in East Sikkim Researcher, 5 (9): 19-21.

11. Awards

- Brandis Award by ICFRE in 2013.

Dr. P. K. Das

1.	**Designation**	Scientist - D
2.	**Date of birth**	23/12/1959
3.	**Institute/Place of Posting**	Institute of Forest Productivity, Ranchi
4.	**Contact Details**	**(O)** 0651-2526115 **(M)** 9401386511
5.	**Date of joining at ICFRE**	14/09/1984
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/07/2015
7.	**Discipline/Specialization**	Soil Science, Forest soil
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agri Chemistry & Soil Science), Ph.D.

9. Important research contributions

- Preparation of compost/vermicompost from different organic waste material.
- Raising of improved planting stock in root trainer.
- Propagation of bamboo double node culm cuttings, multiplication of mother stock of Dendrocalamus membranaceus seedlings more than nineteen times without addition of fertilizer within one year.
- Study of rate of decomposition of in different forest types.
- Relation of soil attributes the pH, iron and magnesium to the vegetation growth of Shorea robusta under lateritic soil condition.
- Loss of nutrients both in surface (0-16 cm) and subsurface (16-120 cm) soil found in clear felling areas and plantation of this area increased the nutrient status of the soil.
- Variation of organic carbon content (low to high) in soil among the eight land use systems of NE India.
- Significant increase in soil available nitrogen and potassium was found with the increase of soil organic carbon (SOC). It was found that with the increase of soil organic carbon (SOC), soil bulk density decreases significantly. It was noticed that with the increase of plantation age, soil organic carbon (SOC) in soil decreases significantly.
- Assessment of soil chemical properties and nutrient status in various forest types.
- Economics of different agro forestry models.

10. Important Research Papers/Publications

- Mishra, G., Das, P. K., Borah, R. and Dutta, A. (2016). Investigation of Phytosociological Parameters and Physico-chemical properties in northern tropical semi evergreen Forests of Eastern Himalaya. Journal of Forestry Research, 27 (6): 1-8.
- Singh, P. K., Das, P. K. and Quli, S. M. S. (2011). Economic Analysis of Agroforestry model adopted by Tribal of Orissa: India. Indian Forester. 137, (5) 535-543.

11. Awards

- Brandis Award, ICFRE (2011).

Dr. B. M. Dimri

1.	**Designation**	Scientist - D
2.	**Date of birth**	05/07/1960
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224404 **(M)** 9410135381
5.	**Date of joining at ICFRE**	13/09/1984
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/07/2015
7.	**Discipline/Specialization**	Forest Soils, Soil Nutrients, Fertility Management
8.	**Education Qualification (Graduation or above)**	M.Sc. (Chemistry), Ph.D.

9. Important research contributions

- Estimated soil organic carbon data of HP, MP and Sikkim forests.
- Soil nutrient status report on Eco-restoration of Coal Mines (NCL), Singrauli, MP.
- Studied the effect of altitude and seasons on soil respiration, bacterial communities and enzyme activities in Uttarakhand in Patiala Forest Division and REDD Plus plot project in the Van Panchayat Village Communities of Uttarakhand of ICFRE, Dehradun.
- Study of impact of changing altitude and season on soil – plant relationship in Garhwal Himalayas.
- Studies on the impact of raising monocultures and natural vegetation on soil.
- Studies of post Afforestation influences on soil properties and moisture regime under selected species.
- Efficiency of organic vis-à-vis chemical fertilizers in improving the productivity of sodic soil.
- Development of economically viable and integrated agroforestry models for arid region.

10. Important Research Papers/Publications

- Dimri, B. M., Singh, S.B., Banerjee, S.K. and Singh, Balvinder (1987). Relation of age and dominance of tree species with soil chemical attributes in Kalipong and Kurseong Division of West Bengal, India. Indian Forester 113 (4): 307 – 311.
- Jha, M. N., Dimri, B. M. and Gupta, M.K. (1991). Soil nutrient changes in *Leucaena leucocephala* plantation of different duration. Leucaena Research Report. Hawaii, USA, 12: 42 – 44.
- Jha, M. N., Gupta, M.K., Dimri, B. M. and Bedwal, H.S. (2001). Moisture distribution Pattern in the soils under different plantations. Indian Forester 127(4): 443-449.
- Dimri, B. M., Jha, M. N. and Gupta, M. K. (2006). Soil potassium changes at different altitudes and seasons in Upper Yamuna forests of Garhwal Himalayas. Indian Forester 132 (5): 609 - 614.
- Dimri, B. M., Gupta, M. K. and Jha, M. N. (2014). Effect of altitude and seasons on the changes in soil organic carbon in Upper Yamuna Forests of Garhwal Himalayas. Ann. For., 22 (1): 12 – 18.

11. Awards

- Brandis Prize by the Indian Forester (2001).

Dr. Tara Chand

1.	**Designation**	Scientist - D
2.	**Date of birth**	19/01/1975
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224293 **(M)** 9412997863
5.	**Date of joining at ICFRE**	28/09/2007
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/01/2016
7.	**Discipline/Specialization**	Ecorestoration, Forestry
8.	**Education Qualification (Graduation or above)**	M.Sc. Forestry (Silviculture and Agroforestry), Ph.D.

9. Important research contributions

- Stabilization and enhancement of biodiversity in the overburden dumps of mined out area to generate natural resources to cater need of local people.
- Development of model restoration in coal mined out areas.
- Roadmap preparation for ecological restoration works.
- Genetic improvement of *Acacia mangium* for growth characteristics, through selection in provenance trial and plantations, evaluation in nursery and establishment of progeny trial.
- Seed production potential, seed and seedling quality of planting stock in seedling seed orchards of *Dipterocrapus retusus* through assessment of the seed and stock quality of the genotypes, as a step towards initiating genetic improvement of the species.
- Reproductive Biology and Seed Production in Clonal Seed Orchard of *Gmelina arborea*.

10. Important Research Papers/Publications

- Tara Chand, Devar, K.V. and Thakur, V. (2007). Influence of growing media on seedling growth and biomass of laurel (*Terminalia tomentosa Heyne ex Roth*). An Asian Journal of Soil Science. 2 (1):83-85.
- Nayital, R.K., Tara Chand and Sharma, R. (2007). Maturity Indices of Sandalwood (*Santalum album L.*) Journal of Non-timber Forest products. 14(2): 41-44.
- Thakur, V., Tara Chand and Sood, M. (2007). Effect of spacing on growth and yield of *Viola pilosa*. Journal of Bio Science. 2(2):85-87.
- Verma, S., Tara Chand, Nayital, R. K., and Naresh Kumar (2010). Seed maturity indicators in Himalayan Cedar [*Cedrus deodara (Roxb.) G.Don*]. Journal of Hill Agriculture. 1(2): 151-154.
- Vikas Rana, Rakesh Kumar Bachheti, Tara Chand and Anjan Barman (2011). Int. J. Food Safety, Nutrition and public health, vol. 4, nos. 2/3/4.
- Tara chand, Vikas Rana, N. Ravi, Naresh Kumar and Sanjeev Kumar (2012). Effect of Seed Weight on Germination and the Seedling Growth of Laurel (*Terminalia tomentosa Heyne ex Roth*.) Environment & Ecology 30 (1) : 63—65.

Dr. S. K. Sharma

1.	**Designation**	Scientist - D
2.	**Date of birth**	18/04/1959
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224446 **(M)** 9456744532
5.	**Date of joining at ICFRE**	22/04/1982
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/01/2016
7.	**Discipline/Specialization**	Biodiversity Conservation, Climate Change, Ecology, Genetics
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), M.Phil., Ph.D. (Forestry)

9. Important research contributions

- Development of Tissue Culture protocol of important forestry Species viz., Neem, Bamboo, Eucalyptus, Shisham, and Pine.
- Establishment of ex-situ conservation plot of important Forestry Species.
- Development of guidelines for management of CSO,SSO, and SPA of important Forest Tree species of the India. Development of baseline document with respect to Land Degradation, Biodiversity Conservation, Climate Change Adaptation and Policy and Institutions under SLEM Project.
- Genetic Improvement and production of nursery planting stock of Khair, Shisham and Kikar.
- Consultancy for operationalization of seedling production through clonal technology in Punjab.
- In-vitro multiplication of teak, and neem.

10. Important Research Papers/Publications

- Rawat, J.K. and S.K. Sharma (1992). Conservation of biological diversity in the Garhwal Himalayas. Ind. For. 118(5): 352-360.
- Kalia, Sanjay, Kalia, Rajwant, K. and Sharma, S. K. (2004). Evaluation of clonal variability in shoot coppicing ability and in vitro responses of *Dalbergia sissoo* Roxb. Silvae Genetica 53(5-6): 212-220.
- Sharma, S.K., Verma, D. and Rabindra Kumar (2014). Biodiversity conservation perspective in context to policy and institutional reforms for mainstreaming and up-scaling sustainable land and eco system management in India. Indian Forester, 140 (3) : 265-278.
- Mandora, G., S.K.Sharma, Tarun Kant (2014). In vitro propagation and field establishment of *Hardwickia binata* Roxb. and assessment of polymorphism through molecular markers. Journal of Plant Develop. *21*: 23-31. (IF 0.90).
- Singh, H., Savita, Sharma, R., Sinha, S., Kumar, M., Kumar, P., Verma, A. and Sharma, S. K. (2017). Physiological functioning of *Lagerstroemia speciosa L*. under heavy roadside traffic: an approach to screen potential species for abatement of urban air pollution. 3 Biotech, 7 (61):1-10.

Dr. K. P. Selvam

1.	**Designation**	Scientist - D
2.	**Date of birth**	01/06/1971
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484110 **(M)** 9442252107
5.	**Date of joining at ICFRE**	17/04/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/07/2016
7.	**Discipline/Specialization**	Biodiversity, Tree improvement, Diversity studies, Medicinal Plants based agro-forestry, traditional knowledge
8.	**Education Qualification (Graduation or above)**	Ph.D. (Forestry)

9. Important research contributions

- Developed medicinal plant based agroforestry models suitable for Tamil Nadu condition and disseminated to farmers.
- Standardization of nursery /propagation techniques for endemic and critically endangered medicinal plant species viz. *Eugenia singampattiana*, *Phyllanthus signampattianus*, *Palaquium bourdillonii* and *Sonerilla kanyakumariana*.
- Documented ITK of medicinal plants with reference to hill tribes of Nilgiris.
- Formed Women Self Help Groups (WSHGs) among Nilgiris tribes and established herbal garden and established marketing channel for medicinal plants as livelihood support for tribal communities.
- Identified 38 CPTs of *Acacia nilotica* in Tamil Nadu.

10. Important Research Papers/Publications

- Panneer Selvam, K., Bhavanisankar, K., Jayapragasam, M., Ashok Kumar*, Rathakrishnan, P., Vijayaraghavan, A., and Adalarasan, R. (2004). Effect of growth regulators and planting media on rooting of cuttings in *Nothopodytes nimmoniana* Mabberly. Indian Journal of Plant Physiology, 9(3): 308-312.
- Panneer Selvam, K., R.Ezhumalai, A. Vijayaragavan, Rajasekar A., P. Samydurai and V. Aravindhan (2016). Herbal healing practices of Indigenous Irular tribal peoples of Sendurai Block at Ariyalur District, Tamil Nadu. International Journal of Applied and Pure Science and Agriculture (IJAPSA) 2 (3): 196-206.
- Panneer Selvam, K., R. Ezhumalai, A. Rajasekar, A. Vijayaragavan, P. Samydurai, V.Aravindhan, M.Senthilkumar and M. Saradha (2016). Documentation of Indigenous and Traditional Knowledge of Irular tribe of Ariyalur District, Tamil Nadu. International Journal of Ethnobiology & Ethnomedicine. 2(1):1-9.
- Panneer Selvam, K., Ezhumala, R., Vijayaraghavan, A., Senthilkumar, M., Samydurai, P., Saradha, M., Kumar, K.P. (2017). Survey and documentation of indigenous and traditional knowledge of medicinal plants used by the Irular tribe of Nilgiri District, Tamilnadu. International Journal of Ethnobiology & Ethnomedicine, 4(1): 1-6.

11. Awards

- "Best Oral Presentation Award" for presenting a paper on 'Ex-situ Conservation of economically important medicinal plant through demonstrative herbal garden to enhance the tribal livelihood' in "National Conference on 'Agrotechnology and Profitable Marketing of Tropical Medicinal and Aromatic Plants" at Tamil Nadu Agricultural University, Coimbatore on 16 to 17 February 2017.

Dr. Pratima Patel

1.	**Designation**	Scientist - D
2.	**Date of birth**	28/01/1969
3.	**Institute/Place of Posting**	FRI Deemed to be University, Dehradun
4.	**Contact Details**	**(O)** 0135-2224231 **(M)** 9412171662
5.	**Date of joining at ICFRE**	25/08/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/01/2017
7.	**Discipline/Specialization**	Forestry, Soil Science
8.	**Education Qualification (Graduation or above)**	M.Sc.(Forestry), Ph.D.

9. Important research contributions

- Assessment of tree plantation in saline – alkali soils.
- Impact of tree plantation on problem soil of Kanpur.
- Studied the changes in physico-chemical properties of saline alkali soil, as a consequence of afforestation.
- Evaluated the relative efficiency of different tree species in ameliorating the soil properties.
- Select the suitable salt tolerant tree species as per their capability to reclaim the soil.
- Economic Appraisal of saw mills in Madhya

10. Important Research Papers/Publications

- Patel Pratima (2001). Dhatura ke Aushadhiya Gun. Van Anusandhan Patrika, Year 7-12 No. 3-4.
- Patel Pratima (2012). " Paryavaran suraksha aur vano ke Vikas me Janbhagidari ki Jarurat" (Taruchintan – 2012, No – 94-99).
- Patel Pratima (2013). Sarvagun Sampanna Anmol Neem " (Taruchintan 2013).
- Sharma, S.D, Gupta, M.K., Patel Pratima and Khan G.H. (2002). Evaluation of the ameliorative role of tree plantation on soil properties in sodic areas. Project report.
- Raina, A.K., Jha. M.N.,Sharma, S.D. Patel P., and Pharasi, S.C. (2002). Soil geological studies in the degraded and problem soils for sustainable afforestation.
- Economic Density of Babul trees in babul – Paddy combination of Agro forestry practice in Bilaspur. Paper published in proceedings of III Regional silviculture Meeting 1994.

Dr. Vaneet Jishtu

1.	**Designation**	Scientist - D
2.	**Date of birth**	17/09/1965
3.	**Institute/Place of Posting**	Himalayan Forest Research Institute, Shimla
4.	**Contact Details**	**(O)** 0177-2816107 **(M)** 9418054070
5.	**Date of joining at ICFRE**	17/10/1989
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/07/2017
7.	**Discipline/Specialization**	Forest Ecology, Climate Change, Field Botany, Plant identification and medicinal plant conservation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- Ecological survey in the Hemis High Altitude National Park, Ladakh, cold desert region. Surveys to map the Ashtavarga group of medicinal plants.
- Establishment of the Western Himalayan Temperate Arboretum near Shimla town, a first native species conservation programme in the NW Himalayas.

10. Important Research Papers/Publications

- Jishtu, Vaneet, K.S. Kapoor and G.S. Goraya (2000). Juniper – Survey to locate and assess their status in the cold deserts of HP, NW India. Proceedings of the International Seminar on Problems of Juniper forests: Looking for solutions, methods, techniques; 6-11 August 2000; Osh, Kyrgstan.p-263-264.
- Jishtu, Vaneet and R. S. Rawat. *Juniperus polycarpos* C. Koch forests and it's Conservation Status in Cold Deserts of Himachal Pradesh, North West Himalayas. Indian Forester, Vol. 140 (4), 2014.
- Goraya, G. S., Vaneet Jishtu, G. S. Rawat and D. K. Ved (2013). Wild Medicinal Plants of Himachal Pradesh: An Assessment of their Conservation Status and Management Prioritisation, Sponsored by National Medicinal Plants Board, Government of India. Himachal Pradesh Forest Department. New Era Graphics, Shimla. p180. (Book).
- Jishtu, Vaneet, Rajesh Sharma and T.N. Lakhanpal (2016). The Myxomycetes. Plant Diversity in India. (Eds.) A. K. Bhatnagar and R. Kapoor. IK International, New Delhi, India.
- Kumar, Sunil, Vaneet Jishtu, J. S. Thakur and T. N. Lakhanpal (2018). Studies on Mycorrhiza in *Pinus gerardiana* Wall. ex D. Don, a Threatened Pine of the NW Himalaya. T. Satyanarayana et al. (eds.), Developments in Fungal Biology and Applied Mycology. © Springer Nature Singapore Pte Ltd. 2017, p359-398; https://doi.org/10.1007/978-981-10-4768-8_19.

11. Awards

- Brandis Prize, ICFRE (2016).

Dr. R. S. Rawat

1.	**Designation**	Scientist - D
2.	**Date of birth**	12/12/1974
3.	**Institute/Place of Posting**	ICFRE (HQ), Dehradun
4.	**Contact Details**	**(O)** 135-2224803 **(M)** 9456565525
5.	**Date of joining at ICFRE**	05/04/1999
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/07/2017
7.	**Discipline/Specialization**	Biodiversity, Climate Change Mitigation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- Identified the drivers of deforestation and forest degradation for Mizoram.
- Prepared the study reports on 'Stocktaking of REDD+ in India' and Scoping Study for REDD+ in Kailash sacred landscape of India.
- Study cum survey to assess demand and supply of medicinal plants in India.
- Prepared India's First and Second Biennial Update Report- Forestry Sector: Mitigation and Gaps & Constraints' and report on 'Soil organic carbon stocks of India's Forests' for submission to UNFCCC.
- Reported *Elaeagnus angustifolia* as an addition to the 'Flora of Lahaul and Spiti', from cold desert of Spiti which is one of the sacred multipurpose tree species of the tribal community in cold deserts of North-West Himalayas.
- Developed the nursery techniques for conservation of some indigenous plant species of cold desert.Documented 118 species of medicinal and aromatic plants and ligneous flora from Spiti valley of Himachal Pradesh.

10. Important Research Papers/Publications

- Rawat, R.S., V. Jishtu, and K.S. Kapoor (2009). Medicinal and aromatic plant diversity of Himalayan cold desert with reference to Spiti valley of North-West Himalayas. Indian Forester, 135(7):891-904.
- Rawat, R.S., V. Jishtu and K.S. Kapoor (2009). Assessment of floral diversity under *Salix fragilis* Linn. plantation in cold desert of Spiti valley of North-west Himalayas. Indian Journal of Forestry. 32 (3):343-348.
- Rawat, R.S. and K.S. Kapoor (2008). Growth performance and biomass production in *Populus deltoides* Marsh. clones in lower Shiwaliks of Himachal Himalayas. Indian Journal of Forestry, 31 (4): 505-508.
- Rawat, R.S. (2007). Potential ligneous flora of Himalayan cold desert with reference to Spiti valley of North-West Himalayas. Journal of Economic and Taxonomic Botany, 31(4): 942-947.
- Rawat, R.S., K.S. Kapoor and R.K. Verma (2004). Some ecological causes of *Cedrus deodara* D. Don. mortality in Manali of Himachal Himalayas. Geobios, 31 (4): 253-256.

11. Awards

- Schlich Prize by the Indian Forester, ICFRE (2007).
- Brandis Prize by the Indian Forester, ICFRE (2014).

N. D. Khobragade

1.	**Designation**	Scientist - D
2.	**Date of birth**	06/08/1965
3.	**Institute/Place of Posting**	Forest Research Centre for Skill Development, Chhindwara
4.	**Contact Details**	**(O)** 0761-2744135 **(M)** 8458847402
5.	**Date of joining at ICFRE**	06/11/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/01/2018
7.	**Discipline/Specialization**	Tree improvement and propagation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany)

9. Important research contributions

- Germination studies, seedlings growth under poly house, air layering and effect of growth promoting substances in *B. lanzan.*
- Management practices in control of wilt disease.

10. Important Research Papers/Publications

- Khobragade, N. D., Har Prasad, Surya Prabha, A. C. and Mandal, A. K. (2013). Parameters for selection of candidate plus trees of *Terminalia chebula* and *Terminalia bellarica* Paper published in Indian Forester 139 : 833-835.
- Chawhaan, P. H., N. D. Khobragade and A. K. Mandal (2003). Genetic analysis of fruit and seed parameters of *Tectona grandis* implication of seed production programme. Genetic and plant breeding 63 (3) : 239-242.
- Thakur, A., P. H. Chawhaan, V.R.S., Rawat, N. D. Khobragade and P. Sharma (2000). Studies on effect of time of seed collection on germination of *Dipterocarpus retusus* Indian Forester, 126 (7):799-800.
- Khobragade, N. D. and Buxy, S. (2012). Ex-situ conservation and mass multiplication of important medicinal plants of Satpura plateau of Madhya Pradesh. National Symposium on Assessment & Conservation of Forest Genetic Resources through Biotechnological Interventions on 19- 20 December 2011, Institute of Forest Productivity Ranchi (Jhrakhand).
- Khobragade, N. D., D. L. Nandeshwar, A. Vijayraghvan and A. K. Patra (2005). Preliminary observation on growth performance of *Emblica officinales* in degraded land of Chhndwara district of MP Paper presented in National Symposia on Emerging technologies and their application in Assessment, Conservation and management for threaten wild medicinal plants and their habitat, February 23-24 2005 held at State Forest Research Institute Jabalpur (MP).

Dr. Sanjay Singh

1.	**Designation**	Scientist - D
2.	**Date of birth**	05/02/1983
3.	**Institute/Place of Posting**	ICFRE, Dehradun
4.	**Contact Details**	**(O)** 0135-2224881 **(M)** 9926409009
5.	**Date of joining at ICFRE**	11/04/2011
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/07/2018
7.	**Discipline/Specialization**	Ecology, Biodiversity, Climate Change
8.	**Education Qualification (Graduation or above)**	M.Sc. Botany, Ph.D.

9. Important research contributions

- Vegetation change matrix was prepared showing the temporal variation of forest community in the permanent preservation plots of sub tropical hill forest.
- Identified medicinal plants of conservation priority from the 7 Medicinal Plant Conservation Areas of Chhattisgarh.
- Based on the study on population dynamics of *Uraria picta* and *Andrographis paniculata* an advisory for conservation of the species was prepared.
- Documented the Invasive Ailen Species in the forest of Jabalpur, Mandla, Katni and Seoni and prescribed management practices.
- Studies on species accumulation (regeneration) in teak plantations of different age groups.

10. Important Research Papers/Publications

- Singh, S., Verma, A. D., Naik, R. (2017). Study on regeneration of tree species in TFRI Campus Plantations, Jabalpur, Madhya Pradesh. Indian Journal of Tropical Biodiversity. 25(1): 20-30.
- Singh, V.R.R, Kumar, D., Singh, S., Sharma, R., Chandra, H. and Malhotra, K. (2009). Effect of frost on *Jatropha curcas* plantations. The Indian Forester, 135(2), pp. 287-289.
- Singh, S., P.K. Khatri and Chandrashekhar Dixit (2014). Food from the forest: Edible fruits, Van Sangyan, 1(2) : 29-31.
- Singh, S., Khatri, P. K., Meshram, P. B., Subramanyam, P., and Prakasham, U., (2015). Familiarising with Biodiversity: Notes on Systematics of Plants and Insects. Tropical Forest Research Institute, Jabalpur, M.P. India, 268 pp. (edited book).
- Singh, S., (2015). Trees for Road Side Plantations, Design and guidelines. Tropical Forest Research Institutes, Jabalpur, 34 pp.

Book Chapters

- Singh and Khatri (2016) Methods of sampling plant diversity In Statistical Applications in Entomological and other Biological Experiments (Ed Kulkarni, N.) Tropical Forest Research Institute, Jabalpur, Pages 79-108.

Dr. A.C. Surya Prabha

1.	**Designation**	Scientist - C
2.	**Date of birth**	27/11/1977
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422- 2484150 **(M)** 9487468371
5.	**Date of joining at ICFRE**	20/05/2009
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 20/05/2009
7.	**Discipline/Specialization**	Soil Science, Agricultural Chemistry
8.	**Education Qualification (Graduation or above)**	M.Sc., Ph.D. (Soil Science & Agricultural Chemistry)

9. Important research contributions

- Vertisols associated soils contained greater soil carbon stock, followed by alfisols and inceptisols, in a study on assessment of soil organic carbon under different land uses in Tamil Nadu.
- Best management practices such as conventional tillage with integrated use of organic manures resulted in significant increase in soil organic carbon in the agro-forestry land use followed by agriculture land use.

10. Important Research Papers/Publications

- Surya Prabha, A.C. and A. Paramasivam (2016). Impact of land uses on organic carbon in the Southern agro-climatic zone of Tamil Nadu" The Global Journal of Life Sciences and Research.,2(3).
- Surya Prabha, A.C., M. Senthivelu, A. Paramasivam, P. Vishnupriya and K.S.Rathnam (2015). Changes in soil properties under different land uses in Southern agro-climatic zone of Tamil Nadu, India. International Journal of Plant and Soil., 18(9): 418-423.
- Surya Prabha, A.C., M. Senthivelu, A. Paramasivam, P. Vishnupriya and K.S.Rathnam (2015). Effect of land use on organic carbon and available nitrogen in Southern agro-climatic zone of Tamil Nadu, India. International Journal of Applied Agricultural Research., 14(9): 554-559.
- Surya Prabha, A.C., M. Senthivelu and A. Paramasivam (2014). Soil quality indicators for different land uses: a review. International Journal of Plant and Soil., 17 (9): 387-397.
- Surya Prabha, A.C., M. Senthivelu and A. Paramasivam (2014). Carbon sequestration potential in different land uses: a review. International Journal of Environmental Research and Development.,15(9): 727-736.

S.R. Baloch

1.	**Designation**	Scientist - C
2.	**Date of birth**	01/07/1966
3.	**Institute/Place of Posting**	Arid Forest Research Institute, Jodhpur
4.	**Contact Details**	**(O)** 0291-2729142 **(M)** 9829320199
5.	**Date of joining at ICFRE**	15/06/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 01/07/2015
7.	**Discipline/Specialization**	Forest Ecology, Biodiversity and Climate Change
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany)

9. Important research contributions

- Socioeconomic and vegetation status in forest fringe villages in 24 districts of Gujarat and Rajasthan were studied based on survey and data generation.
- Data collected from forest fringe villages indicates that areas is either teak dominating or mixed type of community and Frequency of shrubs of *Cassia tora* and *Lantana camara* was observed to be higher (81.2% and 80.3%) observed in Junagadh district.
- An assesement of demand and supply of Medicinal plant in India survey done for cultivation of medicinal plants, Raw Drug Markets in Rajasthan, Gujarat and M.P.
- Developed nursery technique of Himalayan Nettle in different altitudes.

10. Important Research Papers/Publications

- Baloch, S.R., Afaq Khan, Bala, N. and Bohra, N.K. (2015). Socio-economic status and Forest Resources Dependency of forest fringe villages of Valsad district, Gujarat, India.) Int. J. Usuf.Mngt.16(1): 92-105.
- Baloch, S. R., Lokho Puni, Priya Sati, B. P. Tamta and Attar Singh (2014). Germination Behavior of Fiber Species of Himalayan Nettle (*Girardinia Diversifolia*) in Different Altitude. Indian Forester Volume 140 (4) : 374-377.
- Singh, G., Abha Rani, N. Bala, S. Upadhyaya, S.R. Baloch and N.K. Limba (2009). Resource availability through rainwater harvesting influenced vegetation diversity and herbage yield in southern Aravalli hills of India. Frontiers of Agriculture in China.
- Bala, N., G Singh, N.K. Limba and S.R. Baloch (2014). Biodrainage for restoration of canal command waterlogged area in Indian forester Volume 140 (5) : 462-467.
- Bala, N., Pramod Kumar, N. K. Bohra, N. K. Limba, S. R. Baloch and G. Singh (2009). Production and decomposition of litter in plantation forests of *Eucalyptus camaldulensis* along canal command area in Indian desert. Indian Forester, 136 (2) : 163-172.

11. Awards

- S.K. Seth Prize,ICFRE for the year (2012)

Dr. Krishna Giri

1.	**Designation**	Scientist - C
2.	**Date of birth**	01/07/1987
3.	**Institute/Place of Posting**	Rain Forest Research Institute, Jorhat
4.	**Contact Details**	**(O)** 0376-2305217 **(M)** 08471937519
5.	**Date of joining at ICFRE**	15/10/2013
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 01/01/2017
7.	**Discipline/Specialization**	Environmental Science, Soil Microbiology, Ecology, Soil Microbiology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Environmental Science), Ph.D.

9. Important research contributions

- Developed regression equations for estimation of timber volume and biomass of *Betula alnoides*, *Duabanga grandiflora*, *Magnolia champaca* and *Toona ciliata* for the state of Meghalaya in 2017.
- About 100 bacterial cultures were isolated from the soils of Nagaland. Thirty plant growth promoting rhizobacteria (PGPR) have been identified using 16S rRNA partial sequencing and submitted to the NCBI genbank database. Six PGPR isolates are being tested for their performance in productivity enhancement of paddy crop in Jhum fields of Nagaland.
- Identified an indigenous free living diazotroph Kosakonia sacchari (Khan) from alder based shifting cultivation system in Nagaland, India, which is the first report from India.

10. Important Research Papers/Publications

- Giri, Krishna, Gaurav Mishra, R.S.C. Jayaraj and Rajesh Kumar(2018). Agrobio-cultural diversity of alder based shifting cultivation practiced by Angami tribe in Khonoma Village, Kohima, Nagaland. Current Science. (IF: 0.883).
- Giri, Krishna, J.P.N. Rai, Shailesh Pandey, Gaurav Mishra, Rajesh Kumar and Deep Chandra Suyal (2017). Performance evaluation of Isoproturon degrading indigenous bacterial isolates in soil microcosm. Chemistry and Ecology, 33(9): 817-825 (IF: 1.091).
- Giri, Krishna, Shailesh Pandey, Rajesh Kumar and J.P.N. Rai (2016). Biodegradation of isoproturon by *Pseudoxanthomonas* sp. isolated from herbicide-treated wheat fields of Tarai agro-ecosystem, Pantnagar. 3 Biotech. 6:190 (IF: 1.497).
- Giri, Krishna, Deep Chandra Suyal, Gaurav Mishra, Shailesh Pandey, Rajesh Kumar, Dinesh Kumar Meena and J.P.N. Rai. (2015). Biodegradation of Isoproturon by *Bacillus pumilus* K1 Isolated from Foothill Agro-ecosystem of North West Himalaya. Proceedings of the National Academy of Sciences, India Section B: Biological Sciences. B Biol. Sci. 87(3): 839–848 (IF:0.396).
- Giri, Krishna, Gaurav Mishra, Shailesh Pandey, P.K. Verma, Rajesh Kumar and N.S. Bisht (2014). Ecological degradation in Northeastern coal fields: Margherita Assam. International Journal of Science, Environment and Technology. 3(3): 881 – 884.
- Giri, Krishna, Rashmi Paliwal, Deep Chandra Suyal, Gaurav Mishra, Shailesh Pandey, J.P.N. Rai and P.K. Verma. (2015). Potential Application of Plant-Microbe Interaction for Restoration of Degraded Ecosystems. In: Shivom Singh & Kajal Srivastava (Eds.) Handbook of Research on Uncovering New Methods for Ecosystem Management through Bioremediation. IGI Global book series Advances in Environmental Engineering and Green Technologies (AEEGT) (ISSN: 2326-9162; eISSN: 2326-9170). DOI: 10.4018/978-1-4666-8682-3.ch011. P. 255-285.

Dr. I. P. Bora

1.	**Designation**	Scientist - C
2.	**Date of birth**	30/10/1960
3.	**Institute/Place of Posting**	Rain Forest Research Institute, Jorhat, Assam
4.	**Contact Details**	**(O)** 0376-2305226 **(M)** 9435352531
5.	**Date of joining at ICFRE**	01/01/1991
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 01/01/2017
7.	**Discipline/Specialization**	Botany, Soil Microbiology
8.	**Education Qualification (Graduation or above)**	M.Sc (Botany), Ph.D. (Soil Microbiology)

9. Important research contributions

- Documented baseline information on shifting cultivation in North East India and monitored changes of physico-chemical properties of soil.Also evaluated integrated nutrient management strategies in jhum soil through green manuring and fertilizers for increased productivity and soil health.
- Technology developed for fallow management through introduction of broom grass alongwith nitrogen fixing plant.
- Rehabilitation of degraded jhum land by introducing suitable bamboo species and evaluated their potentiality in terms of carbon sequestration and livelihood development.
- Documented the status of iodine in soil and vegetables crops in agro forestry systems of Assam.
- Isolated, screened and evaluated the efficiency of beneficial microbes (Phosphate solubilizing and potassium solubilizing bacteria).

10. Important Research Papers/Publications

- Singh, J., I.P. Bora and A. Baruah (2003). Effect of shifting cultivation on nutrient status of soil in Silonijan (Karbi Anglong) Assam. Indian Forester 129(11): 1329-1338.

11. Awards

- Schtich award for best research paper in the year 2003.

D. K. Meena

1.	**Designation**	Scientist - C
2.	**Date of birth**	20/04/1986
3.	**Institute/Place of Posting**	Rain Forest Research Institite, Jorhat.
4.	**Contact Details**	**(O)** 0376-2305183 **(M)** 8638734118
5.	**Date of joining at ICFRE**	15/10/2013
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 01/01/2017
7.	**Discipline/Specialization**	Forestry, Forest Soil
8.	**Education Qualification (Graduation or above)**	M.Sc.(Forestry)

9. Important research contributions

- Assessment of selected ecosystem services and their inter-linkage with human welbeing in Dibru-saikhowa Biosphere reserve, in Assam .
- Phyto-diversity and carbon stock assessment of trees outside forests in Assam using remote sensing and GIS.
- Genertated baseline data on divesity and distribution pattern of soil seed bank in Nambor Reserve Forest of Assam.
- Documented 123 species of medicinal plants traditionally used by the Nepali Community of Assam.

10. Important Research Papers/Publications

- Meena, D.K., Das, D.J., and Hazarika, P. (2018). Diversity and distribution pattern of medicinal plants in Nambor Reserve Forest of Assam National Seminar on “Himalayan Plant Diversity : Taxonomy Conservation and Sustainable Utilization.pp-86.
- Meena, D.K., Das, D.J., Singh,O. & Kumar, A.(2018). “Status and diversity of soil seed bank in Nambor Reserve Forest: A tropical semi-evergreen Forest of Assam” 4th International Conference on Environment and Ecology pp-61.
- Meena, D. K., Arun, P. Singh, Ajay Kumar and Krishna Giri (2015). "Bamboo: A Potential Source for Phyto-remediation". Regional Seminar on Livelihood Opportunities with Bamboo and rattans in the North-East India, organized by ARCBR, Aizawl, Mizoram on 14th March.
- Meena, D. K., Ombir Singh and Ajay Kumar (2014). "Seed source variation in morphology and germination of Albizia lebbeck Benth under the different land use systems in Doon Valley of Uttarakhand". UGC sponsored National seminar organised by Nandan Nath Saikia College, Titabar Aasam on 29th September 2014.

Books:

- Mishra, G., Meena, D.K. and Giri, K. (2017). Role of Local Self Government in Economic Development. Financial Empowerment and Economic Development ISBN No-978-81-8457-756-3 chapter-7 pp-73.

Ajay Kumar

1.	**Designation**	Scientist - C
2.	**Date of birth**	06/03/1985
3.	**Institute/Place of Posting**	Rain Forest Research Institite, Jorhat.
4.	**Contact Details**	**(O)** 0376-2305117 **(M)** 08472903405
5.	**Date of joining at ICFRE**	15/10/2013
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 01/01/2017
7.	**Discipline/Specialization**	Forestry, Environmental Economics
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry)

9. Important research contributions

- Assessment of selected ecosystem services and their inter-linkage with human well-being in Dibru Saikhowa Biosphere Reserve in Assam.
- Identification of extent of forest land in forest fringe villages.
- Standardization of nursery techniques in selected wild-fruit plants of north-east India for their effective conservation and development of value added products.
- Phyto-diversity and carbon stock assessment of trees outside forests in Assam using remote sensing and GIS.
- Development of allometric models for estimating volume and aboveground biomass for important tree species outside the forest (TOF) in Assam.
- Preparation of Biodiversity Management Plant, Regional Wildlife Plan and Carrying Capacity Study of Makum Coalfields Area in Assam.

10. Important Research Papers/Publications

- Kumar, Ajay, Dinesh K. Meena, Abhijit Medhi, Bithi Baruah and Dhrub J. Das (2018). Traditional ethno-medicinal knowledge of Mishing tribes residing in the core zone of Dibru-Saikhowa national park, Assam, India. Journal of Medicinal Plants Studies, 6(2): 77-80.
- Kumar, Niteesh, Ajay Kumar, Mohit Singh (2014). Floristic Diversity Assessment in ecologically restored limestone (Building Stone) mine near Chechat Village, Kota District, Rajasthan. Ecolgia, 4 (1):16-25.
- Kumar, Niteesh and Ajay Kumar (2014). Floristic diversity assessment in river sand mining near Palri Bhopan Village, Kisangarh Tehsil, Ajmer District, Rajasthan, India. Asian Journal of Earth Science, 7(2):51-59.
- Bhatt G.D., K. Sinha, P. K. Deka and Ajay Kumar (2014). Flood Hazard and Risk Assessment in Chamoli District, Uttarakhand Using Satellite Remote Sensing and GIS Techniques. International Journal of Innovative Research in Science, Engineering and Technology, 3(8): 15348-15356.

D. K. Gupta

1.	**Designation**	Scientist - C
2.	**Date of birth**	02/11/1983
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** 0761-2744125 **(M)** 7587525086
5.	**Date of joining at ICFRE**	26/12/2013
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-11 01/07/2017
7.	**Discipline/Specialization**	Hydrology (Water management), Remote Sensing, GIS application in water resources
8.	**Education Qualification (Graduation or above)**	B.Tech (Agrl Eng.), M.Tech. (Water management)

9. Important research contributions

- Nil

10. Important Research Papers/Publications

- Roychoudhury, N., R. Sharma and D.K. Gupta (2016). Achanakmar-Amarkantak biosphere reserve, India: A diverse tropical forest ecosystem. Van Sangyan (ISSN 2395 - 468X) 3 (6):1-9.
- Gupta, D.K. (2014). Application of Geospatial technology in operational forestry. Van Sangyan, Sept., pp. 1-2.

M. Rajkumar

1.	**Designation**	Scientist - C
2.	**Date of birth**	03/04/1985
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** 0761-2744127 **(M)** 9424625519
5.	**Date of joining at ICFRE**	24/12/2013
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-11 01/07/2017
7.	**Discipline/Specialization**	Forest Ecology, Forest Inventory, Forest Resource Management.
8.	**Education Qualification (Graduation or above)**	M.Sc. (Ecology and Environmental Sciences)

9. Important research contributions

- Plant-water relations with respect to annual weather fluctuations in five deciduous tree species and transportation and usage of water using sap flow sensors.

10. Important Research Papers/Publications

- Nil

Dr. Parmanand Kumar

1.	**Designation**	Scientist - C
2.	**Date of birth**	01/07/1980
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224482 **(M)** 7579210296
5.	**Date of joining at ICFRE**	21/01/2014
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 01/07/2017
7.	**Discipline/Specialization**	Forest Hydrology and Watershed Management Soil, Water Conservation Engineering
8.	**Education Qualification (Graduation or above)**	B.Tech., M.Tech, Ph.D. (Soil & water Cons. Engg).

9. Important research contributions

- Hydrological services imparted by forest have been assessed in Kempty watershed. Precipitation, soil moisture dynamics, sediment concentration and evaporation biomass addition, CO2 emission and soil respiration was observed under forested area of the watershed. The monthly biomass addition was 24.39gm-2 and carbon addition was 23 g/m2/month observed. Despite of maximum (64.84 13.76 umol m-2sec-1) CO2 emission was measured in the month of August while minimum was 5.62 1.56 umol m-2sec-1 recorded in December. Moreover, soil respiration was measured maximum 28.74 at 1800 m elevation. The electrical resistivity survey was carried out and identified lithology of the watershed i.e. Limestone, Shale and Sand Stone.

10. Important Research Papers/Publications

- Kumar, M., N. Kumar, K. P. Singh, P. Kumar, K. Srinivas and A. K. Srivastva (2009). Integrating water harvesting and gravity-fed micro-irrigation system for efficient water management in terraced land for growing vegetables. Biosystems Engineering, 102, 106-113.
- Kumar, P., A. Sarangi, D. K. Singh and S. S. Parihar (2013). Water Use Efficiency of Wheat under Irrigated Saline Regimes. Journal of Agricultural Engineering. 50(1): 47-53.
- Kumar, P., A. Sarangi, and D. K. Singh (2014). Evaluation of aquaCrop model for wheat yield and water productivity under irrigated saline regimes. Irrigation and Drainage, 63: 474-487.
- Kumar, P., A. Sarangi, D. K. Singh, S. S. Parihar and R. N. Sahoo (2015). Simulation of salt dynamics in the root zone and yield of wheat cropunder irrigated saline regimes using SWAP model. Agricultural Water Management, 148: 72-83.
- Kumar, P., R.P. Singh and V.K. Tripathi (2017). Concentration variability of fertilizers in pressurized fertigation system. Journal of AgriSearch4(1): 16-22.

11. Awards

- Received the "Outstanding Scientist Award" in Forest Hydrology in the Research Awards – VIRA 2017 during 3rd Annual Research Meet – ARM 2017 held at Chennai on 11 November, 2017.
- Jawaharlal Nehru Award for outstanding doctoral thesis research in Agricultural Engineering by ICAR, New Delhi during 16 July, 2016.
- Best Paper Award for 2013-14 by Indian Society of Agricultural Engineering.

Mamta Meshram

1.	**Designation**	Scientist - B
2.	**Date of birth**	18/07/1965
3.	**Institute/Place of Posting**	Forest Research Centre for Skill Development, Chhindwara,
4.	**Contact Details**	**(O)** 07162-254477 **(M)** 7999930317
5.	**Date of joining at ICFRE**	04/10/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-10 12/07/2016
7.	**Discipline/Specialization**	Ecology, Soil science
8.	**Education Qualification (Graduation or above)**	M.Sc. (Maths & Chemistry)

9. Important research contributions

- Analysis of soil and forest floor samples.
- Biodiversity status of Chhindwara district.
- Bibliography of *Buchnania lanzan*.

10. Important Research Papers/Publications

- Totey., N.G. Khatri, P.K. Shadangi, D.K. Bagde, Mamta and Pathak, H.D (1997). "Effect of Rhizobium biofertilizer on growth of seedling and germination of seeds of *Dalbergia sisoo* Indian journal of Forestry, (1):54-56.
- Verma ,Raj, K., N.G. Totey and Mamta Bagde (1998). Meteorological data of TFRI, Jabalpur. TFRI Publication No-19.80pp.
- Sonkar, S.D., Nandeshwar, D. L., Vijayraghwan, A. and Meshram, Mamta (2004). "Evolution of Biodiversity under the plantation of different tree species in degraded land" Nature Environment and Pollution Technology Vol.3.,No-3,pp391-394.
- Vijayaraghavan, A., A.K. Patra, R.B. Singh and Mamta Meshram (2005). "Cultivation trial on Kalmegh (Andrographis Paniculata)Satpura plateau of Madhya Pradesh. A tool for Biodiversity conservation" National Symposium on Recent Advances in Science: AProspective.
- Nandeshwar, D.L., A. Vijayraghavan and Mamta Meshram (2006). "Performance of Different multipurpose tree species in degraded land of Satpura region of Madhya Pradesh." The Indian Forester, 132 (2).

Dr. Hukum Singh

1.	**Designation**	Scientist - B
2.	**Date of birth**	25/10/1983
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224413 **(M)** 9675306791
5.	**Date of joining at ICFRE**	03/02/2010
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-10 28/07/2016
7.	**Discipline/Specialization**	Ecological Physiology, Climate Change
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D (Plant Physiology), M.A. (Economics)

9. Important research contributions

- Studied adaptive physiological response, carbon partitioning and biomass production of important medicinal plants grown elevated CO2 regimes.
- Quantified CO2, H2O and energy fluxes in chir pine forest ecosystem and find out the key drivers to regulate the process of soil and vegetation system.
- Studied adaptation and mitigation potential of important forestry/agro-forestry species exposed to climatic variables such as elevated CO2 and temperature.
- Adaptation and mitigation behavior of urban roadside plantation of *Lagerstroemia speciosa* was analyzed using physiological approach.
- Estimated phyto-remediation potential of forestry species growth under changing climatic variability likely CO2 and temperature.

10. Important Research Papers/Publications

- Sharma, R., H. Singh, M. Kaushik, R. Nautiyal and O. Singh (2018). Adaptive physiological response, carbon partitioning, and biomass production of *Withania somnifera* (L.) Dunal grown under elevated CO2 regimes. 3 Biotech, 8:267. https://doi.org/10.1007/s13205-018-1292-1.
- Singh, H., R. Sinha, Savita Sharma, M. P. Singh, M. Kumar, A. Verma, M. W. Ansari, and S. K. Sharma (2018). Adaptive physiological response of Parthenium hysterophorus to elevated atmospheric CO2 concentration. Indian Forester, 144: 1-14.
- Singh, H., Savita, Sharma, R. Sinha, M. Kumar, P. Kumar, A. Verma and S. K. Sharma (2017). Physiological functioning of *Lagerstroemia speciosa* L. under heavy roadside traffic: an approach to screen potential species for abatement of urban air pollution. 3 Biotech, 7 (61):1-10. https://doi.org/10.1007/s13205-017-0690-0.
- Singh, H., A. Verma, M. Kumar, R. Sharma, R. Gupta, M. Kaur, M. Negi and S.K. Sharma (2017). Phytoremediation: A Green Technology to Clean Up the Sites with Low and Moderate Level of Heavy Metals. Austin Biochemistry, 2(2): 1-8.
- Singh, H., A. Verma, M. W. Ansari and A. Shukla 2014. Physiological response of rice (*Oryza sativa L.*) genotypes to elevated nitrogen applied under field conditions. Plant Signaling and Behavior 2014; 9:e29015; http://dx.doi.org/10.4161/psb.29015.

11. Awards

- DST Young Scientist Award under Start up Grant for Young Scientist from DST.
- VIFRA Young Scientist Research Award from Venus International Foundation, Chennai.
- Young Scientist Award in Forestry and Environment from Uttarakhand State Council of Science and Technology, Dehradun.

Dr. Manoj Kumar

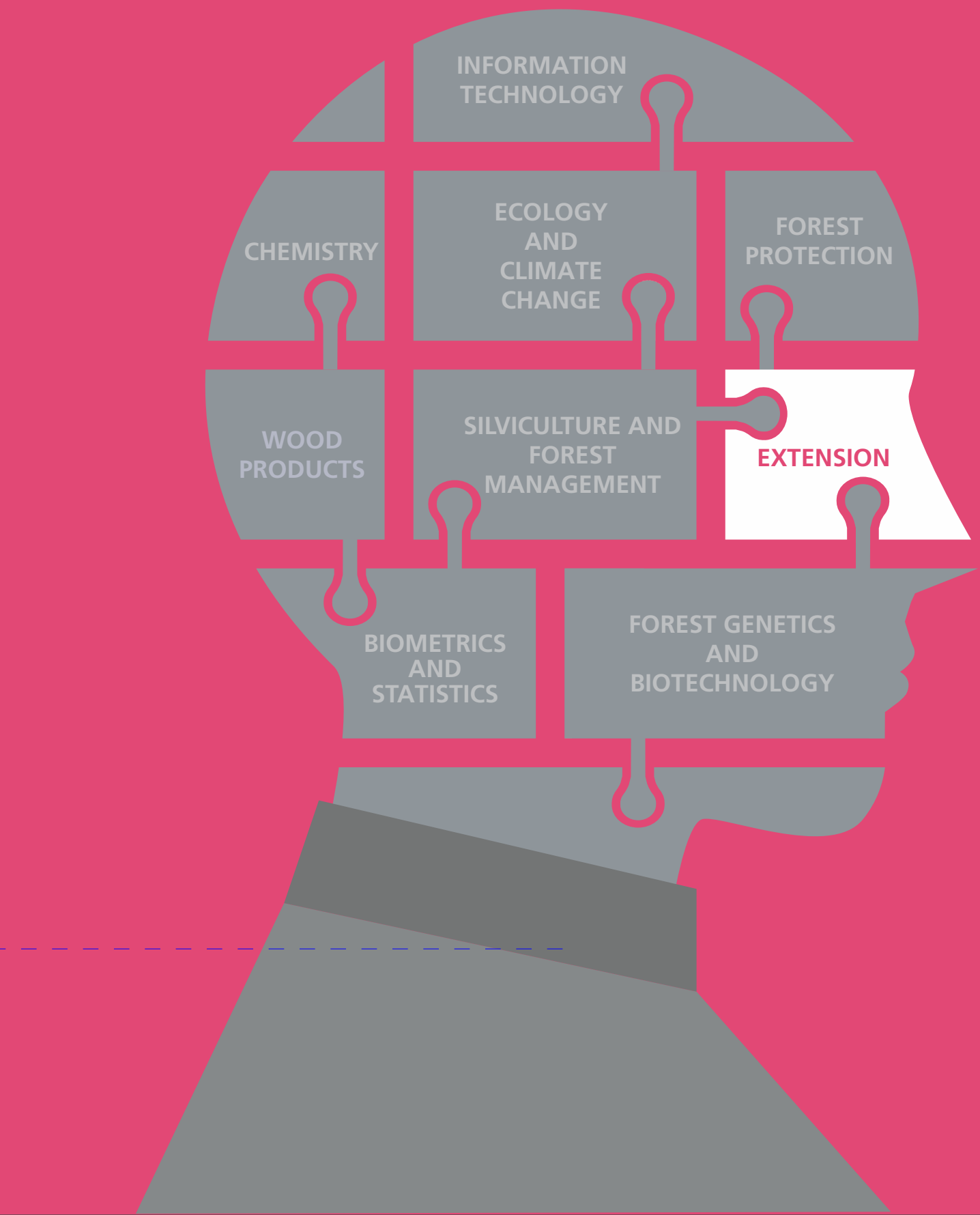
1.	**Designation**	Scientist - B
2.	**Date of birth**	30/12/1987
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224303 **(M)** 9458122164
5.	**Date of joining at ICFRE**	08/04/2010
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-10 28/07/2016
7.	**Discipline/Specialization**	Bio informatics, Environmental Management
8.	**Education Qualification (Graduation or above)**	M.Sc. (Environmental Microbiology), Ph.D.

9. Important research contributions

- nil

10. Important Research Papers/Publications

- Kumar, M., N.S.K. Harsh, R. Prasad (2014). *Conocybe apala* (Fr.: Fr.) Arnolds, *Helvella solitaria* P. Karst. and Hygrocybe miniata (Fr.) P. Kumm.; three new mushrooms from India. Current Research in Environmental & Applied Mycology 4(1), 100–105, Doi 10.5943/cream/4/1/8.
- Kumar, M. & N.S.K. Harsh Taxonomy of *Merulius eurocephalus* (Berk. & Br.) Petch v/s *Bondarzewia berkeleyi* (Fr.) Bond. & Sing. : Synonym status reviewed. Journal of Threatened Taxa 6(12): 6585-6589.
- Manoj Kumar & N.S.K. Harsh (2015). Wealth of edible and medicinal fungi. In: Advances in Mycorrhiza & useful microbes in forestry (Eds. N.S.K. Harsh & Ashwani Kumar). ICFRE state knowledge series- II. Green Files Publishers Dehradun.
- Kumar, M., N.S.K. Harsh, R. Prasad & V.V. Pandey (2017). An ethnomycological survey of Jaunsar, Chakratta, Dehradun, India. Journal of Threatened Taxa, 9(9): 10717–1072.
- Kumar, M., P.S. Mehra, N.S.K. Harsh, A. Pandey & V.V. Pandey (2017). Largest fungal fruit body from India. Journal of Threatened Taxa, 9(12): 11085–1108.
- मनोज कुमार, विजय वर्धन पाण्डेय, जलज सक्सेना, अमित पाण्डेय (2018). फफूंद (फंजाई)रू वन पारिस्थितिकी एक अभिन्न अंग. अरण्य पत्रिका, प्रकाशक– इंदिरा गांधी राष्ट्रीय वन अकादमी १६:७४–७५.
- Manoj Kumar, N. S. K. Harsh and Rajendra Prasad (2018). Fungal biodiversity with special reference to wood decaying fungi in India: status, conservation and prospects. In: Plant Diversity in the Himalayan hotspot region. Eds. A. P. Das & Subir Bera, Publisher: Bishen Singh Mahendra Pal Singh Dehradun. 87-109.


INFORMATION TECHNOLOGY
CHEMISTRY
ECOLOGY AND CLIMATE CHANGE
FOREST PROTECTION
WOOD PRODUCTS
SILVICULTURE AND FOREST MANAGEMENT
EXTENSION
BIOMETRICS AND STATISTICS
FOREST GENETICS AND BIOTECHNOLOGY

R. K. Kalita

1.	**Designation**	Scientist - E
2.	**Date of birth**	15/09/1968
3.	**Institute/Place of Posting**	Rain Forest Research Institute Jorhat
4.	**Contact Details**	**(O)** 03762305124 **(M)** 09435351736
5.	**Date of joining at ICFRE**	01/06/1998
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 01/01/2014
7.	**Discipline/Specialization**	Mycology and Plant Pathology, Forestry Extension
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agri - Mycology & Plant Pathology)

9. Important research contributions

- Development of DUS descriptors on *Bambusa balcooa* and *Dendrocalamus hamiltonii*.
- Human resource development, capacity building of the different user groups, improvement of livelihood opportunities of rural people through extensive training and demonstration programmes, educating school children on environmental issues.
- To coordinate the different activities of Van Vigyan Kendra, to participate in farmers fairs, exhibitions etc.
- Meticulously planned and executed a large number of training/workshop programmes of the Institute for State Forest Department Officials, JFMCs, Indian Army (TA), NGOs/SHGs, University Faculties and Students, College and School students, Farmers, Women groups etc.

10. Important Research Papers/Publications

- Singh, A. N. and R. K. Kalita (2017). Bio-deterioration of harvested bamboos and its management through preservative treatment. In: Recent Advances in Bamboo Research and Development in India. Proceedings of National Seminar on Bamboo held at RFRI, Jorhat on 6-7 February, 2014.
- Hazarika, Prosanta, Biswas, S. C. and Kalita, R. K. (2014). A case study on people's choice conservation of biodiversity in homesteads of Assam, India. International Research Journal of Biological Sciences, 3(1): 38-94.
- Hazarika, P., Nilakshi Kakati and R. K. Kalita (2011). Indigenous Knowledge in Relation to Conservation and Management of Forest Biodiversity of Assam. In: Proceedings of International Seminar on Bioresources and Human Sustenance, organized by Cotton College in collaboration with Zoological Society of Assam, 21-22 October 2011.
- Rana, Vikas, R. K. Kalita and Vineet Kumar (2010). Preliminary Characterization and Molecular Weight Determination of *Tectona grandis* Polysaccharides. In: Recent Advances in Chemistry and Technology of Carbohydrates (Carbo XXV), 11-13, November, 2010, Himachal Pradesh University, Shimla.
- Kalita, R. K., D. P. Bora and D. Dutta (2004). Associations of arbuscular mycorrhizas with twenty biomass species in Assam. Indian Forester 130:699-704.
- Kalita, R. K., D. P. Bora and D. Dutta (2002). Vesicular arbuscular mycorrhizal association with some native plants. Indian Journal of Forestry 25:143-146.
- *Gmelina arborea* A Technology Mission (Eds. Ashok Kumar, A. N. Singh, R. K. Kalita and K. G. Prasad) Published by Rain Forest Research Institute, Jorhat, Assam, Pp 125.
- Training Manual on Shifting Cultivation Practices vis-a vis Livelihood Opportunities in North East India (2013), Published by RFRI, Jorhat.

Dr. Charan Singh

1.	**Designation**	Scientist - E
2.	**Date of birth**	04/12/1966
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224355 **(M)** 09837186194
5.	**Date of joining at ICFRE**	20/10/1989
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 01/01/2016
7.	**Discipline/Specialization**	Agroforestry, Extension
8.	**Education Qualification (Graduation or above)**	M.Sc. (Zoology), Ph.D.

9. Important research contributions

- Worked on insect pests and their management including effect of soil fumigants to control the cut worm and their impact on growth of *Paulownia* sp., resistance in *Dalbergia sissoo* against defoliator *Plecoptera reflexa*, resistance in Poplars against shoot borer *Eucosma glaciata*, resistance in seed of *Acacia catechu* against seed borer, biological weed control, resurgence of deodar defoliator *Ectropis deodarae*, its damaging potential and management strategies in Himachal Pradesh.
- Developed Poplar and *Melia dubia* based agroforestry models. Studied the impact of *Pinus roxburghii* and *Quercus leucotricophora* on nearby crops in hills of Kumaun and Garhwal of Uttarakhand. Studied the growth performance of Napier and Guinea grass on degraded land in foot hills of Uttarakhand.
- Developed agroforestry models on *Melia dubia* with wheat and maize and *Populus deltoides* with medicinal plants like Chitrak (*Plumbago indica*).

10. Important Research Papers/Publications

- Singh, Charan, Chander Nath and Ombir Singh (1996). Possibilities of biological control of weeds in Deodar forests of Western Himalayas. Indian Forester 122 (4).
- Singh, Charan (1998). Natural resistance in poplar against *Eucosma glaciata* Meyrick (Lepidoptera : Eucosmidae). Indian Journal of Forestry 21(4).
- Singh, Charan, V. P. Pandey and S. Kalia (2003). Natural resistance in shisham against *Odontotermis parvidens* Holmogren (Isoptera: Termitidae) in foot hills of Himachal Pradesh. Indian Journal of Forestry 26(1).
- Singh, Charan and V. P. Pandey (2007). Natural resistance in shisham clones against *Plecoptera reflexa Guen*. in foot hills of Himachal Pradesh. Indian Forester 133 (9).
- Singh, Charan, Deepak Khanna and Ajay Gulati (2015). Influence of Oak and Pine forests on the productivity of wheat and paddy in hilly areas of Uttarakhand. Indian Forester 141(1) .

Rambir Singh

1.	**Designation**	Scientist - D
2.	**Date of birth**	20/10/1965
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135 2224243 **(M)** 09917873455
5.	**Date of joining at ICFRE**	22/10/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/07/2017
7.	**Discipline/Specialization**	Agroforestry, Extension
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agri- Soil Science)

9. Important research contributions

- Established agri-silvi-medicinal models on degraded lands of Punjab and Uttarakhand with *Melia composita* and *Emblica officinalis*.
- Working for establishment of *Gmelina arborea* and *E. officinalis* based agroforestry models on fallow lands of Uttarakhand and Uttar Pradesh.
- Worked on Ecological studies, Rehabilitation and afforestation technology for development of degraded land and mined overburden areas, development of agroforestry models with reference to agri-silvi-pastures & medicinal and agri-silvi-horti systems and dissemination of technology through agroforestry practices and extension activities at TFRI, Jabalpur and FRI, Dehradun.

10. Important Research Papers/Publications

- Singh, R.B., T.K. Mishra and S.K. Banerjee (1994). Spatial variability of soil attributes under different community structure of *Tectona grandis* stands in basaltic region. Indian J. Trop. Biodiversity, 2(3&4): 433-4444.
- Singh, A.K. and R.B. Singh (1999). Effect of mulches on nutrient uptake of A. procera and subsequent nutrient enrichment of coal mine overburden. Jour. Tropical Forest Science, 11 (2): 345-355.
- R.B. Singh, Charan Singh, Ajay Gulati and Sandeep Kujur (2016). Current status of Poplar based agroforestry for economic development: A case study of Haridwar and Yamunanagar districts. Indian Forester, 142(5): 487-492.

Books:

- S.K. Banerjee, T.K. Mishra, R.B. Singh and R.B. Lal (1996). Forest Vegetation and Soil. ICFRE, Dehra Dun, (1)113.
- Jayshree Ardey, R.B. Singh, Gulab Singh and Manoj Kumar (2011). Chapter on "Shatabdi Van Vigyan Kendra and Photogallery" in book "Forestry in the Service of Nation:ICFRE Technologies" edited by V.K. Bahuguna et al., ICFRE, Dehra Dun (1) 309-320.

Dr. S. N. Mishra

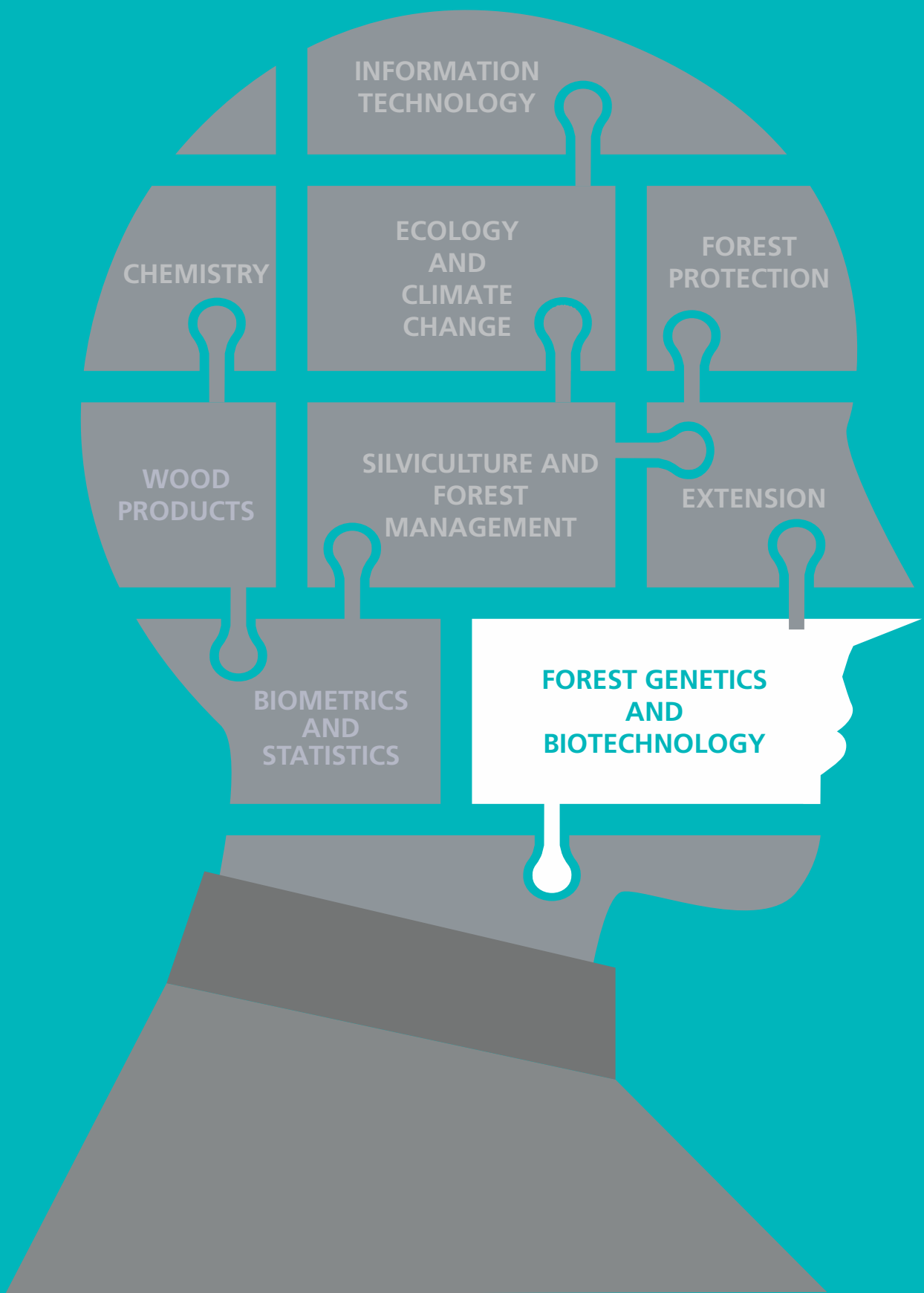
1.	**Designation**	Scientist - B
2.	**Date of birth**	10/07/1970
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** 0761-2744138 **(M)** 9826177242
5.	**Date of joining at ICFRE**	30/06/1995
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-11 15/07/2016
7.	**Discipline/Specialization**	Plant Pathology, Extension
8.	**Education Qualification (Graduation or above)**	M.Sc., Ph.D. (Botany)

9. Important research contributions

- Nil

10. Important Research Papers/Publications

- Nil


INFORMATION TECHNOLOGY
CHEMISTRY
ECOLOGY AND CLIMATE CHANGE
FOREST PROTECTION
WOOD PRODUCTS
SILVICULTURE AND FOREST MANAGEMENT
EXTENSION
BIOMETRICS AND STATISTICS
FOREST GENETICS AND BIOTECHNOLOGY

P. H. Chawhaan

1.	**Designation**	Scientist - G
2.	**Date of birth**	02/10/1962
3.	**Institute/Place of Posting**	Institute of Forest Biodiversity, Hyderabad
4.	**Contact Details**	**(O)** 040-66309520 **(M)** 9460250213
5.	**Date of joining at ICFRE**	14/11/1991
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/07/2006
7.	**Discipline/Specialization**	Forest Genetics and Tree Breeding, Quantitative Forest Genetics and Tree Improvement
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agril. Botany)

9. Important research contributions

- Successfully micro propagation of 120 – 130 years old 35 genotypes of *Populus nigra*.
- Established 181 ha of seed production areas, 9 ha clonal seed orchards and 14 ha of seedlings seed orchards of different tree species.
- Selected numbers of pheotypicaly superior of trees species namely *Gmelina arborea*, *Dipterocarpus retusus*, *Albizia procera*, *Prosopis cineraria*, *Tectona grandis*,etc.,
- Detailed investigation on variation and inheritance of different quantitative characters in teak, *Prosopis cineraria*, *G. arborea* and *Melia composita* was carried out.
- The inheritance pattern of growth and seed traits in Teak of Gujarat and M.P. origin and Inheritance of wood traits of Orissa, Maharashtra and Gujarat was investigated which was hitherto unknown.
- Germplasm of *Tinospora cordifolia* and *Rauwolfia serpentina* from 24 and 34 different locations across the country was collected and assembled which has been resulted in development of two varieties of *R.serpentina* namely TFRI-RS-1 and TFRI-RS-2.

10. Important Research Papers/Publications

- Chawhaan, P. H., N.D. Khobragade & A.K. Mandal (2003). Genetic analysis of fruit and seed parameters in teak (Tectona grandis): Implications in seed production programme. Indian J. Genetics 63(3): 239-242.
- Tiwari, Anita, Pramod Kumar, Pravin H. Chawhaan, Sanjay Singh and S. A. Ansari. (2006). Carbonic anhydrase in *Tectona grandis* (L.f.): Extraction, kinetics, stability, isozyme and relationship with photosynthesis. Tree Physiology 26: 1067-1073.
- Narayanan, C., P. H. Chawhaan and A. K. Mandal (2009). Inheritance pattern of growth and wood traits in teak *Tectona grandis* (L.f.). Silvae Genetica, 58 (3):97-101.
- Usmani, Gufran, Pravin H. Chawhaan, Yogeshwar Mishra, Abha Rani and Asim Kumar Mandal (2015). Geographical variation of total alkaloid and reserpine content in *Rauwolfia serpentina* (L.) Benth. ex. Kurz. Euphytica 202(3):427-434.
- Usmani, Gufran, Pravin H. Chawhaan, Yogeshwar Mishra and Asim Kumar Mandal (2014). Variability, heritability and character association analysis of chemoagronomic traits in *Rauwolfia serpentina*. Euphytica 200(2): 259–268.

Dr. I.D. Arya

1.	**Designation**	Scientist - G
2.	**Date of birth**	16/04/1961
3.	**Institute/Place of Posting**	Arid Forest Research Institute, Jodhpur
4.	**Contact Details**	**(O)** 0291-2729138 **(M)** 9460745663
5.	**Date of joining at ICFRE**	28/08/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-14 01/01/2013
7.	**Discipline/Specialization**	Plant Biotechnology and Tissue Culture, Clonal Propagation & Tree Improvement
8.	**Education Qualification (Graduation or above)**	M.Sc.(Botany), Ph.D.

9. Important research contributions

- Developed technology for Micropropagation of six FRI Eucalyptus hybrids and field transfer of two important hybrid FRI-5 & 14.
- Developed technology and field transfer of Tissue Culture plants of edible bamboo- *Dendrocalamus asper*. Established demonstration plots at Terai and Tanda range of central forest division, Uttrakhand.
- Tissue culture Technology developed for bamboos - *Drepanostachyum falcatum, Dendrocalamus hamiltonii, Dendrocalamus membranaceus, Bambusa balcooa, Bambusa bambos* and *Melocanna baccifera*.
- Tissue culture technology developed for important desert plants- *Salvadora persica, Capparis decidua* and *Azadirachta indica.*
- Developed tissue culture technology for medicinally important plant- *Gymnema sylvestre, Stevia rebaudiana, Barleria prionitis* and *Terminalia arjuna.*

10. Important Research Papers/Publications

- Sharma, R., I.D. Arya and S. Arya (2017). Tissue Culture Technology for multiplication of Ringal bamboo *Drepanostachyum falcatum* (Nees) Keng. F. International Research Journal of Natural and Applied Sciences 4(2) 73-82.
- Kamal, B., I.D. Arya, V. Sharma and V.S. Jadon (2016). In vitro Enhanced multiplication and molecular validation of Eucalyptus F 1 hybrids. Plant Cell Biotechnology and Molecular Biology 17(3&4): 167-175.
- Choudhary, M., S. Jaiswal, R. Singh, I.D. Arya, and S. Arya (2015). A micropropagation protocol for mass multiplication of *Terminalia arjuna*- a valuable medicinal tree. Advances in Forestry Science, 2(1):1-6.
- Gehlot, A., I.D. Arya, V. Kataria, R.K. Gupta and S. Arya (2014). Clonal multiplication of multipurpose desert tree *Azadirachta indica*-Neem. Journal of Arid Land Studies. 241:37-40.
- Arya, S., K.R. Kalia and I.D. Arya (2000). Induction of somatic embryogenesis in *Pinus roxburghi Sarg*. Plant Cell Reports .19:775-780.

Dr. H.S. Ginwal

1.	**Designation**	Scientist - G
2.	**Date of birth**	02/10/1969
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224452 **(M)** 9412413158
5.	**Date of joining at ICFRE**	10/08/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/01/2016
7.	**Discipline/Specialization**	Genetics, Tree Propagation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D.

9. Important research contributions

- Identified 357 superior clumps of ten selected bamboo species.
- Through multi-location testing of Australian germplasm of *Eucalyptus tereticornis* and *E. camaldulensis*, 24 new clones of Eucalyptus developed and three clones released.
- Studied genetic diversity and geographical structure in *Cedrus deodara, Quercus leucotrichophora* and *Dalbergia sissoo* through DNA markers. Through association mapping, SSR and ISSR markers were identified showing significant association with resin production in Chir pine.
- Identified six populations of *Acorus calamus* possessing low concentration of the β –asarone compound and 18 new set of microsattellite primers (SSR primers) .
- Sixty-seven clones of shisham obtained from Punjab Forest Department were DNA fingerprinted and twenty two most divergent and distant clones were identified.
- Genomic DNA extraction protocols for *Dalbergia sissoo, Quercus leucotrichophor, Pinus roxburghii, Acorus calamus, Cedrus deodara* developed.

10. Important Research Papers/Publications

- Rawat, A., S. Barthwal and H. S. Ginwal (2014). Association mapping for resin yield in *Pinus roxburghii* Sarg. Using microsatellite markers. Silvae Genetica 63 (6) : 253-265.
- Ginwal, H.S., Priti Chauhan, Santan Barthwal, Arvind Sharma and Rajesh Sharma (2011). Cross-Species Amplification and Characterization of Pinus Chloroplast Microsatellite Markers in *Cedrus deodara Roxb*. Silvae Genetica 60 (2) : 65-69.
- Ginwal, H.S. (2010). Inbreeding depression in *Eucalyptus tereticornis* Sm. due to cleistogamous flowering. New Forests 40 (2) : 205-212.
- Ginwal, H.S. (2009). Provenance and family variation in growth performance of *Eucalyptus tereticornis* Sm. in a provenance cum progeny trial in Midnapore, India. Forest Ecology and Management, 258 : 2529–2534.
- Ginwal, H.S., Pradip Kumar, V.K. Sharma, A.K. Mandal and C. E. Harwood (2004). Genetic variability and early growth performance of *Eucalyptus tereticornis* Sm. in provenance cum progeny trials in India. Silvae Genetica 53 (4-5) : 148-153.

Dr. R. Yasodha

1.	**Designation**	Scientist - G
2.	**Date of birth**	24/05/1967
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422- 2484114 **(M)** 9362641515
5.	**Date of joining at ICFRE**	26/11/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Level-14 01/07/2017
7.	**Discipline/Specialization**	Forest Biotechnology, Tissue culture, DNA Markers, Molecular Genetics
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), M.Phil (Botany), Ph.D. (Botany)

9. Important research contributions

- Genetic linkage map developed in eucalypts (SSR, SNP, ISSR and SRAP markers) and QTL for adventitious rooting and stomatal traits mapped.
- Whole genome sequencing of teak was conducted and draft genome assembly developed.
- Microsatellite markers developed for eucalypts, bamboos and casuarina and assessed population structure and linkage disequilibrium in eucalypts.
- DNA profiling was conducted for clones/hybrids/populations of eucalypts, acacia, red sanders and casuarina using RAPD, ISSR, FISSR, AFLP, SSR and SCAR markers for genetic diversity assessment, hybrid purity testing and clonal DNA fingerprinting.
- Micropropagation of bamboos, teak, eucalypts and acacia carried out and field trials established.

10. Important Research Papers/Publications

- Yasodha, R., S. Kamala, S.P. Anand Kumar, P. Durai Kumar and K. Kalaiarasi (2008). Effect of glucose on in vitro rooting of mature plants of *Bambusa nutans*. Scientia Horticulturae, 116: 113-116 (JIF: 0.859).
- Arumugasundaram, S., M. Ghosh, S. Veerasamy and R. Yasodha (2011). Species discrimination, population structure and linkage disequilibrium in *Eucalyptus camaldulensis* and *Eucalyptus tereticornis* using SSR markers. PLoS One 6 (12), e28252 (JIF: 4.411).
- Shanthi, K., V.K.W. Bachpai, S. Anisha, M. Ganesan, R.G. Anithaa, V. Subashini, M. Chakravarthi, V. Sivakumar and R. Yasodha (2015). Micropropagation of Eucalyptus camaldulensis for the production of rejuvenated stock plants for microcuttings propagation and genetic fidelity assessment. New Forests 46: 357-371 (JIF: 1.57).
- Sumathi, M,. V.K.W. Bachpai, B. Deeparaj, A. Mayavel, Modhumita Ghosh Dasgupta, B. Nagarajan, D. Rajasugunasekar, V. Sivakumar and R. Yasodha (2018). Quantitative trait loci mapping for stomatal traits in interspecific hybrids of Eucalyptus. Journal of Genetics, 1-7(JIF: 0.995).
- Yasodha R *et al* (2018). Draft genome of a high value tropical timber tree, Teak (*Tectona grandis* L.f): insights into SSR diversity, phylogeny and conservation. DNA Research https://doi.org/10.1093/dnares/dsy013.

11. Awards

- ICFRE awards of Excellence for Forest Biotechnology (2001-2002).

Dr. B.Nagarajan

1.	**Designation**	Scientist - G
2.	**Date of birth**	03/07/1968
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484120 **(M)** 9443222366
5.	**Date of joining at ICFRE**	14/11/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/07/2017
7.	**Discipline/Specialization**	Tropical Tree Reproductive Biology, Full Sib Breeding, Species Recovery and Reproductive bottlenecks
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D. (Botany), Certificate Course in Tree Improvement

9. Important research contributions

- Deployment of Seedling Seed Orchards.
- Mass Selection in Red Gums for clonal deployment.
- Control Pollination and Hybrid deployment in Eucalypts.
- Seed set and self incompatibility in teak.
- Development of Mapping Populations in Red Gums.
- Reproductive constraints in RET species.
- Species Recovery in RET species.
- Reproductive Biology of Mangroves.

10. Important Research Papers/Publications

- Effect of Manuring, Growth Regulators and Chemicals on Vegetative and Reproductive Characters of Seed Origin Plantation inTamarind (*Tamarindus indica*).
- International journal of conservation science future prospects for the critically endangered medicinally important species. *Canarium Strictum Roxb*.
- Correlation and Path coefficient analysis of selected red tamarind (*Tamarindus indica var rhodocarpha*) Genetic resources.
- Nagarajan, B, *et al* (2013) s. In: Mangroves: Their Biology and Uses (ISBN 978-81-8171-336-.Pp 131-140. Ministry of Environment, Forests and Climate Change, Govt. of India.
- Nagarajan, B, *et al* (2017). In Plantations and Agroforestry: Pulp wood value chain approach. (Eds ISBN 978-93-86347-98-3) Scientific publishers Jodhpur 155-167) .

11. Awards

- ICFRE Outstanding performance award in Tree Improvement (1999- 2000).
- Indian Forester Award for Best research Note (2005-06).

Dr. Rajesh Sharma

1.	**Designation**	Scientist - G
2.	**Date of birth**	14/10/1966
3.	**Institute/Place of Posting**	Himalayan Forest Research Institute, Shimla
4.	**Contact Details**	**(O)** 0177-2816176 **(M)** 94181 64067
5.	**Date of joining at ICFRE**	10/08/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level 14 01/01/2018
7.	**Discipline/Specialization**	Forest Genetics & Tree Improvement, Population Genetics
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D. (Forest Genetics)

9. Important research contributions

- The formulation of DUS (Distinctness, Uniformity and Stability) Test Guidelines for conifers (*Pinus roxburghii* and *Cedrus deodara*).
- Reproductive behavior studies in *Cedrus deodara*.
- Studies in *Pinus gerardiana, Cedrus deodara* and *Quercus leucotrichophora* through isozyme and DNA markers for genetic diversity in populations for strategizing their conservation and future improvement.
- Evaluation of Shisham clones for genetic variation and stress and insect resistance.
- Establishment of demonstration plots of Tissue Culture and Stem Cutting raised plants of *Dendrocalamus hamiltonii.*
- Survey, selection and enumeration of Seed Stands of *Cedrus deodara* for their conversion into Seed Production Areas (SPAs).

10. Important Research Papers/Publications

- Rajesh Sharma, D.K. Khurana and Gunar Schute (2008). Genetic diversity and differentiation in plus trees and provenances of Pinus roxburghii Sargent in Western Himalayas. Journal of Tree Sciences (International Journal of Research and Development in Tree sciences and Environmental Conservation), 27 (2): 32-46.
- Ginwal, H.S., P. Chauhan, S. Barthwal, A. Sharma and R. Sharma (2011). Cross-Species Amplification and Characterization of Pinus Chloroplast Microsatellite Markers in *Cedrus deodara*. Silvae Genetica 60 Issue 2, 65-69.
- Mamta Ranot and Rajesh Sharma (2015). Genetic variation studies on the different morphometric characters of Chilgoza pine (*Pinus gerardiana* Wall). International Journal of Scientific Research, 4(1): 50-52.
- Rajesh Sharma and Sunil Waman Bhondge (2016). Unpredictable reproductive behavior of *Cedrus deodara* (Roxb.) G. Don. Journal of Forest and Environmental Science, 32 (2) :113-119.
- Rajesh Sharma (2017). Genetic variation studies in natural population of Neoza pine (*Pinus gerardiana*). Indian Forester, 143 (9): 943-949.

11. Awards

- Brandis Prize by The Indian Forester for outstanding paper in 1997.

Dr. K. Palanisamy

1.	**Designation**	Scientist - G
2.	**Date of birth**	23/05/1959
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422 2484192 **(M)** 9442522051
5.	**Date of joining at ICFRE**	26/08/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/01/2018
7.	**Discipline/Specialization**	Forest Genetic Resources Conservation, Tree Improvement
8.	**Education Qualification (Graduation or above)**	B.Sc. (Botany, Zoology & Chemistry), M.Sc., Ph.D. (Botany)

9. Important research contributions

- For the first time developed the clonal technology for teak through juvenile coppice shoots for establishing Clonal plantation to improve productivity.
- Selected outstanding teak trees, multiplied clonally and established clonal trial.
- Developed technique for mass multiplication of genetically superior seedlings of teak for establishing improved plantation and thereby enhance productivity.
- A total of 91 high fruit yielding trees of *Pongamia pinnata* have been selected in Southern India, multiplied clonally and assembled in the clone bank, established clonal trial and germplasm bank and it is a major germplasm assemblage for Pongamia.
- Identified 19 high fruit yielding and high oil yielding clones of *P.pinnata* for Clonal plantation programme.
- Selected 53 populations of Teak which showed distinct and desirable characteristics for conservation.
- Established ex situ conservation stands for Tea and Pongamia.

10. Important Research Papers/Publications

- Palanisamy, K., K. Gireesan, V. Nagarajan and M. Hegde (2009). Selection and clonal multiplication of superior trees of teak (*Tectona grandis*) and preliminary evaluation of clones. Journal of Tropical Forest Science 21(2): 168–174.
- Krishnamoorthy. M., K. Palanisamy, A.P. Francis and K. Gireesan (2016). Impact of Environmental Factors and Altitude on Growth and reproductive Characteristics of Teak (*Tectona Grandis Linn. F.*) in Southern India, J. Forest and Environmental Sciences 32(4), 353-366.
- Palanisamy, K., Maheshwar Hegde and Jae-Seon Yi (2009).Teak (*Tectona grandis* Linn.*f.*): A Renowned Commercial Timber species, Journal of Forest Sciences, 25(1): 1-24.
- Palanisamy, K. and K. Subramanian, (2001). Vegetative Propagation of mature Teak trees (*Tectona grandis L.*), Silvae Genetica,50 (5-6) :188-191.
- Palanisamy, K., (2013). Status of Forest Genetic Resources and Conservation in Indi, In: Proceedings of 3rd International Symposium on Status and Prospects of Forest Biodiversity and Conservation, Kangwon National University, Chuncheon, Republic of Korea, Pp181-208, 2013.

Books:

- Advances in Tree Improvement and Forest Genetic Resources Conservation and Management (Ashwinin Kumar, T.S. Rathore, K. Palanisamy and Syam Viswanath ,eds.), Green Field Publishers, Dehra Dun, p 459, 2016.

11. Awards

- ICFRE award for Excellence and outstanding Research work in Forestry. (2004).

Dr. Sarita Arya

1.	**Designation**	Scientist - G
2.	**Date of birth**	16/07/1964
3.	**Institute/Place of Posting**	Arid Forest Research Institute, Jodhpur
4.	**Contact Details**	**(O)** 0291-2729128 **(M)** 7742096930
5.	**Date of joining at ICFRE**	07/12/1989
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-14 01/07/2018
7.	**Discipline/Specialization**	Plant Biotechnology and Tissue Culture, Macro & Micro Propagation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- Developed technology for Micropropagation of six FRI Eucalyptus hybrids and field transfer of two important hybrids FRI-5 & 14.
- Developed tissue culture protocol for *Dalbergia sissoo*.
- Studied the role of various additives in controlling shoot tip necrosis of *Pterocarpus marsupium*, a multipurpous leguminous tree.
- Technology for macro and micro propagation of *Azadirachta indica* developed.
- Technology developed for important desert plants- *Salvadora persica* and *Capparis decidua.*
- Developed rapid micropropagation protocol of edible bamboo *Dendrocalamus asper*.
- Developed Tissue culture Technology for medicinally important plant- *Gymnema sylvestre*, *Stevia rebaudiana* and *Terminalia arjuna*.
- Plant regeneration from protoplasts of Panax ginseng.

10. Important Research Papers/Publications

- Saini, H., I.D. Arya, S. Arya and R. Sharma (2016). In Vitro Micropropagation of Himalayan Weeping Bamboo, *Drepanostachyum falcatum*. American Journal of Plant Sciences, 7: 1317-1324.
- Vijay, N., S. Arya and I.D. Arya, (2014). Rapid and mass propagation of the economically important desert plant *Capparis decidua* for its afforestation program. Journal of Arid Land Studies. 24-1:33-36.
- Gehlot, A., R.K. Gupta, A. Tripathi, I.D. Arya and S. Arya (2014). Vegetative propagation of *Azadirachta indica*: effect of auxin and rooting media on adventitious root induction in mini-cuttings. Advances in Forestry Science, Cuiabá, 1(1): 1-9.
- Arya, S., K.R. Kalia and I.D. Arya (2000). Induction of somatic embryogenesis in *Pinus roxburghi* Sarg. Plant Cell Reports, 19:775-780.
- Arya, S., S. Sharma, R. Kaur and I.D. Arya (1999). Micropropagation of *Dendrocalamus* asper by shoot proliferation using seeds. Plant Cell Reports, 18: 879-882.

Dr. U.K. Tomar

1.	**Designation**	Scientist - F
2.	**Date of birth**	10/06/1960
3.	**Institute/Place of Posting**	Arid Forest Research Institute, Jodhpur
4.	**Contact Details**	**(O)** 0291-2729129 **(M)** 9166729698
5.	**Date of joining at ICFRE**	01/12/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13A 01/01/2013
7.	**Discipline/Specialization**	Genetics and Tree Improvement, Forest Genetics and Tree Improvement
8.	**Education Qualification (Graduation or above)**	M.Sc (Botany), Ph.D.

9. Important research contributions

- Surveyed all 33 districts and developed guggal density map of Rajasthan and studied genetic diversity of population using DNA markers.
- Developed non-destructive harvesting method of oleo-gum resin and identified high oleo gum resin yielders as superior genotypes of Guggal. Superior genotypes for high viable seed yielders are identified for developing SPAs.
- A manual is prepared is prepared under SFD sponsored projects as per guideline given by State Forest Department in the form book with fifteen chapters in Hindi and English languages.
- Screened 367 Neem trees and selected 17 superior trees on the basis of high Aza (above 5000 ppm) and oil content (above 40%) under NOVOD board project.

10. Important Research Papers/Publications

- Saini, LS; S.K. Rajput, T.R.Rathore and U.K. Tomar (2018). Non-destructive harvesting of oleo-gum resin in *Commiphora wightii* (Arn.) Bhandari – A critically endangered plant. Industrial Crop & Products. 113: 259-265.
- Singhal, H., A. Gaur and U.K. Tomar (2014). Observations on flowering and fruiting in *Commiphora wightii* (Arnott) Bhandari. Eur J Med Plant, 4(9): 1087-1097.
- Tomar, U.K., G. Singh and N. Kaushik (2011). Screening *Azadirachta indica* tree for enhancing azadirachtin and oil contents in dry areas of Gujarat, India. J. Forestry Res. 22(2): 217-224.
- Singh, A., M.S. Negi, J. Rajagopal, S. Bhatia, U.K. Tomar, P.S. Srivastav and M. Lakshmikumaran (1999). Asssesment of genetic diversity in *Azadirachta indica* using AFLP markers. Theor. Appl. Genet. 99: 272-279.

Books:

- Singh, G, B. Singh, U.K. Tomar and S. Sharma (2017). A Manual for Dryland Afforestation and Management, Scientific Publisher, Jodhpur Rajasthan India, ISBN: 9788172339784.

Dr. Modhumita Dasgupta

1.	**Designation**	Scientist - F
2.	**Date of birth**	28/07/1969
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484123 **(M)** 9894957110
5.	**Date of joining at ICFRE**	26/06/1998
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level 13A 01/01/2015
7.	**Discipline/Specialization**	Forest Biotechnology, Genomics and DNA markers
8.	**Education Qualification (Graduation or above)**	Ph.D. (Genetics)

9. Important research contributions

- Assesed genetic diversity and population structure in short rotation tree species using dominant and co-dominant markers.
- Identified species specific SCAR markers and developed high throughput markers (SNPs/ InDels/SSRs) in Eucalypts.
- Identified molecular pathways during tree – pathogen interaction using Casuarina - Trichosporium.
- Isolated defense related genes and characterized them.
- Developed gene co-expression/ regulatory networks for wood formation and water stress response in Eycalypts.
- Karyotyped tree chromososmes and conducted fluorescent in situ hybridization (FISH) and Bacterial Artificial Chromosome FISH (BAC FISH) with rDNA probes.
- Sequenced, assembled and annotated sandalwood genome.

10. Important Research Papers/Publications

- George, B.S., S. Silambarasan, K. Senthil, J.P. Jacob and M. Ghosh Dasgupta (2018). Characterization of an insecticidal protein from *Withania somnifera* against lepidopteran and hemipteran pest. Molecular Biotechnology DOI: 10.1007/s12033-018-0070-y.
- Ghosh Dasgupta, M. and V. Dharanishanthi (2017). Identification of PEG-induced water stress responsive transcripts using co-expression network in *Eucalyptus grandis*. Gene.
- Dasgupta, M.G., V. Dharanishanthi, I. Agarwal and K.V. Krutovsky (2015). Development of genetic markers in Eucalyptus species by target enrichment and exome sequencing. PLoS ONE 10(1): e0116528. doi:10.1371/journal.pone.0116528 (JIF: 3.534).
- Ghosh Dasgupta, M., B.S. George, A. Bhatia and O.P. Sidhu (2014). Characterization of *Withania somnifera* leaf transcriptome and expression analysis of pathogenesis – related genes during salicylic acid signaling. PLoS ONE 9(4): e94803. doi:10.1371/journal.pone.0094803.
- Ghosh M. (2006). Antifungal properties of haem peroxidase from *Acorus calamus*. Annals of Botany 98(6):1145-1153.

11. Awards

- DBT-CREST Award for the year 2010-11 by Department of Biotechnology, Govt. of India.
- ICFRE Award of Excellence in Forest Biotechnology for the year 2001-2002.

Dr. Ashok Kumar

1.	**Designation**	Scientist - F
2.	**Date of birth**	15/01/1967
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 135-2224379 **(M)** 9411173675
5.	**Date of joining at ICFRE**	30/03/1998
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 A 01/01/2015
7.	**Discipline/Specialization**	Tree Improvement, Genetics
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agri.), Ph.D. (Forest Genetics)

9. Important research contributions

- Release of first ever clone of *Dalbergia sissoo Roxb*. (2011), ten varieties of *Melia dubia Cav*. (2017) and three clones of *Eucalyptus tereticornis* Sm. (2017).
- Prepared guidelines for testing and releasing of tree varieties (2009). The guidelines have been recognized by the Ministry of Environment and Forests, Government of India.
- Extent and evaluation of die-back of Shisham (*Dalbergia sissoo*) and identification of disease resistance sources.
- Improvement through selection of plus trees in *Gmelina arborea*.
- Genetic improvement in *Pongamia pinnata* (Linn.) Pierre for production of biofuel.
- Genetic analysis of growth and wood variations in *Leucaena leucocephala* (Lam.) de Wit.

10. Important Research Papers/Publications

- Kumar, A., S. Dobhal and S. Sharma (2011). Assessment of genetic diversity in different clones of *Dalbergia sissoo* Roxb. using RAPD markers, African Journal of Biotechnology, 10 (35) : 6686-6694.
- Kumar, A., P. H. Chawhaan and A. K. Matharoo, (2003). Improvement through selection of plus trees in *Gmelina arborea,* Journal of Tropical Forest Science, 15 (3) : 441-449.
- Kumar, A (2007). Growth performance and variability in different clones of *Gmelina arborea*, *Silvae Genetica*,56 (1) : 32-36.

Books/Chapters :

- Kumar, A., A. N. Singh, R.K. Kalita and K.G. Prasad (2003). *Gmelina arborea* : A Technology Mission, Published by the Rain Forest Research Institute, Jorhat, Assam, India.
- Kumar, A., A.K. Matharoo, J. Kachari and P. Saikia (2003). 'Chapter 3' : Genetic improvement. In : *Gmelina arborea* - A Technology Mission, Rain Forest Research Institute, Jorhat.

11. Awards

- Brandis Prize, ICFRE (1999 & 2006).

Dr. A. Nicodemus

1.	**Designation**	Scientist - F
2.	**Date of birth**	15/08/1967
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484194 **(M)** 9442559070
5.	**Date of joining at ICFRE**	16/11/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13A 01/07/2015
7.	**Discipline/Specialization**	Genetics and Tree Breeding, Breeding pulpwood trees Teak seed orchards
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D. (Botany)

9. Important research contributions

- Implemented casuarina breeding program for two generation since 1997 and established breeding populations, seed orchards and clonal archived with a broad genetics base.
- Release 11 clones of casuarinas superior in terms of pulpwood and pole production. Secured registration under PPVFR Act, 2001 for IPR Protection and commercialized through non-exclusive licensing to paper industries and private nurseries.
- Established Seed Production Areas, Breeding Populations and identified factors limiting seed production in Teak orchards. Evaluated genetics difference between southern and northern india teak population through DNA markers.

10. Important Research Papers/Publications

- Nicodemus, A., R.R. Warrier, A. Pauldasan, V. Sivakumar, R. Anandalakshmi and B. Gurudev Singh, (2013). DUS test guidelines for Casuarina (*Casuarina equisetifolia L.* and *C. junghuhniana Miq.*). Plant Variety Journal of India, 7(2): 57-70.
- Nicodemus, A., A. Pauldasan, P. Vipin, J. Soosairaj, A. Durai and B. Gurudev Singh (2015). Species-provenance variation in growth, stem form and wood traits of Casuarina. Indian Forester, 141(2):203-210.
- Nicodemus, A., M. Varghese, B. Nagarajan and D. Lindgren (2009). Annual fertility variation in clonal seed orchards of teak (*Tectona grandis L.f.*) and its impact on seed crop. Silvae Genetica, 58(1-2):85-93.
- Nicodemus, A., J.P. Jacob and B. Nagarajan (2005). Pollination by nectarivorous birds in teak clonal seed orchards. Indian Forester, 131:1613-1616.
- Nicodemus, A. B. Nagarajan, C. Narayanan, M. Varghese and K. Subramanian (2005). Genetic Variation in Indian Teak (*Tectona grandis L. f.*) Populations Assayed through RAPD Markers. Indian Forester, 131:1121-1131.

11. Awards

- ICFRE Award for Excellence in Forestry Research (1999).
- Indian Forester Prize for Best Research Note (2005).

Dr. V. Sivakumar

1.	**Designation**	Scientist - F
2.	**Date of birth**	04/07/1971
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484178 **(M)** 9486266526
5.	**Date of joining at ICFRE**	29/12/1997
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13A 01/01/2016
7.	**Discipline/Specialization**	Forestry, Tree Improvement
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D.

9. Important research contributions

- Developed Seed handling techniques for important tree species.
- Handling genetic improvement programme of Eucalyptus and established seed orchards, progeny trials, clonal trials and genetic gain trails.
- Developed high yielding and gall resistant clones of Eucalyptus.
- Developed crop diameter assessment method using Image analyser.

10. Important Research Papers/Publications

- Sivakumar, V., K. Balaji , R. Chandrasekar, M. Anantha Lakshmi, Prabhavathi Kona, A. Nicodemus and B. Gurudev Singh (2012). Progeny Testing of Selected Clones of Eucalyptus for Growth Performance. Paper accepted for presenation in Seed Orchards and Breeding Theory Conference, 21-25 May, 2012 - Antalya, Turkey.
- Sivakumar V., A. Huse Santhoshkumar, K. Balaji, John Prasanth Jacob, A. Nicodemus and B. Gurudev Singh (2012). Variation in gall insect resistance in half sib families of Eucalyptus camaldulensis. Paper presented in National Seminar on Forest Health Management held at Institute of Forest Genetics and Tree Breeding, Coimbatore from 21-22, March 2012.
- Sivakumar, V., B. G. Singh, R. Anandalakshmi, R. R. Warrier, S. Sekaran, M. Tigabu and P. C. Odén (2011). Culling phenotypically inferior trees in seed production area enhances seed and seedling quality of Acacia auriculiformis, Journal of Forestry Research, 22 (1): 21-26.
- Sivakumar, V., Rekha R. Warrier, R. Anandalakshmi, R. Parimalam, S.N. Vijayachandran and B. Gurudev Singh (2006). Seed Storage studies in Aegle marmelos and Feronia elephantum. Indian Forester 132 (4): 502-506.
- Sivakumar, V., K.T. Parthiban, B. Gurudev Singh, V.S. Gnanambal, R. Anandalakshmi and S. Geetha (2002). Variability in Drupe Characters and their Relationship on Seed Germination in Teak (Tectona grandis L.f.). Silvae Genetica, 51 (5-6):232-237.

- Sivakumar, V., K.T. Parthiban, B. Gurudev Singh, V.S. Gnanambal, R. Anandalakshmi and S. Geetha (2002). Variability in Drupe Characters and their Relationship on Seed Germination in Teak (Tectona grandis L.f.). Silvae Genetica, 51 (5-6): 232-237.

Dr. Yogeshwar Mishra

1.	**Designation**	Scientist - F
2.	**Date of birth**	07/08/1967
3.	**Institute/Place of Posting**	Institute of Forest Productivity, Ranchi
4.	**Contact Details**	**(O)** 0761-2840483 **(M)** 09425410796
5.	**Date of joining at ICFRE**	17/08/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 01/01/2016
7.	**Discipline/Specialization**	Genetics, Tree Improvement
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D.

9. Important research contributions

- Released two varieties of *Rauvolfia serpentina* named as TFRI-RS-1 which contains high root yield 28.53 g/plant and TFRI-RS-2 which contains high reserpine content.
- Maximized in vitro shoot multiplication rate and rooting in *Rauvolfia serpentina*.
- 144 CPTs of *Pterocarpus marsupium* were selected from Chhattisgarh and standardized the seed size for optimum germination.
- Multiloation progeny trial of *P.marsupium* comprising 21 families was established in Raipur (C.G) and 10 families in Chhindwara (M.P) and TFRI Jabalpur.
- 169 rhizomes from CPCs of four bamboo species were collected from Chhattisgarh, MP and Odisha as germplasm assemblage.
- Developed novel techniques for mass propagation of *Bambusa balcooa, B.vulgaris, B.nutans* and *B.tulda* using double noded culm, rhizomatous cutting and mini cutting.
- Developed methodolgy for selection of CPTs of five sps. viz, *P.marsupium, Strychnox nuxvomica, Aegal mormelos, Stereospermum suavelons* and *Pongamia pinnata.*
- Received consultancy from Chhattisgarh forest department for developing management practices of CSOs, SPAs and SSOs and performing clonal fidelity of eucalyptus clones.

10. Important Research Papers/Publications

- Mishra Yogeshwar, P.K. Patel, S. Yadav, F. Shirin and S.A. Ansari (2008). A micropropagation system for cloning of *Bambusa tulda Roxb*. Scientia Horticulturae 115: 315-318.
- Mishra Yogeshwar, G.Usmani and A.K.Mandal (2010). In vitro cloning of *Rauvolfia serpentina* (L.) Benth. var. CIM-Sheel and evaluation of its field performance, Journal of Biological Research, 13: 85-92.
- Usmani Gufran, P.H. Chawhaan, Yogeshwar Mishra and A.K. Mandal (2014). Variability, heritability and character association analysis of chemoagronomic traits in *Rauwolfia serpentina*, Euphytica, 200: 259–268.
- Mishra Yogeshwar, R. Rawat, P.K. Rana, M.K. Sonkar and Naseer Mohammad (2014). Effcet of seed mass on emergence and seedling development in *Pterocarpus marsupium* Roxb. Journal of Forestry Research, 25(2): 415-418.
- Usmani Gufran, P.H. Chawhaan, Yogeshwar Mishra, Abha Rani and A.K. Mandal (2015). Geographical variation of total alkaloid and reserpine content in *Rauwolfia serpentina* (L.) Benth. ex. Kurz, Euphytica 202: 427-434.

Dr. S. Pattanaik

1.	**Designation**	Scientist - F
2.	**Date of birth**	25/06/1971
3.	**Institute/Place of Posting**	Institute of Forest Biodiversity, Hyderabad
4.	**Contact Details**	**(O)** 040-66309506 **(M)** 040-66309506
5.	**Date of joining at ICFRE**	18/03/1998
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 01/01/2016
7.	**Discipline/Specialization**	Forestry, Forest Biotechnology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D.

9. Important research contributions

- Developed regression equations for volume calculation in *Melocanna baccifera*.
- Developed vegetative propagation techniques for *Bambusa tulda*, *Bambusa nutans, Bambusa balcooa* and *Dendrocalamus hamiltonii.*
- Studied population level variation in *Dendrocalamus hamiltonii* and developed a phylogenetic tree for ten sps using molecular markers.
- Estimated population level diversity in *Pterocarpus santalinus* using chloroplast DNA markers.
- Refined pretreatment of seed and field planting technique in *Pterocarpus santalinus*.
- Estimated pollen dispersal distance and mating system within a clonal seed orchard of *Tectona grandis*.

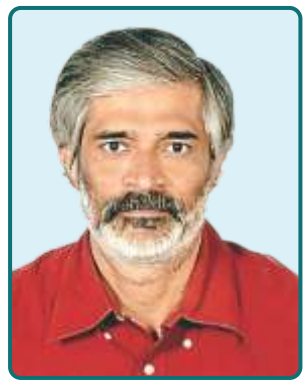
10. Important Research Papers/Publications

- Pattanaik S., K. C. Pathak, T. C. Bhuyan, N. Khobragade, P. Das and K.G. Prasad (2004). Mensurational studies in *Melocanna baccifera*. Journal of Tropical Forest Science, 16(1):62-70.
- Pattanaik S., P. Das, E. Borah, H. Kaur and K. Borah (2004). Vegetative multiplication of *Bambusa balcooa Roxb*. using branch cuttings. Journal of Bamboo and Rattan, 3(4): 365-374.
- Pattanaik S. and J.B. Hall (2011). Molecular evidence for polyphyly in the woody bamboo genus Dendrocalamus (Subtribe Bambusinae). Plant Systematics and Evolution 291:59-67.
- Pattanaik S. and J.B. Hall (2014). Patterns of morphometric variability in *Dendrocalamus hamiltonii* Munro populations across east Khasi Hills, Northeast India. The Indian Forester, 140(9): 868-874.
- Pattanaik S., K. Shiva (2017). Mating system and gene flow analysis within a clonal seed orchard of *Tectona grandis* L.f. using microsatellite markers. The Indian Forester, 143(9):894-900.

11. Awards

- Best poster presentation , Plant Science Wales Conference, Cardiff (2007).
- Best paper presentation, World Bamboo Conference, New Delhi, (2004).

Dr. Arun Kumar A.N.



1.	**Designation**	Scientist - F
2.	**Date of birth**	20/05/1968
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** 0761-2840751 **(M)** 9844184971
5.	**Date of joining at ICFRE**	15/03/1997
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 01/01/2016
7.	**Discipline/Specialization**	Forestry, Tree Improvement
8.	**Education Qualification (Graduation or above)**	M.S.c (Forestry), Ph.D. (Forestry)

9. Important research contributions

- Documented variability for heartwood and oil content among various accessions of Sandalwood (*Santalum album*) collected at clonal germplasm bank.
- Documented variability in *Hardwickia binata* for growth, heartwood and specific gravity in natural populations and plantations of Karnataka.
- Documented variation for growth in *Melia dubia* plantations with reference to different age and management practices in Karnataka.
- Documented population status of *Chloroxylon swietenia* and identified candidate plus tree and suitable population for seed collection.
- Evaluated plantations of *Pterocarpus santalinus* raised Karnataka Forest Department for growth, heartwood and specific gravity.

10. Important Research Papers/Publications

- Arun kumar, A.N., Y.B. Srinivasa, Geeta Joshi and Seetharam, A. (2011). Variability in and relation between tree growth, heartwood and oil content in sandalwood (Santalum albumL.) Current Science 100(6): 827-830
- Arun kumar, A.N., and Geeta Joshi (2012). Incidence of sandal spike symptoms in a one- year-old plantation in Karnataka. Current Science 103 (6):613-614.
- Arun kumar, A.N., and Geeta Joshi and Mohan Ram, H.Y. (2012). Sandalwood history, uses, present status and the future. Current Science 103(12):1408-1416
- Shakti S. Chauhan and Arun Kumar , A.N. (2014). Assessment of variabiltity in morpholofical and wood quality traits in melia dubia cav. For selection of superior trees. Journal of Indian Academy of Wood Science 11(1):25-32.
- Arun Kumar A.N. and Joshi, G. (2014). Pterocarpus santalinus (RedSanders) an endemic,Endangered tree of India: Current Improvement and the Future.Journal of Tropical Forestry and Environment 4:1-10

Dr. Tarun Kant

1.	**Designation**	Scientist - F
2.	**Date of birth**	14/09/1972
3.	**Institute/Place of Posting**	Arid Forest Research Institute, Jodhpur
4.	**Contact Details**	**(O)** 0291-2729136 **(M)** 9829051972
5.	**Date of joining at ICFRE**	18/03/1999
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 A 01/07/2016
7.	**Discipline/Specialization**	Plant Biotechnology, Molecular Genetics, Genetics & Bioinformatics
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- Developed Agrobacterium-mediated high frequency and high fidelity genetic transformation of rice using coleoptile tissue
- Developed tissue culture based efficient mass propagation of endangered medicinally important desert plant – *Commiphora wightii* (Guggal), as a viable conservation strategy. Developed in vitro propagation protocols for arid zone species like *Balanites aegyptiaca, Calygonum poligonoides* and others important species like *Pongamia pinnata* and *Jatropha curcas.*
- Tested several economization measures in tissue culture techniques through use of low cost alternatives for some arid zone species.
- Carried out wet-lab gene expression analysis for orthologus genes involved in ionic homeostasis from un-sequenced halophytic plant *Lepidium sativum* through comparative genomics (Cross species RT – PCR) approach
- Established of *Lepidium sativum* (Brassicaceae) as a new and viable halophytic model system for gene expression studies using comparative genomics approach.
- Worked out In silico cascade approach for identification of genes with putative role in salt stress management.
- Developed a low-cost, scalable hydroponics system, suitable to grow plants with slender stem morphology and tree species seedlings for use in genomic techniques, particularly those involving salt stress treatments

10. Important Research Papers/Publications

- Ashok Kumar Parmar, Tarun Kant (2012). Effecient micropropagation and evaluation of genetic fidelity of in vitro raised plants of Commiphora wightii Arn. (Bhandari) - a medicinally important red-listed species of arid regions. J Plant Develop. 19: 29-40
- Babita Rani, T.S. Rathore and Tarun Kant (2013). Amplification of an ortholog of a vacuolar anion transporter gene (AtCLC-c) from *Lepidium sativum* L. J. Phytol. Res. 26(1&2): 59-66
- Shipra Jaiswal, Sarita Arya and Tarun Kant (2013). Role of various addetives in controlling shoot tip necrosis of *Pterocarpus marsupium Roxb*. - A multipurpose leguminous tree. J. Phytol Res. 26(1&2): 43-46
- Ashok Kumar Parmar, Tarun Kant (2014). Efficient somatic embryogenesis and molecular marker based analysis as effective tools for conservation of the red-listed plant *Commiphora wightii*. J. Biosci. Bioteh. 3(2): 169-182.

11. Awards

- B.P. Pal Memorial Gold Medal from the Honorable Prime Minister during the 103rd Annual Session of the Indian Science Congress at Mysore University (2016).
- Indian Botanical Society instituted Professor Y.S. Murty Gold Medal (2006)

Dr. N. V. Mathish

1.	**Designation**	Scientist - F
2.	**Date of birth**	23/08/1972
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422 2484125 **(M)** 9488167842
5.	**Date of joining at ICFRE**	06/03/1998
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 01/07/2016
7.	**Discipline/Specialization**	Forest Biotechnology, Transgenics
8.	**Education Qualification (Graduation or above)**	B.Sc.(Ag.), M.Sc. (Biotech.), Ph.D. (Forest Biotech.)

9. Important research contributions

- Developed composite transgenic strategy and using RNAi identified EcHKT1:1 as a key gene regulating salt stress tolerance in Eucalyptus. Identified shoot to root ratio of sodium as a defining parameter for salt tolerance in *Casuarina equisetifolia*. Developed an online database: In silico Gene bank for adaptation to abiotic stresses.
- Developed an insect-specific, multigene targeting chimeric hpRNAi construct for use in transgenic incorporation of tolerance to *Leptocybe invasa*. Developed an accessory for gene delivery into live plants.
- Applied DNA markers in genetic fidelity testing of Eucalyptus germplasm.

10. Important Research Papers/Publications

- Selvakesavan, R. K., Dhanya, Nambiar-Veetil, M, et.al. (2016). Intraspecies variation in sodium partitioning, potassium and proline accumulation under salt stress in *Casuarina equisetifolia* Forst. Symbiosis. 70:1-3
- Svistoonoff, S., Benabdoun, F.M., Nambiar-Veetil, M., Imanishi, L., Vaissayre, V., et al. (2013). The independent acquisition of plant root nitrogen-fixing symbiosis in Fabids recruited the same genetic pathway for nodule organogenesis. PLoS ONE, 8: e64515. doi:10.1371/journal.pone.0064515. Impact factor: 3.234.
- Nambiar-Veetil, M., Sangeetha, M., Sowmiya Rani, K. S., Aravinthakumar, V., Selvakesavan, R. K., Balasubramanian, A., Venkatachalam, R., Abraham, S. M., Jacob, J. P. and Krishna Kumar, N. (201)1. Identification of insect-specific target genes for development of RNAi based control of the Eucalyptus gall pest *Leptocybe invasa* Fisher & La Salle (Hymenoptera: Eulophidae). BMC Proc, 5(Suppl 7):P98.
- Perrine-Walker, F., Gherbi, H., Imanishi, L., Hocher, V., Ghodhbane-Gtari, F., Lavenus, J, Benabdoun, M, Nambiar-Veetil, M., Svistoonoff, S., and Laplaze, L. (2011). Symbiotic signaling in actinorhizal symbioses. Curr Protein Pept Sci, 12: 156-164.
- Gherbi, H., Nambiar-Veetil,et.al. (2008). Post- transcriptional gene silencing in the root system of the actinorhizal tree *Allocasuarina verticillata*. Mol Plant Microbe In, 21: 518–524.

11. Awards

- DBT Young Scientist Associate (2007-08)
- ICFRE award for Excellence – Forest Biotechnology (Co-recipient) - (2001-2002).

Dr. Fatima Shirin

1.	**Designation**	Scientist - F
2.	**Date of birth**	28/02/1969
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** 0761-284002 **(M)** 9425163295
5.	**Date of joining at ICFRE**	26/08/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Level-13 A 01/07/2016
7.	**Discipline/Specialization**	Forestry, Forest Genetics, Plant Tissue Culture, Tree Improvement and Clonal Forestry
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D. (Forestry)

9. Important research contributions

- Developed protocols for in vitro clonal propagation of bamboos (*B. vulgaris, Bambusa nutans*), tree species (teak, chandramul,sita ashoka,rosewood) and medicinal plants.
- For *Bauhinia vahlii* (mahul patta) , out of the eight sites selected in Chhattisgarh, locality Dugli proved significantly superior to all the other localities.
- Variation with respect to azadirachtin content was studied in 10 different populations of *Azadirachta indica* (neem).
- Field surveys were carried out in the three agroclimatic zones of Chhattisgarh for *Madhuca indica* (mahua). It was found that significant variation existed in the morphological characters of flowers, fruits and seeds collected from different localities. Significant variation was also noted for biochemical parameters.
- A number of Candidate Plus Trees of *Dalbergia latifolia* (rosewood, kala shisham) were selected in Madhya Pradesh, Maharashtra, Odisha and Chhattisgarh.

10. Important Research Papers/Publications

- Fatima Shirin, Anamika Rai and Neelu Singh (2018). Variation in seed morphometric characters, oil content and azadirachtin content of seeds, in vitro shoot cultures and callus cultures among different populations of *Azadirachta indica*. Journal of Forestry Research, 29: 121–127.
- Fatima Shirin and Y. Mishra (2016). Variation among genotypes of Tectona grandis L.F. for in vitro axillary shoot multiplication and adventitious rhizogenesis. Indian Forester, 142 : 1079-1086.
- Fatima Shirin and P. K. Rana (2007). In vitro plantlet regeneration from nodal explants of field grown culms in *Bambusa glaucescens* Willd. Plant Biotechnology Reports, 1: 141-147.
- Fatima Shirin, P. K. Rana and A. K. Mandal (2005). In vitro clonal propagation of mature *Tectona grandis* through axillary bud proliferation. Journal of Forest Research, 10: 465-469.
- Fatima Shirin, S. Kumar and Y. Mishra (2000). In vitro plantlet production system for *Kaempferia galanga* a rare Indian medicinal herb. Plant, Cell Tissue and Organ Culture, 63 : 193-197.

11. Awards

- Best Research paper award for presentation in National Symposium, Govt. Model Science College, Jabalpur (2003).

Dr. Kannan C.S. Warrier

1.	**Designation**	Scientist - F
2.	**Date of birth**	30/05/1971
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484181 **(M)** 94438 89937
5.	**Date of joining at ICFRE**	10/12/1997
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 01/01/2018
7.	**Discipline/Specialization**	Forestry, Forest Genetics
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D. (Forest Genetics)

9. Important research contributions

- Released 3 clones of *Casuarina equisetifolia* suitable for sodic soils. Characterized 87 clones of *Casuarina equisetifolia* for various end uses.
- Reported change in sex expression and abnormal phylloclad modification in clones of *Casuarina equisetifolia* and developed cost effective water culture technique for mass propagation.
- Infused 39 provenances of *Casuarina equisetifolia* from CSIRO Australia to broaden the genetic base after a period of 17 years.
- Established around 42 ha of research plantations and studied the provenance variation in *Casuarina equisetifolia* and seed source variation in *Leucaena leucocephala*.
- Selected 139 plus trees of Thespesia populnea with straight stem and vigour from southern states and established a CMA.
- Selected 265 plus trees of *Leucaena leucocephala* from Karnataka and Andhra Pradesh.
- Assessed the floristic diversity of 1128 sacred groves in a non forested region in Kerala and suggested conservation strategies.

10. Important Research Papers/Publications

- Warrier, K.C.S., Jacob, J.P. Warrier, R. and Sivakumar, V. (2018). Anatomical differences in tissue characteristics between juvenile and adult materials as well as male female and monoecious trees in *Casuarina equisetifolia*. International Journal of Current Research 10(2): 64866-64873.
- Warrier, K.C.S., C. Kunhikannan, C. and Sasidharan, K.R. (2015). Endangering sacred groves of a non forested region in Kerala and strategies for their conservation. Indian Forester 141(8):832-837.
- Warrier, K.C.S. and Suganthi, A. (2015). Water culture in Casuarina equisetifolia for mass clonal propagation. International Journal of Current Research 7(7): 18189-18192.
- Warrier, K.C.S. and Gurudev Singh, B. (2010). Selection of genetically divergent clones of *Casuarina equisetifolia* for further breeding programmes. Silvae Genetica 59(5): 242-248.

11. Awards

- Rolla S Rao Award for the best research work on Biodiversity Conservation constituted by the Indian Association of Angiosperm Taxonomy (for the research work on floristic diversity of sacred groves).

Dr. Santan Barthwal

1.	**Designation**	Scientist - F
2.	**Date of birth**	12/11/1971
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-222-4381 **(M)** 9759594242
5.	**Date of joining at ICFRE**	24/03/1998
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13A 01/07/2018
7.	**Discipline/Specialization**	Plant Physiology, Forest Biotechnology, Tree improvement
8.	**Education Qualification (Graduation or above)**	M.Sc. (Plant Physiology), Ph.D.

9. Important research contributions

- Effect of Salt Stress on Rooting of *Casuarina equisetifolia* Cuttings.
- Cross species amplification and characterization of Pinus Chloroplast Microsatellite Marker in *Cedrus deodara* Roxb.
- Genomic DNA isolation and identification of chloroplast microsatellite markers in *Asparagus racemosus* (Wild) through cross amplification
- Genomic DNA extraction from sapwood of *Pinus roxburghii* for polymerase chain reaction studies.
- Comparative assessment of SSR, ISSR and AFLP markers for characterization of selected genotypes of Himalayan Chir pine (*Pinus roxburghii Sarg*.) based of resin yield.
- Association mapping for resin yield in *Pinus roxburghii Sarg*. using microsatellite markers.

10. Important Research Papers/Publications

- A. Rawat, S. Barthwal and H. S. Ginwal (2014). Association mapping for resin yield in *Pinus roxburghii* Sarg. using microsatellite markers. Silvae Genetica 63, Issue 6, 245-300.
- A. Rawat, S. Barthwal and H. S. Ginwal (2014). Comparitive assessment of SSR, ISSR and AFLP markers for characterization of selected genotypes of Himalayan Chir pine (*Pinus roxburghii* Sarg.) based of resin yield. Silvae Genetica 63, Issue 3,81-132.
- Rawat Anita, Barthwal, S. and Ginwal, H. S. (2013). Genomic DNA extraction from sapwood of *Pinus roxburghii* for polymerase chain reaction studies. African Journal of Biotechnology. 12 (15): 1732-1735
- H. S Ginwal, P. Chauhan, Santan Barthwal, A. Sharma and R. Sharma (2011). Cross species amplification and characterization of Pinus Chloroplast Microsatellite Marker in *Cedrus deodara Roxb*. Silvae Genetica 60: 65-69.
- Ginwal, H.S., Neha Mittal, Shalini Singh Maurya, Santan Barthwal and Preeti Bhatt (2011). Genomic DNA isolation and identification of chloroplast microsatellite markers in *Asparagus racemosus* Wild. Through cross amplification. Indian Journal of Biotechnology 10 (1):33-38.
- Barthwal, S., Nautiyal, R., M. Ganesan, M., Venkataramanan, K.S. and Gurumurthi, K. (2005). Effect of Salt Stress on Rooting of *Casuarina equisetifolia* Cuttings. Journal of Tropical Forest Science, Malaysia. 17(1): 170-172.

Dr. Ajay Thakur

1.	**Designation**	Scientist - F
2.	**Date of birth**	18/01/1970
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224493 **(M)** 09410150981
5.	**Date of joining at ICFRE**	15/01/1998
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13A 01/07/2018
7.	**Discipline/Specialization**	Propagation, Gentics and Biotechnology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D.

9. Important research contributions

- Presently working on in vitro variation, propagation of forestry species and plant microbe interaction.
- Cloned superior germplasm of *D. strictus, Bambusa balcooa, B. nutans*
- Genetic improvement programme on economically important species of bamboo was started at RFRI Jorhat in which seed based genetic improvement programme for *Melocana baccifera* was started which is first in India. Seeds collected and raised from 112 progenies of 18 provenances across north east India to study geographical and genetic variation including trial on different Year's Germplasm .
- Development of variety of *Eucalyptus hybrid* FRI EH 1. Development of complete micro propagation protocol of F2 generation two superior recombinants of *Corymbia torelliana* syn *E. torelliana* F.V. Muell × *C. citriodora* syn *E. citriodora* Hook.
- Vegetative propagation of *Corymbia citriodora* and *C. torreliana* rejuvenated through micropropagation from mature trees has been achieved. Vegetative propagation protocol for *Populus gamblei* was standardized.

10. Important Research Papers/Publications

- A. Kunwar, A. Thakur and M. Maqbool Rather (2018). In Vitro Plant Regeneration from Cotyledonary Node of *Diploknema butyracea*. Research Journal of Biotechnology 13(4), (accepted and in print)
- Ajay Thakur and Christine Cahalan (2011). Geographical variation of *Juglans regia* L. in juglone content: rapid analysis using micro-plate reader. Current Science, vol. 100, no. 10, 25 May 2011. 1483-85.
- Ajay Thakur (2011). Juglone a therapeutic phytochemical from *Juglans regia* L. Journal of Medicinal Plants Research Vol. 5(xx), pp. 5324-5330, 16 October, 2011. Available online at http://www.academicjournals.org/JMPR. ISSN 1996-0875 ©2011 Academic Journals.
- G.E. Hemery, P.S. Savill and A. Thakur (2005). Height growth and flushing in common walnut (*Juglans regia* L.): 5-year results from provenance trials in Great Britain. Forestry, 78 (2): 121 –133.
- Ajay Thakur, S. Barthwal and H S Ginwal (2016). Genetic improvement of bamboo. Accepted in Special issue on Bamboo by ENVIS

Dr. M. T. Hegde

1.	**Designation**	Scientist - F
2.	**Date of birth**	01/07/1967
3.	**Institute/Place of Posting**	Arid Forest Research Institute, Jodhpur
4.	**Contact Details**	**(O)** 9442118932 **(M)** 13/04/1998
5.	**Date of joining at ICFRE**	-
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 01/01/2019
7.	**Discipline/Specialization**	Forest Genetics and Tree Breeding, Tree Improvement, Population genetics, seeds orchard, Development and Clonal selection
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agri. - Genetics and Plant Breeding), Ph.D.

9. Important research contributions

- Genetic improvement programmes in *Acacia mangium* and *Acacia auriculiformis* have been undertaken.
- Second generation Seed Orchards of *Acacia mangium* and *Acacia auriculiformis* have been established.
- Clones of *Acacia auriculiformis* possessing straight-bole and superior growth characteristics have been developed through selection and clonal propagation.
- Tree improvement has been initiated in *Pterocarpus santalinus* (Red sanders)-an endangered indigenous species. 100 superior trees have been selected and progeny trials have been established.
- A Non -Detriment Findings (NDF) Report was prepared for P. Santalinus as per CITES guidelines for Appendix II species and was submitted to MoEF.
- Conducted CITES awareness training workshops for various CITES implementation/enforcement agencies across 30 states in India.

10. Important Research Papers/Publications

- Maheshwar Hegde, K. Palanisamy and Jae Seon Yi (2013). *Acacia mangium* –A fast Growing Tree for Tropical Plantation. Journal of Forest science 29: 1-14.
- Maheshwar Hegde, B. Gurudev Singh and N. Krishnakumar (2012). Non-detriment findings (NDFs) study for *Ptrerocarpus santalinus* L. f. (Red Sanders) in India. CITES international report submitted to MoEF during February 2012.
- Maheshwar Hegde (2011). Final Technical report of project of MoEF funded project (EAP) "Collection of Quantitative Field Data through Rapid Assessment of Population, Growing Stock and Natural Regeneration Status of *Pterocarpus santalinus* L. for CITES non-detriment findings study" pp 116.
- Uthappa A.R., Maheshwar Hegde, Karthick Kumar P., Thangapandi M., R. S Prashanth (2017). Rapid Measurement of Density of Wood in Progeny Trial of *Acacia mangium* Willd. Using Resistograph—A Nondestructive Method. In 'Wood is Good: Current Trends and Future Prospects in Wood Utilization', Springer Nature Singapore Pvt. Ltd. 2017 K.K. Pandey et al. (eds.), p 39-45.
- K. Suresh, Maheshwar Hegde, P. Deenathayalan, P. Karthick Kumar, M. Thangapandi, B. Gurudev Singh, N. Krishnakumar (2017). Variation in Heartwood Formation and Wood Density in Plantation-Grown Red Sanders (*Pterocarpus santalinus*) In'In 'Wood is Good: Current Trends and Future Prospects in Wood Utilization', Springer Nature Singapore Pvt. Ltd. K.K. Pandey et al. (eds.), p 139-151.

Dr. D. Rajasugunasekar

1.	**Designation**	Scientist - F
2.	**Date of birth**	12/05/1970
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484182 **(M)** 9443178516
5.	**Date of joining at ICFRE**	23/03/1993
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13A 01/01/2019
7.	**Discipline/Specialization**	Genetics and Tree Breeding, Clonal Propogation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D. (Botany)

9. Important research contributions

- Implementing *Ailanthus excelsa* breeding program since 2007 and established largest germplasm assemblage and clonal bank with a broad genetic base.
- Selected hundred candidate plus trees of *Ailanthis excelsa* Roxb and established progeny trials with broad genetic base in three locations.
- Established community seed orchards of *Ailanthus excelsa* for production and supply of quality seeds to farming community.
- Standardized clonal technology for deploying mass multiplication of *Ailanthis excelsa*.
- High yielding Eucalyptus hybrids (*Eucalyptus teriticornis* X *E.camaldulensis*) have been developed for clonal release as a pedigreed genetic resource.

10. Important Research Papers/Publications

- D. Rajasugunasekar, V.K.W. Batchpai, E. Menason, L. Manimuthu and B. Gurudev Singh (2013). "New techniques for clonal propagation in *Ailanthus excelsa* Roxb." Indian journal of Tropical Biodiversity Vol 21(1&2) Pp 121 -124.
- V.K.W. Batchpai, D. Rajasugunasekar, E. Menason, L. Manimuthu and B. Gurudev Singh (2014)."Vegetative propagation in *Ailanthus triphysa* Dennst. (Alstan)." International journal of Current research. Vol (6) Pp 7372 - 7375.
- D. Rajasugunasekar, E. Menason, P.Subramaniyan and L. Manimuthu Assessment of Genetic variability and divergence in morphometric traits of *Ailanthus excelsa* Roxb. Accessions International Journal of Forest Research, Vol. 20, n. 9, pp. 523-536,ISSN 1029-5915.
- D. Rajasugunasekar, C. Buvansewaran and P. Sornappan. (2012). Lemon (citrus lemon) As a new host Plant to sandal (*Santalum album*) Tree Indian Forester, 138(9):852-859, 2012.
- R. Sumathi, D. Rajasugunasekar, D. Suresh Babu, N.Senthil Kumar, S. Murugesan (2017). Insecticidal Property of *Calotropis Gigantea* against Papaya Mealybug (Paracoccus Marginatus) on *Ailanthis Excelsa*.IJIRST- Inrernational Journal for Innovative Research in Science & Technology, Volume 4, Issue.1, June, 2017.
- D. Rajasugunasekar., Menason, E., P.Subramaniyan, Pand Manimuthu.L, (2018) Effect of Physio-chemical properties of soil in the growth performance of *Ailanthus excels* selections in southern India. Indian Journal of Scientific research 10(1):68-70.

Dr. R. R. Warrier

1.	**Designation**	Scientist - E
2.	**Date of birth**	04/08/1974
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484167 **(M)** 9442918647
5.	**Date of joining at ICFRE**	11/01/1999
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 01/01/2014
7.	**Discipline/Specialization**	Biochemistry, Tree Physiology and Biochemistry
8.	**Education Qualification (Graduation or above)**	M.Sc. (Biochemistry), M. Phil, Ph.D.

9. Important research contributions

- Working towards improvement of *Melia dubia*.
- Develop tissue culture protocols for timber and medicinal trees.
- Hairy root culture for in vitro production of secondary metabolites.
- Developed simplified protocols for biochemical assays and molecular marker studies in tree species.
- Stress physiology and its associated growth, physiological and biochemical changes in trees.
- Tree physiology and biochemistry with respect to simulated climate change conditions.

10. Important Research Papers/Publications

- C. Buvaneswaran, E. Edwin Raj, S. Lalitha, Rekha R. Warrier and R.S.C. Jayaraj (2018). Response of Casuarina equisetifolia and Casuarina junghuhniana to Elevated CO2 levels. Indian Forester, 144 (1): 90-95.
- Rekha R. Warrier, R. Anandalakshmi, V. Sivakumar, B. Gurudev Singh (2017). Seed dormancy and Storage Behavior of Strychnos potatorum – A Fast Depleting Tree resource. J. Tree. Sci.36 (1): 52-57.
- Jayaraj, R.S.C., Lalitha, S., Balu, A. and Warrier, R.R. (2017). Variability in clones of Eucalyptus camaldulensis in response to elevated carbon dioxide and temperature. Indian Forester 143(7):630-636.
- Janani, S., Priyadharshini, P., Jayaraj, R.S.C., Buvaneswaran, C., Warrier, R.R. (2016). Growth, physiological and biochemical responses of Meliaceae species - Azadirachta indica and Melia dubia to elevated CO2 concentrations. J App Biol Biotech. 4(3): 052-060.
- Rekha R. Warrier, P. Priyadharshini, S. Lalitha and R.S.C. Jayaraj (2016). Elevated CO2 Influences Physiological Responses and Assimilatory Functions on Clones of Eucalyptus camaldulensis. J Tree Sci. 35 (1): 1-12.

Dr. Animesh Sinha

1.	**Designation**	Scientist - E
2.	**Date of birth**	15/10/1971
3.	**Institute/Place of Posting**	Institute of Forest Productivity, Ranchi
4.	**Contact Details**	**(O)** 0651-2526227 **(M)** 9431564462
5.	**Date of joining at ICFRE**	10/08/1998
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/01/2014
7.	**Discipline/Specialization**	Forest Genetics, Tissue Culture, Tree Breeding, Mangrove Conservation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agri- Plant Breeding), Ph.D.

9. Important research contributions

- Protocols for rooted cuttings and grafting of kusum tree (*Schleichera oleosa*) were standardized.
- Clones were developed for kusum (*S. oleosa*) and karanj (*Pongamia pinnata*).
- Protocol for in vitro propagation of *Embelia ribes* commonly known as 'Vaividang' or 'Vidanga' was optimized. Protocol for in vitro conservation was also developed for the species through slow growth culture technique.
- Agroforestry model was developed where kusum, karanj and bamboo can be kept as tree component.
- The feasibility of lac cultivation on early stage of Kusum trees with pollarding was observed.
- Through breeding, high yielding hybrid (276% more over the best performing parent) of *Jatropha curcas* was obtained in two years of age.
- Established mangrove germplasm bank in the campus.

10. Important Research Papers/Publications

- Sinha, A. (2009). Production potential of some winter vegetables under edible bamboo (*Dendrocalamus asper*). Journal of Bamboo and Rattan, 8(1&2): 91-94.
- Sinha, A. and Mandal, A. K. (2012). *Schleichera oleosa* – a case for Transboundary conservation. IUFRO World Series, 30: 25-29.
- Sinha, A. (2012). Clonal propagation of *Schleichera oleosa* by cleft grafting. Indian Forester, 138 (9): 835-838.
- Sinha, A., Das, R., Deka, B., Viswanath, S., Chandrashekar, B.S. and Chakraborty, S. (2014). Authentication, Micropropagation and Conservation of *Embelia ribes* - a vulnerable medicinal plant. Indian Forester, 140(7): 707-714.
- Kumar, J., Sinha, A., Sah, R.B., Nayak, H. and Nirala, D.P. (2018). Evaluation of Kalmegh (*Andrographis paniculata*) germplasm for higher biochemical constituents production under agro-climatic conditions of Jharkhand. Journal of Pharmacognosy and Phytochemistry, SP1: 561-567.

Dr. B. N. Divakara

1.	**Designation**	Scientist - E
2.	**Date of birth**	05/06/1974
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bengaluru
4.	**Contact Details**	**(O)** 080-22190198 **(M)** 9483253839
5.	**Date of joining at ICFRE**	21/04/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 01/07/2016
7.	**Discipline/Specialization**	Tree Improvement, Variability and Genetic Diversity
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D.

9. Important research contributions

- Developed a technology for cultivation of lac on *Flemingia macrophylla*.
- Documented the Phyto-sociology of flora in selected forests and documentation of invasive plant species on non-forest areas of Latehar and Hazaribhag districts.
- Identified high oil yielding genotypes of *Pongamia pinnata* in Jharkhand and Karnataka state and *Madhuca latifolia* and *Jatropha curcus* in Jharkhand.
- Assessed the growth and distribution of *Santalum album* in Karnataka state and developed a stand density management diagram.
- Prepared 35 Reclamation and Rehabilitation plans for Bellary, Chitradurga and Tumkuru districts of Karnataka.

10. Important Research Papers/Publications

- Divakara, B.N., B. Mohan Kumar, P.V. Balachandran and N .V. Kamalam (2001). Bamboo (*Bambusa arundinacea* (Retz.) Willd.) Hedgerow systems in Kerala. India: Root distribution and root competition for phosphorus with adjacent teak and Malabar white pine trees. Agrofor. Sys. 51: 189-200p.
- Divakara, B.N., H.D. Upadhyaya, S.P. Wani and C.L.L. Gowda. "Biology and Genetic Improvement of *Jatropha curcas* L.: A Review" Applied Energy 87: 732-742.
- Divakara, B.N. (2008). Variation and character association for various pod traits in *Tamarindus indica L*. The Ind. For. 134:687 – 696.
- Divakara, B.N. (2009). Variation and character association for various pulp biochemical traits in *Tamarindus indica L*. The Ind. For. 135:57-61.
- Divakara, B.N. and Krishnamurthy, R. (2010). Exploring the possibility of summer (Jethwi) lac cultivation on non-traditional host in understorey of *Dalbergia sissoo* Roxb. Journal of non-timber Forest Products 17 (3): 325-330.

Books:

- Divakara, B.N. (2008). Impacts of silvicultural techniques in forest biodiversity conservation. In Environment, Pollution and Health Hazards (Sinha BK and Choudhary S ed.) New Delhi, India: Aph Publishing Corporation 60-73p.

Dr. Parveen

1.	**Designation**	Scientist - E
2.	**Date of birth**	06/09/1967
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224378 **(M)** 9456316547
5.	**Date of joining at ICFRE**	05/12/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/07/2017
7.	**Discipline/Specialization**	Genetic Improvement, Clonal Propagation, Tissue Culture
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), M.Sc. (Desert Studies), Ph.D.

9. Important research contributions

- Studied seed and variation in germination of 40 sources of Neem and in-vitro protocol developed.
- Micro-propagation protocol developed for *Swertia chirayta*.
- Selected superior spontaneous reciprocal hybridis of *E. citriodora* and *E. torelliana*. Controlled F1 inter-specific superior hybrids of Eucalyptus species viz. *E. pellita*, *E. urophylla*, *E. grandis* etc. have been developed.
- For Genetic Improvement of Satavar, 20 seed sources evaluated for maximum root production and high saponin content.
- For selection of elite germplasm, progenies of superior genotypes of Eucalyptus planted at different locations in Punjab, Haryana and Uttarakhand.

10. Important Research Papers/Publications

- Parveen, R.K. Kakani, C.S. Vyas & U.K. Tomar (1995). Tissue culture studies on Neem (*Azadirecta indica*) Neem. News letter of International Neem Network, 2(3) : 15-17.
- Parveen, A. Kumar, V.K. Sharma and H.S. Ginwal (2010). Sustained hybrid vigour in F1 hybrids of *Eucalytus torelliana* F. v. Muell. *E. citriodora hook*. World Applied Science Journal, 11 (7): 830-834.
- Parveen, Ashok Kumar, Santan barthwal & Rama Kant (2014). Ex-situ conservation and selection of superior Genotypes through trait association studies in *Asparagus racemosus*. Proceedings of the National Academy of Sciences, India Section B: Biological Sciences DOI 10.1007/s40011-014-0323-x.
- Parveen, A. Kumar, Brajeshwar and H.S. Ginwal (2011). Evaluation of *Eucalyptus torelliana* and its hybrids for stability, adaptability and suitability for rangeland. Proceeding of IX International Rangeland Congress, held at Rosario, Argentina. Pp 547.
- Parveen, A. Kumar and H.S. Ginwal (2011). Genetic evaluation of twenty seed sources of *Asparagus acemosus* willd. Journal of Forestry Research, 22(1): 39-42.

11. Awards

- Awarded for poster presentation in National Forestry Conference, FRI, Dehradun (2009).
- Awarded best oral presentation in the International Conference on Wildlife & Biodiversity vis a vis Climate Change at Sher-E-Kashmir University of Agriculture Science and Technology, Kashmir, Sri Nagar, (2010).

Aditya Kumar

1.	**Designation**	Scientist - D
2.	**Date of birth**	04/01/1985
3.	**Institute/Place of Posting**	Institute of Forest Productivity, Ranchi
4.	**Contact Details**	**(O)** 0651-2526118 **(M)** 9430104643
5.	**Date of joining at ICFRE**	29/09/2011
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/07/2014
7.	**Discipline/Specialization**	Forest Genetics and Tree Breeding, Tree improvement and Molecular Breeding
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agri.- Genetics and Plant Breeding)

9. Important research contributions

- Established germplasm bank of Melia composita with 88 accessions from all over the country at IFP, Lalgutwa, Ranchi campus.
- Field trial of Melia composita established in Bihar and Jharkhand and demonstrated its importance in agroforestry.

  Introduced *Ulmus villosa*, *Salix* in Bihar and established adaptation/evaluation trials.
- Introduced 65 clones of Poplar and established multilocation clonal field trial to identify agro-climatic zone/region specific clone/s.
- Introduced *Flemingia semialata* in Bihar and observed that the lac cultivation can be done with the irrigation during summer season.
- It was observed that lac insect settle on salix very well so; it can be utilized as an alternative lac host plant by analyzing cost-benefit ratio and comparison with other lac host plants.

10. Important Research Papers/Publications

- Kumar, Aditya, Surendra Singh and Sumer Pal Singh (2012). Heterosis for yield and Yield components in Basmati rice. Asian Journal of Agricultural Research, 6(1):21-29.
- Kumar, Aditya and Rameshwar Das (2013). Conservation Strategies for *Melia dubia*: A Prospective Tree for Multipurpose Use. Asian Journal of Microbiology Biotechnology & Environmental Science, 15(4):795-797.
- Kumar, Aditya, S. Singh and S.P. Singh (2013). Genetic analysis of yield and quality traits in Basmati rice. Oryza, 50(2):181-184.
- Kumar, Aditya and Biplav Kumar Mishra (2015). Samriddhi ki rah hai Poplar. Goraiya, 2(1):2-3. January.
- Kumar, Aditya, Surendra Singh and S. K. Magadum (2015). Combining ability analysis for yield and yield components in basmati rice. Oryza, 52(4):275-283.
- Kumar, Aditya and S. A. Ansari (2017). Final technical report of "Samudai Adharit Samanvit Van Prabandhan Evam Sanrakshan Yojana of Bihar State".
- Kumar, Aditya and Shamim Akhtar Ansari (2017). Samudai Adharit Samanwit Van Prabandhan Ewam Sanrakshan Yojna of Bihar State. IFP, Ranchi.

Sanjeev Kumar

1.	**Designation**	Scientist - D
2.	**Date of birth**	16/04/1978
3.	**Institute/Place of Posting**	Institute of Forest Productivity, Ranchi
4.	**Contact Details**	**(O)** 0651-2526224 **(M)** 7547874750
5.	**Date of joining at ICFRE**	13/03/2004
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/01/2015
7.	**Discipline/Specialization**	Forest Genetics, Tree Improvement
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forest Genetics & Tree Improvement)

9. Important research contributions

- Standardized cultivation package for commercial cultivation of *Withania somnifera, Asparagus racemosus, Andrographis paniculata, Rauvolfia serpentine, Gymnema sylvestre* and *Abelmoschus moschatus* consisting of optimal spacing, shading and organic fertilizers treatments for North Bengal Zone.
- Standardized the high density spacing for commercial cultivation of *Operculina turpenthum* and *Oroxylum indicum.*
- Pioneer studies on plating stock improvement of *Machilus villosa* and *Quercus lineata.*
- Screened out varieties of *Withania somnifera* to be cultivated in Chhota Nagpur Plateau.
- Carried out Planting stock improvement and variability studies of *Jatropha curcas* for oil yield and its molecular characterization using RAPD markers.

10. Important Research Papers/Publications

- Kumar, Sanjeev and Sanjay Singh (2014). Variability assessment of seed traits in *Jatropha curcas* L for improvement of oil yield. International Journal of Genetics and Molecular Biology, 6(1): 8-15.
- Kumar, Sanjeev and P.S. Chauhan (2015). Effect of seed traits on germination and nursery growth parameters in *Cedrus deodara Loud* (Roxb.). Shodhtaru, 2: 42-45.
- Singh, Priyamvada, Sanjay Singh, S.P. Mishra and Sanjeev Kumar. Molecular characterization of Genetic Diversity in *Jatropha curcas* L. Genes, Genomes and Genomics, 4: 1-8.
- Sanjeev Kumar, Sanjay Singh and Rameshwar Das (2012). Medicinal Plant Cultivation in North Bengal- challenging and emerging issues.
- Sanjeev Kumar and Dinesh Prasad (2011). Management of Bamboo Resources in North West Bengal. Conservation and Management of Bamboo Resources. Excel India Publishers, New Delhi. Pp. 103 -110.

J.M.S. Chauhan

1.	**Designation**	Scientist -D
2.	**Date of birth**	07/12/1960
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224393 **(M)** 9411581441
5.	**Date of joining at ICFRE**	01/11/1984
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/01/2016
7.	**Discipline/Specialization**	Genetics & Tree Improvement, Plant Tissue Culture
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany)

9. Important research contributions

- Developed complete tissue culture protocols for mature Eucalyptus F1 hybrid (*E. torelliana F.V. muell x E. citriodora*) Hook, Eucalyptus hybrid FRI-4 (*E. treticornis Sm x E. camaldulensis Dehn, Paulownia fortunei, Plumbago zeylanica L., Elaeocarpus sphaericus, Eucalyptus* hybrid FRI-5 (*E. camaldulensis Dehn X E. teriticornis Sm), Swertia chirata Buch. – Ham and Tylophora indica* (Burm.F.) Merrill.
- Development of tissue culture protocol for *Ginkgo biloba* is in progress.
- Propagated a few plants of medicinal value through tissue culture viz. *Oroxylum indicum, Tylophora indica, Bacopa monnieria, Aconitum heterophyllum, Andrographis paniculata, Valeriana wallichi, Swertia chirata and Hippoplae salicifolia.*

10. Important Research Papers/Publications

- Kappor, M.L. & J.M.S. Chauhan (1992). In Vitro clonal propagation of mature Eucalyptus F1 hybrid (*E. torelliana F.V. muell x E. citriodora*) Hook Silvae genetica, 41 (6): 305-307.
- Chauhan, J.M.S, Prabha Bisht, M.L. Kapoor & M.S. Rawat (1996). In Vitro clonal propagation of Eucalyptus hybrid FRI-4 (*E. treticornis Sm x E. camaldulensis* Dehn, Annnals of Forestry, 4 (2): 186-191.
- Chauhan, J.M.S & C.J.S.K. Emmanuel (1998). In Vitro clonal propagation of *Paulownia fortunei*. Ind. Jr. of for21 (4):327-330.
- Chauhan, J.M.S. and P. Bisht (2014). Micropropagation of *Plumbago zeylanica* L. Indian Journal of Forestry,37 (4): 383-386.
- Chauhan, J.M.S., P. Bisht, M. Panwar and A. Thakur (2015). In Vitro Propagation of *Elaeocarpus sphaericus*. Indian Forester, 141 (2): 173-177.

Dr. N.Ravi

1.	**Designation**	Scientist - D
2.	**Date of birth**	26/05/1967
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bengaluru.
4.	**Contact Details**	**(O)** 080-22190155 **(M)** 9435524070
5.	**Date of joining at ICFRE**	26/11/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/01/2017
7.	**Discipline/Specialization**	Tree Improvement, Clonal and Seedlings seed orchards and its productivity
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- Evaluated the provenance trial of *Eucalyptus camaldulensis* and *E. terticornis* provenance trials, seedling seed orchard and selected 115 best performing trees.
- Established Eucalyptus clonal trial with 100 clones of *E. camadulensis* and *E. tereticornis* at Karunya Institute, Coimbatore.
- Multilocational trials of Eucalyptus clones were established in different agro-climatic zones and identified 15 best performing clones different locations.
- Developed linear regression model for conversion of clonal trials to seed orchards. Survey for selection of CPTs of *Tecomella undulata* was carried out in different locations of Rajasthan and provenance cum progeny trails of *Tecomella undulate* was established at Bikaner.
- Established germplasm bank of *Aquilaria malaccensis* with 55 families selected from different states of North Eastern India. The Species is listed in CITES appendix III.
- Established clonal trial of *Gmelina arborea* in Imphal, as part of tree improvement programme.

10. Important Research Papers/Publications

- Chand, Tara, Vikas Rana, N. Ravi, Naresh Kumar and Sanjeev Kumar (2012). Effect of seed weight on germination and seedling growth of Laurel (*Terminalia tomentosa* Heyne ex Roth.) in Environment & Ecology, 30 (1): January – March, 2012. P 63-65.
- Varghese, M., N. Ravi, R. Kamalakannan and C.E. Harwood (2009). Effect of silvicultural treatments on growth, fertility and capsule traits in seedling seed orchards of *Eucalyptus camadulensis* and *E. tereticornis*. New Forests. 37(1): 99-107.
- Varghese, M., C.E.Harwood, R. Hegde and N. Ravi (2008). Evaluation of provenances of *Eucalyptus camaldulensis* and clones of *E. camaldulensis* and *E. tereticornis* at contrasting sites in Southern India. Silva Genetica, 57(3): 170-179.
- Contributed in release of four eucalyptus clones-IFGTB EC 1, EC 2, EC 3, EC 4 - A *Eucalyptus camaldulensis* variety/clone for commercial cultivation in the states of Tamil Nadu and Andhra Pradesh .
- Contributed in release of variety/clone (IFGTB-EC-9) of *Eucalyptus camadulensis.*

Dr. V.K.W. Bachpai

1.	**Designation**	Scientist - D
2.	**Date of birth**	14/04/1959
3.	**Institute/Place of Posting**	Institute of Forest Genetics & Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484111 **(M)** 9952340815
5.	**Date of joining at ICFRE**	02/02/1984
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/01/2018
7.	**Discipline/Specialization**	Plant Biotechnology, Tree Improvement, Clonal Propagation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D. (Forest Genetics)

9. Important research contributions

- Standardized propagation techniques using mini and micro cutting technique for Eucalyptus species, E. Hybrids, *Terminalia bellirica, Ailanthus execelsa*, second generation clones of Eucalyptus.
- Was an active member of the Tree improvement Programme team of Casuarina, Eucalyptus at IFGTB and of Bamboos at RFRI.
- Induced early flowering in Eucalyptus to facilitate hand level pollination in eucalyptus.
- Involved in popularization of clones released by IFGTB by supply of quality planting stock.

10. Important Research Papers/Publications

- Bachpai, V.K.W., M. Ganesan and Santan Baratwal (2009). "Serial Propagation in *Terminalia bellirica* (Roxb). Indian Forester, 135 (6) :861 to 865.
- Correspondence entitled "The gentle teak giants" (2010). B. Nagarajan.
- Bachpai, V.K.W., Rajasugunasekar, D., Menason, E., Manimuthu, L. and Gurudev Singh, B. Clonal propagation techniques in *Ailanthus triphysa* (Dennst.) Alston (2014). International Journal of current Research,6(7): 7372-7375 July, 2014.
- Shanthi, K., V.K.W. Bachpai, S. Anisha, M. Ganesan, R.G. Anithaa, V. Subashini, M. Charavarthi, V. Sivakumar, R. Yasodha (2014). New Forests DOI 10.1007/s11056-014-9465-1. Micropropagation of *Eucalyptus camaldulensis* for the production of rejuvenated stock plants for microcuttings propagation and genetic fidelity assessment. 2014.
- Shanmugapriya, Arumugasundaram, Vijayakumar Waman Bachpai, Marappan Ganesan, Ramasamy Yasodha (2014). Association Analysis for Vegetative Propagation Traits in *Eucalyptus tereticornis* and *Eucalyptus camaldulensis* Using Simple Sequence Repeat Markers. 2014. Proc. Natl. Acad, Sci., India, Sect. B. Biol. Science, (1&2) :121-1244.

11. Awards

- Received an award for Appreciation of Services from the Honorable Minister of Forests and Environment Shri Jairam Ramesh for the role in the Improvement Programmes of Casuarina equisetifolia and Eucalyptus during the Clone Release Programme. (2010).
- Awarded with a certificate by the Variety Releasing Committee (VRC) for release of variety/clone for commercial cultivation in Peninsular India for clone name IFGTB-EC-10.
- Awarded with a certificate by the Variety Releasing Committee (VRC), ICFRE for release of variety/clone for commercial cultivation in South India for the clone name IFGTB-CH-5.

Dr. A. Shanthi

1.	**Designation**	Scientist - D
2.	**Date of birth**	20/06/1968
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484119 **(M)** 9486034801
5.	**Date of joining at ICFRE**	30/10/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/01/2018
7.	**Discipline/Specialization**	Plant Biotechnology, Isozymes & DNA markers
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D. (Botany)

9. Important research contributions

- Identification of isozyme markers in *Casuarina equisetifolia* for gender discrimination.
- Development of new microsatellite markers in *Casuarina equisetifolia* and *Acacia auriculiformis*.
- Estimation of out crossing rate and gene diversity in the first and second generation orchard populations of *Acacia auriculiformis* using microsatellite markers.
- Identification of Cinnomoyl coA reductase gene in *Casuarina equisetifolia*.
- Three DNA barcode genes were characterized in *Pterocarpus santalinus* and *Pterocarpus marsupium*.

10. Important Research Papers/Publications

- Shanthi, A. and Rekha R.Warrier (2018). Role of endogenous hormones in gender determination in *Casuarina equisetifolia*. Indian Forester, 144 (1): 30-35.
- Balasubramanian, Vikashini, Shanthi Arunchalam and Modhumita Dasgupta (2018). Identification and expression profiling of genes governing lignin biosynthesis in *Casuarina equisetifolia*. Gene: 676:37-46 .
- Shanthi, A., Suguna, P., Modhumita Das Gupta, Rekha Warrier and Geetha, M. (2011). Gender identification in *Casuarina equisetifolia*. .Elixir Appl. Botany, 41:5912-5913.
- Shanthi, A. and S.S.R. Bennet (2008). Genetic Analysis and correlation study of fruit characters in Tamarind (*Tamarindus indica L.*). Journal of Non-Timber Forest Products, 15(4) :265-270.

Dr. M. S. Bhandari

1.	**Designation**	Scientist - D
2.	**Date of birth**	12/02/1984
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224383 **(M)** 9411595309
5.	**Date of joining at ICFRE**	25/07/2011
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/07/2018
7.	**Discipline/Specialization**	Forest Biotechnology, Tree improvement
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agri-Genetics and Plant Breeding), M.Sc. (Environmental Science), Ph.D.

9. Important research contributions

- Eco-distribution maps were generated for *Salvadora oleoides* from Punjab, Haryana, Rajasthan and Gujarat. Seventy CPTs were selected from Haryana and Rajasthan.
- Eco-distribution maps were generated for *Myrica esculenta* and *Rhododendron arboreum* from Uttarakhand under Co-FGR, CAMPA funded project. Mapping is under progress for prioritized species like *Taxus wallichiana, Quercus semecarpifolia, Betula utilis* and *Diploknema butyracea*.
- Distribution maps from 3 districts (Uttarkashi, Chamoli, Tehri Garhwal) of Uttarakhand were prepared and under progress in other range of distribution for *Grevillea robusta* A. Cunn (Silver Oak). Ten SSR primers were screened for genetic diversity study. Twenty CPTs were selected from Uttarakhand.

10. Important Research Papers/Publications

- Bhandari, M.S., R. Kaushal and S.K. Tewari (2013). Genetic Variability and Character Association of Morphological Traits in Bamboo Species. Pantnagar Journal of Research,11(3): 357-360.
- Bhandari, M.S., Rama Kant, Nafeesh Ahmed, Shivani Dobhal, R.K. Luna, S. Nautiyal, Vijay kumar and Ashok Kumar (2014). Shisham Mortality in Hoshiarpur, Punjab: Causes and Remedy. Indian Forester,140(2): 147-153.
- Bhandari, M.S., Ashok Kumar, Rama Kant, Shruti Sharma and R.K. Meena (2015). Multi-Environment Progeny trials of *Melia composita* Willd.: Broad study for G X E performance. International Journal of Basic and Life Sciences, 3(1): 20-32.
- Bhandari, M.S., R. Kaushal, R.L. Banik and S.K. Tewari (2015). Genetic Evaluation of Nutritional and Fodder Quality of Different Bamboo Species. Indian Forester,141(3): 265-274.
- Bhandari, M.S., R. Kaushal, R.L. Banik and S.K. Tewari (2015). Evaluation of Genetic Diversity in Bamboo Species through SDS-PAGE protein Analysis. Indian Forester,141(8): 826-831.

Dr. R. K. Meena

1.	**Designation**	Scientist - D
2.	**Date of birth**	30/08/1984
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224403 **(M)** 07579286656
5.	**Date of joining at ICFRE**	05/08/2011
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/07/2018
7.	**Discipline/Specialization**	Forest Biotechnology, Application of Molecular Marker, Population Genetic
8.	**Education Qualification (Graduation or above)**	M.Sc. (Molecular Biology and Biotechnology), Ph.D.

9. Important research contributions

- Nineteen populations of *Dendrocalamus hamiltonii*, distributed in North East India were characterized using microsatellite markers for the genetic diversity and population structure.
- Natural populations of four species of rattan namely *Calamus flagellum*, *C. guruba*, *namberiensis* and *C. tenuis*, distributed in Mizoram and Tripura were characterized using Inter Simple Sequence Repeats (ISSR) markers for the genetic diversity and population structure.
- Work is in progress for characterization of natural populations of various commercially and ecologically important species like *Taxus baccata*, *Myrica esculenta* and hill bamboos (Ringal).

10. Important Research Papers/Publications

- Bhandari, M.S., Ashok Kumar, Rama Kant, Shruti Sharma and R.K. Meena (2015). Multi-Environment Progeny trials of Melia compositaWilld.: Broad study for G X E performance. International Journal of Basic and Life Sciences, 3(1): 20-32.
- Sharma, H. R., S. Yadav, B. Deka, R. K. Meena and N. S. Bisht (2014). Sporadic flowering of Dendrocalamus longispathus (Kurz) Kurz in Mizoram, India. Tropical Plant Research, 1(1): 26–27.
- Meena, R.K. and S. Kaur (2014). Screening of Bacillus thuringiensis isolates recovered from diverse habitats in India for the presence of insect and nematode-active cry genes. International Journal of Agriculture, Environment & Biotechnology, 7(1): 55-62.
- Meena, R.K., G.G.K. Kumari, A. Govind, T. Gurjar, S. Kaur (2012). Screening of Bacillus thiringiensis isolates recovered from diverse habitats in India for the presence of cry1A-type genes and cloning of cry1Ac33 gene toxic to Helicoverpa armigera. Asian journal of biotechnology, 4 (2): 53-69.

Dr. Naseer Mohammad

1.	**Designation**	Scientist - D
2.	**Date of birth**	01/10/1984
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** 0761-277164 **(M)** 9165704818
5.	**Date of joining at ICFRE**	26/09/2011
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/07/2018
7.	**Discipline/Specialization**	Forest Genetics, Tree Improvement
8.	**Education Qualification (Graduation or above)**	M.Sc. (Genetics & Plant Breeding), Ph.D.

9. Important research contributions

- Investigated genetic diversity and population structure of critically endangered *L. glutinosa* (Maida Chhal) from Madhya Pradesh and Chhatisgarh. Investigation revealed that high level of genetic diversity exists in maida chhal despite endangered status. Analysis also revealed existence of four admixed genetic pools in study area.
- Established germplasm bank of Maida Chhal (*Litsea glutinosa Lour*).
- Proposed selection criteria for the selection of phenotypically promising trees of Bijasal (*P. marsupium*), Bel (*A. marmelos)*, Kuchla (*Strychnos nuxvomica*) and Padal (*Stereospermum suaveolens*).
- Demonstrated application of molecular markers for quality control in social forestry programme by providing clonal fidelity testing services to Chhattisgarh State Forest Department.

10. Important Research Papers/Publications

- Mohammad, Naseer, S. Mahesh, Y.K. Jain and S.A. Ansari (2017). Effect of discrete (individual) and mixed (bulk) genomic DNA on genetic diversity estimates and population structure in Teak (*Tectona grandis L. f.*). Indian Journal of Experimental Biology, 55(1): 44-48.
- Mohammad, Naseer, V. Vaishnaw, J. Mishra, S. Mahesh, P. Kumar and S.A. Ansari (2016). Genetic fidelity testing in micropropagated plantlets of *Albizia procera* (Roxb.) using RAPD and ISSR markers. Indian Forester, 142 (6): 558-562.
- Vaishnaw, V., Naseer Mohammad, S.A. Wali, R. Kumar, S.B. Tripathi, M.S. Negi and S.A. Ansari (2015). AFLP markers for analysis of genetic diversity and structure of teak (*Tectona grandis*) in India. Canadian Journal of Forestry Research, 45: 297–306.
- Mishra, Y., R. Rawat, P.K. Rana, M.K. Sonkar and Naseer Mohammad (2014). Effect of seed mass on emergence and seedling development in *Pterocarpus marsupium* Roxb. Journal of Forestry Research, 25 (2):415-418.
- Mohammad, Naseer, S. Mahesh, P. Kumar and S. A. Ansari (2012) Genotyping of *Santalum album* L. accessions through cross-species transferability of SSR markers of *Santalum austrocaledonicum* and *Santalum insulare*. Sandalwood Research Newsletter, 27: 1-5.

Dr. Rama Kant

1.	**Designation**	Scientist - D
2.	**Date of birth**	15/07/1981
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-222-4380 **(M)** 9452849414
5.	**Date of joining at ICFRE**	26/08/2011
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/01/2019
7.	**Discipline/Specialization**	Forest Genetics, Tree Breeding
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agri - Genetics & Plant Breeding), Ph.D.

9. Important research contributions

- Eight field experiments consisting of 68 genotypes / progenies of *Azadiracta indica* established at 4 locations of Uttar Pradesh, Madhya Pradesh, Rajasthan and Gujarat for testing of genetic worth and genetic × environment interactions of progenies and analysed biochemical composition. Cytological investigation revealed and validated chromosome count of A. indica as n=14. Success achieved for artificial induction of ploidy levels as we were able to induce some experimental hexapods (2n=6x=56).
- Sixty CPT's of Ailanthus excelsa from Uttar Pradesh, Haryana, Punjab, Madhya Pradesh, Rajasthan and Maharashtra have been selected and raised progenies of selections and are being now ready for progeny testing under field experiments at various locations. Molecular characterizations of A. excelsa are going on at present.

10. Important Research Papers/Publications

- Parveen, A. Kumar, and Rama Kant (2015). Phenological Changes in terms of Flowering and Fruiting in E*ucalyptus pellita* F. Muell and Eucalyptus urophylla S.T. Black. Annals of Forestry, 23(1): 26-29.
- Parveen, A. Kumar, S. Barthwal and Rama Kant (2015). Evaluation of forty two progeny of *Asparagus racemosus* Willd. for Variability, Heritability and Genetic gain. International Journal of Basic and Life Sciences, 3 (4): 220-229.
- Bhandari, M.S., A. Kumar, Rama Kant, S. Sharma and R.K. Meena (2015). Multi-Environment Progeny trials of *Melia composita* Willd.: Broad study for G X E performance. International Journal of Basic and Life Sciences. 3 (1): 20-32.
- Parveen, A. Kumar, S. Barthwal and Rama Kant (2014). Ex-Situ Conservation and Selection of Superior Genotypes through Trait Association Studies in *Asparagus racemosus*. Proc. Natl. Acad. Sci., India, Sect. B Biol. Sci., DOI 10.1007/s40011-014-0323-x.
- Bhandari, M.S., Rama Kant, N. Ahmed, S. Dobhal, R.K. Luna, S. Nautiyal, V. Kumar and A. Kumar (2014). Shisham Mortality in Hoshiarpur, Punjab: Causes and Remedy. The Indian Forester, 140 (2): 147-153.

Satyam Bordoloi

1.	**Designation**	Scientist - D
2.	**Date of birth**	01/06/1975
3.	**Institute/Place of Posting**	Rain Forest Research Institute, Jorhat
4.	**Contact Details**	**(O)** 0376-2305210 **(M)** 9435051708
5.	**Date of joining at ICFRE**	-
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/01/2019
7.	**Discipline/Specialization**	Biotechnology, Plant Tissue Culture, Tree Improvement, Molecular Biology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agri- Biotechnology)

9. Important research contributions

- Management of *Bambusa nutans* for enhancing the productivity of marketable culms through silvicultural practices.
- Genetic improvement and conservation of Genetic resources of some economically more important bamboo species of North Eastern India.
- Development of an efficient technique for in vitro clonal propagation of superior clones of *Bambusa tulda*.
- In vitro induction of essential oil components of *Aquilaria malaccensis* , clonal multiplication and genetic evaluation.
- Clonal propagation of superior *Dendrocalamus hamiltoni* Nees germplasm through invitro techniques.
- In vitro propagation of *Vanda coerulea*.
- Genetic improvement of *Acacia mangium* for growth characteristics, pulp and timber quality.
- Macro and micro propagation of selected germplasm (clones) of *Dipterocarpus retusus* Bl. Syn. D. macrocarpus.

10. Important Research Papers/Publications

- NIL

A. Mayavel

1.	**Designation**	Scientist - D
2.	**Date of birth**	09/02/1977
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484162 **(M)** 9443424458
5.	**Date of joining at ICFRE**	08/02/2005
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/01/2019
7.	**Discipline/Specialization**	Tree Improvement, Breeding of short rotation timbers, Non Wood Forest Produce, Tree Hybridization
8.	**Education Qualification (Graduation or above)**	M.Sc.(Horticulture)

9. Important research contributions

- Conserved rare genetic resources of red and sweet tamarind.
- Commercialized red and sweet tamarind to various stake holders under umbrella scheme of Direct to consumer.
- Developed precision silivi culture technique for improving productivity of Tamarind orchards.
- Selected hundred candidate plus trees of *Gmelina arbirea* Roxb and established progeny trails with broad genetic base in three locations.
- Established community seed orchards of *Gmelina arborea* for production and supply of quality seed to farming community
- Developed clonal technology for deploying mass multiplication of *Gmelina arborea*.
- Developed Eucalyptus hybrids with desired characters such as high cellulose, pulping and adventitious rooting. The control crossing were made between the selected clones of *Eucalyptus teriticornis, E.camaldulensis* and *E.grandis*.
- Assessed population structure, growing stock potential and regeneration status of *P.santalainus* in Rajampet Forest Division, Andhra Pradesh under CITIES NDF project and report submitted to MoEF.

10. Important Research Papers/Publications

- Mayavel, A., B. Nagarajan, K. Muthuraaj, A.Nicodemus and R. Prabhu (2018). Correlation and Path Coefficient Analysis of Selected Red Tamarind (*Tamarindus indica var rhodocrphaus*) Genetic Resources. International Journal of Current Microbiology and Applied Sciences, 7(4):794-802
- Mayavela, A., K. Muthuraj, B. Nagarajan and R. Prabhu (2018). Genetic variability studies in selected clones of red tamarind (*Tamarindus indica var rhodocrpha*) for yield and quality traits. International journal of pure applied Bio Sciences, 6(4): 174-180
- Soosai, Raj J., Mayavel, A., Nicodemus, A. and Hegde, M.T. (2017). Studies on genetic variation among half-sib families of *Gmelina arborea* (Roxb.) for growth traits. International Journal of Advanced Life Science, 5(2):1-8.
- Soosai, Raj, J., Mayavel, A., Mutharaian, V.N. and Nicodemus, A. (2017). Variations on Pulping Properties of *Gmelina arborea* Roxb. Growth in different Geographical Regions of Tamil Nadu, India pp 189-197. In Pandey KK, Ramakantha V, Chauhan SS and Arun Kumar AN. Wood is Good: Current Trends and Future Prospects in Wood Utilization. Published by Springer Nature.
- Mutharaian, V.N., R.Kamalakannan, A. Mayavel, S. Makesh, S.H. Kwon and K.S. Kang (2017). DNA Polymorphisms and genetic relationship among populations of *Acacia leucophloea* using RAPD markers, Journal of Forestry Research.

Dr. D. Thangamani

1.	**Designation**	Scientist - C
2.	**Date of birth**	10/05/1974
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484138 **(M)** 9843057570
5.	**Date of joining at ICFRE**	23/04/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 01/07/2006
7.	**Discipline/Specialization**	Biotechnology, Biochemistry, Molecular Biology
8.	**Education Qualification (Graduation or above)**	M.Sc., M.Phil., Ph.D.

9. Important research contributions

- Characterized the superior germplams of *Pongamia pinnata, Tectona grandis, Dalbergia latifolia*, *Neolamarckia cadamba* and in *Swietenia mahagoni*. Through molecular and biochemical for finding genetic and biochemical variation.
- A novel compound "Juglone" was identified and extracted from *Caesalpinia sappan* wood. The compound found to shows inhibition activity against the oral pathogens in human being mouth. The purified compound can be utilized as "herbal mouth wash" its potential as a commercial product needs to probed.
- An anticancerous compound "Isoliquiritigenin" was isolated from *Dalbergia latifolia* wood which has medicinal importance in cancer treatment to developed treatment to develop a safer drug.
- Natural dye from Eucalyptus species has been extracted and characterized for small scale industrial use.

10. Important Research Papers/Publications

- Gairola, S.C., K. Palanisamy, D. Thangamani, S. P. Subramani and S. Murugesan (2018) Country Progress Report on the Implementation of the Global Plan of Action on the Conservation, Sustainable Use and Development of Forest Genetic Resources" and submitted to FAO, Italy, Rome – (Through online on 31.1.2018)
- Thangamani, D., R. Selvakumar and V. Elakkiya (2016). Nanotechnology in Forest Sector, In the book of Training Manual of IFS officers on Conservation and Management of Forest Genetics Resource, published by Institute of Forest Genetics and Tree Breeding, Coimbatore, p225-234.
- Thangamani, D., K. Palanisamy, S. Lalitha, R. S. Prashanth and R. Priya (2017). "Genetic worth, diversity interference and management of Teak Clonal Seed Orchard" Under the theme Forests for prosperity and posteriority - Genetics and Biotechnology in conservation and management. In XIX common wealth Forestry Conference 3-7 April 2017p. 49. Dehradun.
- Thangamani, D., S. Lalitha, S.P. Subramani, K. Palanisamy, and J. Angayarkanni (2018). Paper published on "Novel Juglone from *Caesalpinia sappan* - A traditional medicinal tree genetics resource need for conservation and management" in International conference on science and humanities for grooming the future; In proceedings of conference an interdisciplinary approach (ICSHI-2018) organized by Human Genetics and Molecular Biology, Biochemistry and Botany, Bharathiar University, Coimbatore held on 6-8 February.

H.C. Sindhu Veerendra

1.	**Designation**	Scientist - C
2.	**Date of birth**	18/05/1960
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bengaluru
4.	**Contact Details**	**(O)** 080-22190134 **(M)** 9739274768
5.	**Date of joining at ICFRE**	14/02/1984
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 13/09/2013
7.	**Discipline/Specialization**	Genetics and Tree Improvement, Tree Improvement
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany)

9. Important research contributions

- Established Seedling Seed Orchards of *Eucalyptus tereticornis* and *Eucalyptus camaldulensis*.at Nellore, Andhra Pradesh and Midnapore, West Bengal.
- Established International Progeny Trial of *Casuarina equisetifolia* at Nellore, Andhra Pradesh.
- Established Clonal Seed Orchard of *Tectona grandis*, *Eucalyptus tereticornis* and *Eucalyptus camaldulensis*.at Andhra Pradesh.
- Studied Breeding system of *Santalum album* and *Mallotus philippensis*.
- Studied effect of Ozone, Nitrous Oxide and Sulfur dioxide on biomass production in Neem, *Melina arborea* and *Dalbergia sisso* as an indicators of climate change.
- Studied vegetation structure and vegetation composition at Dalma Wildlife Sanctuary, Jharkhand to create a baseline data to assess effect of climate change on species composition on a long-term basis.
- Studied natural dye yielding plants such as *Mallotus philippensis* (Euphorbiaceae) and *Morinda tinctoria* (Rubiaceae) to mitigate climate change parameters by providing consistent color intensity and quantity.

10. Important Research Papers/Publications

- Sircar, Sumita and H.C. Sindhu veerendra (2008). Variation studies in Eucalyptus: IV Seedling emergence time and juvenile attributes in *Eucalyptus tereticornis*. My forest, 44(2):112-119.
- Sircar, Sumita and H.C. Sindhuveerendra (2008). General combining ability for growth traits in a *Eucalyptus tereticornis* F2 progeny test. Annals of Forestry, 16 (2): 261-266.
- Sircar, Sumita and H.C. Sindhuveerendra (2010). Estimation of breeding values from a F2 progeny trial and recurrent selection of genotypes in *Eucalyptus tereticornis* Smith for F3 generation breeding program. Indian Forester, 136(7): 951-958.
- Sircar, Sumita and H.C. Sindhuveerendra (2011). Optimization of gains and variability during selection of candidate plus trees in *Eucalyptus tereticornis* Smith. Indian Forester, 137(8):1023-1028.
- Sindhu veerendra, H. C. and Sumita Sircar (2013). Structure of Tropical Forests- Fundamental processes of Tropical Forest Ecosystem Volume 1. Lambert Academic Publication, Germany.

Mohd. Ibrahim

1.	**Designation**	Scientist - C
2.	**Date of birth**	01/03/1981
3.	**Institute/Place of Posting**	Rain Forest Research Institute, Jorhat
4.	**Contact Details**	**(O)** 0376-2305206 **(M)** 9401804506
5.	**Date of joining at ICFRE**	01/09/2011
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 01/07/2014
7.	**Discipline/Specialization**	Forest Genetics and Tree Breeding, Plant Breeding
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agri.- Plant Breeding and Genetics)

9. Important research contributions

- 79 plus trees of *Magnolia champaca* have been selected from different regions of Northeast India and two seedling seed orchard have been established in Meghalaya and Assam.
- Identified 16 promising clumps of different bamboo species viz. *Bambusa balcooa, B. tulda, B. nutans* and *Dendrocalamus hamiltonii*. They have been supplied to various planting agencies on license agreement. A rhizome bank of the promising clumps has also been established.
- For conservation of bamboo genetic resources surveyed different region of Assam, Manipur and Arunachal Pradesh and 149 accessions of different bamboo species have been assembled in bamboo germplasm bank.
- Selected Plus trees of *Melia dubia* from different region of Northeast India.
- Through screening of SSR marker from different Populus species, identified 43 transferable SSR markers in *Populus gamblei.*

10. Important Research Papers/Publications

- Ibrahim, M. (2017) Bamboo Genetic Resources Conservation and Improvement in Northeast India. In National Seminar on Bio-resources conservation and utilization. May 13-14, P-12-14.

Tresa Hamalton

1.	**Designation**	Scientist - C
2.	**Date of birth**	14/12/1985
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bangalore
4.	**Contact Details**	**(O)** 080-22190137 **(M)** 9360473165
5.	**Date of joining at ICFRE**	03/02/2012
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 01/07/2015
7.	**Discipline/Specialization**	Plant biotechnology, Molecular Biology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Biotechnology)

9. Important research contributions

- In silico analyses of the chloroplast nucleotide sequences of important tree species and mangrove species for identification of species specific markers.
- Embelin production from callus cultures of *Embelia ribes Burm.f.*
- Callus induction from various explants of teak seedlings and from immature cotyledons.
- Enzyme activity assay of carbonic anhydrase from various tree species.

10. Important Research Papers/Publications

- Production of embelin from callus cultures of Embelia ribes – a threatened medicinal plant' in National Symposium on Plant Biotechnology-2018 'Recent Trends in Plant Propagation, Genetic Improvement & Industrial Applications' held on 16/2/18 to 18/2/18 organised by AFRI, Jodhpur (p.158).
- Comparative analysis of carbonic anhydrase sequences for enhanced carbon phytosequestration' in National Seminar on 'Climate change and role of communities for adaptation and mitigation' held from 18/9/17 to 19/9/17 organised by SFRI, Jabalpur (p. 23).
- In silico analysis of Cellulose synthase genes of important timber species' in National Conference on 'Tree Improvement Research in India: Current Trends and Future Prospects' held on 02/02/17 to 03/02/17 organized by IWST, Bangalore (p.119).
- Hamalton, Tresa (2017). Timber Forensics. Van Sangyan, 4 (10): 11-13.
- Establishment of in vitro cultures of the valuable timber species, *Diospyros ebenum* for ex situ conservation' in National Conference on 'Forestry in India: Current Challenges and Future Prospects' held from 15/11/16 to 18/11/16 organized by HFRI, Shimla (p. 119).
- Hamalton, Tresa (2016) DNA from ancient wood. Van Sangyan, 3 (10): 27-30.
- Hamalton, Tresa (2016) Wood DNA. Van Sangyan, 3 (9): 10-13.
- Hamalton, Tresa (2014) Biotechnology for forests. Van Sangyan, (Issue: August 2014; pp.33-36).
- 'Genetic variation studies in tree species using carbonic anhydrase isozyme analysis' in National Seminar on Tree Biotechnology 2013: Emerging opportunities in forestry and tree science, organized by IFGTB, Coimbatore (TN) (pp. 145-7).

K.S.Venkataramanan

1.	**Designation**	Scientist - C
2.	**Date of birth**	11/12/1962
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484126 **(M)** 07708734020
5.	**Date of joining at ICFRE**	01/11/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-11 01/01/2017
7.	**Discipline/Specialization**	Genetic Improvement, Tree Improvement, Clonal Propogation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany)

9. Important research contributions

- Macro propagation of tree species of *Eucalyptus Camaldulensis, Eucalyptus tereticornis, Acacia nilotica, Pongamia pinnata, Gliricidia sepium, Albiza lebbeck , Commiphora wightii, Bambusa bambos* and *Bambusa balcooa*.
- Experience in Candidate Plus Tree Selection, assemblage of Clonal Multiplication Area and establishing clonal trials of Eucalyptus and Casuarina.
- Developed low cost water culture technology for rooting *Eucalyptus hybrids.*
- Associated transferring the clonal technology of eucalyptus species to the villagers under UNDP programme and training provided to Andhra Pradesh Forest Development Corporation (APFDC), Kerala Forest Development Corporation (KFDC) and Maharashtra Forest Development Corporation (MFDC).
- Imparted training to different end users on mass multiplication of tree species.

10. Important Research Papers/Publications

- Venkataramanan, K.S, Kannan, C.S. Warrier, K.G Ajithkumar and K. Gurumurthi (1998). Difference in rooting response between the juvenile and adult tissue of *Casuarina equsetifolia*. In Annals of Forestry, 6(2):156-158.
- Kannan, Warrier, C.S, M. Ganesan and K.S. Venkataramanan (2007). Gas exchange characteristics in Casuarina clones. Short communication Indian Journals of Plants physiol, 2 (1): 83-87.
- Kannan, Warrier, C.S. and K.S. Venkataramanan (2014). Use of Pilodyn For Rapid And Reliable Estimation Of Wood Basic Density In Clones of *Casuarina equisetifolia*. International journal of Current Research, 6(9): 8269-8272.
- Venkataramanan, K.S., M. Palanisamy, P. Selvaraj, P. Vellaichamy, S. Senthamil Selvan and G. Divya (2015) Vegetative Propagation of *Eucalyptus Hybrids* through Water Culture Method. International Research Journal of Biological Sciences, 4 (5) :15-18.
- Nagarajan, B., Mohan Varghese , M. Palanisamy, K.S. Venkataramanan, R. Kamalakannan, and P. Selvaraj (2015) Development and Deployment of Interspecific *Corymbia hybrids*: A Novel Resource with Improved Pulp Yield and Resilience to Leaf Gall Disease in India" Poster presentation in IUFRO Eucalypt conference-2015 at China to be held October 21-24.
- Nagarajan, B., P. Selvaraj, M. Palanisamy, K.S. Venkataramana, P. Chezhian, and Venkataesan.- Hybrid Breeding for screening Ideotypes in Red gums, implication on improved industrial forestry characteristics and salinity tolerance. Accepted for presentation in the IUFRO Eucalypt conference 2015 at China.

Dr. Pramod Kumar

1.	**Designation**	Scientist - C
2.	**Date of birth**	01/06/1965
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** 0761-2744141 **(M)** 9425410791
5.	**Date of joining at ICFRE**	21/11/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 01/01/2018
7.	**Discipline/Specialization**	Tree Physiology and clonal propagation, Tree Improvement, Vegetative Propagation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- Assessed genetic diversity of Boswellia serrata in M.P. and Chhattisgarh and developed a conservation strategy.
- Flowering in Bambusa arundinacea and *B. nutans* was found associated with changes in sugars, phenols and peroxide activity.
- Endogenous auxin (IAA) having non-significant relationship with adventitious rooting in *Dalbargia latifolia* and *D. sissoo.*

10. Important Research Papers/Publications

- Ansari, S.A., Pramod Kumar and B.N. Gupta (1995). Root surface area measurements based on adsorption and desorption of nitrite. Plant and Soil, 175:133-137.
- Palanisamy, K. and Pramod Kumar (1997). Effect of position, size of cuttings and environmental factors on adventitious rooting in Neem (*Azadirachta indica A. Juss*). Forest Ecology and Management, 98: 277-280.
- Tiwari, A., Pramod Kumar, P.H. Chawhaan, S. Singh and S.A. Ansari (2006). Carbonic anhydrase in *Tectona grandis (L.f.)*: Kinetics, stability, isozyme and relationship with photosynthesis. Tree Physiology, 26(8): 1067-1073.
- Pramod Kumar, S.K. Jharia and S.A. Ansari (2011). Change in pH regimes and adventitious root induction in semi-hardwood cuttings of *Gmelina arborea* Roxb. Plant Growth Regulation, 65(3): 531-536.
- Pramod Kumar and Y. Mishra (2018). Biochemical changes associated with flowering in *Bambusa arundinacea* and *Bambusa nutans*. Journal of Forestry Research, 29(5):1315-1320.

11. Awards

- Young Scientists Award of National Academy of Agricultural Sciences, New Delhi in the field of Plant Improvement (1997-1998).
- ICFRE award in the field of Silviculture Research (1993-94 & 1994-95).
- Indian Forester award for best research paper (2001).

Desha Meena

1.	**Designation**	Scientist - C
2.	**Date of birth**	01/01/1985
3.	**Institute/Place of Posting**	Arid Forest Research Institute, Jodhpur
4.	**Contact Details**	**(O)** 0291-2729130 **(M)** 7877466239
5.	**Date of joining at ICFRE**	12/03/2010
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level 11 01/01/2019
7.	**Discipline/Specialization**	Plant Biotechnology, Molecular Genetics, Tree Improvement
8.	**Education Qualification (Graduation or above)**	M.Sc. (Biotechnology)

9. Important research contributions

- Identified the Candidate plus tree of *Tecomella undulata* in Rajasthan and established two half sib progeny trials of Tecomella undulata in Rajasthan.
- Carried out the genetic variability studies of *Tecomella undulata* in Rajasthan using ISSR markers.

10. Important Research Papers/Publications

- Meena, Desha, Anil Singh and Aastha Sharma (2016). Studies on seeds germination and seedling growth of *Tecomella undulata* at nursery stage. International Journal of Agriculture and Environmental Research, 2(03):314-321.
- Meena, Desha, Shiwani Bhatnagar, and Anil Singh (2016). Infestation of termite in progeny trial of *Tecomella undulata*. Indian Forester, 142 (11): 1130-1134.
- Meena, Desha, Anil Singh, Charu Rawal (2015). Estimation of Genetic Parameters in Pods and Seed Traits of Candidate Plus Trees of *Tecomella undulata* (SM.) Seem. Indian Forester, 141 (7): 748-754.
- Meena, Desha, T.S Rathore and Anil Singh (2013). Conservation Strategy of an Endangered Species of an Arid Region- *Tecomella undulata*. In: Proceeding of International Conference of Health, Environment and Industrial Biotechnology, 21-23 November Organised by Department of Biotechnology, Motilal Nehru Institute of Technology, Allahabad.
- Meena, D., Nagarajan, B. and Jesubalan, D. (2012). Future Prospects for the Critically Endangered Medicinally Important Species, *Canarium Strictum* Roxb. A Review. International Journal of Conservation Science, 3 (3): 231-237.


INFORMATION TECHNOLOGY
CHEMISTRY
ECOLOGY AND CLIMATE CHANGE
FOREST PROTECTION
WOOD PRODUCTS
SILVICULTURE AND FOREST MANAGEMENT
EXTENSION
BIOMETRICS AND STATISTICS
FOREST GENETICS AND BIOTECHNOLOGY

Dr. R. Sundararaj

1.	**Designation**	Scientist - G
2.	**Date of birth**	15/04/1963
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bengaluru.
4.	**Contact Details**	**(O)** 080-23465940 **(M)** 9740433959
5.	**Date of joining at ICFRE**	16/12/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/01/2013
7.	**Discipline/Specialization**	Zoology, Entomology, Integrated Pest Management, Wood Entomology and Wood Protection, Whitefly taxonomy
8.	**Education Qualification (Graduation or above)**	M.Sc. Zoology (Entomology Spl.), M.Phil., Ph.D.

9. Important research contributions

- Assessment of the durability class of Indian and imported timbers in terrestrial and marine conditions.
- Documentation of bioinvasion by import of wood and wood products , entomofaunal diversity in sandalwood provenances and diversity of Indian whiteflies.
- The bioiefficacy of wood protectants/insecticides/plant products in imparting protection for wood have been assessed.
- Natural wood preservative formulation from coconut shell pyrolytic oil.
- Integrated management strategies against gall inducers of Pongam.

10. Important Research Papers/Publications

- Sundararaj, R. and B.V. David (1995). Aleuroclava afriae, a new species of whitefly from India (Insecta, *Homoptera, Sternorrhyncha: Aleyrodidae*). Reichenbechia, 31 (4): 17-18.
- Sundararaj, R. and Rajamuthukrishnan (2011). Population dynamics of some coccids (Coccoidea: Hemiptera) infesting sandal (*Santalum album Linn*.) in Bangalore, India. Journal of Forestry Research, 22 (2): 259-262.
- Sundararaj, R. (2014). Relevance of Botanicals for the management of forest insect pests of India. In Basic and Applied Aspects of Biopesticides, K. Sahayaraj (ed.) Springer, India, pp. 155-180.
- Sundararaj, R., R.R. Shanbhag, H.C. Nagaveni and G. Vijayalakshmi (2015). Natural durability of timbers under Indian environmental conditions- An overview. International Biodeterioration & Biodegradation 103:196-214.
- Rao, M.V. R. Sundararaj, Anish V. Pachu and R.R. Shanbhag (2016). Deterioration of imported timber by marine borers along Visakhapatnam tropical harbour, India. International Biodeterioration & Biodegradation 109:1-10.

11. Awards

- Applied Zoologists Research Association, India, AZRA Fellow Award (2007).
- Rotary Bangalore south & Karnataka Civil Defence Corps. , Guru Vandana award (2013).

Dr. S. Murugesan

1.	**Designation**	Scientist - G
2.	**Date of birth**	31/03/1960
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2848102 **(M)** 09486801110
5.	**Date of joining at ICFRE**	09/12/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/01/2013
7.	**Discipline/Specialization**	Zoology/ Entomology, Insect – Plant Interactions
8.	**Education Qualification (Graduation or above)**	M.Sc. (Zoology), M. Phil. (Zoology), Ph.D. (Zoology)

9. Important research contributions

- Developed various biopesticide, bioboosters and phytomedicines.
  - Tree borne oil based biopesticides : Vilvekam, Hy-Act, Tree-PALH,
  - Endophyte based pesticide : Ento-fight Nasa,
  - Green biopesticide : Crawl clean
  - Phytomedicine : R-500
  - Organic Growth enhancer an alternate potting mixture : Treerich biobooster and Vermico – IPM
  - A free mobile "app" on "Tree Pests of India" which has the information about insect pests of 25 important tree crops including damage caused and control measure.
  - The product Tree Rich Biobooster is transferred to Irular tribes in forest fringe villages of Coimbatore, Tamil Nadu for their livelihood support through capacity building.
- Natural pigment from Red tamarind, Tamarindus indica var. Rhodocarpa was extracted from unripe fruit pulp and analyzed for its potentiality to use as a natural colourant in food, cosmetics and fabric/textile.
- The spread of Invasive Alien Species (IAS) was surveyed and reported the occurance, establishment and spread of the pest and damage caused in different Eucalyptus growing areas particularly in the TAFCORN and TNPL Eucalyptus growing areas of Tamil Nadu.

10. Important Research Papers/Publications

- Murugesan, S., N. Senthilkumar, C. Rajeshkannan and S. Supriya (2010). Fungistatic Action and Biochemical Properties of *Clitoria ternatea* (L.) Extracts. Herbal Tech Industry, 6 (7): 22-24.
- Murugesan, S., N. Senthilkumar, K.B. Vijayalakshmi and C. Rajeshkannan (2013). Phytochemical characterization of *Melia dubia* for their biological properties, Der Chemica Sinica, 4(I):36-40.
- Murugesan, S., V. Mohan, N. Senthilkumar, R. Lakshmidevi, D. Suresh Babu and R. Sumathi (2016). Effects of growing media with bioinoculants on quality seedlings production of *Eucalyptus tereticornis* in nursery conditions. European Journal of Experimental Biology, 6(3):86-93.
- Murugesan, S. and N. Senthilkumar (2012). Chemical Ecology, Sentinels of plant defenses in forest insect plant interactions. LAP Lambert Academic Publishing, Germany. Pp 188.
- Murugesan, S., C. Rajeshkannan and N. Senthilkumar (2012). *Aegle marmelos* seed oil based biopesticide, An Ecofriendly Strategy for the management of teak defoliators. LAP Lambert Academic Publishing, Germany. Pp 124.

Dr. Sudhir Singh

1.	**Designation**	Scientist - G
2.	**Date of birth**	02/03/1962
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224357 **(M)** 09319844245
5.	**Date of joining at ICFRE**	15/01/1993
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/01/2013
7.	**Discipline/Specialization**	Forest Entomology, Taxonomy
8.	**Education Qualification (Graduation or above)**	M.Sc. (Zool., Entomology), M. Phil, Ph. D.

9. Important research contributions

- Insect taxonomy: Described 3 genera and 74 species new to the science.
- Biological control of Eucalyptus Gall Wasp, *Leptocybe invasa* & *Calopepla leayana*.
- Rediscovered *Termitoloemus marshalli Baranov* (Diptera: Calliphoridae: Bengaliinae), a predator of termites. Worked on its taxonomy, biology and biocontrol potential.

10. Important Research Papers/Publications

- Singh, S. (2018). A new species of Aprostocetus Westwood (*Hymenoptera: Eulophidae*), parasitizing mango leaf gall midge (Diptera: Cecidomyiidae), from India. Journal of Asia Pacific Entomology (In Press).
- Singh, S. (2017). Two new species of Aprostocetus (*Hymenoptera: Eulophidae*) parasitizing leaf gall forming psylloids (Hemiptera: Triozidae) on two economically important trees in India. Annales Zoologici (Warszawa), 67(4): 795-810.
- Singh, S. (2016). Description of a new species of Psyllaephagus Ashmead (*Hymenoptera: Encyrtidae*) parasitizing pit gall forming psyllid Trioza fletcheri on Terminalia arjuna from India. Annales Zoologici (Warszawa), 2016, 66(3): 393-402 .
- Singh, S. & K. Rogens, (2015). Taxonomy, biology and biocontrol potential of Termitoloemus marshalli Barnov (Diptera, Calliphoridae, Bengaliinae) – a voracious predator of termites, Odontotermes spp (Isoptera, Termitidae) in India. Studia Diptrologica 21(2) (2014): 267–282.
- Singh, S., O. K. Rema Devi and Y. B. Srinivasa (2014). Description of a new genus and three species of Encyrtidae (*Hymenoptera: Chalcidoidea*) from the Western Ghats of Karnataka, India. Zootaxa 3814 (3): 369–384.

11. Awards

- Schlich Prize (2014) and Brandis Prize (2006) for the paper published in Indian Forester.

Dr. Mohd Yousuf

1.	**Designation**	Scientist - G
2.	**Date of birth**	08/08/1960
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224269 **(M)** 07579016924
5.	**Date of joining at ICFRE**	22/12/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-14 01/01/2014
7.	**Discipline/Specialization**	Taxonomy, biological control of insect pests
8.	**Education Qualification (Graduation or above)**	M.Sc. Zoology (Entomology), M. Phil., Ph.D.

9. Important research contributions

- Screening of indigenous species of Trichogramma sps & Trichogrammatoidea (Girault) from central India,Punjab and Haryana and their utilization against important forest insect pests. Mass multiplication and their efficacy against key pests.
- Taxonomy of Braconid parasitoids (*Hymenoptera: Braconidae*) from Chhattisgarh, Orissa and Maharashtra, India.
- Biological control of teak leaf skeletonizer, *Eutectona machaeralis* & Eucalyptus Gall Wasp, Leptocybe invasa.

10. Important Research Papers/Publications

- Yousuf, M. and S. A. Shafee (1987). Taxonomy of Indian Trichogrammatidae (*Hymenoptera: Chalcidoidea*). Indian J. Syst. Entomol. 4: 55-200.
- Yousuf, M. and S. A. Shafee (1984). First report of Zaga Girault and Oligositoides Doutt (*Hymenoptera: Trichogrammatidae*) from India with descriptions of three new species. Bull. Soc. Entomol. Suisse, Switzerland, 57: 367-370.
- Yousuf, M. and M. E. Hassan (2008). Description of a new species of Trichogramma Westwood (*Hymenoptera: Trichogrammatidae*) from central India, Entomon. 33(3): 189-193.
- Yousuf, M. and Puja Ray (2009). Description of a new species of the genus Rogas Nees Von Esenbeck (*Hymenoptera: Braconidae*) from India. World Journal Of Zoology 4 (3): 184-187.
- Yousuf, M., S. Singh, M. Ikram and R. B. Singh (2017). An overview on outbreak of Eucalyptus gall wasp, Leptocybe invasa (*Hymenoptera: Eulophidae*) in Northern India. Journal of Entomology and Zoology Studies, 5(5): 496-501.

11. Awards

- Best Research Paper Medal: Madhya Chetriya Viggian Sammelan 2009.

Dr. Nitin Kulkarni

1.	**Designation**	Scientist - G
2.	**Date of birth**	27/10/1966
3.	**Institute/Place of Posting**	Institute of Forest Productivity, Ranchi
4.	**Contact Details**	**(O)** 0651-2526140 **(M)** 9425325430
5.	**Date of joining at ICFRE**	16/11/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/05/2014
7.	**Discipline/Specialization**	Forest Entomology, Biology, ecology, IPM of forest insect pests, Biological Control
8.	**Education Qualification (Graduation or above)**	M.Sc. (Zoology/Entomology), Ph.D.

9. Important research contributions

- Isolated native Entomopathogenic Nematodes (EPNs) from central Indian forest floor and tested their bioefficacies.
- A New-to-Science native isolate TFRIEPN-15, named as *Steinernema dharanaii*, was morphologically described and molecularly characterized, and the nucleotide sequence of 216 Amino Acids was submitted to Gene Bank (NCBI) (Tax. ID: 1340771).
- Developed improvised diet for economical mass-multiplication of waxmoth, *Galleria mellonella* larvae.
- Isolated bioactive compounds from custard apple, Annonna squamosa and bioactivity tested against larvae of teak skeletonizer, E. machaeralis and teak defoliator, *H. puera*. The acetogenin compounds with molecular wt. around the 600+ mark were identified.
- Standardized IPM model guidelines for the management of white grubs including a biological control method and was also demonstrated to various stakeholders in field.

10. Important Research Papers/Publications

- Kulkarni, N., K.C. Joshi and P.B. Meshram (1996). Bioactivity of methanolic neem seed extract against the teak leaf skeletonizer, *Eutectona machaeralis* Walk. (Lepidoptera : Pyralidae). Journal of Environmental Biology, 17(3) : 189-195.
- Kulkarni, N., K. Chandra, P.N. Wagh, K.C. Joshi and Ram Bhajan Singh (2007). Incidence and management of white grub, Schizonycha ruficollis on seedlings of teak (*Tectona grandis Linn. f.*). Insect Science 14: 411-418.
- Kulkarni, N., S. Paunikar, K.C. Joshi, and John Rogers (2009). White grubs, Holotrichia rustica (Burm.) and Holotrichia mucida Gyll. (Coleoptera: Scarabaeidae) as pests of teak (*Tectona grandis L. f.*) seedlings in central India. Insect Science, 16(6): 519-525.
- Kulkarni, N., V.K. Mishra, S. Daksh and S.D. Paunikar (2016). Response of native entomopathogenic nematode, Steinernema spp. (TFRIEPN-57) isolated from central India to variation in temperature and soil moisture. Journal of Environmental Biology, 37(3): 399-406.
- Kulkarni, N. and S.D. Paunikar (2017). Evaluation of some biopesticidal formulations against teak (Tectona grandis Linn.f.) skeletonizer, *Eutectona machaeralis* Walker (Lepidoptera: Pyralidae) in India. American Journal of Agriculture and Forestry 5(1): 12-15.

11. Awards

- "Madhya Pradesh Young Scientist Award" in 1990.
- "Best Paper Award" in 1992 by SRBCE, Chnnai.

Dr. A. Balu

1.	**Designation**	Scientist - G
2.	**Date of birth**	07/05/1959
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484159 **(M)** 9442268163
5.	**Date of joining at ICFRE**	27/09/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-14 01/07/2014
7.	**Discipline/Specialization**	Forest Entomology, Integrated Pest Management
8.	**Education Qualification (Graduation or above)**	M.Sc. (Zoology), Ph.D.

9. Important research contributions

- Investigated the insect pest problems of the tree species, *Acacia nilotica* ssp. Indica, Albizia lebbeck, Casuarina, Teak, Neem, Gmelina, *Melia dubia*, etc., and developed Integrated methods of management.
- Identified chemical/physical basis of pest tolerance in teak and casuarinas.
- Natural enemies including beneficial microbes (different isolates of B.t. and entomopathogenic fungi) operating against key pests of *A.nilotica, A.lebbeck,* Casuarina, Teak and Ailanthus were investigated and report from the field.
- Improved germplasms of eucalyptus were screened for the gall insect at the field trails and identified the resistant clones. Reported a native natural enemy on eucalyptus gall insect.
- Rust fungi attacking the seed pods and leaves of *A. nilotica* ssp. indica reported to be single species earlier were reinvestigated through Scanning Electron Microscpic study and reported as two different species.

10. Important Research Papers/Publications

- Balu, A., S.R. Madhavan Pillai, K.R. Sasidharan, B. Deeparaj, and B. Sunitha (1995). Natural enemies of babul *Acacia nilotica* defoliators, *Selepa celtis* and *Tephrinapulinda*. In: The Biological control of Social Forest and Plantation Crop insects, Ed.T.N.Ananthakrishnan, Oxford & IBH Publishing Co. Pvt.Ltd., 225 pp.
- Balu, A., B. Deeparaj and B. Sunitha (1998). Neem Azal an Ecofriendly botanical pesticide to control Teak defoliators, *Hyblaea puera* and *Eutectona machaeralis* with ISBN4-90661-77-7 C3061 P3900E . In: Proceedings of the 6th International workshop of Bio-Refor, Brisbane, Australia.(Eds.) Jiro Kikkawa, Peter Dart, David Doley, Katsuaki Ishii, David Lamb and Kazuo Suskuki,PP. 241-247.
- Kunjithapatham Dhileepan, B. Balu Ayyapillai, MurugesanbSelvaraj, Senthilkumar Ponnusamy and G. Shivas Roger (2013) Survey and prioritisation of potential biological control agents forprickly acacia (*Acacia nilotica* subsp. indica) in southern India. Biocontrol Science and Technology, 23 (6): 646-664.
- R.G. Shivas, A. Balu, S. Singh, S.I. Ahmed and K. Dhileepan (2013). Ravenelia acaciae-arabicae and Ravenelia evansii are distinct species on *Acacia nilotica* subsp. indica in India. Australasian Mycologist 31, 31-37.
- Balu, S. Murugesan, P. Senthilkumar, R. Mahalakshmi and K. Dhileepan. (2014). The leaf-feeding geometrid *Isturgia disputaria* (Guenée) - a potential biological control agent for prickly acacia, *Vachellia nilotica* subsp. indica (Benth.) Kyal. & Boatwr. (Mimosaceae) in Australia. Journal of Biological Control, 28(2):81-86.

Dr. V. Mohan

1.	**Designation**	Scientist - G
2.	**Date of birth**	15/04/1961
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484160 **(M)** 9443426214
5.	**Date of joining at ICFRE**	24/11/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-14 01/01/2017
7.	**Discipline/Specialization**	Forest Pathology, Bio-fertilizer and Phytoremediation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), M.Phil., Ph.D. (Mycology/Plant Pathology)

9. Important research contributions

- Collar-rot disease caused by Lasiodiplodia theobroma on Casuarina junhuhniana; Leaf rust on Tectona grandis and Terminalia chebula; Leaf blight on Artocarpus, Gmelina, Mahogany, Pongamia and Teak; Powdery mildew on Tamarindus and Sandal; Root rot on Melia dubia and plant parasite, *Cuscuta chinensis* on *Acacia nilotica* were reported for the first time.
- 20 different ECM fungi and 32 different AM fungi were recorded.
- Liquid based formulation of PGPR bio-fertilizer product, VAM bio-fertilizer product and technology for mass production of different inocula of ECM fungi was developed.

10. Important Research Papers/Publications

- Saranyadevi Kalaivanan and Varadharajan Mohan (2017). Screening and molecular characterization of salt tolerant bio-control bacterial isolates from *Casuarina equisetifolia* rhizosphere soil. Asian Journal of Plant Pathology 11(4): 156-166.
- Srinivasan, R., V. Mohan, K. Amaravathi, K. Saranya Devi and C. Ramprasath (2016). Molecular characterization of melanin pigment producing Actinomycetes. Indian Journal of Applied Microbiology. 19(1): 9-20.
- Mohan, V., K. Saranya Devi, R. Srinivasan, and K. Sushamani (2014). In-vitro Evaluation of Chromium Tolerant Plant Growth Promoting Bacteria from Tannery Sludge Sample, Dindugal, Tamil Nadu, India. International Journal of Current Microbiology and Applied Science. 3(10): 336-344.
- Mohan, V. and Ayswarya Radhakrishnan (2012). Screening of Phosphate Solubilizing Bacterial isolates for the growth improvement of *Tectona grandis* Linn. Research Journal of Microbiology, 7(2):101-113.
- Sundar, S.K., A. Palavesam, V. Mohan and B. Parthiban (2011). Diversity of Arbuscular Mycorrhizal Fungi associated with medicinally important and natural dye yielding plant (*Indigofera tinctoria*) from Kanyakumari District, Tamil Nadu. Indian Forester. 137: 822-833.

Dr. Amit Pandey

1.	**Designation**	Scientist - G
2.	**Date of birth**	03/02/1969
3.	**Institute/Place of Posting**	Forest Research Institute Dehradun
4.	**Contact Details**	**(O)** 0135- 2224226 **(M)** 8279416130
5.	**Date of joining at ICFRE**	04/12/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/01/2017
7.	**Discipline/Specialization**	Forest Pathology, Biological control and plant disease resistance
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D. (Forestry-Forest Pathology)

9. Important research contributions

- *Cordyceps sinensis* (Kira Jari) artificial cultivation on Jhingora grains,molecular study, identification of high bioactive principles.
- Identification and molecular characterization of most virulent *Cylindrocladium quinqueseptatum* isolates causing blight in Eucalyptus. Identification of resistant Eucalyptus germplasm against CLB. Reported Stem Canker in Poplar caused by Ceratocystis sp. and wilt disease in *Melia dubia* caused by *Fusarium solani.*
- Identification of natural textile dye producing fungal isolates.
- Effect of Trichoderma application in Eucalyptus.

10. Important Research Papers/Publications

- Pandey, A., R. Juwantha, S. Chandra, A. Kumar, P. Kannojia, D. Khanna, S. Arora, V. Dwivedi and S. Pandey, (2017). First report of Fusarium solani causing wilt of *Melia dubia*. Forest Pathology. doi:10.1111/efp.12398.
- Pandey, A., P.S. Mohanty and P. Arya (2010). Development of species specific primer for the early detection of *Cylindrocladium quinqueseptatum* causing leaf and seedling blight in Eucalyptus. Agric. Biol. J. N. Am.,1(6): 1253-1259.
- Varshney, V.K., A. Pandey, A. Kumar, D. Rathod, and P. Kannaujia (2011). Chemical screening and identification of high Cordycepin containing cultured isolate(s) of medicinal Chinese caterpillar mushroom *Ophiocordyceps sinensis* (Berk.) G.H. Sung et al. International Journal of Medicinal Mushrooms. 13(4):327–333.
- Mohanty, P.S., A. Pandey, P. Arya and N.S.K. Harsh (2012). Molecular variability in North Indian isolates of *Cylindrocladium quinqueseptatum* causing leaf and seedling blight. Indian J. Microbiol. 52(2):131–136.
- Pandey, A., P. S. Mohanty and P. Arya, D. Rathod (2010). Genetic diversity among the isolates of *Cordyceps sinensis* of higher Himalayan meadows of India. I.J.S.N., 1(2): 242–245.

Dr. S. Chakrabarti

1.	**Designation**	Scientist - G
2.	**Date of birth**	12/03/1964
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** 0761-2744121 **(M)** 7049443106
5.	**Date of joining at ICFRE**	21/01/1993
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/07/2017
7.	**Discipline/Specialization**	Forest Entomology, Arachnology (Spiders), Biodiversity
8.	**Education Qualification (Graduation or above)**	M.Sc. (Zoology), Entomology, Ph.D.

9. Important research contributions

- 1st description of 1st instar larva and egg of pine feeding aphid *Cinara maculipes.*
- 3 Hymenopteran parasitoid from oak gall described as new species to science.
- Described full biology & life cycle of Indian Gypsy Moth *Lymantria obfuscata.*
- Discovered native strain of a baculovirus, LOMNPV from Himachal Pradesh.
- Discovered one new species of spider *Episinus pentagonalis* from western Himalaya.
- Fire Capped Tit & Crow Billed Drongo recorded for the 1st time from Central India.
- An updated checklist of 130 species of Spiders from Jabalpur is prepared with several new state records and 1 Indian record.
- Database of 1500 odd species of Indian spider is prepared.
- Established Arachnarium at TFRI, a novel concept first time in India for spiders.

10. Important Research Papers/Publications

- Chakrabarti, S. (1987). Nesting behaviour of *Chalybion bengalense* (Hymenoptera: Sphecidae). In French. Actes du Congress, Jean-Henii Fabre Anniversarie du Jabile (1910-1985). Paris. pp. 115-119.
- Chakrabarti, S. & D. Gurung (2005). Redescription of *Spalgis epius* (Lepidoptera: Lycaenidae) J. Bomb. Nat hist. Soc. 88(2);293-296.
- Narendran, T.C., P.G. Kumar, K. Sudheer, P.M. Sureshan & S. Chakrabarti (2005). Three new species of T*orymus Dalman* (Hymenoptera:Torymidae) from Himachal Pradesh (India) alongwith a key to species of Indian subcontinent. Entomon.30(2):111-121.
- Chakrabarti, S. (2013). First record of the genus Episinus (ARANEAE:THERIDIIDAE: SPHINTHARINAE) from India with description of a new species. Munis Entomology & Zoology, 8(2):796-802.
- Tahkur, B., S. Chakrabarti, V.K. Mattu (2016). Redescription of the adults of Indian gypsy moth *Lymantria obfuscata* Walker (Lepidoptera:Lymantriidae) in Himachal Pradesh, India. Mun. Ent. Zool. 11(1): 105-113.

Dr. Ranjeet Singh

1.	**Designation**	Scientist - G
2.	**Date of birth**	19/11/1962
3.	**Institute/Place of Posting**	Himalayan Forest Research Institute, Shimla
4.	**Contact Details**	**(O)** 0177 2626778 **(M)** 9418159199
5.	**Date of joining at ICFRE**	06/03/1991
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/07/ 2017
7.	**Discipline/Specialization**	Forest Entomology (Economic Entomology, Insect Biodiversity, Ecology), Insect Pest Management
8.	**Education Qualification (Graduation or above)**	M.Sc. (Entomology), Ph.D. Forestry (Forest Entomology)

9. Important research contributions

- Developed Integrated Pest Management Model for *Ectropis deodarae* Prout (Lepidoptera: Geometridae) .
- Management of Ips *longifolia Stebb*. (Coleoptera: Scolytidae) in Chir-pine plantation.
- Biological Control strategies for the *Thysanoplusia orichalcea* (Fabr.) (Lepidoptera : Noctuidae), in Saussurea costus. Recorded *Thysanoplusia orichalcea* (Fabr.) (Lepidoptera: Noctuidae) on *Saussurea costus* as new Insect-pest.
- Forty provenances of Shisham (*Dalbergia sissoo*) were screened against Ganoderma root-rot and termite and rated Provenance Rampur, as resistant one.

10. Important Research Papers/Publications

- Singh, R., Surinder Kumar, S. Chakraborty and Ashok Kumar (2007). Resurgence of Indian Gypsy Moth, Lymantria obfuscata Walker (Lepidoptera: Lymantriidae) on Ban Oak (*Quercus leucotrichophora*) forests in Rajgarh Forest Division, Himachal Pradesh. Ind. J. For., 30 (1): 85.
- Singh, R. and T.D. Verma (2008). Bio-ecology of Ectropis *deodarae Prout* (Lepidoptera: Geometridae) on Deodar in Himachal Pradesh . J. Tree Sci. 27(1): 41-47.
- Singh, R. and V.P. Pandey (2009). Some observations on the biology of the cabbage semilooper, *Thysanoplusia orichalcea* (F.) on a medicinal plant (*Saussurea costus* (Falc.) Lisch. in Himachal Pradesh. Pest management and Economic Zoology 17(2): 163-167.
- Sharma, R.C., M. Pal and R. Singh (2010). Performance of Shisham *(Dalbergia sissoo Roxb.)* Provenances against Ganoderma root rot. Indian Forester, 136 (5): 588-93.
- Singh, R. (2016). Biology of *Thysanoplusia orichalcea* (Fabr.) on *Saussurea costus* in Himachal Pradesh. J Insect Science 29 (1): 127-130.

11. Awards

- National Award for Excellence in Forestry (Forest Research) by ICFRE (2008-10).

Dr. P. B. Meshram

1.	**Designation**	Scientist - G
2.	**Date of birth**	01/07/1959
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** 0761-2840634 **(M)** 09425871072
5.	**Date of joining at ICFRE**	01/08/1983
6.	**Pay level and Date of continuous appointment to the present post/grade**	Level-14 01/07/2017
7.	**Discipline/Specialization**	Forest Entomology, IPM, insect, taxonomy
8.	**Education Qualification (Graduation or above)**	M.Sc., Ph.D. Zoology (Entomology)

9. Important research contributions

- Developed IPM package of white grub, Holotrichia spp in teak nursery.
- Management of insect pests of economically important forest tree species in nurseries, plantation and natural forests.
- Studied biological control of insect pests of important medicinal plants.
- Studied problem of top dying of *Gmelina arborea* plantations.

10. Important Research Papers/Publications

- Meshram, P.B., A.K. Sarkar and K.C. Joshi (1994). Relative resistance of certain clones of *Tectona grandis* to teak skeletonizer Eutectona machaeralis Walk. (Lepidoptera: Pyralidae). Indian Forester, 120: 58-61.
- Meshram, P. B., A.K. Patra and V.K. Garg (2003). Seasonal history and chemical control of gall forming insect *Betousa stylophora* Swin.(Lepid:Thyrididae) on *Emblica officinalis* Gue. Indian Forester, 129:1249- 1256 .
- Meshram, P.B. and K.K. Soni (2009). Maintenance of teak forest health with reference to various biotic and abiotic components in central India. IUFRO World Series, 24:103-105.
- Meshram, P.B. (2010). Role of some biopesticides in management of some forest insect pest. Journal of Biopesticides, 3(1):350-232.
- Meshram, P.B. and U. Homkar (2011). Effect of sowing dates and biopesticide cakes on density of white grub, *Holotrichia serrata* in a teak nursery. Journal of Tropical Forest Science, 23(4):1-5.

11. Awards

- ICFRE Award on Forest Protection (1993-94).
- Applied Zoological Research Association (AZRA) Young Scientist Award at Chennai (2000), Fellow Award (2002) at Cuttack and Dr. Anand Prakash Award (2016).

Dr. R. K. Verma

1.	**Designation**	Scientist - G
2.	**Date of birth**	01/07/1959
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** 0761-2480746 **(M)** 9424951886
5.	**Date of joining at ICFRE**	11/04/1991
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/07/2017
7.	**Discipline/Specialization**	Forest Pathology, Biofertilizers, Fungal Taxonomy
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- Worked on taxonomy of fungi and reported 6 genera and 90 species new to science.
- Management of diseases of different species.
- Worked on wood decay fungi in tropical timbers and management of decay in wood depots.
- Worked on different aspects of bio-fertilizers including identification, preparation of inocula, application in nursery, growth responses in tree species, etc.

10. Important Research Papers/Publications

- Verma, R.K. and Kamal (1987). Agarwalomyces indicus gen. et sp. nov. a fructicolous synnematous genus from Uttar Pradesh, India. Trans. Br. Mycol. Soc. 89: 596-599.
- Mehrotra, M.D. and R.K. Verma (1991). Some new hyphomycetes associated with leaf spots of trees in India. Mycological Research 95: 1163-1168.
- Verma, R. K. and I. D. Arya (1998). Effect of arbuscular mycorrhizal fungal isolates and organic manure on growth and mycorrhization of *Dendrocalamus asper* plantlets and on spore production in their rhizosphere. Mycorrhiza 8: 113-116.
- Verma, R.K., P. Kumar and S.A. Ansari (2001). Comparative physiomorphological performance of half-sib seedlings of ten teak clones under suboptimal and optimal *arbuscular mycorrhizal* colonization. J. Trop. For. Sci. 13: 423-433.
- Verma, R.K., A.K.Thakur, D. Turkane and P.S. Rajput (2010). Solarization of nursery soil induces production of fruit bodies of mushrooms and enhances growth of tropical forest tree seedlings. Annals of Forest Research 53(2): 117-126.

11. Awards

- Awarded Brandis Prize for research publication in Indian Forester (2008).
- Awarded Prof. K.S. Thind Medal in the field of taxonomy of fungi by the Association for Plant Taxonomy (APT) (2010).

Dr. Shamila Kalia

1.	**Designation**	Scientist - G
2.	**Date of birth**	05/02/1960
3.	**Institute/Place of Posting**	ICFRE (HQ), Dehradun
4.	**Contact Details**	**(O)** 0135-2224814 **(M)** 09410353746
5.	**Date of joining at ICFRE**	07/12/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/01/2018
7.	**Discipline/Specialization**	Entomology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Zoology), Ph.D.

9. Important research contributions

- Identified and reported 30 important new insect pests on important multipurpose tree species and studied the Biology, seasonal life cycle,and energy budget.
- Identified 11 new Entomopathogenic Fungi from the dead and diseased larvae.
- Mass produced 3 fungi Fusarium *fusaroides, Beauveria bassiana* and *Nomuraea rileyi* They were 100% effective for control of defoliators. Also worked with Seven strains of a Bacterial pesticide and proved highly effective against defoliators.
- Screened different parts of 50 plants/weeds and identified 35 plants/weeds with biopesticidal properties. 7 plants tried after further extraction and compared with Commercially available four neem products for their efficacy against the major pests.

10. Important Research Papers/Publications

- Kaushal, B.R. and Shamila Kalia (1996). Biology of Dicranognathus nebulosus Redtenbacher [Coleoptera: Attelabidae] infesting oak acorns in Kumaun Himalayas. Entomon, 21(2): 147-152.
- Kaushal, B.R. , S. Kalia, and S.P.S. Bisht (1995). Growth and cocoon production by the earthworm Drawida nepalensis [Oligochaeta ; Moniligastridae] in oak and pine litter. Pedobiologia, 39: 417-422.
- Kaushal, B.R., S.P.S. Bisht, and S. Kalia (1995). Population dynamics of the earthworm Amynthus alexandri [Megascolecidae: Annelida] in cultivated soils of the Kumaun Himalayas. Appl. Soil Ecol, 2: 125-130.
- Kalia, Shamila and B.R.Kaushal (1995). New record of Dicranognathus nebulosus Redtenbacher [Coleoptera : Attelabidae] infesting Quercus leucotrichophora A. Camus acorns from India. Ann. Entomol, 13(1): 77-78.
- Kalia, Shamila and K.C.Joshi (1998). Efficacy of three products of Bacillus thuringiensis Berliner against the larvae of kullu defoliator, Sylepta balteata. Asian J. Sciences, 12(1): 11-13.

11. Awards

- Awarded ICFRE cash award for outstanding work in the field of Entomology.

Dr. J. P. Jacob

1.	**Designation**	Scientist - G
2.	**Date of birth**	14/01/1964
3.	**Institute/Place of Posting**	Institute of Forest Genetics & Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 422 2484157 **(M)** 9442624432
5.	**Date of joining at ICFRE**	20/01/1993
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-14 01/01/2019
7.	**Discipline/Specialization**	Entomology, Insect- Plant Interactions
8.	**Education Qualification (Graduation or above)**	M.Sc., Ph.D.

9. Important research contributions

- Documentation of insect pest of forest nurseries and plantations and trees outside forest and identification of feasible management measures.
- Identification of host plant resistance in germplasm collections of teak, casuarinas and eucalyptus against key pests.
- Successful Classical Biological Control of invasive Eucalyptus Gall Wasp pest in India.
- Identified semiochemical based insect pest management in Eucalyptus.
- Identified target genes of gall wasp for Gene Silencing based control of Gall Wasp.
- Identified anti-pest properties of the recombinant lectin against insect pests.
- Product developed – "EuGalLure" – a plant volatile based lure for gall wasp management in Eucalyptus. (Patent registered).

10. Important Research Papers/Publications

- J. Prasanth Jacob, K. Senthil, V. Sivakumar, R. seenivasan, P. Chezhian and N. Krishnakumar (2015). Gall wasp Leptocybe invasa (Hymenoptera: Eulophidae) management in Eucalypts Journal of Biological Control, 29: 119-121.
- J. Prasanth Jacob and K. Senthil (2015). Pre and post harvest seed pests of *Pongamia pinnata* and their management My Forest. 51:21-32.
- Arun, R., S. Silambarasan, K. Senthil and John Prasanth Jacob (2017). Sap feeders and their management in multiplication garden of *Melia dubia* My Forest 51:57-62.
- Blessan Santhosh, George, S. Silambarasan, K. Senthil, John Prasanth Jacob, Modhumita Ghosh Dasgupta (2018) Characterization of an Insecticidal Protein from *Withania somnifera* Against Lepidopteran and Hemipteran Pest. Molecular Biology.. 60: 290-301.
- Kannan, C.S.Warrier, John Prasanth Jacob, Rekha, R. Warrier and V. Sivakumar (2018). Anatomical differences in tissue characteristics between juvenile and adult materials as well as female and monoecious trees in *Casuarina equisetifolia* International Journal of Current Research., 10: 64866-64873.
- John Prasanth Jacob, P. Nataraj, I. Vadivel, P. Senthilkumar and K. Senthil (2018). Management of insect pests in forest nurseries for profitable tree cultivation. My Forest 54:57-72.

Dr. R. K. Borah

1.	**Designation**	Scientist - F
2.	**Date of birth**	14/01/1966
3.	**Institute/Place of Posting**	Rain Forest Research Institute, Jorhat
4.	**Contact Details**	**(O)** 0376-2305103 **(M)** 9435051669
5.	**Date of joining at ICFRE**	07/01/1993
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13A 01/01/2015
7.	**Discipline/Specialization**	Forest Pathology, Mycology, Plant Pathology, Artificial induction of Agarwood, Biological control of Weed.
8.	**Education Qualification (Graduation or above)**	M.Sc. (Mycology & Pl. Pathology), Ph.D.

9. Important research contributions

- Studied the diseases of important forest tree species in nurseries, plantations and natural forests of North-Eastern Region of India and recorded 36 phyto-pathogenic fungi, of which, 19 are recorded for the first time in their respective hosts.
- Studied the incidence and management of culm rot and bamboo blight disease in Assam and reported *Fusarium udum* as the casual organism, a new report and worked on its management.
- Studied the Khasi Pine Mortality in Manipur and Meghalaya and the fungus Fomitopsis pinicola was found to be associated with the disease.
- Studied the Mortality of *Parkia timoriana* in North East India and reported the major cause of this malady as *Coptops aedificator* (Long horned beetle), a new report for the host. Prescribed management of the pest.
- Identified three fungi responsible for formation of agarwood in *Aquilaria malaccensis* L. and developed the method for artificial induction of agarwood in *A. malaccensis* L. using fungal technology.

10. Important Research Papers/Publications

- Borah, R.K., D. Dutta and P. Hazarika (1998a). Some new records of fungi from North-east India. Van Vigyan, 36(1): 41-43.
- Borah, R.K., D. Dutta and P. Hazarika (1998b). Three new Phyllachora leaf spots from Assam. Indian J. For., 21(3): 256-258.
- Borah, R.K and G.S. Sarmah (2002). A preliminary investigation of bamboo disease in Assam. J.Non-Timber for. Products, 9(1/2):5-8.
- Borah, R.K. (2003). Mortality of *Albizzia procera* .Indian Phytopathology, 56 (3): 346.
- Borah, R.K., J. Gogoi, B. Gogoi and G.S. Sarmah (2011). New record of powdery mildew on *Acacia mangium* Willd. In India. JPPR 52(1): 64-66.
- Borah, R.K., J. Gogoi, B. Gogoi and G.S. Sarmah (2010). A preliminary study on the occurrence of blight disease in *Bambusa tulda* Roxb. in Assam. In: Productivity Enhancement and value addition in Bamboos (Sanjay Singh and Rameswar Das Eds.) IFP Publication, Ranchi. P. 80-83.

Dr. A. P. Singh

1.	**Designation**	Scientist - F
2.	**Date of birth**	15/06/1968
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224356 **(M)** 9435729587
5.	**Date of joining at ICFRE**	29/09/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 01/01/2018
7.	**Discipline/Specialization**	Forest Entomology, Biodiversity Conservation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Zoology- Entomology), Ph.D.

9. Important research contributions

- Evaluated natural resistance of Populus *deltoides clones* selection to defoliator Clostera cupreata (Lep.,Notodontidae) in northern India.
- Worked on the woodpecker (Picidae) diversity in borer-*Hoplocerambyx spinicornis* -infested sal *Shorea robusta* forests of Dehradun valley, lower western Himalaya.
- Developed a model for estimating butterfly species richness . Evaluated lowland forest butterflies of the Sankosh river catchment, Bhutan, seasonality of butterflies in Gibbon Wildlife Sanctuary, Assam and butterflies in Arunachal Pradesh.

10. Important Research Papers/Publications

- Singh, A.P. and R. Pandey (2002). Natural resistance of *Populus deltoides* clones selection to defoliator *Clostera cupreata* (Lep.,Notodontidae) in northern India: relative pupal weight as an easier criteria for accurate evaluation. Journal of Applied Entomology 126,475-480.
- Singh, A.P. & R. Pandey (2004). A model for estimating butterfly species richness of areas across the Indian sub-continent: species proportion of family papilionidae as an indicator. Journal of Bombay Natural History Society. 101(1):79-89.
- Singh, A.P., R.S. Bhandari and T.D. Verma (2004). Important insect pests of poplar in agroforestry and strategies for their management in northwestern India. Agroforestry Systems. 63:15-25.
- Singh, A.P. (2017). Butterflies associated with major forest types in Arunachal Pradesh (Eastern Himalaya), India: Implications for eco-tourism and in conservation planning. Journal of Threatened Taxa. 9(4):10047-10075.

Books:

- Singh, A.P. and D.J. Das (2016). Butterfly Atlas of Arunachal Pradesh, India. Rain Forest Research Institute, Jorhat-ICFRE, Publication. pp 463.

11. Awards

- Dr. Salim Ali National Wildlife Fellowship Award (2004) .
- Conservation Leadership Award ARCH,Dehradun (2013).

Dr. A. Karthikeyan

1.	**Designation**	Scientist - F
2.	**Date of birth**	13/06/1968
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484164 **(M)** 9443374119
5.	**Date of joining at ICFRE**	29/06/1998
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 01/01/2018
7.	**Discipline/Specialization**	Forest Pathology, Bio fertilizers
8.	**Education Qualification (Graduation or above)**	M.Sc., M. Phil., Ph.D.

9. Important research contributions

- First time the Frankia cultures made available for the Casuarina growers so as to improve the Cultivation of Casuarinas.
- It was also found that Frankia sequestrating the excess carbon associated with Casuarinas.
- Reclaimed rocky laterite lands in Kerala with suitable bio fertilizers and *Swietenia macrophylla, Holoptelia integrifolia* and *Ailanthus tryphysa*.

10. Important Research Papers/Publications

- Karthikeyan A., K. Chandrasekaran, M. Geetha and R. Kalaiselvi (2013). Growth response of *Casuarina equisetifolia* Forst. rooted stem cuttings to Frankia in nursery and Field conditions Jounral of Biosciences. 38; 741-747.
- Diagne, Nathalie, Arumugam Karthikeyan, Ngom Mariama, Nambiar-Veetil Mathish, Claudine Franche, Krishna Kumar Narayanan, and Laurent Laplaze (2013). Use of Frankia and actinorhizal plants for degraded lands reclamation. Bio med Research. International. 2013 ID. 948258. 9 pages.
- Karthikeyan, A. (2016). Frankia strains for improving growth, biomass and nitrogen fixation in *Casuarina equisetifolia* seedlings. Journal of Tropical Forest Science 28: 235-242.
- Karthikeyan, A. (2017). Impact of elevated CO2 in *Casuarina equisetifolia* rooted stem cuttings inoculated with Frankia. Symbiosis. 72: 39-94. Doi.10.1007/s13199-016-0445-4.
- Karthikeyan, A. and N. B. Sivapriya (2018). Responses of *Bruguiera sexangula* (Lour) Poir.propagules to beneficial microbes in the nursery conditions. Journal of Forestry Research DOI. 10.1007/s11676-017-0502-8.

11. Awards

- Recipient of Best research paper award on Environment from Dept of Environment, Govt. of Tamil Nadu (2017).

Dr. N. Senthilkumar

1.	**Designation**	Scientist - E
2.	**Date of birth**	15/11/1973
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2848193 **(M)** 9629160703
5.	**Date of joining at ICFRE**	25/04/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/07/2015
7.	**Discipline/Specialization**	Zoology, Entomology, Insect taxonomy – Orthoptera and Bio-pesticides
8.	**Education Qualification (Graduation or above)**	M.Sc. (Zoology) (Spl in Entomology), M. Phil, Ph.D.

9. Important research contributions

- Developed Key for identification of fifty two species of Orthoptera of Nilgiri Biosphere Reserve.
- A free mobile "app" on "Tree Pests of India" which has the information about insect pests of 25 important tree crops including damage caused and control measure.
- Developed various biopesticides, bioboosters and phyto products
  1. Tree borne oil based biopesticides : Vilvekam, Hy-Act, Tree-PALH,
  2. Endophyte based pesticide : Ento-fight Nasa,
  3. Green biopesticide : Crawl clean
  4. Phytomedicine : R-500
  5. Organic Growth enhancer an alternate potting mixture :Treerich biobooster and Vermico – IPM
- Natural pigment from Red tamarind, Tamarindus indica var. Rhodocarpa was extracted from unripe fruit pulp and analyzed for its potentiality to use as a natural colourant in food additive and fabric/textile.
- The spread of Invasive Alien Species (IAS) was surveyed and reported the occurrence, establishment and spread of the pest and the damage caused in different Eucalyptus growing areas of Tamil Nadu.

10. Important Research Papers/Publications

Books:

- Senthilkumar, N., S. Murugesan and N. Krishnakumar (2009). An illustrated guide on insect pests of important tree species in South India. IFGTB Publications, Coimbatore. pp 132.
- Senthilkumar, N., S. Murugesan, C. Rajeshkannan and N. Krishnakumar (2011). Bioprospecting forest resources: An illustrative catalogue of some flora for biopesticides. IFGTB publications, Coimbatore. pp 56.
- Murugesan, S., and N. Senthilkumar (2012). Chemical Ecology, Sentinals of plant defences in forest in insect plant interactions. LAP Lambert Academic Publishing, Germany. P.188.
- Murugesan, S., N. Senthilkumar and N. Krishna Kumar (2013). Bioprospecting: scope, Challenges and prospects, IFGTB, Pp164.

11. Awards

- Awarded DST under Young Scientist in the year 2005.
- Outstanding scientist in Entomology in the year 2015 by VIF, Chennai.

Seema Kumar

1.	**Designation**	Scientist - E
2.	**Date of birth**	19/09/1962
3.	**Institute/Place of Posting**	Arid Forest Research Institute, Jodhpur
4.	**Contact Details**	**(O)** 0761-2744153 **(M)** 8764035354
5.	**Date of joining at ICFRE**	24/12/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/01/2016
7.	**Discipline/Specialization**	Zoology (Entomology), Biodiversity, Forest Protection
8.	**Education Qualification (Graduation or above)**	M.Sc. (Zoology)

9. Important research contributions

- 45 insect pest species were recorded on 33 tree seedlings species belonging to five groups: Nematodes, Mollusc, Rodents, Insecta, Mites.
- Four non-Insect Pests recorded: Mites: Aceria pongamiae on *Pongamia pinnata*, Nematodes: Meilodogyne sp. on *Acacia nilotica* and *Albizia lebbeck*. Mollusc: Laevicaulis alte on *Azadirachta indica*. *Funambulus pennantii* reported to feed on Azadirachta indica seeds sown in the nursery.
- Studies on seed pest of forest tree species in arid and semi-arid region.
- Studies on the pest problems in forest nurseries and their management in arid and semi-arid regions.

10. Important Research Papers/Publications

- Kumar, Seema, K.K. Srivastava and Ameen Ullah (1998). New record of fungus infection-Fusarium sp. In the culture of land slug Laevicaulis alte (Ferussac)-A severe pest of *Azadiracta indica* (Neem) seedlings in Rajasthan and Gujarat.
- Kumar, Seema and S.I. Ahmed (2000). New records of pestiferous land molluscs from Rajasthan, India. Rec. zoo. Surv. India. 98 (3): 67-70.
- C.S. Dange and Seema Kumar (eds). (2009). Forestry Research Extension: Challenges & Strategies. Scientific Publishers (India), Jodhpur. pp. 1-324.
- Kumar, Sanjeev and Kumar Seema (2010). Insect diversity on Teak plantation in Andaman Islands. In: Recent trends in Biodiversity of Andaman and Nicobar Islands. Eds. Ramakrishna, Ragunathan & Sivaperuman. Published by ZSI, Kolkata. pp. 213-221.
- Kumar, Seema and Sanjay Paunikar (2012). Acacia ampliceps – A New Host for Seed Pest *Caryedon acaciae* (Coleoptera: Bruchidae). Indian J. Trop. Biodiv. 18(2): 263 - 264 (2010).
- Kumar, Sanjeev and Seema Kumar (2015). Baya weaver *Ploceus philippinus* (Linnaeus, 1760) nesting on Bottlebrush tree Callistemon in Jodhpur, Rajasthan, India. J. Bombay nat. Hist. Soc., 112 (1): 35.

Dr. Vipin Parkash

1.	**Designation**	Scientist - E
2.	**Date of birth**	01/12/1976
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224314 **(M)** 9435570331
5.	**Date of joining at ICFRE**	04/09/2008
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/07/2016
7.	**Discipline/Specialization**	Mycology, Soil Microbiology
8.	**Education Qualification (Graduation or above)**	M.Sc., Ph.D.

9. Important research contributions

- Compiled the database of associated endomycorrhizal fungi in Nongkhyllem Reserve Forest, Nongpoh, Meghalaya and bambusicolous macro-fungi of Assam.
- Conservation of *Abroma augusta* L. (Devils' cotton), which is an important medicinal plant under threat in Brahmaputra valley.
- In vitro antimicrobial potential screening of bracket fungi against some phyto-pathogenic fungi and bacteria has been also standardized and protocol achieved.
- Two new bambusicolous fungal species to science have been collected and described i.e. *Lysurus habungianus* sp. nov. Gogoi & V. Parkash; and *Gelatinomyces conus* sp. nov. V. Parkash.

10. Important Research Papers/Publications

- Vipin Parkash, S. Sharma, K. Kaushih and A. Aggarwal, (2009). Effect of soil sterilization on bio-inoculants activity in establishment of *Acacia catechu* Willd. Phytomorphology, 59 (1&2): 51-57.
- Vipin Parkash and Priya Dhungana (2011). Endophytic and symbiotic mycotrophy in Equisetum arvense L.: A medicinal spore-dispersing vascular sporophyte. International Journal of Current Research Review 3(6): 33-42.
- Vipin Parkash, H. Singh (2013). *Lavandula angustfolia L.* (Lavender): An important aromatic medicinal shrub and its in vitro micro-propagation for conservation. Int. J. of Agric. Technol., 9(3): 701-712.
- Vipin Parkash, A. Sharma (2016). In vitro efficacy of bracket fungi for their potential antimicrobial activity. Journal of Microbiology, Biotechnology and Food Sciences. 6(2): 818-823.
- Vipin Parkash (2017). *Gelatinomyces conus* sp. nov. (Ascomycota, Leotiomycetes): a new bambusicolous fungal species from North-East India. Taiwania 62(3): 261-264.

11. Awards

- Received "Young Achiever Award (2013)" and "Achiever Award (2014)" by SADHNA, Dr. YSP Uni. of Hort. and Forestry, Solan, Himachal Pradesh.
- Received "Sir George Bentham Research Awardin Biodiversity" (2015).

Dr. Ashwani Tapwal

1.	**Designation**	Scientist - E
2.	**Date of birth**	07/11/1974
3.	**Institute/Place of Posting**	Himalayan Forest Research Institute, Shimla
4.	**Contact Details**	**(O)** 0177-2816114 **(M)** 94180 65960
5.	**Date of joining at ICFRE**	25/08/2008
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/07/2016
7.	**Discipline/Specialization**	Mycology and Plant Pathology (Biocontrol, Mycorrhiza, Mushroom),Mycorrhiza, Mushroom
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- Mycorrhizal associates of Pinus gerardiana were identified. Nursery trials by artificial inoculation of *P. gerardiana* seedlings with *Scleroderma polyrhizum* were established at Akpa (district Kinnaur, H.P) and recorded 16-51 per cent increase in different growth parameters and more than 60% increase in rhizosphere soil phosphorous mobilization in inoculated seedlings.
- Mycorrhizal association of Dipterocarpus and Shorea species in Assam was worked out and successfully conducted dual mycorrhizal inoculations in nursery and got cent percent survival after transplantation.
- 124 mushrooms of Nagaland were taxonomically characterized along with ethnomycological information. Proximate analysis of important species done.
- Biocontrol potential of Trichoderma species and botanicals including weeds were evaluated under laboratory condition for the management of variety of phytopathogens.

10. Important Research Papers/Publications

- Tapwal, A., P. Kalyan, S. Kumar and S. Chandra (2016). Study on fungi inhabiting indoor woods and their eco-friendly management. International Letters of Natural Sciences, 59: 55-61.
- Tapwal, A., A. Tyagi, G. Thakur and S. Chandra (2015). In-vitro evaluation of Trichoderma species against seed borne pathogens. International Journal of Chemical and Biological Sciences, 1(10): 14-19.
- Tapwal, A., R. Kumar and S. Pandey (2013). Diversity and frequency of macrofungi associated with wet ever green tropical forest in Assam, India. Biodiversitas, 14 (2): 73-78.
- Tapwal, A., Nisha, S. Garg, N. Gautam and R. Kumar (2011). In Vitro Antifungal Potency of Plant Extracts Against Five Phytopathogens. Braz. Arch. Biol. Technol. 54 (6): 1093-1098.
- Tapwal, A., U. Singh, G. Singh, S. Garg and R. Kumar (2011). In vitro antagonism of Trichoderma viride against five phytopathogens. Pest Technology. 5(1): 59-62.

Dr. Sangeeta Singh

1.	**Designation**	Scientist - E
2.	**Date of birth**	10/07/1974
3.	**Institute/Place of Posting**	Arid Forest Research Institute, Jodhpur
4.	**Contact Details**	**(O)** 0291-2729157 **(M)** 9602837549
5.	**Date of joining at ICFRE**	25/08/2008
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/01/2017
7.	**Discipline/Specialization**	Plant Pathology, Fungal Pathology, Beneficial microbes
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D. (Plant Pathology)

9. Important research contributions

- Propiconazole, botanicals and bioagents are able to manage *Ganoderma lucidum* in vtro as well as in vivo, propiconazole being the best.
- Salicylic acid (10mM) was found to be effective in management of the stem canker of rohida (*Tecomella undulata*) but should be introduced in early stage of infection.
- The consortia of the biofertilizers viz. Azotobacter+Azospirillum+Trichoderma followed PSB + Azotobacter, Azospirillum + AMF and PSB + Azotobacter + Azospirillum, were more effective in growth enhancement of neem.
- *Piriformospora indica* is also one of the AM fungi which primarily supplies phosphate and can be used for growth and yield enhancement of different tree species .

10. Important Research Papers/Publications

- R.G. Shivas, A. Balu, S. Singh, S.I. Ahmed and K. Dhileepan (2013). *Ravenelia acaciae-arabicae* and *Ravenelia evansii* are distinct species on Acacia nilotica subsp. indica in India. Australasian Mycologist, 31, 31-37.
- Singh, Sangeeta, Vineeta Shrivastava, Bindu Nirwan, Shiwani Bhatnagar and K.K. Shrivastava (2015). Study of incidence of stem canker of rohida and its causal agent. Indian Forester, 141 (2):227-229.
- Singh, S., B. Nirwan, S. Choudhary, K. Sharma, M. Kaushik, K. Joshi (2015). Population and diversity of rhizospheric cultured fungi in some arid forest tree species at different depths . Shodhtaru,1(2): 36-41.
- Bindu Nirwan, Sunil Choudhary, Kuldeep Sharma and Sangeeta Singh (2016). In vitro studies on management of root rot disease caused by *Ganoderma lucidum* in *Prosopis cineraria*. Current Life Science, 2(4):118-126.
- Sangeeta Singh, Bindu Nirwan, Kuldeep Sharma and Sunil Choudhary (2016). Development of microbial consortia for overall Improvement of *Azadirachta indica* seedlings. Plant Archives, 16 (2): 918-924.

Dr. Arvind Kumar

1.	**Designation**	Scientist - E
2.	**Date of birth**	02/01/1980
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224281 **(M)** 9456105197
5.	**Date of joining at ICFRE**	26/03/2010
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 01/01/2018
7.	**Discipline/Specialization**	Entomology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agricultural Entomology), Ph.D.

9. Important research contributions

- A mobile based application has been developed for insect pest identification and management of poplar.
- Nineteen new records of insect pests of *Dalbergia sissoo, Shorea robusta, Gmelina arborea, Pongamia pinnata, Madhuca longifolia, Albizia procera*, etc.
- Isolation and characterization of partial rRNA gene sequences of 66 new Lepidopteran specific *Bacillus thuringiensis* strains.
- Screening of best suitable soil nutrient dose combination of NPK for best lac *Kerria lacca*, production reared on F. semialata and F. macrophylla.
- Identification and description of a new parasitic species, *Acroclisoides sativae* Kumar and Khan 2012. (Hymenoptera: Chalcidoidea: Pteromalidae).

10. Important Research Papers/Publications

- Arvind Kumar and M.A. Khan (2012). A new species of genus *Acroclisoides Girault* & Dodd (Hymenoptera: Chalcidoidea: Pteromalidae) from India, Ann. Entomol., 30(2): 1-5.
- Arvind Kumar (2014). The lace bug *Cochlochila bullita* (Stål), a destructive pest of *Ocimum sanctum* in Jharkhand, India, Phytoparasitica, 42, 295-302.
- Arvind Kumar (2017). Influence of soil nutrient combination on *Flemingia semialata*, lac insect growth and lac insect pest. Arthropods, 6(3): 95-101.

Books:

- अरवदि कुमार एवं रामेश्वर दस (2012). लाख कीट पालन की उन्नत वधियि एवं संभावनाएं. वन उत्पादकता संस्थान, रांची. IFP/2012/02. 64 pp
- Arvind Kumar and Rameshwar Das (2013). Prospects of scientific lac cultivation in India. Institute of Forest Productivity, Ranchi, IFP/2013/4. Pp294.

11. Awards

- Scientist of the year in Entomology- Society for upliftment of rural economy, Varanasi (2015).

Dr. K.P. Singh

1.	**Designation**	Scientist - E
2.	**Date of birth**	01/10/1965
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224315 **(M)** 7579001999
5.	**Date of joining at ICFRE**	11/10/1989
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/07/2018
7.	**Discipline/Specialization**	Forest Entomology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agri. Entomology), Ph.D.

9. Important research contributions

- Biology and control of poplar shoot borer *Eucosma glaciata* Meyrick.
- Biology, incidence , intensity of attack and management of bamboo borer .
- Herbal biopesticide- RAKSHAK developed and tested against the poplar defoliator .
- Involved in release of 10 varities of Melia has been released. The released varieties of Melia, popularly known as Dreak or Malabar Neem or Gora Neem are extremely productive with excellent bole form, an essential aspect for plywood industries.
- Involved for the management of Sal heartwood borer in Dehradun by using Trap Tree Method.

10. Important Research Papers/Publications

- Singh, K.P, K.S. Kapoor, and S.R. Arya (1995). Biology and life history of Poplar shoot borer, *Eucosma glaciata* Meyrick (Lepidoptera: Eucosmidae) in Himachal Pradesh. The Indian Forester, 121 (1): 39-43.
- Singh, K.P. (1996). Control of Poplar Shoot Borer *Eucosma glaciata* Meyrick (Lepidoptera: Eucosmidae) in Himachal Pradesh using granular insecticides Annals of Forestry, 4 (2): 192-194.
- Singh, K.P and R.S. Bhandari (2009). Biology of the sal defoliator, Ascotis imparata Walk. (Lepidoptera: Goemetridae). The Indian Forester, 135(10): 1407-1415.
- Singh, S and K.P. Singh (2011). Description of two new species of Psyllaephagus Ashmead (Hymenoptera: Encyrtidae) parasitizing *Phacopteron lentiginosum* Buckton (Hemiptera: Psyllidae), a leaf gall-former of Garuga pinnata Roxburgh (Burseraceae). Zootaxa, 2885: 33-43.
- Rashmi, K.P. Singh & Suchita Arya (2014). Phytochemical and Pharmacognostical evaluation of *Calotropis procera.* Medicinal plants., 6(2): 81-86.

Dr. Pawan Kumar

1.	**Designation**	Scientist - E
2.	**Date of birth**	02/09/1975
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** 0761-2744153 **(M)** 9418055916
5.	**Date of joining at ICFRE**	26/07/2006
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/07/2018
7.	**Discipline/Specialization**	Forest Entomology, Lepidoptera Biodiversity IPM, Lepidoptere taxonomy
8.	**Education Qualification (Graduation or above)**	M.Sc., Ph.D. Zoology (Entomology)

9. Important research contributions

- Identified insect species i.e. Chilgoza seed borer, *Plodia interpunctella* Hübner (Lepidoptera: Pyralidae) infesting seeds of Chilgozapine (*Pinus gerardiana* wall); *Anarsia lineatella* (Lepidoptera: Gelechiidae), Populus spp. (Poplar) causing heavy damage by attacking the leaves in the cold deserts (Spiti) as a new record on respective hosts. Another Microlepidopteran insect species *Homalixestis cholopis* Meyrick (Lepidoptera: Lecithoceridae) was reported for the first time as a serious pests causing severe damage to the stored Juniper (*Juniperus polycarpos*) seeds. Developed control measures against these pests and practices were extended to stakeholders through trainings etc.
- GIS mapping of 70 species of butterflies of Sub-alpine forests of Himachal Pradesh was completed which is first of its kind in the region. Three butterfly species i.e. *P.machaon*, M. devendera and *L.boeticus* are enlisted in wildlife protection act, 1972 Schd.II Part II which requires serious conservation plans.

10. Important Research Papers/Publications

- Kumar, P. (2016). Studies on seed borer, *Plodia interpunctella* Hübner (Lepidoptera: Pyralidae) infesting seeds of Chilgozapine (Pinus gerardiana wall.). Indian Forester, 142 (4): 394-399.
- Kumar, P., S. Thakur and V.K. Mattu (2014). Biosystematic studies on Moths of subfamily Catocalinae (Lepidoptera: Noctuidae). Journal of Insect Science 27(1): 109-127.
- Kumar, P., S. Thakur, and V. K. Mattu and R. Dutta (2014). Standardization and Optimization of RAPD assay for genetic analysis of Noctuid species. Journal of Entomology and Zoology Studies; 2 (3): 111-117.
- Kumar, P., A. Kumar, M. Kumar and P. S. Negi (2017). Bioecology, damage potential and management of insect borers of Juniper and Chilgozapine. In Forestry in India: Management, Genetics, Biodiversity and Climate Change Perspectives (Edts. Tewari & Sharma), HFRI (ICFRE), Shimla. PP. 78-81.

11. Awards

- Awarded SERC Fast Track Scheme for Young Scientist (2012-13).

Rajesh Kumar

1.	**Designation**	Scientist - E
2.	**Date of birth**	18/12/1965
3.	**Institute/Place of Posting**	Rain Forest Research Institute, Jorhat
4.	**Contact Details**	**(O)** 03762305106 **(M)** 09706632479
5.	**Date of joining at ICFRE**	01/10/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 01/01/2019
7.	**Discipline/Specialization**	Plant Pathology, Mycology, Mushroom Cultivation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany)

9. Important research contributions

- A total of 124 species of mushrooms has been documented from Nagaland and a total of 138 species of macrofungi has been documented from Meghalaya state. Of these, one hundred twenty one mushroom species have been first time recorded from Meghalaya. Of these 18 species were first reported from India.

10. Important Research Papers/Publications

- Kumar, Rajesh, Ashwani Tapwal and Rajib Kumar Borah (2012). Identification and controlling Verticillium wilt infecting *Parkia roxburghii* seedlings in Manipur India. Research Journal of Forestry UK, 6(2):49-54.
- Kumar, Rajesh and Ashwani Tapwal (2012). Leaf litter decomposition pattern in *Dipterocarpus tuberculatus* and *Dipterocarpus retuses* forest of North East India. Research journal of Forestry UK, 6(1): 24-31.
- Kumar, Rajesh, Ashwani Tapwal, Jaime A. Teixeira da Silva, Shilesh Pandey and Davapod Borah (2013). Diversity of *Arbuscular Mycorrhizal* Fungi Associated in Mixed Natural Forest of Jeypore, Assam. International journal of Bioremediation, Biodiversity and Bioavailability Japan, 7(1): 91-93.
- Kumar, Rajesh, Shailesh Pandey, Ashwani Tapwal, R. Raja Rishi, Krishna Giri, Gaurav Mishra (2014). Ethnomycological Knowledge on Wild Mushrooms by tribes of Mokokchung, Nagaland, North East India. The Journal of Ethnobiology and Traditional Medicine. Photon, (122): 890-899.
- Kumar, Rajesh , Ashwani Tapwal, N.S. Bisht, Shailesh Pandey and Raja Rishi (2015). Nutritive value and cultivation of *Pleurotus pulmonarius* an edible mushroom from Nagaland, India. Indian Forester, 141 (9): 961-965.

Books:

- Kumar, Rajesh , N.S. Bisht, Shailesh Pandey and Aswani Tapwal (2015).Mushrooms of Nagaland.
- Bisht, N.S., Rajesh Kumar and Shailesh Pandey (2018). Mushrooms of Tale Valley wildlife sanctuary Arunachal Pradesh.

11. Awards

- Rajesh Kumar, Shailesh Pandey, Ashwani Tapwal, R Raja Rishi, Krishna Giri, Gaurav Mishra received International Photon Young Scientist Award-2014 in Ethnobiology and Traditional Medicine by Photon Foundation USA.

Dr. M. K. Arunachalam

1.	**Designation**	Scientist - D
2.	**Date of birth**	12/03/1977
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bengaluru
4.	**Contact Details**	**(O)** 080-221901153 **(M)** 9900749799
5.	**Date of joining at ICFRE**	31/01/2007
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/07/2015
7.	**Discipline/Specialization**	Plant Pathology, Mycology, Wood Pathology, Tree Pathology
8.	**Education Qualification (Graduation or above)**	M.Sc. Agri (Plant Pathology), Ph.D.

9. Important research contributions

- Documentation of 50 macrofungi species of Wood Inhabiting Fungi from Western Ghats, Karnataka.
- Screening and identification a potential lignin degrading fungi *Trametes versicolor*, from the isolates of various wood degrading fungi of India.
- Synthesis of Polyhydroxy alkanoates from the efficient strain of bacteria *Pseudomonas lignicola* using waste wood as carbon source.
- Innovative strategy/work on detection of internal decay of standing trees using non-destructive sound wave based technique from the urban trees of Bangalore.
- New technical approach for successful quantification of CH4 gas emitted from tropical forests of Karnataka.

10. Important Research Papers/Publications

- Muthu Kumar, A and Pratibha Sharma (2011). Molecular and morphological characters: An appurtenance for antagonism in Trichoderma spp. African Journal of Biotechnology, 10(22):4532-4543.
- Muthu Kumar, A and Pratibha Sharma (2011). A study on corroboration between DNA markers (RAPD, ISSR, ITS) and bio-control efficacy of Trichoderma species, Fungal Genomics & Biology, 1 (1): 1-6.
- Muthu Kumar, A and Pratibha Sharma (2012). Confrontation assay for Trichoderma as a potential agent against *Pythium aphanidermatum* and *Sclerotinia sclerotiorum*. Pest Management in Horticultural Ecosystems, 18 (1):74-78.
- Muthu Kumar, A and Pratibha Sharma (2016). Morphological Characterization of Biocontrol Isolates of Trichoderma to Study the Correlation between Morphological Characters and Biocontrol Efficacy", International Letters of Natural Sciences, (55) : 57-67.
- Muthu Kumar, A (2016). Occurrence and Distribution of Indigenous Isolates of Pythium Species in Northern India. Advances in Plants & Agriculture Research,4(4):1-9.

Books:

- A. Muthu Kumar, and S. C. Joshi (2012). "A field guide to Macrofungi of Makutta, Western Ghats" ICFRE publication. : 110 pp.

Bhawana Sharma

1.	**Designation**	Scientist - D
2.	**Date of birth**	08/09/1979
3.	**Institute/Place of Posting**	Arid Forest Research Institute, Jodhpur
4.	**Contact Details**	**(O)** 0291-2729145 **(M)** 9352793095
5.	**Date of joining at ICFRE**	07/02/2009
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/07/2015
7.	**Discipline/Specialization**	Botany, Plant Pathology
8.	**Education Qualification (Graduation or above)**	M.Sc. Botany (Plant Pathology)

9. Important research contributions

- Study of antifungal properties of seven plant species *Balanites aegyptiaca, Tephrosia purpurea, Citrullus colocynthis, Tribulus terrestris, Argemone Mexicana, Solanum xanthocarpum* and *Datura stramonium.*
- Ethanolic extract of *Datura stramonium* leaves was identified with most potent broad spectrum antifungal activity among all the tested extracts. The ethanoilic extract of *D. stramonium* leaf exhibit maximum inhibition against *Rhizoctonia solani* (88%) followed by *Fusarium solani* (76%). Increase in concentration of extract also increase inhibition of fungus growth.
- Qualitative chemical analysis of extract was done and presence of alkaloid was found in ethanolic extract (0.30%) of Datura leaves.

10. Important Research Papers/Publications

- Sharma, Bhawana, K.K. Srivastava, Neelam Verma, Ram Niwas and Meeta Singh (2014). Antifungal potential of leaf extract of *Datura stramonium L.*, against some important plant pathogenic fungi. Acta Biologica Indica, 3(2): 659-662.
- Verma, Neelam, J.C. Tarafdar and K.K. Srivastava and Bhawana Sharma (2016). Correlation of soil Physico-chemical factors with AM fungal diversity in *Ailanthus excelsa* Roxb. under different Agroecological zones of Western Rajasthan. International Journal of Life-Sciences Scientific Research (IJLSSR), 2(4):316-323.
- Srivastava, K.K, Neelam Verma, Sangeeta Singh, Bhawana Sharma, and K.C. Jedia (2013). AM-Diversity and spore population in mehndi (*Lawsonia inermis L.*) in Rajastahan.My Forest, 49 (2) 41-52.My Forest. 49: 41-52.

R. R. Rishi

1.	**Designation**	Scientist - D
2.	**Date of birth**	01/06/1962
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bengaluru.
4.	**Contact Details**	**(O)** 080-221901152 **(M)** 9435595350
5.	**Date of joining at ICFRE**	23/09/1983
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/01/2017
7.	**Discipline/Specialization**	Zoology, Entomology, Integrated Pest Management, Microbial pesticides for the control of forest pest
8.	**Education Qualification (Graduation or above)**	M.Sc. Zoology (Entomology Spl.)

9. Important research contributions

- Eucalyptus clones resistant to the gall wasp Leptocybe invasa were selected through field surveys of Eucalyptus clonal plantations raised in the southern states of India.
- Assessed and documented more than hundred insect pests on the selected fast growing indigenous tree species in Tamil Nadu and Kerala and their control measures.
- Documented thirty two insect pests of Bamboos including 2 new hosts.Ecofriendly method of control measures were also developed.
- Developed a biological control system of the key pests of *Gmelina arborea* and *Aquilaria malaccensis* with beneficial soil borne entomopathogenic fungi.
- 70 G. arborea clones were screened and found seven clones resistant to *Craspendonta leayana* , a serious pest of G.arborea.

10. Important Research Papers/Publications

- Raja Rishi, R. and A. Balu (2010). " Infectivity of *Cunninghamella echinulata* (Thaxt.) Thaxt. on insect, *Galleria mellonella* – a new report: e.journal Current Biotica, 4(3):368-372.
- Raja Rishi, R. and Nandita Saharia (2011) Population dynamics of soil arthropods in bamboo plantations of Assam: e.journal Current Biotica 5(1): 17-28.
- Raja Rishi,R., Shailesh Pandey, Rajib Kumar Borah, Rajesh Kumar, Nizara Borthakur (2016). Efficacy of entomopathogenic fungi on *Craspedonta leayana*, a serious insect pest of *Gmelina arborea*, Current Life Sciences, 2 (1): 15-19.

Books:

- R. Raja Rishi, A. Balu and R. Mahalakshmi (2013). "Field guide on Insect pests of some important fast growing indigenous tree species" ICFRE publication. ISBN: 978-93-82387-01-5 (Priced edition): 63 pp.
- R. Raja Rishi, R.K. Borah, Rajesh Kumar, Shailesh Pandey, N.D. Borthakur and B.K. Rajak (2014). Hand book on "Pest problems of important bamboo species of Assam and their management". ICFRE publication. 43 pp. (Priced Edition).

11. Awards

- Awarded by the Variety Releasing Committee (VRC) New Delhi, for the release of Variety/Clone of Eucalyptus camaldulensis (IFGTB-EC-5) (2014-15).
- Awarded Photon Young Scientist Award by Photon Young Scientist Program (2014).

Subhash Chander

1.	**Designation**	Scientist - D
2.	**Date of birth**	08/07/1964
3.	**Institute/Place of Posting**	Himalayan Forest Research Institute, Shimla
4.	**Contact Details**	**(O)** 0177 2626778 **(M)** 9425410814
5.	**Date of joining at ICFRE**	11/10/1989
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/07/2018
7.	**Discipline/Specialization**	Forest Entomology (Economic Entomology, Integrated Pest Management, Insect Biodiversity and Insect Ecology), Biological Control
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agriculture Entomology)

9. Important research contributions

- Mass multiplication *Corcyra cephalonica* used as a alternate host, for the *Crysoperla carnea*. and *Canthecona furcellata* Throughout the year in laboratory. A total of 25000and 33618 predators were multiplied for Biological control of forest insects pests.
- Parasitoid, Trichogramma raoi was maintained in the laboratory for field release. A total of 12.32 Lakhs parasitoids were multiplied against Teak defoliator and skeletonizer.
- Host culture of rice moth, *Corcyra cepholonica* was maintained in laboratory condition for egg production throughout year for the preparation of TFRI. Tricho Cards.
- TFRI. Trico Cards of Trichogramma raoi were provided 3.0 Lakh egg parasitoid, released in Experimental site of TFRI Campus against Teak defoliator and skeletoniger.by other PIs of the divison.
- Successfully maintained predator *C. carnea* round the year and it's in the protocol developed.
- Successfully maintained predator *C. Furcellata* round the year and it's in the protocol developed.
- Fist time experimented and developed of predator *C. furcellata* egg cards for field released against the forest insects pests.

10. Important Research Papers/Publications

- Prasad, Lalji, Isarar, A. Ansari and S. Chandra (2001). A new predator of Plecoptera reflexa Guen Uttar Pradesh. Journal of Zoology, 21 (1): 95-96.
- Joshi, K.C., N. Kulkarni, N. Roychoudhury, S. Chandra and S. Barve (2004). A study of insects from Kanha National Park. Journal of Tropical Forestry 20: 58-74.
- Roychoudhury, N., S. Chandra and K.C. Joshi (2007). Infestation of Australian insect, Leptocybe invasa on Eucalyptus in Madhya Pradesh, Vaniki Sandesh, 31 (3): 13-15.
- Joshi, K.C., S. Sambath, Md. Yousuf , S. Chander, N. Roychoudhury and N. Kulkarni (2007). Evaluation of Trichogramma spp. to minimise the attack of teak leaf skeletonizer. Indian Forester 133: 527-533.
- Roychoudhury, N., S. Chandra and K.C. Joshi (2009). Haldinia cordifolia ? a new host plant record for leaf roller, *Sylepta derogata* Fabricinous (Lepidoptera: Pyralidae). Annals of Forestry 17: 153-156.
- Roychoudhary, N., S Chandra., R.B. Singh., S. Barve and A.K. Das (2015). New record of Insect pests on seedling of Eucalyptus. Indian Journal of Forestry 38 (2) P 117-124.
- Roychoudhury, N., P.B. Meshram, S., Chandra and R.K., Mishra (2017). Potential biopesticides: Ivermectin and Spinosad. Van Sangyan 4(11): 22-24.

Dr. Shailesh Pandey

1.	**Designation**	Scientist - D
2.	**Date of birth**	25/03/1983
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224313 **(M)** 8930758640
5.	**Date of joining at ICFRE**	05/08/2011
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/07/2018
7.	**Discipline/Specialization**	Plant Pathology, Molecular Pathology, Bio Control
8.	**Education Qualification (Graduation or above)**	M.Sc. (Plant Pathology), Ph.D.

9. Important research contributions

- Nil

10. Important Research Papers/Publications

- Pandey, S., B. Singh, and J. Kumar (2014). DNA typing and virulence determination of *Xanthomonas oryzae* pv. oryzae population for the management of bacterial leaf blight of rice in Udham Singh Nagar, India. European Journal of Plant Pathology, 138 (4):847–862.
- Pandey, S., A. Bohra, B. Singh, P. Prasad, and J. Kumar (2017) Haplotypic Diversity and Virulence of *Xanthomonas oryzae* pv. oryzae Population Infecting the First Superfine Aromatic Basmati Hybrid. Proceedings of the National Academy of Sciences, Section B: Biological Sciences, 87 (3):1005 –1014.
- Pandey, S., R. Kumar, and K. Giri (2017). In vitro antagonism of Trichoderma isolates *Curvularia andropogonis* causing leaf blight of Java Citronella. National Academy Science Letters (Accepted).
- Pandey, A., R. Juwantha, S. Chandra, A. Kumar, P. Kannojia, D. Khanna, S. Arora, V. Dwivedi and S. Pandey (2017). First report of Fusarium solani causing wilt of *Melia dubia*. Forest Pathology, doi:10.1111/efp.12398.

11. Awards

- Pandey, S. (2016). Best Poster Presentation Award on “Medicinal and Aromatic Plants at Disease Risk: Searching Efficient Trichoderma Strains for their Biological Management" in the North East Zonal Meeting, Indian Phypotathological Society and National Seminar on "Facililitating a Shift from Chemo-centric to Organic Mode of Plant Health Management in the Northeast, held on 4–5 November 2016, at Assam Agricultural University.

Hans Raj

1.	**Designation**	Scientist - D
2.	**Date of birth**	14/02/1984
3.	**Institute/Place of Posting**	Forest Research Centre for Bamboo and Rattan, Aizawl, Mizoram (RFRI)
4.	**Contact Details**	**(O)** 0389-2301157 **(M)** 08575671426
5.	**Date of joining at ICFRE**	05/08/2011
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/07/2018
7.	**Discipline/Specialization**	Mycology, Plant Pathology, Forest Pathology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Mycology and Plant Pathology)

9. Important research contributions

- Worked on a diseases of apple viz ., mouldy core and core rot of apple causing pre-harvest fruit drop of apple in Himachal Pradesh and its management.
- Executed the work of Socioeconomic Survey in Mizoram under All India Coordinated Research Project on Identification of forest lands in the forest fringe villages.
- Associated as a Co PI in the project for collection of lichen samples from Mizoram.
- Investigated the major cause of the parkia decline in Mizoram caused due to a borer i.e. *Coptops aedificator.*
- Collection of Bamboo and rattan germplasm from North East India and establishment of Bamboo and Rattan trail at ARCBR Aizawl Mizoram with 30 and 12 species of Bamboo and Rattan respectively.

10. Important Research Papers/Publications

- Raj Hans, S. Yadav and N.S. Bisht (2014) Current status, issues and conservation strategies for Rattans of North-East India. Tropical Plant Research, 1(2): 1–7.
- Sharma, H.R., S. Yadav, B. Deka, R.K. Meena and N.S. Bisht (2014) Sporadic flowering of *Dendrocalamus longispathus* (Kurz) Kurz in Mizoram, India. Tropical Plant Research, 1(1): 26–27.
- Raj Hans and J.N. Sharma (2015). Management of mouldy core and core rot of apple causing pre-harvest fruit drop in Himachal Pradesh. International Journal of Farm Sciences, 5(1): 90-99.
- Raj Hans, J.N. Sharma and Dharmesh Gupta (2017). Epidemiology of Mouldy core and core rot of apple in Himachal Pradesh, India. Indian Phytopathology,70(1): 63-68.
- Raj Hans and J.N. Sharma (2017) In Vitro Evaluation of Botanicals, Bio-Agents and Fungicides Against Alternaria alternata Causing Mouldy Core, Core Rot of Apple. International Journal of Agriculture Sciences, 9 (49):4835-4840.

Dr. Shiwani Bhatnagar

1.	**Designation**	Scientist - D
2.	**Date of birth**	08/10/1982
3.	**Institute/Place of Posting**	Arid Forest Research Institute , Jodhpur
4.	**Contact Details**	**(O)** 0291-2729125 **(M)** 8233887492
5.	**Date of joining at ICFRE**	12/09/2011
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/01/2019
7.	**Discipline/Specialization**	Entomology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agril. Entomology) Ph.D.

9. Important research contributions

- Success in rearing of Acanthophorous serraticornis larvae on artificial diet standardized in the laboratotry conditions for studying life cycle of root borer *Acanthophorous serraticornis*, one of the major factor responsible for Khejri mortality.
- Biology of *Acanthophorous serraticornis* has been studied and recorded larval stages from 1st instar to 19th instar.
- Diversity, population abundance and foraging behaviour of pollinator insects on *Acacia senegal*, Capparis decidua and Prosopis cineraria during their blooming stage was studied.
- Survey was conducted at various sites of Rajasthan to check the status of flower gall problem in *P. cineraria*.

10. Important Research Papers/Publications

- Ahmed, S.I., Shiwani Bhatnagar, Sangeeta Singh, Parveen Goran and Bundesh Kumar (2014). *Acanthophorus serratecornis*: A potential biotic threat to Khejri trees in Rajasthan. Indian Forester, 140 (3): 323-324.
- Bhatnagar, Shiwani, Parveen Goran and Sangeeta Singh (2014). Life cycle of small salmon arab *Colotis amata* (Lepidoptera: Pieridae).The Bioscan, 9(3): 1059-1062.
- Bhatnagar, Shiwani, Sangeeta Singh, Parveen Goran, Bundesh Kumar and S.I. Ahmed (2015). *Acanthophorus serraticornis*: New pest record on *Balanites aegyptiacus* (L.) Del. Indian Forester, 141 (3): 347-348.
- Bhatnagar, Shiwani, Sangeeta Singh, Ameen Ullah Khan, Bundesh Kumar, Parveen Goran, S. I. Ahmed, K. K. Srivastav and T.S. Rathore (2016). Effect of tractorization on reduction in natural population of *Prosopis cineraria* (L.) In agro ecosystem of Thar desert. Int. J. Adv. Res, 4(8), 603-60.
- Singh, Ajay, Shiwani Bhatnagar, Sangeeta Singh and Parveen Goran (2016). Bruchids infestation on seeds of some forest trees. Int. J. Adv. Res, 4(9), 1-3.

Dr. Deepa M.

1.	**Designation**	Scientist - C
2.	**Date of birth**	02/03/1982
3.	**Institute/Place of Posting**	Institute of Forest Biodiversity , Hyderabad
4.	**Contact Details**	**(O)** 040-66309503 **(M)** 9550206626
5.	**Date of joining at ICFRE**	10/08/2011
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-11 18/11/2014
7.	**Discipline/Specialization**	Forest Entomology, Integrated Pest Management
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agri. Entomology), Ph.D.

9. Important research contributions

- Relative feeding potentiality test of 3 test insect (Hyblea purea,Eutectona machearalis and *Tinolius eburneigutta*) at different concentrations of plant extracts and antifeedant activity was observed.
- Seasonal incidence of insect pests for Sapindus trifoliatus of Andhra Pradesh was surveyed .Soap nut semi looper , blossom webber, Soap- nut tree bug, flower webbers, nut borers, bark borer are major insect pests of soap nut. Biological studies of major soapnut Insect pests completed.
- Identification of indegenious species of egg parasitiod Trichogramma for the control of teak defoliator and teak skeletonizer.

10. Important Research Papers/Publications

- M. Deepa and C. P. Srivastava (2011) Genetic diversity in Helicoverpaarmigera (Hübner) from different agroclimatic zones of India. Journal of Food legumes, 24(4):313-316.
- Deepa M., G. Ramulu, and G.R.S. Reddy (2017) Study of major insects related with South Indian Soapnut (Sapindustrifoliatus) of Andhra Pradesh and their management. National conference on the tree improvement research in India; current trends and future prospects, 2nd& 3rd February. Institute of Wood Science and Technology, Bangalore. Theme: 3. Wood Quality Improvement. 20p.
- Deepa M., D. Meera and G.R.S. Reddy (2016).Azimatetracantha Lam. - An ethanobotanical plant with biocidal properties from the forest of Andhra Pradesh.VanSangyan –A monthly open access e-magazine, 3(12): 24.
- Deepa M., D. Meera and G.R.S. Reddy (2017). Sphaeranthusindicus Linn: An Ethanobotanical plant from the forest of Andhra Pradesh. Van Sangyan –A monthly open access e-magazine,3 (12):46.
- Deepa M., G. Ramulu, G.R.S. Reddy (2016). Insect pests of Sapindustrifoliatus of Andhra Pradesh and their management. Accepted as poster in XIX Commonwealth Forestry Conference (abs-cfc,2017-225).

Ranjana Juwantha

1.	**Designation**	Scientist - C
2.	**Date of birth**	22/09/1977
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224259 **(M)** 7017289386
5.	**Date of joining at ICFRE**	04/10/2010
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-11 01/01/2018
7.	**Discipline/Specialization**	Forest Pathology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany)

9. Important research contributions

- *F. solani* was identified as the causal agent of wilt disease which led to the destruction of one hundred thousand (100,000) seedlings of Meliadubia.
- Alternaria alternate has been identified as a causal organism of leaf spot of *Azadirachtaindica.*
- Growth promoting effect of Arbuscularmycorrhizal fungi was observed on some important medicinal plants.
- Comparative studies on drying, preservation properties and natural durability of *Mangiferaindica* and *Meliadubiahas* been carried out.

10. Important Research Papers/Publications

- Pandey, A., R. Juwantha, S. Chandra, *et al.* First report of Fusarium solani causing wilt of *Melia dubia*. Forest Pathology. DOI: 10.1111/efp.12398.
- Pandey, S., A. Pandey, R. Juwantha (2016).Fungal Diseases of Medicinal Plants and their Biological Control .In National Conference On Recent Advances In Ayurvedic Herbal Medicine Fromsourse To Manufacturing Collection(N.T.C.C) and culture of Alternaria chlamydospora from *Azadirachta indica.*
- Madaan, S., R. Dhiman, N. Gupta, R. Juwantha, A. Pandey, S. Pandey (2018). Identification of efficient Trichoderma species for Antagonistic activity against major pathogen of Poplar In; 12th Uttarakhand State Science and Technology Conference, Uttarakhand State Council for Science and Technology, Dehradun, dated 07th to 08th Feb., 2018. P 14.
- Mehta, N., N. Naaz and R. Juwantha (2015). Ecological significance of mycotrophy in some saluary plants. In; 10th Uttarakhand State Science and Technology Conference, Uttarakhand State Council for Science and Technology, Dehradun, dated 10th to 12th February, 2015. p.47.
- Juwantha, R., A. Pandey, S. Pandey, S. Madaan, N. Mehta (2018).Mycorrhizal Status Of Ornamental Plants From Central Nursery Of Forest Research Institute, Dehradun In; 12th Uttarakhand State Science and Technology Conference, Uttarakhand State Council for Science and Technology, Dehradun, dated 07th to 08th Feb., 2018. P 90.

Dr. Dandeswar Dutta

1.	**Designation**	Scientist - C
2.	**Date of birth**	01/07/1962
3.	**Institute/Place of Posting**	Rain Forest Research Institute, Jorhat
4.	**Contact Details**	**(O)** 0376-2305104 **(M)** 9435353406
5.	**Date of joining at ICFRE**	04/01/1991
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-11 01/01/2018
7.	**Discipline/Specialization**	Mycology, Plant Pathology, Arbuscular Mycorrhiza
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- Studied the mycorrhizal associations of different forest trees of North Eastern region of India. Isolated and identified arbuscular mycorrhizal fungi from soil of natural forest shifting cultivation areas.
- Species like Glomus, Acaulospora, Gigaspora, Scutellospora were identified and multiplied in pot culture and efficacy of selected species tested.
- Conducted field study on the efficacy of arbuscular mycorrhizal fungi spore, phosphorous and potassium solubilizing bacteria in enhancing productivity and nutrient status of degraded soil under shifting cultivation.
- Conducted study on the phyto-diversity of patch vegetation in rural areas of Assam along with its role in livelihood support of the villagers.
- Studied the diversity and distribution of Garcinia in Upper Brahmaputra valley of Assam.

10. Important Research Papers/Publications

- Dutta, D., Y. P. Singh and N. C. Talukdar (2006). Effect of different land use on the population and activities of Arbuscular Mycorrihizial Fungi in Jhum cultivation areas of North East India. Indian Journal of Forestry, 29(4):407-412.
- Dutta, D., P. Hazarika, N.C. Talukdar and Y. P. Singh (2017) Dynamics of Arbuscular mycorrhizal fungi in Jhum agro-ecosystem in North East India. Life Science Leaflets (83):1-18.
- Dutta, D., Protul Hazarika and P. Hazarika (2017). Wild edible plant species in patch vegetations of Jorhat district, Assam, India. Int. Res. J. Biological Sci., 6(3): 14-26.
- Dutta, D., P. Hazarika, Dutta, N.B. and Protul Hazarika (2018). Nutraceutical properties of *Garcinia kydia* Roxb., fruit found in Assam, India. Euro. J. Bio. Pham, Sci., 5.(1): 573-578.

Dr. N. D. Borthakur

1.	**Designation**	Scientist - C
2.	**Date of birth**	01/04/1960
3.	**Institute/Place of Posting**	Rain Forest Research Institute, Jorhat
4.	**Contact Details**	**(O)** 0376-2305104 **(M)** 9435094055
5.	**Date of joining at ICFRE**	02/01/1991
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-11 01/01/2018
7.	**Discipline/Specialization**	Zoology, Forest Entomology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Zoology), Ph. D.

9. Important research contributions

- Studied the diversity of soil borne entomopathogenic fungi in different land use system of North East India and their utility for the management of major defoliators of *Gmelina arborea* and *Aquilaria malaccensis.*
- Preparation of Biodiversity management plan, regional wild life plan and carrying capacity study for Makum coal field in Assam, NEC North Eastern Coalfield.
- Screening of *Gmelina arborea* Roxb. Clone for productivity & stability.

10. Important Research Papers/Publications

- Rishi, R. Raja, Shailesh Pandey, R. K. Borah, Rajesh Kumar and Nizara D. Borthakur (2016). Efficacy of entomopathogenic fungion *Craspedonta leayana* , a serious insect pest of Gmelina arborea, Current Life Science, 2(1) : 15-19
- Borthakur, Nizara D. and Nibedita Baruah (2016). Antifeedant effect of Acorus calamus against *Heortia vitessoides*, Moore (Lepidoptera: pyralidae).In National conference Forestry In India : Current Challenges and Future Organized by Himalayan Forest Research Institute(Indian Council of Forestry research and education), Conifer Campus, Pantheghati, shimla-171013(H.P).held in 15th- 18th November 2016. Souvenir Cum Abstract.
- Senthilkumar, N., S. Trivedi, P. K. Kathri, N. D. Barthakur and N. J. Borah (2006). Butterfly fauna of Gibbon Wildlife Sanctuary, Assam: A Preliminary survey.Ann.For., 14(1):86-91
- Senthilkumar, N., and N.D. Borthakur (2013). Impact of natural and anthropogenic disturbances on Orthopteran community in Kaziranga National Parak, Assam, India. The Indian Forester,139 (6): 547-552
- Borthakur, N. D. and N. Senthilkumar (2006). Impact of diverse trees species on the population dynamics of soil fauna. Ann. For., 14(2): 245-254.

A. J. Asaiya

1.	**Designation**	Scientist - B
2.	**Date of birth**	26/05/1967
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** - 0761-2840746 **(M)** 09424371609
5.	**Date of joining at ICFRE**	23/10/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-10 16/07/2016
7.	**Discipline/Specialization**	Forest Pathology, Biofertilizer
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany)

9. Important research contributions

- Integrated Nutrient Management for improved growth of trees on coal mine overburden dump.
- Biodiversity of Wild edible fungi of Satpuda region.
- Worked on Important foliar diseases of medicinal plants from central India.
- Studied fungitoxic properties of plant products against wilt pathogens of *Dalbergia sissoo* Roxb. and Gmelina *arborea Linn*.
- Fusarium wilt of *Buchanania lanzan Spreng*. – A new disease record from India.
- Wood decay fungi of Sal from MadhyaPradesh, India.

10. Important Research Papers/Publications

- Nath, V., Jamaluddin, R. Kumar and A.J.K. Asaiya (1991). Important foliar diseases of medicinal plants from central India - Regional Meeting of Silviculturista and Research Workers Central Region, Bhubaneshwar, Orissa, Nov. 19-20, 1991.
- Singh, Y., R.K. Verma, A.J.K. Asaiya (2006). Fungitoxic properties of plant products against wilt pathogens of *Dalbergia sissoo* Roxb. and *Gmelina arborea* Linn. - Indian Journal of Forestry, 29(2):207-210
- Soni, K.K., A.J. Asaiya, D.L. Nandeshwar and Jamaluddin (2005). Fusarium wilt of *Buchanania lanzan* Spreng. – A new disease record from India. Indian Journal of Tropical Biodiversity 13 (2) : 111-112.
- Tiwari, C.K., R.K. Verma, Akhilesh Ayachi and A.J.K. Asaiya (2008). Wood decay fungi of Sal from MadhyaPradesh,India.Sci.Fonts v II:13-26
- Asaiya, A. J. K. , Har Prasad, P. Soni and N. D. Khobragade (2013). "Physico-Chemical Characterization of overburden dump material from coal mining areas of Western coalfield Ltd. Parasiya(Pench area) , Chhindwara" National seminar on "Impact of coal mines and thermal power stations on local area" 8-9 March ,Govt pench valley P.G.College, Parasiya,Chhindwara.

Shalini Bhowate

1.	**Designation**	Scientist - B
2.	**Date of birth**	01/03/1968
3.	**Institute/Place of Posting**	Forest Research Centre For Skill Development, Chhindwara
4.	**Contact Details**	**(O)** -7162-282588 **(M)** 7771886096
5.	**Date of joining at ICFRE**	25/10/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-11 14/07/2016
7.	**Discipline/Specialization**	Zoology, Entomology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Zoology)

9. Important research contributions

- Work on identification of Lepidopteran insects.
- Seven insects which are used by tribals in medicine/food were identified and documented from satpura plateau.
- Production of Vermicopost.
- Work on multiplication Trichogramma spp. & their impact on major teak insect pests.

10. Important Research Papers/Publications

- Bowate, Shalini and P.B. Meshram (2018) A New report of bud/shoot borer, *Anarsia melanoplecta*, Meyrick (Lepidoptera: Gelechiidae) as a pest of *Buchnania lanzan* Sprang. Indian Forester, 144(2):203-204.
- Meshram, P.B. and S. Bhowate (2017). Role of lace bug Tingis beesoni and control measures in top dying of *Gmelina arborea* plantations. Journal of Entomology and Zoology Studies, 5(3): 389-393.
- Meshram, P.B. and S. Bhowate (2006). A new report of red cotton bug *Dysderchus cingulatus* Fab. (Hemiptera: Pyrrhocoridae) as a pest of *Sapindus trifoliatus*.Indian Forester, 132:1053-1054.
- Joshi, K.C. , N. Roychodhary , S. Sambth , Shalini Humane and D.K. Pandey (1996). Efficacy of three varietal toxins of *Bacillus thuringiensis* Swed .(Lepidoptera :Yponomeutidae) Indian Forester,122 (11):1023-1027.
- Joshi, K.C., N. Roychodhary , S. Sambth , Shalini Humane and D.K. Pandey (1996). Efficacy of three varietal toxins of *Bacillus thuringiensis* Swed .(Lepidoptera :Yponomeutidae) Indian Forester,122 (11):1023-1027.
- Roychoudhary, N., S. Sambth, Shalini Humane and K.C. Joshi (1995). Relative toxicity of some insecticides against Ailanthus defoliator, *Atteva fabriciella* Swed. (Lepidoptera: Yponomeutidae) Indian Journal of Forestry, 18(4): 309-311.

Popular articles

- Bhowate, S. Van sangyan,शाश्वत उत्पादनासाठी – एकात्मिक कीड / रोग व्यवस्थापन vol 3 :(5) May 2016, pp.46-48.
- Bhowate, S. Importance of butterflies in ecosystem In Van Sangyan, November ,2017 Pp.19- 21.
- Bhowate, S. (January 2018) Red velvet mite. Van Sangyan, 5(1) :5-6.
- Bhowate ,S.मधमाशी : परागसिंचनाद्वारे पीक उत्पादन वाढवणारे प्रभावी कीटक Van Sangyan,vol 2:(5) May 2015.
- Bhowate, S.कडूनिंबःकीट नियंत्रणासाठी उपयुक्त VanSangyan, June 2015.
- Bhowate, S.Trap Cropping: A tool of pest management Van Sangyan,vol 2:(1) Nov 2015.
- Bhowate, S.कामगंध सापळे : कीट निरिक्षण व नियंत्रणासाठी उपयुक्त Van Sangyan,vol 3 :(2) Feb 2016.
- Meshram P.B., R. Verma, S. Bhowate, A. Asaiya (2017) Dying-off of Buchananialanzan plantation in CFRHRD, Chhindwara Madhya Pradesh In Van Sangyan, July 2017pp. 28-33.


INFORMATION TECHNOLOGY
CHEMISTRY
ECOLOGY AND CLIMATE CHANGE
FOREST PROTECTION
WOOD PRODUCTS
SILVICULTURE AND FOREST MANAGEMENT
EXTENSION
BIOMETRICS AND STATISTICS
FOREST GENETICS AND BIOTECHNOLOGY

Dr. Harish Kumar

1.	**Designation**	Scientist - E
2.	**Date of birth**	28/09/1967
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224893 **(M)** 9412051199
5.	**Date of joining at ICFRE**	11/07/1997
6.	**Pay level and Date of continuous appointment to the present post/grade**	Level-13 24/01/2013
7.	**Discipline/Specialization**	Computer Science, Cyber Security
8.	**Education Qualification (Graduation or above)**	M.Tech. (Computer Science and Engineering), Ph.D.

9. Important research contributions

- Worked as Head, IT Division, ICFRE and was responsible for Planning, implementation and Maintenance of Information Communication infrastructure/services in terms of Technical and Budgetary requirement for ICFRE and its 9 regional institute and 5 Centre.
- Established the Centralized Server Farm (Data Centre) Servers.
- Coordinated the e-Governance project name IFRIS as Project Manager (e-Gov) for ICFRE and its Institutes/ Centres.
- Implemented the NKN across ICFRE Institutes.
- Worked as Chief Information Security Officer (CISO) for ICFRE Data Centre ISO 27001 : 2005 and managed the Data Centre.
- Information Dissemination through Websites.
- Developed the Indian Forest Congress (IFC) website which has payment gateway.

10. Important Research Papers/Publications

- Nil

Neelesh Yadav

1.	**Designation**	Scientist - E
2.	**Date of birth**	01/07/1981
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** 0135-2224233 **(M)** 9411385495
5.	**Date of joining at ICFRE**	25/04/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/01/2019
7.	**Discipline/Specialization**	Computer Application, Biodiversity Informatics
8.	**Education Qualification (Graduation or above)**	M.Tech. (Information Technology, from IIT), M.A. (Public Administration)

9. Important research contributions

- Software database developed for (i) Botany herbarium specimens with their digital image, (ii) Forest Pathology Herbarium.
- A new software technology has been developed to identify & search a plant / tree based on their morphological and taxonomical characteristics. Project has been successfully launched for Manipur, Haryana and Chandigarh Forest Departments.
- Development of Deodar & Kail information system successfully.
- A National Data Portal (with statistical analytics features) for National Rainfed Area Authority (Planning commission, Govt. of India) funded project "Identification of Extent of Forest Lands in Forest Fringe Villages" has been developed .
- To study the genetic diversity of *Cedrus deodara* sp. an online database has been developed with DNA fingerprints.
- Database development of Forest Genetics Resources .

10. Important Research Papers/Publications

- Yadav, N., A. Dubey, S.S. Kalra (2014). Analysis of protein modeling for envelope glycoprotein GP120 for HIV via bioinformatics approaches. International Research Journal of Virology, 1(1): 002-006.
- A. Dubey, U. Shanker, S. S. Kalra, and N. Yadav (2013). "Viral micro RNA analysis via the bioinformatics approaches basis on their Statistics values," American Journal of Biological, Chemical and Pharmaceutical Sciences, (1):42-66.
- Verma, N.K., V. Verma, R.K. Deshwal, N. Yadav (2014). Structural Insight into molecular model of hypothetical protein from Trichomonas vaginalis: A Computational Approach. Elixir International Journal:28414.
- Shashi Prabha Agrawal, Alka Dubey, Neelesh Yadav, Rajnish Kumar, (2016). Computational prediction of potential genes: involve in different human diseases find out with the help of c. elegance nucleotides, European Journal of Bioinformatics, (4):13-16.
- **Book on** "miRNAs functional analysis of genes through bioinformatics approach: Study of genomic function via miRNAs through bioinformatic platforms: by Shashi Prabha Agrawal and Neelesh Yadav (editor), Publisher- LAP LAMBERT Academic Publishing (September 6, 2017),ISBN-10: 6202022485, ISBN-13: 978-6202022484.

A.K. Sinha

1.	**Designation**	Scientist - D
2.	**Date of birth**	24/06/1970
3.	**Institute/Place of Posting**	ICFRE (HQ), Dehradun
4.	**Contact Details**	**(O)** 0315-2224848 **(M)** 09829587015
5.	**Date of joining at ICFRE**	11/07/1997
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/01/2006
7.	**Discipline/Specialization**	Information Technology, Networking, Data Base
8.	**Education Qualification (Graduation or above)**	B.Sc, (Hons) Computer- Science, M.Sc. (Botany)

9. Important research contributions

- Implementation and operation of "Indian Forestry research Information System (IFRIS)" an ERP Solution for the ICFRE.
- Development of Website and Web Portal for Forestry Research Extension for the Institute in Hindi and English.
- Development of a web based application for identification of plants.

10. Important Research Papers/Publications

- Tomar, U.K., U. Negi, A.K. Sinha and Dantu (2007). An Overview of the Economic Factors Influencing Micropropagation, My Forest, 43:523-532.
- Bala N. , G. Singh, P. Kumar, A.K. Sinha (2003).Role of forest in carbon sequestration, Indian Forester, 129(6):799-806.
- Sinha, A.K., R.L. Srivastava and U.K. Tomar (2009). Forestry Research Extension Challenges & Strategies, Scientific Publisher (India).
- Tomar, U.K., Usha Negi and A. K. Sinha (2008).Economics and factors influencing micro propagated plants in Forest Biotechnology in India, Satish Serial Publication House, Delhi.

Jatender Singh

1.	**Designation**	Scientist - D
2.	**Date of birth**	20/08/1973
3.	**Institute/Place of Posting**	ICFRE (HQ), Dehradun
4.	**Contact Details**	**(O)** 0135-2224842 **(M)** 9412910739
5.	**Date of joining at ICFRE**	21/04/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/07/2010
7.	**Discipline/Specialization**	Computer Science, Networking and Data Base
8.	**Education Qualification (Graduation or above)**	MCA, M.Tech (Information Technology)

9. Important research contributions

- Nil

10. Important Research Papers/Publications

- A paper entitled "Data Warehouse Design issue of Forestry Statistics Data of India" published as Ist author in April 2011 edition of Indian Forester national monthly journal of Forestry Research, FRI.

Sudhir Kumar

1.	**Designation**	Scientist - C
2.	**Date of birth**	21/10/1976
3.	**Institute/Place of Posting**	ICFRE HQ, Dehradun
4.	**Contact Details**	**(O)** 0135-2224893 **(M)** 9458396688
5.	**Date of joining at ICFRE**	23/04/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-11 01/07/2008
7.	**Discipline/Specialization**	Computer Science, Software Application
8.	**Education Qualification (Graduation or above)**	MCA, M. Phil. (Computer Science), M. Tech. (Information Technology)

9. Important research contributions

- Various web portals designed and developed in recent years:

  (i) Interactive Portal: Interface with stakeholders (ii) Annual Property Returns Portal (iii) Guest House Booking Portal (iv)Information System for Secretary Office (v) Online Office Records (Orders/MoM/Agendas etc.) System (vi) Fixed Assets Database and Application (7) Complaint Management System (viii) Pensioners database (ix) GPF Application and database (x) Database of Research Projects undertaken in ICFRE

- Designing of websites of ICFRE (HQ) and institutes (bilingual)
- Websites of seminars and workshops like Asia Pacific Workshop on Forest Hydrology, Seminar on Hill Agroforestry Systems in the Indian Himalyan Region, National Workshop on Recent Advances in Statistical Methods and Applications in Forestry and Environmental Sciences (RASMAFES) etc.

10. Important Research Papers/Publications

- Nil

V. Soundararajan

1.	**Designation**	Scientist - C
2.	**Date of birth**	01/04/1973
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bangalore
4.	**Contact Details**	**(O)** 080-22190212 **(M)** 9449048920
5.	**Date of joining at ICFRE**	25/04/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-11 01/07/2009
7.	**Discipline/Specialization**	Computer Science, Software Development
8.	**Education Qualification (Graduation or above)**	M. Tech (Computer Science)

9. Important research contributions

- "Protocol standardization for microchip based e-protection system for valuable trees".
- Development of web based data base system for (i) Non-Timber Forest Produce (NTFP) in Karnataka in web based Database system (ii) Sandal Information System (iii) Red sanders (*Pterocarpus santalinus L.*) Information System.
- Designed and developed website for Institute of (i) Wood Science and Technology, (ii) Advanced Wood Working Training Center, Bangalore (iii) Institute of Forest Biodiversity, Hyderabad (iv) National Conference on "Tree Improvement Research in India: Current Trends and Future Prospects, etc.

10. Important Research Papers/Publications

- Soundararajan, V., G. Ravi Kumar, K. Murugesan, B.S. Chandrashekar and V.S. Shetteppanavar (2017). Recent Developments in Pharmaceutical and Therapeutic Applications of Sandalwood Oil, World Journal of Pharmacy and Pharmaceutical Sciences, 6(8): 659-680.
- Soundararajan V., G. Ravi Kumar, K. Murugesan and B. S. Chandrashekar (2016). A Review on Red Sanders (*Pterocarpus santalinus* Linn.) – Phyto-Chemistry and Pharmacological Importance, World Journal of Pharmacy and Pharmaceutical Sciences, 5(6): 667-689.
- Soundararajan, V., G. Ravi Kumar and K. Murugesan, (2015). Trade Scenario of Sandalwood and its valued oil, International Journal of Novel Research in Marketing Management and Economics, 2(3):52-59.

Books:

- Soundararajan, V., G. Ravi Kumar, K. Murugesan, Surendra Kumar, M. Srinivasa Rao, (2017). Gem of Peninsular India: Sandalwood (*Santalum album* Linn), Publisher: Institute of Wood Science and Technology (IWST), (Indian Council of Forestry Research and Education (ICFRE)), 18th Cross, Malleshwaram, Bangalore – 560 003, Karnataka.
- Soundararajan, V., and S.C. Joshi (2012). Endemic Possessions of Eastern Ghats: Red sanders (*Pterocarpus santalinus* Linn.f). Publisher: Institute of Wood Science and Technology (IWST), Bangalore – 560 003, Karnataka, India.

R. S. Kujur

1.	**Designation**	Scientist - C
2.	**Date of birth**	18/08/1976
3.	**Institute/Place of Posting**	Institute of Forest Productivity, Ranchi
4.	**Contact Details**	**(O)** 06512526030 **(M)** 8651739376
5.	**Date of joining at ICFRE**	28/04/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 01/07/2010
7.	**Discipline/Specialization**	Computer Applications, Management Information System
8.	**Education Qualification (Graduation or above)**	M.Sc (Computer Applications)

9. Important research contributions

- Development of Dynamic Database for Forestry Discussion Forum.
- Application of GIS/RS for identification and monitoring of lac host belts in Chotanagpur region of Jharkhand.
- Enhancement of Soil Carbon and Nitrogen Sequestration potential of different land use in Jharkhand through Recommended Management Practices.

10. Important Research Papers/Publications

- Kujur, R.S. and Rajiv Rai (2009). Sustainable Management of Lac bearing Host trees in Chotanagpur region of Jharkhand, Proc. of International Conference on Recent Trends in Life Science Researches vis-à-vis Natural Resource Management, Sustainable development and Human Welfare, June 27-29, 2009, Vinoba Bhave University, Hazaribagh, Jharkhand.
- Rai, Rajiv and R.S. Kujur (2009). Sustainable management of Biodiversity, its conservational measures with emphasis to Jharkhand, Proc. of International Conference on Recent Trends in Life Science Researches vis-à-vis Natural Resource Management, Sustainable development and Human Welfare, June 27-29, 2009, Vinoba Bhave University, Hazaribagh, Jharkhand.
- Kujur, R.S. (2010). Sustainable Management of Lac hosts and Insects in Chotanagpur region of Jharkhand – A review , Abs. Proc. of International Conference on Climate Change and Bioresource (ICCCB 2010), February 9-12, 2010, Bharathidasan University, Tiruchirappalli, Tamilnadu.
- Kujur, R.S. and Rajiv Rai (2010). Role of GIS and Remote Sensing in Monitoring and Management of Bamboo Resources in Natural Forest Ecosystem, Abs. Proc. of National Seminar on Conservation and Management of Bamboo Resources, March 9-10, 2010, Institute of Forest Productivity, Ranchi, Jharkhand.

Books:

- Kujur, R.S. and R.R. Lall (2013). Lac Market: An Overview. Prospects of Scientific Lac Cultivation in India. Published by Institute of Forest Productivity, Ranchi. Pp. 263-269.


INFORMATION TECHNOLOGY
CHEMISTRY
ECOLOGY AND CLIMATE CHANGE
FOREST PROTECTION
WOOD PRODUCTS
SILVICULTURE AND FOREST MANAGEMENT
EXTENSION
BIOMETRICS AND STATISTICS
FOREST GENETICS AND BIOTECHNOLOGY

Dr. G. R. S. Reddy

1.	**Designation**	Scientist - G
2.	**Date of birth**	26/11/1960
3.	**Institute/Place of Posting**	Institute of Forest Biodiversity, Hyderabad
4.	**Contact Details**	**(O)** 040-66309505 **(M)** 9490127198
5.	**Date of joining at ICFRE**	13/08/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-14 01/01/2015
7.	**Discipline/Specialization**	Forestry, Tree Improvement, Carbon Sequestration Ecology and Agroforestry
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D.

9. Important research contributions

- Developed a number of agroforestry models for M.P. and A.P. with wide adaptability.
- Natural variation studies of many species.
- Genetic improvement of *Melia azedarach ,Tectona grandis, Santalum album L.* and *Melia dubia.*
- Studied Ailanthes excelsa for standardizing seed germination and, their vegetative propagation techniques by bringing the germplasm to one place for site specific interaction studies and for conducting future improvement work of these species.
- Developed Biomass expansion factors based on 1384 trees for moist deciduous forests of Western Ghats and estimated biomass and carbon sequestration by urban forests.

10. Important Research Papers/Publications

- Reddy, N.N., T.N. Shivananda, G.R.S. Reddy, V. Palanichamy, B. Venkateswarlu, and A. Debnath (2015). Cashewnut production in Indian Sub continent with emphasis on carbon sequestration potential in a changing global climate scenario. Acta Hortic. 1080, 33-45 DOI: 10.17660/ActaHortic.2015.1080.2.
- Boga, Anitha, Bhimi Ram, G.R.S. Reddy (2012). Effect of benzyl amino purine and gibberellic acid on in vitro shoot multiplication and elongation of *Dalbergia latifolia Roxb.*: An important multipurpose tree Biotechnol. Bioinf. Bioeng. 2012, 2(1):597-602.
- Ram, Bhimi, G. R. S. Reddy, M. R. G. Reddy (2014). Reddy Effect of Indole-3-butyric Acid and Cutting Thickness on Rooting of Stem Cuttings in *Melia Dubia Cav*. Indian Forester,140(7).
- S. Pattanaik, N. Rama Rao, K. Rajesh, G. R. S. Reddy, M. R. G. Reddy (2014). Phytosociological Studies in the Dry Red Sanders (*pterocarpus santalinus L. f.*) Bearing Forest Areas of Eastern Ghats, Andhra Pradesh Indian Forester, 140(7).
- Shah, Syed Naseer, Tareq Ahmad Wani, Bhimi Ram, Monika Koul, Praveen Awasthi, Deependra Singh Rajput, G. R.S. Reddy (2016). An efficient protocol for in vitro organogenesis and antioxidant studies in *Melia dubia Cav*. African Journal of Biotechnology, 15(19):768-775.

Dr. Sangeeta Gupta

1.	**Designation**	Scientist - G
2.	**Date of birth**	28/12/1960
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135- 2224309 **(M)** 9412055650
5.	**Date of joining at ICFRE**	-
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-14 01/07/2016
7.	**Discipline/Specialization**	Botany, Wood Anatomy
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- Wood structure and Identification.
- Consultancy services in wood identification provided to both Government and Non-Government departments including special cases received from CBI, Vigilance, Anti-corruption Bureau, Police etc.
- Regular clients include departments of Railways, Defense, National Tests Houses, Housing Corporations, Sports Authority of India, Archaeological Survey of India, B.S. Institute of Palaeobotany, National Botanical Research Institute; Timber based Industries, Bureau of Indian Standards, Handicrafts departments/industries, Forest Departments, Electricity Board etc.

10. Important Research Papers/Publications

- Jangid, Prem Prakash and Sangeeta Gupta (2016). 'Systematic wood anatomy of the subfamily Acalyphoideae s.l. (Euphorbiaceae) from India, with remarks on synonymy Nordic Journal of Botany, (34): 197-216. Sweden.
- Yadav, Arvind, R.S. Anand, M.L. Dewal and Sangeeta Gupta (2015). 'Gaussian Image Pyramid based texture features for classification of microscopic images of Hardwood species'. OPTIK-International journal for Light and Electron Optics, Netherlands.
- Yadav, Arvind, R.S. Anand, M.L. Dewal and Sangeeta Gupta (2015). 'Performance analysis of discrete wavelet transform based first order statistical texture features for hardwood species classification'. Presented in 3rd International Conf. on Recent trends in Computing. Published in Proceedia Computer Science, col. (57):214-221, Netherlands.
- Mertz, Mechtild, Sangeeta Gupta, Yutaka Hirako, Pimpim de Azevedo and Junji Sugiyama (2014). 'Wood selection of ancient temples in the Sikkim Himalayas'. International Association of Wood Anatomists journal (IAWA Journal), 35(4): 444-462, Netherlands.
- Singh, Krishna, Indra Gupta and Sangeeta Gupta (2010). SVM-BDT PNN and Fourier Moment Technique for classification of leaf shape'. Published in 'International Journal of Signal Processing, Image Processing and Pattern recognition', 3 (4), Australia.

Dr. Dinesh Kumar

1.	**Designation**	Scientist - G
2.	**Date of birth**	23/06/1968
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224610 **(M)** 09411173576
5.	**Date of joining at ICFRE**	10/08/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/07/2017
7.	**Discipline/Specialization**	Silviculture, Plantation Forestry
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D.

9. Important research contributions

- Developed approach for early selection and concurrent multiplication of poplar.
- Produced new clones of poplar through germplasm introduction, control pollination and open-pollination.
- Investigated field performance of Paulownia and *Jatropha curcas*, two fast-growing exotic species.
- Developed techniques for vegetative propagation of tree species that are difficult to root.
- Developed "Rooter Strand', a novel product for air layering and filed application for its patent.
- As leader of drafting team, drafted the Status Report on Bamboo for finalisation and submission by ICFRE and also contributed three chapters in the report.
- Drafted six Chapters in DPR on Forestry Interventions for Ganga.

10. Important Research Papers/Publications

- Kumar, D. and N.B. Singh (2001). Age-age correlation for early selection of clones of Populus in India. Silvae Genetica, 50(3-4): 103-108.
- Kumar, D., Surendra S. Negi, R. Pandey, I. Pundir, A. Tomar and P. Kumar (2007). Variation in cone and seed morphology of *Pinus roxburghii Sergeant*: Effect of population and mother tree. Indian Forester, 133 (6): 749-758.
- Kumar, D., N.B. Singh, G.S. Rawat, S.K. Srivastava and D. Mohan (1999). Improvement of *Populus deltoides Bartr.* Ex Marsh in India — I. Present Status. Indian Forester,125 (3): 245-263.
- Singh, N.B., Dinesh Kumar, R.K. Gupta, Pradeep Kumar and Kadam Singh (2013). Improvement of *Populus deltoides Bartr.* Ex Marsh. in India – provenance variation and intraspecific breeding. Indian Forester, 139(1): 222-227.
- Singh, Bajrang, Kripal Singh, G. Rajeshwar Rao, J. Chikara, Dinesh Kumar, D.K. Mishra, S.P. Saikia, U.V. Pathre, Nidhi Raghuvanshi, T.S. Rahi and Rakesh Tuli (2012). Agro-technology of *Jatropha curcas* for diverse environmental conditions in India. Biomass and Bioenergy, 48: 191-202.

11. Awards

- Best research paper award of CSIR-National Botanical Research Institute in the field of Botanic Garden and Distant Research Centres (2012).

Dr. Syam Viswanath

1.	**Designation**	Scientist - G
2.	**Date of birth**	27/12/1963
3.	**Institute/Place of Posting**	Institution of Wood Science and Technology, Bangalore
4.	**Contact Details**	**(O)** 080-22190159 **(M)** 9448926871
5.	**Date of joining at ICFRE**	18/08/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/07/2017
7.	**Discipline/Specialization**	Agroforestry, Deputed to KFRI, Peechi as Director
8.	**Education Qualification (Graduation or above)**	M.Sc.(Forestry), Ph.D

9. Important research contributions

- Significant contribution in the field of bamboo research and utilization. Assembled a germplasm of *D.stocksii* with 100 accessions from Central western ghats and set up 3 multilocational trials in 3 distinct agroclimatic zones in Karnataka and Maharashtra.
- Recognized as a resource person at national level on bamboo propagation, plantation management and bamboo agroforestry. Have acted as technical consultant for United Nations Industrial development Organization (UNIDO) besides acting as resource person on bamboo for various organizations including research and teaching institutions like NID, Bangalore, UAS, Bangalore, IPIRTI, and Bangalore.
- Recognised as national expert on sandalwood cultivation .Assessed the diversity of sandalwood populations across 14 states covering nearly 74 locations using molecular markers and assessed variation in heartwood and oil content of these populations.

10. Important Research Papers/Publications

- Ramachandran Nair, P.K., Syam Viswanath and P.A. Lubina (2016). Cinderella agroforestry systems. Agroforestry Systems. DOI 10.1007/s10457-016-9966-3.
- Dhanya, B., Seema Purushothaman and Syam Viswanath (2016). Economic rationale of traditional agroforestry systems: a case-study of Ficus trees in semiarid agro-ecosystems of Karnataka, southern India. Forests, Trees and Livelihoods.DOI:10.1080/14728028.2016.1218800.
- Shukla, S.R. and Syam Viswanath (2014). Comparative study on growth, wood quality and financial returns of teak (*Tectona grandis L.f.*) managed under three different agroforestry practices. Agroforestry Systems. DOI :10.1007/s10457-014-9686-5.
- Dhanya, B., B.N. Sathish, Syam Viswanath and Seema Purushothaman (2014). Ecosystem services of native trees: experiences from two traditional agroforestry systems in Karnataka, Southern India. International Journal of Biodiversity Science, Ecosystem Services & Management, 10(2): 101-111.
- Viswanath S., P.K.R. Nair, P.K. Kaushik and U. Prakasam (2000). *Acacia nilotica* trees in rice fields: A traditional agroforestry system in Central India. Agroforestry Systems 50: 157.

Dr. Sandeep Sharma

1.	**Designation**	Scientist - G
2.	**Date of birth**	30/07/1966
3.	**Institute/Place of Posting**	Himalayan Forest Research Institute, Shimla
4.	**Contact Details**	**(O)** 0177-2816103 **(M)** 9418129759
5.	**Date of joining at ICFRE**	10/08/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/01/2018
7.	**Discipline/Specialization**	Silviculture (Nursery technique),Temperate medicinal plants
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D.

9. Important research contributions

- Macro-proliferation technique for *Pircrorhiza kurrooa, Valeriana jatamansi, Juniperus polycarpos* developed.
- Technology for mass production of quality planting stock of high altitude medicinal plants (Atish, Chora, Kutki and Mushakbala) refined. Identified 11 no. superior sources of *Picrorhiza kurroa* .
- Technology for breaking seed dormancy in *Juniperus polycarpos* and enhancing seed germination in Kaphal has been developed. Determined nursery requirements of *Diploknema butyracea (Roxb.)* H. J. Lam species under Himachal Himalayas.
- Morphological parameters defined for determining quality of Deodar and Ban Oak nursery stock.

10. Important Research Papers/Publications

- Sharma, S. (2017). Effect of seedling height and diameter of *Cedrus deodara* on out planting survival. J. of Tree Sciences, 36 (1): 132-138.
- Sharma, S., P.S. Negi and J. Singh (2012).Vegetative propagation of *Picrorhiza kurrooa Royle ex Benth* and *Valeriana jatamansi* Jones through macro proliferation technique for large scale nursery production. International Journal of Farm Sciences, 2(1):91-97.
- Sharma, S., S. Kumar, K.S. Thakur and P.S. Negi (2005). Study on Effect of Pre-sowing Treatments on Germination of *Ribes orientale*, Desf. Seeds, Indian Forester, 131(5): 667-672.
- Sharma, S., P.S. Negi, K.S. Thakur and S. Kumar (2004). Studies on Vegetative Propagation of *Colutea nepalensis* Sims through Shoot Cuttings: A Potential Species for Cold Desert Afforestation. Indian Forester, 130(12): 1422-1431.
- Ansari, S.A., S. Sharma, N.C. Pant and A.K. Mandal (2002). Synergism between IBA and Thiamine for Induction and Growth of Adventitious Roots in *Tectona grandis*, J. Sustainable Forestry, 15(4): 99-112.

11. Awards

- ICFRE Cash award in the field of Forest Extension (1996-97).
- Brandis Prize, ICFRE in the field of Silviculture (2004).

Dr. Maitreyee Kundu

1.	**Designation**	Scientist - F
2.	**Date of birth**	29/11/1962
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** 0761-2744140 **(M)** 09826057418
5.	**Date of joining at ICFRE**	24/05/1993
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 01/07/2013
7.	**Discipline/Specialization**	Seed Technology
8.	**Education Qualification (Graduation or above)**	M.Sc., M. Phil., Ph.D.

9. Important research contributions

- Develop seed handling techniques of about 30 species.

10. Important Research Papers/Publications

- Kundu, M. and R. Sett (1999). Regeneration through organogenesis in rattan. Plant Cell Tissue and Organ Culture, 59: 219-222.
- Kundu, M. and J. Kachari (2000). Desiccation sensitivity and recalcitrant behavior of seeds *Aquilaria agallocha Roxb*. Seed Science & Technology, 28:755-760,.
- Kundu, M. and R. Sett (2005). Development of *Aquilaria agallocha Roxb*. seeds: acqisition of germinability, desiccation sensitivity and storage response. Indian Journal of Plant Physiology, 10: 362:366.
- Kundu, M. (2008). Prediction of viability of seeds of *Pongamia pinnata* under controlled conditions. Seed Science & Technology, 36: 481-485.
- Kundu, M. and S. Singh (2016). Color as maturation indicator for maximum seed quality of *Sterculia urens*. Seed Technology, 37(2): 185-194.

Dr. Geeta Joshi

1.	**Designation**	Scientist - F
2.	**Date of birth**	15/03/1972
3.	**Institute/Place of Posting**	Tropical Forest Research Institute,Jabalpur
4.	**Contact Details**	**(O)** 0761-2744110 **(M)** 9880459636
5.	**Date of joining at ICFRE**	23/03/1998
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13A 01/01/2015
7.	**Discipline/Specialization**	Forestry,Seed Technology, Molecular Biology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D. (Forestry)

9. Important research contributions

- Standardized seed storage protocol for *Santalum album, Garcinia gummi-gutta, Messua ferrea, Oroxylum indicum*, Nothapodytes nimmoniana, *Jatropha curcus* and *Bambus bamboos*.
- For RET species of western Ghats, seed desiccation sensitivity was determined.
- Studied dormancy behaviour and standardised pre-treatment for breaking dormancy was carried out for *Santalum album, Garcinia gummi-gutta, Canarium strictum, Hydnocarpus pentandra, Buchanania lanzan*,etc.
- Standardized nursery practices for production of Quality planting material of *Santalum album* and macroporpagation protocol for *Guadua angustifolia, Dendrocalamus stocksii and D. brandisii.*
- Assessed genetic diversity using molecular markers for unimproved and improved populations of Tectona grandis and natural populations and plantations of Melia dubia in Karnataka.

10. Important Research Papers/Publications

- Joshi, Geeta , A. N. Arun Kumar, Gowda Balakrishna and Y.B. Srinivasa (2006). Production of supernumerary plants from seed fragments in *Garcinia gummi-gutta*: Evolutionary implications of mammalian frugivory. Current Science, 91(3): 372-376.
- Joshi, G., S. S. Phartyal, M. R. Khan and A.N. Arunkumar, (2015). Recalcitrant morphological traits and intermediate storage behaviour in seeds of *Mesua ferrea*, a tropical evergreen species. Seed Science & Technology, 43:121-126.
- Joshi, Geeta, S. S. Phartyal and A. N. Arunkumar (2017). Non-deep physiological dormancy, desiccation and low-temperature sensitivity in seeds of *Garcinia gummi-gutta* (Clusiaceae) :A tropical evergreen recalcitrant species. Tropical Ecology 58(2): 241–250.
- Lyngdoh, N., Geeta Joshi, R. Vasudeva, G. Ravikanth and R. Uma Shaanker (2013). Change in genetic parameters in unimproved and improved populations of teak (*Tectona grandis L.f.*) in India. Journal of Genetics, 92 (1):141-145.
- Lyngdoh, N., Geeta Joshi, G. Ravikanth, R. Uma Shaanker and R. Vasudeva (2010). Influence of levels of genetic diversity on fruit quality in teak (*Tectona grandis L.f.*). Current Science, 99 (5):639-64.

Neelu Singh

1.	**Designation**	Scientist - F
2.	**Date of birth**	11/01/1969
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224499 **(M)** 07612840751
5.	**Date of joining at ICFRE**	30/01/1991
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 01/07/2015
7.	**Discipline/Specialization**	Non Wood Forest Produce, Chemistry of Non Wood Forest Product, Medicinal Plant
8.	**Education Qualification (Graduation or above)**	M.Sc. (Organic Chemistry).

9. Important research contributions

- Evaluated potential of polysaccharides for the development of biodegradable polymers- poly-films and adhesives.
- Quantified azadirachtin in in vitro shoots cultures and seeds collected from different regions of M.P. and identified genetically superior clones containing higher amount of Azadirachatin.
- Developed surfactants from non edible oil seeds of *Sapindus mukrossi, Schleiochera oleosa, Jatropha curcas*, and *Pongammia pinnata* and assessed their pesticidal potential.
- Standardized non destructive harvesting practices of NTFPs yielding species- *Bahunia vhalii*, *Buchnania lanzan, Commiphora wightii, Asparagus racemosus, Argyreia speciosa* and *Curculigo orchioides* based on quality of produce.
- Assessed quality of some important medicinal plants from different agro-climatic regions of Madhya Pradesh and Chhattisgarh.

10. Important Research Papers/Publications

- Singh, Neelu and Sushil Kumar (2008). Anti-termite activity of Jatropha curcas Linn. biochemicals. Pestology, 32 : 31-33.
- Singh, Neelu and Nimisha Chaturvedi (2016). Effect of different methods of processing on quality of *Aegel marmelos* fruit pulp. Journal of Tropical Forestry, 32(1):19-28.
- Singh, Neelu and S.P. Tripathi (2008). Variation in oil contents and anti-nutritional factors phytates in different provenances of *Jatropha curcas Linn.* Journal of lipid science and technology, (40): 113-116.
- Singh, Neelu (2010). Edible potential of wild mushroom *Astraeus hygromatricus* (Pers.) Morg. Nature environment and pollution technology, 9 (3) : 597-600 .
- Singh, Neelu, Nanita Berry and Pranav Dhar (2014). Additive properties of mint weed in polyfilms. Indian Journal of Weed Science, 46(3):269-272.

11. Awards

- ICFRE Cash award for outstanding contributions to research in the field of Forest Protection (1996-1997).

Jagdish Singh

1.	**Designation**	Scientist - F
2.	**Date of birth**	08/10/1964
3.	**Institute/Place of Posting**	Himalayan Forest Research Institute, Shimla
4.	**Contact Details**	**(O)** 0177-2816106 **(M)** 8219053585
5.	**Date of joining at ICFRE**	22/03/1993
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 1/01/2016
7.	**Discipline/Specialization**	Non wood forest products, Temperate Medicinal Plant
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), M.Phil.

9. Important research contributions

- Diagnostic survey of existing agroforestry systems in mid and high hill temperate region of Himachal Pradesh.
- Developed the intercropping model of temperate high value medicinal plants with horticulture plantations.
- Identified the superior genetic stock of *Podophyllum hexandrum, Picrorhiza kurroa* and *Valeriana jatamansi* .
- Developed the appropriate propagation method of *Podophyllum hexandrum.*
- Documented 120 ethno-botanically important medicinal and aromatic plant species and inventorized a total of 213 species diversity growing in Chopal forest division.

10. Important Research Papers/Publications

- Singh, Jagdish, Surinder Kumar, K. D. Sharma, Silbhadra Brahma and Sandeep Sharma (2008). Effect of Spacing on the Pre-harvest Agronomic Growth Characterstics of *Valeriana jatamansi* Jones and *Picrorhiza kurroa* Royle *Ex* Benth. as Intercropping with Apple Orchard. Journal of non timber forest products, 15 (2):75-78.
- Singh, Jagdish (2010). Active ingredients content variation in *Valeriana jatamansi* jones (muskbala) as intercropping with horticultural plantation vis-a-vis natural habitat. ENVIS Forestry Bulletin, 10(1).
- Sharma, S., P.S. Negi and J. Singh (2012). Vegetative propagation of *Picrorhiza kurroa* Royle ex Benth and *Valeriana jatamansi* Jones through macro-proliferation technique for large scale nursery production. International Journal of Farm Sciences, 2(1):91-97.
- Kirti, Shitiz, Saurabh Pandit, Sreekrishna Chanumolu, Hemant Sood, Harvinder Singh, Jagdish Singh and Rajinder Singh Chauhan. (2015). Mining simple sequence repeats in *Picrorhiza kurroa* transcriptomes for assessing genetic diversity among accessions varying for picrosides contents. Plant Genetic Resources: Characterization and Utilization, 1–10.
- Singh, Jagdish, Joginder Singh, Narinder Kumar, Vaneet Jishtu, Sandeep Sharma, Renu Dhupper (2018). Ethano-medical plants used by indigenous people of Kanda range, Chopal forest division, Himachal Pradesh, World journal of pharmaceutival sciences, 7(1):697-710.
- Singh, Jagdish, S. Joginder and V.P. Tewari (2018). Screening and Evaluation of Superior Chemotypes of *Podophyllum hexandrum* Royle from Different Geographical Locations of North-west Himalayas. J Plant Chem and Ecophysiol, 3(1).

Dr. Sanjay Singh

1.	**Designation**	Scientist - F
2.	**Date of birth**	01/04/1970
3.	**Institute/Place of Posting**	Institute of Forest Productivity, Ranchi
4.	**Contact Details**	**(O)** 0651-2526228 **(M)** 9430366286
5.	**Date of joining at ICFRE**	02/01/1998
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 01/01/2017
7.	**Discipline/Specialization**	Tree Physiology & Molecular Biology; Clonal Forestry, Clonal Forestry; Planting Stock Improvement
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- Development of clonal procedures for tropical broadleaved trees, bamboos and medicinal plants.
- Physio-biochemical screening of genotypes for productivity enhancement and stress tolerance – *Dalbergia sissoo, Pongamia pinnata, Anthocephalus chinensis, Bombax ceiba.*
- Screening of *Moringa oleifera* genotypes with superior leaf nutritive and cytokinin content and development of organic fertilizer for enhanced crop yield.
- Assessment of genetic diversity in tropical trees and bamboos; development of species specific molecular markers and DNA barcoding in eastern Indian bamboos.
- Elucidation of physio-biochemical basis of adventitious rhizogenesis- identification of auxin dependent and independent phases of rooting; detection of role of moisture stress in root formation and IAA ionization, distribution pattern and rhizogenesis as influenced by inorganic salt pretreatment.

10. Important Research Papers/Publications

- Singh, Sanjay, Pramod Kumar and S. A. Ansari (2004). A simple method for large-scale propagation of *Dendrocalamus asper*. Scientia Horticulturae, 100: 251-255.
- Singh, Sanjay, A. S. Bhandari and S. A. Ansari (2006). Stockplant management for optimized rhizogenesis in *Tectona grandis* stem cuttings. New Forests, 31: 91-96.
- Singh, Sanjay, N. P. S. Nain and S. P. Tripathi (2009). Growing tropical tree planting stock in root trainers: Cell volume, seedling density and growing media. Annals of Tropical Research, 30: 44-55.
- Singh, Priyamvada, Sanjay Singh, S.P. Mishra and S. K. Bhatia (2010). Molecular characterization of genetic diversity in *Jatropha curcas L*. Gene, Genome and Genomics, 4: 1-8.
- Singh, Sanjay and S. A. Ansari (2014). Callus formation impedes adventitious rhizogenesis in air layers of broadleaved tree species. Annals of Forest Research, 57: 47-54.

11. Awards

- Indian Forester Prize for most outstanding research paper (2002).
- Prof. K. K. Nag Foundation Gold Medal and Young Scientist Award (2009).
- Indira Gandhi Lifetime Achievement Award from Rajiv Gandhi International S &T Association (2016).

Dr. Manisha Thapliyal

1.	**Designation**	Scientist - F
2.	**Date of birth**	27/09/1973
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224467 **(M)** 9410505639
5.	**Date of joining at ICFRE**	23/03/1998
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 01/01/2017
7.	**Discipline/Specialization**	Silviculture, Seed Science and Technology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- Standardized the Seed testing procedures for 170 forestry species.
- Seed storage physiology investigated for tropical (*Azadirachta indica, Diploknema butyracea, Schleichera oleosa*, etc.) and temperate (Quercus spp., *Carpinus viminea, Buxus wallichiana*, etc.) seeds.
- Seed storage protocols standardized for about 25 forestry species and bamboos.
- Developed a package of Seed Technology of 60 medicinal plants.
- Long term conservation of Forest Genetic Resources of Uttarakhand.

10. Important Research Papers/Publications

- Thapliyal, M. and R.C. Thapliyal (2005). Recent advances in research on seed technology of medicinal plants – Indian Scenario'. Jour. Med. Aromatic Plant Sci., 27(2): 320-327.
- Thapliyal, M., O. Singh, B. Sah and N. Bahar (2008). Seed source variation and conservation of *Pinus wallichiana* in India. Annals of Forest Research, (51): 81-88.
- Thapliyal, M. and R. Tewari (2011). Seed germination response to pretreatments and storage behaviour in Schleichera oleosa (Lour.) Oken. – Indian lac tree. Forests Trees and Livelihoods, 20 (4): 295-300.
- Masoodi, Haseeb Ul Rashid, M. Thapliyal and V. R. R. Singh (2014). Studies on the variation in germination and seedling growth of *Abies pindrow Spach*. (Royle) in Garhwal region of Uttarakhand, India. Journal of Applied and Natural Science, 6 (2): 711-715.
- Thapliyal, M. and N.K. Namitha (2017). Conservation of Forest Genetic Resources: Need and Challenges. Indian Journal of Plant Genetic Resources, 30(3): 267-270.

11. Awards

- Young Scientist Award for best oral presentation in Environmental Science & Forestry at 5th Uttarakhand State Science & Technology Congress, Doon University, Dehradun. (2010).
- Best Paper in 'Biodiversity Conservation' during XIX Commonwealth Forestry Conference, FRI, Dehradun (2017).

Dr. P. S. Rawat

1.	**Designation**	Scientist - F
2.	**Date of birth**	06/02/1969
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224353 **(M)** 9412346828
5.	**Date of joining at ICFRE**	10/08/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 01/01/2018
7.	**Discipline/Specialization**	Forestry, Ectomycorrhizae
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry) Ph.D.

9. Important research contributions

- Extension of plantation technology and motivation of farmers for effective adoption of demonstration plantations of bamboo and other tree species in farmland of rural areas of Central India.
- Studies on seed source variation in morphology, germination, seedling growth and oil yield in *Jatropha curcas*.
- Standardized containerized seedling production system for *Acacia nilotica. Dalbergia sissoo* and *Albizia procera*.
- Characterization, identification and isolation of Ectomycorrhizae of *Pinus roxburghii* and *Pinus wallichiana*.
- Assessment and identification of causal organism of mortality in oaks and blue pine first time from Dangangaon and Gangotri in Uttarkashi and suggested remedial measures.
- Assessment of seed mycoflora infestation in seed sources of *P. wallichiana*.

10. Important Research Papers/Publications

- Ginwal, H.S., P.S. Rawat, Sandeep Sharma, A.S. Bhandari, C. Krishanan and P. K. Shukla (2001).Standardization of proper volume/ size and type of root trainer for raising *Dalbergia sissoo* seedlings: Nursery evaluation and field trial. Indian. For., 127:580-590.
- Rawat, P.S., H.S. Ginwal, R.P. Singh and R.C. Dubey (2003). Vertical distribution of ectomycorrhizae in Deodar and Chirpine forests in relation to their soil characteristics. Ind. For. ,129(5):624-630.
- Ginwal, H.S., Rawat, P.S. and R. L. Srivastava (2004). Seed source variation in growth performance and oil yield of Jatropha curcas L.nn. in Central India. Silvae Genetica, 53(4): 186-192.
- Ginwal, H.S., Phartyal S., Rawat, P.S. and R. L. Srivastava (2004). Seed source variation in morphology, germination and seedling growth of *Jatropha curcas* L.nn. in Central India. Silvae Genetica, 54(4): 76-80.
- Rawat, P. S., Suresh Chandra and Anil Khaneja (2007). Mortality of Pinus wallichiana by Dwarf mistle toe in Uttarkashi. Ind. For. ,133 (7) :937-944.

Dr. R. Anandalakshmi

1.	**Designation**	Scientist - F
2.	**Date of birth**	11/03/1973
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484166 **(M)** 9345569036
5.	**Date of joining at ICFRE**	12/4/1999
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 01/07/2018
7.	**Discipline/Specialization**	Seed Technology, Forest Genetics Resources
8.	**Education Qualification (Graduation or above)**	B.Sc. (Biochemistry), M.Sc.(Biochemistry), Ph.D. (Botany).

9. Important research contributions

- Standardized seed handling techniques for 100 forestry species which comprise plantation species, Rare Endangered and Threatened (RET) species, Tree Borne Oilseeds (TBO), Non Timber Forest Species (NTFP) and medicinal species and brought out a hand book on Forest Seed Science and Technology.
- Developed post harvest techniques for value addition of NTFPs and released a product "TREE TEA" a rejuvenating health drink.
- Developed seed handling and nursery techniques for 15 Shola tree species of Nilgiris and established 2 Shola restoration trials in Nilgiris, Longwood Shoal and Glenmorgan. Published a book on "Seed Biology and bio-inculants for shoal tree species – A field guide" for use by foresters.
- High fruit yielding accessions of Sapindus emarginatus – a NTFP rich in saponins were assembled and established multilocation trails to develop Seed Production Areas of Soapnut.
- Discrimination of seeds of various Acacia species using image analysis was developed.

10. Important Research Papers/Publications

- Anandalakshmi, R. and M.S. Prakash (2010). Seed germination and storage characteristics of *Decalepis hamiltonii*: Implications for regeneration. Forests, Trees and Livelihoods (Academic Publishers U.K.) (19): 399–407.
- Anandalakshmi, R., T. Vamadevan, K. Suresh Kumar, V. Sivakumar and N. Krishna Kumar (2012). Tree improvement of *Calophyllum inophyllum L*. Madras Agricultural Journal, (99):9-11.
- Sivakumar, V., R. Anandalakshmi, Rekha R. Warrier, B. G. Singh, M. Tigabu and B. Nagarajan (2013). Discrimination of Acacia seeds at species and subspecies levels using an image analyzer. Forest Science and Practice, 15(4): 253–260.
- Anandalakshmi, R., S. Suja, T. Vamadevan, K.S. Rathnam and K. Suresh Kumar, (2013). Germination behaviour and occurrence of albino seedlings in *Sapindus emarginatus Vahl*. Indian Forester, 139 (6): 543-546.
- Anandalakshmi, R., S. Geetha, B. Gurudev Singh, V. Sivakumar and Rekha R. Warrier. (2016). Effect of fruit maturity stages on the germination and storage behaviour of *Gmelina arborea*. My Forest, 52(1-4): 69-76.

Dr. Meena Bakshi

1.	**Designation**	Scientist - E
2.	**Date of birth**	14/08/1959
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224410 **(M)** 9837350012
5.	**Date of joining at ICFRE**	Since 1983
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/07/2014
7.	**Discipline/Specialization**	Plant Physiology, Molecular Physiology & Biotechnology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- Technology for cloning of *Eucalyptus hybrid (E. tereticornis).*
- Planting stock improvement of *Dalbergia sissoo*.
- Diversity in populations of Pines and Shisham clones through Morpho-Physiological/biochemical and Allozyme markers.
- Multiplication of Ringal (Hill bamboos) through ex vitro and in vitro approaches.
- Conservation and Promotion of Ringal cultivation for Socio- Economic Upliftment of hilly Rurals in Uttarakhand.
- Vegetative propagation technologies of commercially important bamboo species of India, technology of Rejuvenation and clonal propagation of a commercially important medicinal species- *Saraca asoca De* Willd.

10. Important Research Papers/Publications

- Bakshi, M. and M. Konnert (2011). Genetic diversity and differentiation through isozymes in natural populations of *Pinus wallichiana* A.B. Jacks (Blue Pine) in India. Annals of Forest Research, 54(1): 23-37.
- Bakshi, M. (2012). Technology for rejuvenation and Mass multiplication in *Dalbergia sissoo* Roxb. (Shisham). In : Science and Technology in Uttarakhand (Dobhal, R., Uniyal, D.P. and Purohit, B.P. eds.) Proceedings of awarded Research papers of III rd USSTC. MacMillan Advanced Research Series. Pp.205-2011.
- Bakshi, M. and A. Sharma (2011). Assessment of genetic diversity in *Dalbergia sissoo* Roxb. Clones through RAPD profiling. Journal of Forestry Research, 22(3):393-397 DOI 10.1007/s11676-011-0183-7.
- Bakshi, M., C. Tewari and S. Razvi (2014). Conservation strategy of an important montane bamboo *Thalmnocalamus falconeri* Hook. F. ex Munro through axillary bud proliferation. Jour. of Forestry Research. DOI 10.1007/s11676-015-0022-3.
- Bakshi, M. (2015). Socio-economic significance and suitable forest management strategies of hill bamboos in Garhwal Himalayas (Uttarakhand) India. In: Proceedings of XIV World Forestry Congress, Durban, South Africa, 7-11 Sept.

11. Awards

- Award for poster presentation in 3rd and 6th Uttarakhand State Science and Technology Congress and XIX Commonwealth Forestry conference (2017).

Dr. B. P. Tamta

1.	**Designation**	Scientist - E
2.	**Date of birth**	18/12/1964
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224498 **(M)** 9411714075
5.	**Date of joining at ICFRE**	19/10/1989
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 01/01/2015
7.	**Discipline/Specialization**	Non Wood Forest Products, Medicinal Plant.
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- Natural occurrence of *Microstylis wallichii* (Jeevak) was mapped in different forest areas of Uttarakhand and testing of Vegetative propagation in natural forest area was undertaken to enhance their existing populations.
- Resin Tapping in *Pinus roxburghii* by Borehole Method was compared with Rill method, which led to the identification of best yield in 40-50cm dia. class at 1640-1740 m altitude .
- Survey for identification of habitats of target species *Aconitum heterophyllum* Nardostachys & *Picrorhiza kurrooa* at Khuliya and Kandara MPCA area and enrichment the sites.
- Natural occurrence of *Oroxylum indicum* was mapped in different forest areas of Uttarakhand,Uttar Pradesh and Haryana and Punjab and active compounds isolated.
- Developed non destructive harvesting technique of 4 medicinal plants *Valeriana jatamansi, Bergenia ciliate* , *Picrorhiza kurrooa* and *Rheum austral*.

10. Important Research Papers/Publications

- Tamta, B.P., Sanjay Verma and N. Chaudhary (2001). Effect of most pre-chilling on the viability and germination of *Cupressus torulosa* Don. Seed Indian Forester,127 (12): 1405-1407.
- Tamta, B.P., Ken Mc Nabb (2003). Influence of root desiccation of the survival and growth of loblolly pine seedlings. Annals of Forestry, 10(2): 273-279.
- Tamta, B.P. and A.N. Singh (2006). Physiological Evaluations of Seedlings Quality of Forest Tree Species for better Field survival and Performance. Proceeding of XII Siliviculture Conference pp 363-367.
- Tamta, B.P. and Yogesh Gairola (2010). Screening study to avoid seed loss in *Abrus precatorius* from wild sources: A case study of Shiwalik Hills. Indian Forester, 36(12):1719-1720.
- Tamta B.P., Lokho Puni, Neelam Rawat and Attar Singh (2011).Major aromatic oil components of domesticated *Valeriana jatamasi* Jones (Syn V. wallichii). Indian Forester, 137(11):1342-1343.

Dr. S. Saravanan

1.	**Designation**	Scientist - E
2.	**Date of birth**	16/05/1971
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** -0761-2744-115 **(M)** 9442143520
5.	**Date of joining at ICFRE**	02/03/1998
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 01/01/2015
7.	**Discipline/Specialization**	Forestry, Agroforestry
8.	**Education Qualification (Graduation or above)**	Ph.D. (Forestry).

9. Important research contributions

- Studied the growth pattern of farm grown Teak plantations in Tamil Nadu.
- Demonstrated various types of agroforestry models and popularized fast growing trees suitable for different agroclimatic zones .
- Studied the market dynamics of important NTFPs in Tamil Nadu.
- Evaluated shortlisted Eucalyptus clones for physiological and nutritional parameters.
- Studied the effect of elevated CO2 levels on biochemical and alkaloids changes in 10 important medicinal plants.
- Estimated carbon sequestration potential of important plantation species in Tamil Nadu.
- Established various agroforestry models in the demo village.

10. Important Research Papers/Publications

- Saravanan, S. (2017). Cultivation of *Melia dubia* Cav. – A fast growing native tree species and constraints faced by the farmers in western region of Tamil Nadu. Indian Journal of Agroforestry, 19 (2): 56-60.
- Saravanan, S. (2017). Growth Performance and Economic analysis of *Melia dubia* based Agroforestry Systems in Different Agroclimatic Zones of Tamil Nadu, India. International Journal of Forest Research, 21 (1): 18-26.
- Saravanan, S. and S. Karthi (2017). HPLC analysis for methanolic extract of *Justicia adhatoda* under elevated CO2. World Journal of Pharmacy and Pharmaceutical Sciences, 6 (12): 490-501.
- Ragavan, P., Alok Saxena, R.S.C. Jayaraj, P.M. Mohan, K. Ravichandran, S. Saravanan and A. Vijayaraghavan (2016). A review of the mangrove floristics of India. Taiwania, 61(3): 224–242.
- Ragavan, P., Alok Saxena, P. M. Mohan, K. Ravichandran, R. S. C. Jayaraj and S. Saravanan (2015). Diversity, distribution and vegetative structure of mangroves of the Andaman and Nicobar Islands, India. J Coast Conservation, (19):417–443.

P. K. Kaushik

1.	**Designation**	Scientist - E
2.	**Date of birth**	28/03/1968
3.	**Institute/Place of Posting**	Forest Research Centre for Livelihood Extension, Agartala
4.	**Contact Details**	**(O)** 0381-2397097 **(M)** 9402140041
5.	**Date of joining at ICFRE**	25/08/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/01/2015
7.	**Discipline/Specialization**	Forestry Extension, Agroforestry
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry, Wildlife, Environment & Ecodevelopment).

9. Important research contributions

- Propagation technique for *Thyrsostachys oliveri* and *Thysanolaena maxima.*
- Introduction and Promotion of Broom grass based agroforestry practices.
- Low cost vermicom posting techniques for quality production
- Ex- situ conservation of medicinal plants, intercropping of commercially important medicinal plants and documentation of medicinal plants and the formulations used by in treating the 10 in Tripura.
- Developed MPTs based AF models like Silvi-agri-horti and Silvi-olericulture.
- Studied the performance of leguminous tree species like *Sesbania sesban, Senna siamea, Albizia procera* and *Leaucaena leucocephala* in alley cropping trials.
- Productivity enhancement-management through people's participation (under the Ford Foundation Project).

10. Important Research Papers/Publications

- Kaushik, P. K., and A. Saha (2014). Broom Grass under Agroforestry – A Success Story of Participatory Research and Extension. Published in MANJARI NEWSLETTER, I (I):10-12.
- Sphagnum moss in Guadua angustifolia Kunth, a Commercial Important P. K. Verma, N. Das, P. K. Kaushik, V. Kumar and A. Yadav (2014). Air Layering through Bamboo, 132 (12):1088.
- Kaushik, P. K. and A. Saha (2016). Transfer of bamboo treatment techniques in rural areas of Tripura. Van Sangyan, 3 (11) : 1 - 7.
- Kaushik, P. K. (2017). Participatory evaluation of Agroforestry models – A case study. Published in VAN SANGYAN, 4 (8), August (ISSN 2395-468X).
- Kaushik, P. K. and Y.C. Tripathi (2002). Participatory assessment of biologic al resources: Strengthening documentation process based on desirability, practicability and utility. Proc. Modular Workshop on Documentation of Biological Resources in Madhya Pradesh, 20T H July, 2002, SFRI, Jabalpur, pp.84-90.

11. Awards

- Brandis prize , ICFRE for outstanding research (2013).

Dr. Nanita Berry

1.	**Designation**	Scientist - E
2.	**Date of birth**	01/02/1971
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** 0761-2744120 **(M)** 9425156667
5.	**Date of joining at ICFRE**	29/12/1997
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/07/2015
7.	**Discipline/Specialization**	Forestry, Agroforestry
8.	**Education Qualification (Graduation or above)**	M.Sc., Ph.D (Forestry).

9. Important research contributions

- Evaluated rhizome yield and oil content of bach under bach –paddy agrforestry model developed for waterlogged condition.
- Developed teak-turmeric silvi-medicinal model for teak plantations, Gmelina. Flemingia and bamboo- wheat and bamboo-urad silvi-agri model.
- Revived lac cultivation in the ten villages of Jabalpur with the involvement of farmers and women .
- Developed and evaluated Pterocarpus marsupium based Silvi-horti-agri model as demonstration plot for stakeholders.

10. Important Research Papers/Publications

- Berry, Nanita, Akhilesh Argal, A.K. Sah and P.K. Shukla (2003). Promising Agroforestry systems for Central India. In Agroforestry in 21st Century, pp 40 - 48.
- Sah, A.K., Akhilesh Argal, Nanita Berry, Ramesh Srivastava and I.T.K. Dilraj (2002). Evaluation of rhizome yield and oil content of bach under Bach + Paddy + *Gmelina arborea*. Agroforestry systems. Indian Jour. of Trop.Biod,(10) : 66-69.
- Berry, N., N. Singh and R. S. Pal (2008). Chapter – 11, Bamboo: potential in agroforestry systems. In Proceedings of the National Conference on Bamboos: Management, Conservation, Value addition and Promotion. Pp-103-114.
- Berry, N., S. Vishwnath, I.T.K. Dilraj, R.S. Pal and A.K. Mandal (2011). Evaluation of *Dendrocalamus asper* based Agroforestry system for tropics. In Advances in Bamboo Plantation, Management and Utilization, AFRI Publication : pp-174-182.
- Berry, Nanita and Neelu Singh (2016). *Flemingia semialata* based silvi-agri-lac system in Jabalpur district of Madhya Pradesh. Book chapter on National Symposium on 'Agroforestry for environmental challenges, sustainable land use, biodiversity conservation and rural livelihood options' , held from 3rd – 5th December, 2016 at Central Agroforestry Research Institute, Jhansi (U.P.). p 58.

Dr. Anup Chandra

1.	**Designation**	Scientist - E
2.	**Date of birth**	02/10/1968
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224490 **(M)** 9411727576
5.	**Date of joining at ICFRE**	24/02/1993
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/07/ 2015
7.	**Discipline/Specialization**	Botany, Forest Taxonomy
8.	**Education Qualification (Graduation or above)**	M. Sc. (Botany), Ph.D.

9. Important research contributions

- Carbon sequestration potential selected forest species of Jorhat district grown under energy plantation was carried out. *Mallotus albus* was found to be most promising species for biomass production and carbon sequestration.
- Impact of ban of green felling on the forest plant diversity was studied. Controlled scientific thinning is advisable for opening of canopy. It promotes regeneration of dominant tree species.
- Impact of invasive species on indigenous flora was studied in Uttarakhand .
- Population status of selected threatened species such as *Catamixis baccharoides, Pittosporum eriocarpum, Trachycarpus takil* etc. of Uttarakhand was carried out.
- Qualitative and quantitative study of forest vegetation of 11 districts of Bihar State.

10. Important Research Papers/Publications

- Chandra, A., R.R. Kalita, H. Mishra and V.R.S. Rawat (2005). Demand and Supply of supply of fuelwood in the Jorhat district of Assam-A case study. Indian Journal of Forestry, 28(1): 51-58.
- Chandra, A., R.R. Kalita, J. Singh and K.G. Prasad (2007). Bamboo scenario of Jorhat District of Assam. Indian Forester, 133 (7): 927-936.
- Chandra, A. and P.K. Pande (2010). Comparative study on the structure of *Cedrus deodara* (Roxb.) G. Don forest in silvicultural felling and non-felling sites of Chakrata Forest Division. Indian Journal of Forestry, 34 (2): 137-142.
- Chandra, A. (2011). Biomass production by *Anthocephalus chinensis* under high density plantation. Forests, Trees and Livelihoods, 20 pp 301-306.
- Chandra, A. and A. K. Kewat (2017). Phyto-diversity of selected stress sites of Garhwal Forest Division of Pauri Garhwal, Uttarakhand, India. Annals of Plant Sciences, 6 (8): 1658-1663.

M. D. Savio

1.	**Designation**	Scientist - E
2.	**Date of birth**	18/09/1970
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484143 **(M)** 9442559017
5.	**Date of joining at ICFRE**	30/12/1997
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 01/07/2016
7.	**Discipline/Specialization**	Forestry, Silviculture, Bamboo domestication, Red sanders, Forest genetic resources.
8.	**Education Qualification (Graduation or above)**	M.Sc (Forestry).

9. Important research contributions

- As a field scientists, worked closely with bamboo farmers in addressing their silvicultural problems apart from addressing their bamboo marketing issues. Had complied baseline data on bamboo growers in Tamil Nadu and also interacted with 150 bamboo farmers and collected their socio-economic profile to understand prospects and problems affecting the bamboo sector in Tamil Nadu.
- Initiated steps to address bamboo marketing problems in Tamil Nadu by establishing Bamboo Market Information Centre (BMIC) at IFGTB along with a dedicated bamboo telephone help line, apart from conducting Bamboo Growers and Entrepreneurs Meet (BGEM) by coordinating participation of more than 100 bamboo growers and 8 bamboo entrepreneurs for the Meet.
- Secured Rs, 50 Lakh from National Bamboo Mission (NBM) for establishing a bamboo high tech nursery at IFGTB along with Rs. 10 lakhs for establishing a bamboo retails sales showrooms at IFGTB.
- Conducted 3 training programs covering 100 field functionaries on bamboo cultivation, management and value addition with funding support from NBM apart from 2 trainings to other stakeholders with funding from MoEF&CC, GoI.
- Developed a methodology to assess the productivity of mano clonal bamboo plantations raised in farmer's field.
- Actively involved in Forest Genetic Resource Management (FGRM) Programme and assisted in bringing out the blue print for conservation and management of Forest Genetic Resources (FGR) in the country entitled "National Forest Genetics Resources Conservation and Usage Plan" by the Former Chair of Excellence (FGR) Dr. S. Nagarajan.

10. Important Research Papers/Publications

- Palanisamy, K., M. Maria Dominic Savio, D. Thangamani and R. S. Prashanth (2015). Forest Genetic Resource Management. Training Manual for training course on Forest Genetic Resource Management for Indian Forest Service Officers from 10/8/15 to 14/8/15, pp 270 .
- Maria Dominic Savio, M. (2015). Bamboos – its importance, Utilization and Conservation – Training Manual for training course to personnel of other departments, pp102.
- Maria Dominic Savio, M., K. Sushamani and A. Nicodemus (2012). Variation in cone and seed yield amongst individual trees of *Casuarina junghuhniana* ssp. timorensis. In Advances in Casuarina Research in India - Proceedings of 2nd National Seminar on Casuarinas, pp191 – 196.

Dr. Anita Tomar

1.	**Designation**	Scientist - E
2.	**Date of birth**	04/02/1976
3.	**Institute/Place of Posting**	Forest Research Centre for Eco-rehabilitation, Allahabad
4.	**Contact Details**	**(O)** 0532-2440796 **(M)** 6386193844
5.	**Date of joining at ICFRE**	08/04/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/07/2016
7.	**Discipline/Specialization**	Agroforestry, Nursery & Seed Technology.
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D.

9. Important research contributions

- Popularized less known wild fruits viz. *Spondias pinnata, Artocarpus lakoocha, Cordia lasoora* etc. for sustainable livelihood in eastern U.P.
- A concept of monsoon planting of poplar introduced in work plan. Monsoon planting of poplar may provide an alternative season to the growers who are unable to plant poplar in winter season due to inadequate irrigation in eastern U.P.
- Designed and constructed low cost, non mist movable vegetative propagation chamber as a Research Support System at FRC-ER for vegetative Propagation work.
- Established Vegetative Multiplication garden (V.M.G) of poplar at Allahabad consisting of more than 50 clones of AM, BR, FS series, collected from FRI Dehradun and quality planting stock of *eucalyptus hybrid, Gmelina* & Aonla for farmers.

10. Important Research Papers/Publications

- Tomar, A., R.K.Manhas, R.K. Srivastava (2012).Seed germination studies in Gentiana kuroo Royle –An endangered medicinal herb. Journal of Medicinal and Aromatic Plant Sciences. 34 (3 & 4) :168-171.
- Tomar, A., R. K. Manhas, R. K. Srivastava and H.B. Vasistha (2014). Fruit and seed characters of some valuable Lesser Known Plants of Uttarakhand Himalayas. Ann. For., 22(2): 189-194.
- Tomar, A. (2015). Variability and germination divergence in seed traits of *Stereospermum chelonoides* DC. Tropical Plant Research, 2(3): 224-229.
- Tomar, A. (2016). Capsule and seed characteristics of *Stereospermum suaveolens* in natural populations of Uttar Pradesh. Indian Forester, 142(8) : 801-802.
- Tomar, A. and A. Srivastava (2017).Effect of Seed Orientation on germination of wild mango *Spondias pinnata*. The Allahabad Farmer, 73 (1): 55-57.

11. Awards

- Women Scientist Award in 2nd Rashtriya Yuva Vaigyanik Sammelan 2010 at Doon University, Dehradun.
- Brandis award by Indian Forester, ICFRE (2007).
- Scientist Assistance Program Scholarship of IUFRO, Vienna (Austria) in 2014.
- Delegate Support Program by German Ministry of Food and Agriculture (FAO) in 2016.
- Special Programme for Development of Capacities (SPDC) by IUFRO in 2017.

Dr. A. Rajasekaran

1.	**Designation**	Scientist - E
2.	**Date of birth**	25/06/1971
3.	**Institute/Place of Posting**	Institute of Forest Genetics & Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422 -2484155 **(M)** 9489402805
5.	**Date of joining at ICFRE**	29/04/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 01/07/2016
7.	**Discipline/Specialization**	Non-Wood Forest Products, Forestry Ecology, Geo-informatics, Medicinal Plants, Remote Sensing and GIS, Invasive Alien Species
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- High Berberine yielding populations of *Berberis aristata* was identified in Himachal Pradesh.
- Site specific management strategies for conservation and management of important sacred groves of Kullu Valley, Himachal Pradesh was formulated in consultation with various stakeholders.
- Optimum harvest limits for medicinal plants such as *Picrorhiza kurrooa* and *Valeriana jatamansi* in Himachal Pradesh was standardized and disseminated.
- Documented and assessed the nutritional status of prioritized wild edible plants of Kinnaur District, Himachal Pradesh.
- The spatial extent of Casuarina and Eucalyptus plantations in six districts of Tamil Nadu and Prosopis invasion in Pudukkottai and Sivaganga Districts of Tamil Nadu state has been mapped using various Remote Sensing and GIS techniques.

10. Important Research Papers/Publications

- Rashmi, A. Rajasekaran, Rekha Pokhriyal, Rashmi, Y.P. Singh (2009). Quantitative estimation of Berberine in roots of different provenances of *Berberis aristata* DC by HPLC and study of their antifungal properties. Pharmacognosy Magazine,5 (20):355-358.
- Rajasekaran, A. and Nilay Kumar (2009). Rasont- A crude drug prepared from Berberis spp and its uses. Indian Journal of Traditional Knowledge, 8(4): 56-563.
- Rajasekaran, A. and Shalu Devi Thakur (2015). Assessment of status and site-specific management strategies for conservation and rejuvenation of sacred groves in Kullu Valley of Himachal Pradesh, Research in Environment and Life Sciences, 8(4): 679-686.
- Rajasekaran, A., Joginder Singh, S. P. Subramani, and Shalu Devi (2017). Ethnobotany of Useful Plant Species in North Western Himalaya, India, Page 357- 408. In: Ethnobotany of India, Volume 4, Western and Central Himalayas, Apple Academic Press, Waretown, USA.
- Rajasekaran, A., Vaneet Jishtu, Yogesh Gohale, Nazir A Pala and Jagdish Singh (2017). Ethno-conservation practices in North Western Himalaya, Page 409-444. In: Ethnobotany of India, Volume 4, Western and Central Himalayas, Apple Academic Press, Waretown, USA.

Dr. A.Vijayaraghavan

1.	**Designation**	Scientist - E
2.	**Date of birth**	15/08/1973
3.	**Institute/Place of Posting**	Institute of Forest Genetics and Tree Breeding, Coimbatore
4.	**Contact Details**	**(O)** 0422-2484191 **(M)** 9894912714
5.	**Date of joining at ICFRE**	16/04/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 01/01/2017
7.	**Discipline/Specialization**	Forestry, Seed Technology, Tree Improvement
8.	**Education Qualification (Graduation or above)**	M.Sc., Ph.D. (Forestry).

9. Important research contributions

- Based on the multilocation clonal trial of 1st generation Eucalyptus at 12 locations in four different states viz. Tamil Nadu, Andhra Pradesh, Karnataka and Puducherry we identified the seven stable clones across the locations.
- Released two *Eucalyptus camaldulensis* clones (IFGTB-6 and IFGTB-7) as Principal Investigator (PI) and five clones (IFGTB- 5; IFGTB-8; IFGTB-9; IFGTB-10 and IFGTB-11) as Co-PI during 2014.
- Under the tree improvement on *Neolamarckia cadamba* raised progeny trials and identified 15-20 best individuals and they are mass multiplies for clonal trial. Clonal trial of *Neolamarckia cadamba* was established to identify the high productive clone.

10. Important Research Papers/Publications

- Vijayaraghavan, A., P.B. Meshram, D.L. Nandeshwar and A.K. Pandey (2005). Root production of *Asparagus racemosus* in sandy loam soil of Satpura plateau of Madhya Pradesh. Indian Journal of Tropical Bio diversity, 13 (2):101-10.
- A. Vijayaraghavan, K. Nelson NavamaniRaj and R. Ravi. (2011). Effect of presowing treatments on germination of *Tinospora cordifolia* (W.) seeds published in International journal of Applied Agricultural & Horticultural Sciences Green farming, 2(3):373-374.
- A.Vijayaraghavan, G. Dharmaraj, K. Nelson NavamaniRaj, R. Ravi, K. PanneerSelvam, and V. Azhagarasi. (2012). Screening of Drought Tolerant *Madhuca latifolia* macb. Seed LotsBased on Physiological Parameters. International Journal of Applied Agricultural Research, 12(8):541-550.
- A.Vijayaraghavan, V. Sivakumar, S. Saravanan, R.S.C. Jayaraj and A. Madhanraj (2015). "Evaluation of site specific clones *Eucalyptus camaldulensis* clones in Badami (Karnataka)". International Journal of Forestry Research, 18(4): 224 -232.
- A.Vijayaraghavan and V. Sivakumar (2017). Selection of site specific Eucalyptus camaldulensis and Eucalyptus tereticornis Clones for Ariyalur region (Tamil Nadu) based on its higher productivity'. IJRDO-Journal Applied Science, 3(2):40-57.
- **Books :** Cultivation and Economics of *Neolamarckia cadamba* in Tamil has been brought out.

11. Awards

- Best Assistant Ship Award for meritorial student doing Ph.D in Forestry.
- Best paper award and cash award by the Indian Society of Seed Technology, Division of Seed Science and Technology, IARI, New Delhi.
- Life Membership in Indian society of Agro Forestry, Jhansi (Uttar Pradesh).

Dr. T.N. Manohara

1.	**Designation**	Scientist - E
2.	**Date of birth**	09/04/1974
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bengaluru
4.	**Contact Details**	**(O)** 080-22190191 **(M)** 9435351304
5.	**Date of joining at ICFRE**	18/01/2010
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/01/2018
7.	**Discipline/Specialization**	Plant Taxonomy
8.	**Education Qualification (Graduation or above)**	M.Sc.(Botany), Ph.D.

9. Important research contributions

- Studied the diversity, distribution and current status of conservation of rattans of Assam.
- Carried out nutritional analysis of shoots of two rattan species *Calamus floribundus* and *C. flagellum* from Northeast India.
- Studied the reproductive biology, embryology and pollen morphology of *Aquilaria malaccensis* Lamk. an economically important and critically endangered species of North East India. Wasp-mediated seed dispersal in *Aquilaria malaccensis* Lamk. is the first report from India.
- Studied the seed biology and distribution of *Abroma augusta* a medicinally important species from Northeast India.
- Documented Traditional Knowledge Associated with Garo Tribes on Ethno veterinary Medicine.
- Introduced *Morinda citrifolia L.* (Noni) in to 3 Northeast Indian States- Assam, Mizoram and Tripura. Standardized propagation technique and developed package of practice for cultivation.

10. Important Research Papers/Publications

- Manohara, T.N., E.L. Linto and C. Renuka (2010). Diversity and conservation of palms in Andaman & Nicobar archipelago. Biodiversity Conservation, 19: 3655-3666.
- Manohara, T.N. (2013). Nutritional Evaluation of Shoots of Two Rattans of Northeast India—*Calamus flagellum* Griff. ex Mart. and *C. floribundus Griff*. (Arecaceae). Economic Botany, 67(3): 263-268.
- Manohara, T.N. (2013). Wasp-mediated seed dispersal in agarwood plant (*Aquilaria malaccensis*), a critically endangered and overexploited species of North East India. Curr. Sci., 105(3):298-299.
- Adams, S. John, T.N. Manohara, K.V. Krishnamurthy and T. Senthil Kumar. (2016). Histochemical studies on fungal – induced agarwood. Indian Journal of Plant Sciences, 5(1): 104-112.
- Manohara, T.N. (2016). Embryology of *Aquilaria malaccensis* Lamk. an overexploited and endangered tree species from North East India, with a discussion on its Taxonomic Status in Thymelaeaceae. Phytomorphology, 66: 1-11.

Chandrashekar B.S.

1.	**Designation**	Scientist - E
2.	**Date of birth**	24/04/1975
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bengaluru
4.	**Contact Details**	**(O)** 080-22190192 **(M)** 09945082963
5.	**Date of joining at ICFRE**	16/06/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13 01/07/2018
7.	**Discipline/Specialization**	Non wood forest products, Medicinal Plants and Natural Products
8.	**Education Qualification (Graduation or above)**	M.Sc.(Botany)

9. Important research contributions

- Use of *Garcinia indica* extracts in reduction in blood glucose level.
- Efficacy of *Zanthoxylum rhetsa* as larvicide including mosquito. a . Study revealed mosquitocidal potentiality on *A. aegypti*, an important vector responsible for transmission of Dengue and Chikungunya virus.
- The new method of extraction of resin (Herringbone method) from *Ailanthus malabarica* (Halmaddi) .

10. Important Research Papers/Publications

- Chandrashekar, B.S., M.K. Devaiah, Soumya Santhoshini (2011). Pharmacological evaluation of *Garcinia indica* Choisy fruit-rind extract for Anti- Diabetic activity in Streptozotocin-nicotinamide induced diabetic rats. 3rd International conference on current Trends in Pharmaceutical Sciences , PES College of Pharmacy, Bengaluru.
- Chandrashekar, B.S., G. Ravikumar, V.S. Shettappanavar, Mamata Ravindra, Olivia Lukose. Qualitative confirmation of Campthothecin in the callus of *Nothapodytes nimmoniana* by TLC method; Oral presentation at the 2nd International Conference on Bio Science and Biotechnology-2017 (BIOTECH), Colombo, Sri Lanka.
- Soundararajan, V., G. Ravikumar, K. Murugesan and B. S. Chandrashekar. A review on Red Sanders (*Pterocarpus santalinus* Linn.) – Phyto-chemistry and Pharmacological importance; World Journal of Pharmacy and Pharmaceutical sciences, 5(6):667-689.
- Somashekar, P.V., Khannam Almas, T.S. Rathore, G. Ragavendra, Mamta Ravindra and B.S. Chandrashekar (2017). Multiple shoot induction in *Nothapodytes nimmoniana* Graham through adventitious mode of regeneration; Oral presentation at National Conference held at IWST, Bengaluru from 2nd and 3rd February.
- Chandrashekar, B.S., S. Prabhakara, T. Mohan, D. Shabeer, B. Bhandare, M. Nalini, *et al.* (2018). Characterization of *Rubia cordifolia* L. root extract and its evaluation of cardioprotective effect in Wistar rat model. Indian Journal of Pharmacology, (50):12-21.

Dr. Vishakha Kumbhare

1.	**Designation**	Scientist - E
2.	**Date of birth**	15/12/1966
3.	**Institute/Place of Posting**	Centre for Forestry Research and Human Resource Development, Chhindwara
4.	**Contact Details**	**(O)** 07162-292061 **(M)** 09826884168
5.	**Date of joining at ICFRE**	16/11/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/01/2019
7.	**Discipline/Specialization**	Non Timber Forest Produce, value addition
8.	**Education Qualification (Graduation or above)**	M.Sc (Biochemistry), Ph.D.

9. Important research contributions

- Technology was developed for formulation of nutraceutical food products from *Cissus quadrangularis* (Hadjor) stems. Six nutraceutical food products were developed as per Food Products Order (FPO) & Prevention of Food Adulteration Act (PFA) specifications.
- Four economically important medicinal plants viz. *G. sylvestre, M. oleifera, S. rebaudiana* and *Withania somnifera* were analysed quantitatively for their antioxidants content and found to possess good potential as novel natural plant antioxidants for their use in food industries and their utilization as dietary supplement.
- Technology was developed for preparation of three value added food products viz. mahua jam, squash and chutneys using dried *Madhuca indica* (mahua) flowers as per Food Product Order (FPO) specifications.
- *Buchanania lanzan* (chironji) seeds from 13 CPTs were evaluated for their nutritional contents. MPC-8 was found to be the best source in respect of oil, carbohydrates and tannin content followed by MPC-10 and MPC-2 for ascorbic acid and trace minerals. Seeds of B. lanzan provide good opportunities to develop value added products, dietary supplements and phytotherapeutic compounds.

10. Important Research Papers/Publications

- Kumbhare, V. and A. Bhargava (1999). Studies on the nutritional composition of *Sterculia* species. J. Fd. Sci. Technol., 36(6):542-544.
- Kumbhare, Vishakha and Alka Bhargava (2007). Effect of processing on nutritional value of central Indian bamboo shoots. Part-I. J. Food Sci. Technol, 44(1): 29-31.
- Kumbhare, V. and A. Bhargava (2008). Studies on the vitamin content of bamboo seeds. Indian Forester, 134 (9): 1271-1273.
- Kumbhare, Vishakha (2009). HPLC estimation of phenolic acids in leaves of some Central Indian bamboo species. Journal of Bamboo and Rattan, 8(1&2):23-29.
- Kumbhare, Vishakha and Alka Bhargava (2007). Effect of processing on nutritional value of central Indian bamboo shoots. Part-I. J. Food Sci. Technol, 44(1): 29-31.

Vishavjit Kumar

1.	**Designation**	Scientist - D
2.	**Date of birth**	07/08/1972
3.	**Institute/Place of Posting**	ICFRE (HQ), Dehradun
4.	**Contact Details**	**(O)** 0135- 2224864 **(M)** 9412050898
5.	**Date of joining at ICFRE**	31/07/2006
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/07/2015

7.	**Discipline/Specialization**	Non Wood Forest Products, Environment Management
8.	**Education Qualification (Graduation or above)**	M.Sc.(Forestry)

9. Important research contributions

- Vegetative propagation methods for NTFPs like *Gaudua angustifolia* Kunth., *Elaeocarpus angustifolius* Blume, *Gentiana kurroo Royle, Thymus serpyllum L*. were standardized for NE & NW Himalayas. Method for *Thymus serpyllum* cultivation in stone wall gaps of terraced agricultural fields in Gharwal Himalayan region.
- Prepared a document on baseline information on shifting cultivation in North East Indian states.
- Mimosa invasion studies in Kaziranga National Park area.
- Reports on Rapid Environmental Impact Assessment (REIA), Biodiversity studies of Marki Barka East and West blocks in Singaruli coal field areas, annual Report on monitoring of green conditions of NTPC Ltd plantations,etc.,were prepared.

10. Important Research Papers/Publications

- Kumar, Dinesh, Sanjay Singh, Ritesh Sharma, Vishavjit Kumar and Harish Chandra (2011). Above ground morphological predictors of rooting success in rooted cuttings of *Jatropha curcas* L. Biomass and Bioenergy, (35): 3891-95.
- Verma, P.K., Vishavjit Kumar, P.K. Kaushik and A. Yadav (2013). Bryophyte invasion on famous archeological site of Ahom Dynasty 'Talatal Ghar' of Sibsagar, Assam, India. Proced. Nat. Acad. Sci. India, Sect. B. Biol. Sci. Springer:DoI 10. 1007/840011-013-0198-2.
- Verma, P.K., N. Das, P.K. Kaushik, Vishavjit Kumar and A. Yadav (2013). Vegetative propagation through air layering of *Gaudua angustifolia* Kunth.- A commercially important Bamboo. Indian Forester, 139 (92): 1088-1091.
- Verma, P.K., N. Das, Vishavjit Kumar, P.K. Kaushik and A. Yadav (2016). Air-layering through *Sphagnum* moss in *Elaeocarpus angustifolius* Blume (Rudraksha) Commercially Important Tree Species. Indian Forester, 142 (9): 875-877.
- Sharma, S., V.K. Varshney and Vishavjit Kumar (2017). Effect of Drying on total bitter contents in *Gentiana kurroo* leaves. Global Journal for Research Analysis, 6 (2): 704-705.

11. Awards

- Brandis Prize for research paper in the field of forestry (2013).

Dr. Malabika Ray

1.	**Designation**	Scientist - D
2.	**Date of birth**	31/05/1960
3.	**Institute/Place of Posting**	Institute of Forest Biodiversity, Hyderabad
4.	**Contact Details**	**(O)** 0651-2526117 **(M)** 8987504792
5.	**Date of joining at ICFRE**	04/03/1991
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/09/2015
7.	**Discipline/Specialization**	Plant Physiology,NWFP
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- The traditional medicinal knowledge was documented from 24 ethnic communities in 12 districts of Jharkhand. Botanicals, herbal products and remedies commonly used for curing various ailments by 108 herbal practitioners were documented.
- Developed agro-techniques for rare and endangered species of medicinal plants viz. *Celastrus paniculatus, Vitex peduncularis, Gymnema sylvestre, Cissus quadrangularis, Withania somnifera, Asparagus racemosus and Rawvolfia serpentina.*
- The collection and marketing of medicinal plants were studied. Five NTFPs viz. roots and bark whose demand are likely to increase over the next five years are Terminalis arjuna. *Saraca ashoka, Cyperaus rotundus, Mesua fera* and *Dioscoria deltoidia*. Similarly for *Gycyrrhiza glabra, Strychnos nux vomica, Tribulus terrestris, Helicteres isora, Asparagus racemosus, Litsea glutinosa*, and *Hemidesmus indicus* there is a decline in market demand.

10. Important Research Papers/Publications

- Dutta, S. K. and Malabika Ray, (1996). Government Forest Service Training in India: recommendations for change. Unasylva: 184, 47 (1): 44-49.
- Dutta, S. K. and Malabika Ray (1997). Eco-restoration through community participation lessons from Doon Valley Watershed Management Project in Garhwal Himalayas, India. Proceedings of the 10th Annual Forestry Conference, Atlanta, Turkey, October.
- Ray, Malabika (2009). Non wood forest products traded in markets of tribal dominated areas of Chotanagpur plateau in Jharkhand. IV National Forestry Conference 9-11th. November. FRI, Dehradun.
- Ray, Malabika (2010). Medicinal plants used by ethnic communities and their conservation. National Conference on Sustainable Production and Utilization of Medicinal and Aromatic Plants: Current Trends and Culture Prospects. 8-9th. April . Regional Plant Resource Centre, Govt.of Orissa, Bhubaneshwar. 76p.
- Thakur, Deepak Kumar and Malabika Ray (2017). Soil Organic Carbon Stock under plantation forests in southern Palamau Tiger Reserve, Jharkhand. Proc. National Conference on Agro-forestry, Patna, 19-20 Dec.

Dr. Devendra Kumar

1.	**Designation**	Scientist - D
2.	**Date of birth**	10/03/1968
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224325 **(M)** 9319097046
5.	**Date of joining at ICFRE**	10/12/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/01/2016
7.	**Discipline/Specialization**	Forestry, Seed Technology
8.	**Education Qualification (Graduation or above)**	M.Sc. Ag (Agronomy), Ph.D. (Forestry).

9. Important research contributions

- Study of Physical indices of maturity in different age classes of neem (*Azadirachta indica A.* Juss).
- Studied effect of fruits colour on seed germination, storability and seedling performance, methods of seed collection,method of seed extraction, method of seed drying, biodeterioration etc., of neem seeds.

10. Important Research Papers/Publications

- Kumar, Devendra (2015). Storage response of neem (*Azadirachta indica A.* Juss.) seed under different moisture and temperature regime. Global Journal of Science Frontier Research: C Biological Science, Canada, 15 (6): 5-17.
- Mishra, Dhruv Kumar and Devendra Kumar (2014). Clonal propagation in *Commiphora wightii* (Arnott.) Bhandari. Journal of Forest Science, Korea, 30(2): 218-225.
- Kumar, Devendra (2013). Assessment of seed viability and vigour in neem (*Azadirachta indica a.* Juss.). Journal of Forest Science, Korea, 29(4): 282-291.
- Kumar, Devendra and D. K. Mishra (2014). Variability in permeability and integrity of cell membrane and depletion of food reserves in neem (*Azadirachta indica A.* Juss.) seeds from different age classes. Journal of Forestry Research, China,25(1):147-153.
- Mishra, Dhruv Kumar, Bohra, Naveen Kumar and Devendra Kumar (2013). Growth Performance of *Jatropha curcas* Linn. under Arid Environment. International Journal of Forest Usufructs Management, 14(1): 36-50.
- Mishra, Dhruv Kumar and Devendra Kumar (2013). Vegetative propagation of *Commiphora wightii* (Arnott) bhandari, through air layering. International Journal of Forest Usufructs Management, 14(2):3-9.

11. Awards

- Brandis Prize , ICFRE for best research paper on silviculture (2008).

Dr. Nawa Bahar

1.	**Designation**	Scientist - D
2.	**Date of birth**	01/06/1965
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135- 2224611 **(M)** 7579090570
5.	**Date of joining at ICFRE**	05/10/1989
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/01/2017
7.	**Discipline/Specialization**	Silviculture, Propagation Techniques
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D

9. Important research contributions

- Gravitropic relation of seedling emergence was carried out to find out the effect of seed orientation on germination behaviour, vigour and other features of seedling development in *Adenanthera microsperma*.
- Fruit maturation , germination and vigour of Bakul (*Mimusops elengi* Linn) seeds.
- Sowing of ungraded seed of *Diploknema butyracea* gives rise to non-uniform planting material, which gives rise to heterogeneity in vigour and size of seedling produced. Hence, investigation was carried out to determine the best dimension of seed. Relationship between size of tree and seed fertility was also studied.
- *Diploknema butyracea* trees were grouped into different diameter classes for assessment of seed germination and seedling vigour.
- Developed the protocol of propagation and conservation of vulnerable/threatened Himalayan species. Developed the new techniques of propagation and standardized the nursery techniques for sub- tropical, tropical and temperate tree species.

10. Important Research Papers/Publications

- Bahar, Nawa and Preeti Sharma (2017). Evaluation of seed grading effect on germination and seedling vigour of Diploknema butyracea (butter tree). Seed Research, 45 (1):48 - 53.
- Bahar, Nawa (2017). Evaluation of seed fertility in relation to diameter classes of *Diploknema butyracea* (Roxb.) H.J. Lam. Indian Forester, 143(6): 541 -545.
- Bahar, Nawa and Mem Ejing (2017). Gravitropic relation of seedling emergence in *Adenanthera microsper*ma. Indian Forester, 143(3): 203 -206.
- Bahar, Nawa (2016). Effect of fruit maturation on germination and vigour of Bakul (*Mimusops elengi* Linn) seeds. Indian Forester, 142(9): 858 – 861.
- Bahar, Nawa (2016). Seedling evaluation of *Nyctanthes arbor-tritis* Linn. Indian Forester, 142(2): 139 -143.

Dr. Hariom Saxena

1.	**Designation**	Scientist - D
2.	**Date of birth**	29/01/1982
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur.
4.	**Contact Details**	**(O)** 0761-2744118 **(M)** 09131649342
5.	**Date of joining at ICFRE**	05/02/2007
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/07/2018
7.	**Discipline/Specialization**	Non Wood Forest Produce, Sustainable harvesting, processing, Value addition of NTFPs.
8.	**Education Qualification (Graduation or above)**	M.Sc., Ph.D. (Chemistry)

9. Important research contributions

- The elite germplasm of three dashmool species (*Solanum indicum, Solanum xanthocarpum* and *Uraria picta*) were screened out in Madhya Pradesh. Chromatographic chemical fingerprint profiles of different parts developed.
- The protocol for processing of fruits and preservation of fruit pulp of *Schleichera oleosa* (Kusum) was standardized. Value added products of kusum were also prepared.
- The processing and storage techniques for seeds of *Celastrus paniculatus* and *Embelia tsjeriam* and rind of *Terminalia belerica* fruits were standardized.
- The elite germplasm of high traded medicinal plants viz. *Hemidesmus indicus, Gloriosa superba* and *Plumbago zeylanica* in Madhya Pradesh were investigated.

10. Important Research Papers/Publications

- Saxena, H.O., U. Faridi, S. Srivastava, J.K. Kumar, M.P. Darokar, S. Luqman, C.S. Chanotiya, V. Krishna, A.S. Negi and S.P.S. Khanuja (2008). Gallic acid based indanone derivatives as anticancer agents. Bioorganic & Medicinal Chemistry Letters, 18(14): 3914-3918.
- Saxena, H.O., A. Soni, N. Mohammad, A. Kakkar, N. Singh (2014). HPLC analysis of rhoifolin in different plant parts of *Uraria picta*: a dashmool species. Indian Journal Tropical Biodiversity, 22(2): 199-201.
- Saxena, H.O., B. Mohan, A. Kakkar and Ganesh (2016). Evaluation of plumbagin in roots of *Plumbago zeylanica* from different locations of Madhya Pradesh. Asian Journal of Chemistry, 28 (11): 2502-2504.
- Saxena, H.O., B. Mohan, A. Kakkar and G. Pawar (2017). Chemotypic variation of lupeol in roots of *Hemidesmus indicus* (L.) R.Br. from different agroclimatic regions of Madhya Pradesh state of India. Current Traditional Medicine, (3): 29-37.
- Saxena, H.O., B. Mohan, A. Kakkar and Ganesh (2017). Variation in colchicine content in tubers of *Gloriosa superba* L. from Madhya Pradesh for identification of elite chemotypes. International Journal of Chemical Studies, 5(5): 2278-2282.

11. Awards

- SARC Gold Medal Award for contribution in the field of chemistry by SARC (Scientific & Applied Research Center) Society, Meerut (2011).

Dr. M. K. Singh

1.	**Designation**	Scientist - D
2.	**Date of birth**	21/07/1983
3.	**Institute/Place of Posting**	Rain Forest Research Institute, Jorhat
4.	**Contact Details**	**(O)** 0376-2305239 **(M)** 9476755636
5.	**Date of joining at ICFRE**	29/04/2011
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-12 01/07/2018
7.	**Discipline/Specialization**	Botany, Plant Physiology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany), Ph.D.

9. Important research contributions

- Effect of anthropological activities and infestation by invasive species in natural regenerations of dominant species.
- Vegetation study in Bundi distict revealed *P. juliflora* and in Karoli and Sawaimadhopur districts *A. pendula* as dominant trees.
- Quantified NTFP's contribution to rural livelihood, forest dependent communities and economy.
- Documented & collected different bamboo rhizomes from Manipur.
- Grafting work of 25 selected clones of *Gmelina arborea* has been done.
- Prepared status report on Invasive alien species of Assam.

10. Important Research Papers/Publications

- Singh, M.K., M. Arya, A.K. Bharti and K. Singh (2018). Exploration of some folk medicinal herbs in forest fringe villages of Assam (India): A study amid Nagaon and Golaghat district, Journal of Pharmacognosy and Phytochemistry, 7(1): 2362-2368.
- Singh, M.K., A.K. Bharti and R. Kumar (2015). Folk Medicinal Plants of Sikkim Himalayas and their Pharmacological Use, Int. J. of Economic Plants, 2(2): 035-045.
- Singh, M.K., D.K. Meena, R. Bhattacharyya, M. Arya and A.K. Bharti (2018). Exploration of wild medicinal plants for better livelihood options for the tribal population of forest fringe villages, Journal of Medicinal Plants Studies, 6(1): 156-166.
- Singh, M.K., D.K. Meena, A.K. Bharti and R. Kumar (2017). Study of forest base ethno-medicinal plants among the forest fringe villages of Balpakram National park, Meghalaya, Annals of Horticulture, 10(2): 128-137.
- Singh, M.K. (2017). Distribution and implication of alien invasive plant species of Assam: A review, Annals of Horticulture, 10(2): 120-127.

Ranjana Negi

1.	**Designation**	Scientist - D
2.	**Date of birth**	01/07/1981
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224385 **(M)** 7579068048
5.	**Date of joining at ICFRE**	Since 2011
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/07/2018
7.	**Discipline/Specialization**	Botany, Systematic Botany
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany)

9. Important research contributions

- Grass floral diversity study of Uttarakhand and Himachal Pradesh (AICOPTAX Project).
- Digitization of Dehradun Herbarium (DD) of Forest Research Institute, Dehradun.
- Digital documentation of forest flora of Manipur, Chandigarh and Haryana (SFD funded Projects) .
- Molecular taxonomy study of selected medicinal plants (*Paris polyphylla Sm., Saussurea costus* (Falc.) Lipsch., *Aconitum heterophyllum* Wall. ex Royle, *Aconitum balfourii* Stapf., *Dactylorhiza hatagirea* (D.Don) Soo.
- Documentation of Forest Genetic Resources of Uttarakhand (CAMPA funded Project).
- Population and regeneration study of selected threatened species like Ilex *pseudo-odorata Loes*., *Catamixis baccharoides* Thomson, *Sophora mollis* (Royle) Baker, *Pittosporum eriocarpum* Royle, *Indopiptadenia oudhensis* (Brandis) Brenan, *Trachycarpus takil* Becc.

10. Important Research Papers/Publications

- Rana, J.C., K Pradheep, O.P. Chaurasia, S. Sood, A. Singh and R. Negi (2011). Genetic resources of wild edible plants and their uses among tribal communities of cold arid regions of India, Journal of Genetic resource crop evolution, 59(1):135-149.
- Rawat, J. M., B. Rawat, S. Mishra, R.K. Negi, S.N. Mishra, A. Chandra, S. Nautiyal (2014). Altitudinal and seasonal variation in bioactive compound aconitine in *Aconitum violaceum*, a threatened medicinal plant of Indian Himalayan region. Int J Adv Res., 2(10):981-988.
- Naithani, H.B., D.P. Nautiyal, R. Negi (2015). Phyto-Sociological Analysis and Regeneration Status of Monotypic, Endemic Tree, *Indopiptadenia Oudhensis* in Uttarakhand. Indian Forester, 141 (6): 681-686.
- Rawat, J. M., A. Bhandari, K. Karki , M. Raturi , Rajneesh, B. Rawat, A. Dhakad, R.K. Negi, A. Thakur , A. Chandra (2017). RAPD based genetic fidelity analysis of in vitro regenerated plants of *Nardostachys jatamansi*. Int J Bio Sci., 8 (2): 141-147.

Vedpal Singh

1.	**Designation**	Scientist - C
2.	**Date of birth**	30/06/1965
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135 2224364 **(M)** 7579281972
5.	**Date of joining at ICFRE**	24/12/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 01/01/2015
7.	**Discipline/Specialization**	Silviculture, Plantation Technology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Agri.) Agronomy

9. Important research contributions

- Standardized the Nursery Technology of *Pterocarpus marsupium* Roxb.
- Evaluated the performance Nursery raised different planting stocks of *Pterocarpus marsupium*.
- Standardized the fertilizers dosages for production of quality stocks.

10. Important Research Papers/Publications

- Singh, Vedpal., D. Kumar (2014). Influence of seed size and pretreatment on seed germination and seedlings vigour of *Pterocarpus marsupium* Roxb. Indian Forester, 140(9):887-890.
- Kumar, D. and Vedpal Singh (2014). Effect of chemical fertilizers on seedlings of *Pterocarpus marsupium* Roxb. At nursey level. MFP News(Jan- March), COMFORPTS, (24):9-12.
- Singh, Vedpal and D.K. Mishra (2002). Effect of Pretreatments and Seed Grading on Germination Pattern of Prosopis *cineraria* (L) Druce. Seed Research, 30 (2):256-261.
- Mishra, D.K. and Vedpal Singh (2002). Effect of seed grading on germination and multiple seedling development in *Azadirachta indica* A. Juss. (Neem) World Journal of Microbiology and Biotechnology (18):343-346.
- Singh, Vedpal and D.K. Mishra (2003). Standardization of seed weight replications of tree species in arid and semi arid zone. My Forest, 39(3):287-289.

Dr. S. C. Biswas

1.	**Designation**	Scientist - C
2.	**Date of birth**	16/08/1964
3.	**Institute/Place of Posting**	Tropical Forest Research Institute, Jabalpur
4.	**Contact Details**	**(O)** 8839732789 **(M)** 8811989835
5.	**Date of joining at ICFRE**	01/11/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-11 01/01/2016
7.	**Discipline/Specialization**	Non wood forest products, Sustainable harvesting, processing & value addition of NTFP.
8.	**Education Qualification (Graduation or above)**	M.Sc. (Chemistry), Ph.D.

9. Important research contributions

- Determined harvesting protocols of Bhui-aonla (*Phyllanthus amarus*), Sal-parni (*Desmodium gangeticum*) and Baichandi (*Dioscorea hispida*) for sustainable management.
- Prepared 14 value added products from different forest fruits of Assam.
- Prepared 3 new Jigat combinations for Agarbatti Industry of North East.

10. Important Research Papers/Publications

- Biswas, S.C., P. Hazarika, N.B. Dutta and H. Sarmah (2017). Few Novel value added products prepared from fruits of *Garcinia pedunculata* Roxb. Ex Buch.-Ham. Research Journal of Chemical Sciences, (7):1-4.
- Biswas, S.C., D. Nibedita, S. Hrishikesh (2016). Evaluation of phytochemical, Nutritional and Antioxidant Activity of seeds of Sam Kathal (*Artocarpus chaplasa*). Asian Jr. of Microbiol. Biotech. Env. Sc.,18 (3) : 635-640.
- Hazarika, P., S.C. Biswas and D. Dutta (2015). Arbuscular Mycorrhizal Fungi Association in Homestead Bamboo Species of Assam, India. Life Sciences Leaflets, (60): 87-96.

P. S. Negi

1.	**Designation**	Scientist - C
2.	**Date of birth**	12/12/1970
3.	**Institute/Place of Posting**	Himalayan Forest Research Institute, Shimla
4.	**Contact Details**	**(O)** 0177-2816115 **(M)** 9418160802
5.	**Date of joining at ICFRE**	17/11/1995
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-11 01/01/2017
7.	**Discipline/Specialization**	Seed and Nursery Technology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany)

9. Important research contributions

- Technology for breaking seed dormancy of *Juniperus polycarpos* (Himalayan Pencil Cedar) and *Fraxinus xanthoxyloides* (Afghan Ash) developed and successfully demonstrated mass production of nursery stock of Juniperus polycarpos to various stakeholders. The optimum time of seed collection, maturity indices parameters and proper storage containers and condition identified.
- Successfully identified 39 natural populations of *Abies spectabilis* (Talispatra)–an important high level conifer from nine forest divisions of Himachal Pradesh. The reasons for poor germinations of *Abies spectabilis* seeds, optimum time of seed collection, maturity indices parameters and seed storage conditions identified.
- Successfully developed vegetative propagation techniques of important cold desert and temperate species viz., *Colutea nepalensis*, *Rosa webbiana* and *Elaeagnus umbellata*.

10. Important Research Papers/Publications

- Sharma, S., P. S. Negi, K. S. Thakur and S. Kumar (2004). Studies on vegetative propagation of *Colutea nepalensis* Sims through shoot cuttings: A potential species for cold desert afforestation. Indian Forester, 130(12): 1422-1431.
- Negi, P. S. and S. Sharma (2011). Study on effect of gibberellic acid treatments on germination behaviour of *Fraxinus xanthoxyloides* (Wall. Ex G. Don) DC. Seeds. Indian Journal of Forestry, 34 (4):409-413.
- Negi, P.S. and S.P. Subramani (2015). Wild edible plant genetic resources for sustainable food security and livelihood of Kinnaur district, Himachal Pradesh, India. International Journal of Conservation Science, 6(4):657-668.
- Negi, P. S. and S. Sharma (2017). Effect of pre-sowing treatments on seed germination and seedling vigour index of *Juniperus polycarpos* C. Koch. Indian Forester, 143(7): 438-652.
- Negi, P. S. and S. Sharma (2017). Effect of time of cone collection on seed germination and seedling vigour index of *Abies spectabilis* (D. Don) Spach. Journal of Tree Sciences,36 (2):35-39.

11. Awards

- Brandis Prize , ICFRE in the field of Silviculture (2004).

Dr. Gaurav Mishra

1.	**Designation**	Scientist - C
2.	**Date of birth**	14/06/1987
3.	**Institute/Place of Posting**	Rain Forest Research Institute, Jorhat
4.	**Contact Details**	**(O)** 0376-2305125 **(M)** 8471938089
5.	**Date of joining at ICFRE**	15/10/2013
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 01/01/2017
7.	**Discipline/Specialization**	Soil Science, Agroforestry, Forestry Statistics
8.	**Education Qualification (Graduation or above)**	M.Sc (Agri.) Soil Science, Ph.D.

9. Important research contributions

- Worked on the physico-chemical properties of soils in forest and jhum areas of Nagaland. Significant differences were observed in the soil properties, except EC, OC and available K.
- Due to conversion of forest area into jhum and tea gardens, pH, CEC, Na+, K+ and P were significantly influenced.
- Soil texture, BD, porosity, SOC, CEC, ex cations, N and P are the potential indicators of soil quality in Nagaland.
- It was also found that in the studied forest types, the richness of tree species varied from 4 to 38, with *Gmelina arborea, Tectona grandis, Castanopsis indica, Duabanga grandiflora, Pinus kesiya, Shorea robusta, Cryptomeria japonica, and Alnus nepalensis* being the common species.

10. Important Research Papers/Publications

- Mishra, Gaurav, P. K. Das, Rinkumoni Borah and Antara Dutta (2017). Investigation of Phytosociological Parameters and Physico-chemical properties in northern tropical semi evergreen Forests of Eastern Himalaya. Journal of Forestry Research, 28(3):513-520.
- Mishra, Gaurav, Rossana Marzaioli, Krishna Giri, Rinkumoni Borah, Antara Dutta and R. S. C. Jayaraj (2017). Soil quality assessment under shifting cultivation and forests in Northeastern Himalaya of India. Archives of Agronomy and Soil Science, 63(10): 1355-1368.
- Mishra, Gaurav, Rossana Marzaioli, Krishna Giri and Shaliesh Pandey (2017). Soil quality assessment across different stands in tropical moist deciduous forests of Nagaland, India. Journal of Forestry Research.
- Mishra, Gaurav, Krishna Giri and Shaliesh Pandey (2017). Role of *Alnus nepalensis* in restoring soil Fertility: a case study in Mokukchung, Nagaland. National Academy Science Letters. (Accepted).
- Giri, Krishna, J. P. N. Rai, Shailesh Pandey, Gaurav Mishra, Rajesh Kumar and Deep Chandra Suyal (2017). Performance evaluation of isoproturon-degrading indigenous bacterial isolates in soil microcosm, Chemistry and Ecology, 33:9, 817-825.

Dr. Swaran Lata

1.	**Designation**	Scientist - C
2.	**Date of birth**	19/01/1986
3.	**Institute/Place of Posting**	Himalayan Forest Research Institute, Shimla
4.	**Contact Details**	**(O)** 0177-2816135 **(M)** 09459094815
5.	**Date of joining at ICFRE**	14/10/2013
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 01/01/2017
7.	**Discipline/Specialization**	Botany, Agroforestry
8.	**Education Qualification (Graduation or above)**	M.Sc.(Botany), M.Phil., Ph.D. (Botany)

9. Important research contributions

- 360 numbers of silvipastoral sites surveyed from different agro-climatic zones of Himachal Pradesh for the selection of suitable silvipastoral sites for further study of community dependency, productivity potential and economics of silvipastoral systems.
- Studied dependency on *Quercus ilex* (Brey Oak) for fodder in Kinnaur forest division and *Quercus dilatata* (Mohru Oak) in Rampur forest division especially in winter season.

10. Important Research Papers/Publications

- Lata, Swaran, M.K. Seth and P. Kaushal (2016). Ethno-botanical Studies on Wild Edible Plants of Tidong Valley of District Kinnaur (H.P). International Journal of Science and Research, 5(8):1790-1792.
- Kaushal, P., M.K. Seth and Swaran Lata (2016). Medicinal Plants Used for the Skin Diseases in Kangra District of Himachal Pradesh. International Journal of Scientific Research, 5(9): 40-41.
- Lata, Swaran and P. Kaushal (2018). Commonly used traditional food plants in Tehsil Moorang, District Kinnaur, Himachal Pradesh. International Journal of Science and Research, 7(1):1765-1768.

M.B.Honnuri

1.	**Designation**	Scientist - C
2.	**Date of birth**	22/07/1967
3.	**Institute/Place of Posting**	Institute of Forest Biodiversity, Hyderabad
4.	**Contact Details**	**(O)** 040-66309503 **(M)** 9701673078
5.	**Date of joining at ICFRE**	22/4/1993
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 02/01/2017
7.	**Discipline/Specialization**	Agroforestry, Forest Ecology
8.	**Education Qualification (Graduation or above)**	M.Sc., M.Phil

9. Important research contributions

- Developed an Agroforestry model on *Wrightia tinctoria* R.Br. and *Gmelina arborea* Roxb. as tree species in semiarid tropics of A.P.
- Documented the Ecological diversity of Kawal tiger reserve of Telangana state.
- Documented the dynamics of Natural regeneration of woody species in different forest ecosystems of Nallamalais, Seshachalam hills and Kaundinya Wildlife sanctuary of Eastern Ghats of A.P & Telangana.
- Documented the socio-economic status of forest fringe villages and ecological status of fringe forest of 5 districts of Telangana state and 2 districts of Andhra Pradesh.

10. Important Research Papers/Publications

- Honnuri, M.B., G.R.S. Reddy and M.R.G. Reddy (2014). Development of Agroforestry models for the semiarid tropics of A.P, 129 pp, Proceedings of 3rd WCA , 10-13 February, Vigyan Bhavan, New Delhi.
- Honnuri, M.B. and G.R.S. Reddy (2015). Develoment of Agroforesty models for enhanced livelihood,201-209 Proceedings of National seminar, 13-14 December, NAARM ,Hyderabad, India.
- Honnuri, M.B. and G.R.S. Reddy (2016). Floristic Diversity of fringe forest of Nizamabad district of Telangana, 184 pp, Proceedings of XXVI Annual conference,7-9, November. Shivaji University, Kohlapur, Maharashtra, India.
- Honnuri, M.B., M. Deepa and G.R.S. Reddy (2016). Floristic Diversity of woody species of Sheshachalam hills of Eastern ghats, 184 pp, Proceedings of XXVI Annual conference,7-9 November. Shivaji University, Kohlapur, Maharashtra, India.
- Honnuri,M.B., K. Naresh. and G.R.S. Reddy (2016). Floristic Diversity of woody species of Kaundinya Wildlife sanctuary of Eastern ghats of A.P, 93 pp, Proceedings of National conference,16-17 April.Utkal university Bhubaneshwar, Orissa, India.

Sandeep Yadav

1.	**Designation**	Scientist - C
2.	**Date of birth**	08/09/1987
3.	**Institute/Place of Posting**	Advanced Research Centre for Bamboo and Rattan, Aizawl, Mizoram
4.	**Contact Details**	**(O)** 0389-2301157 **(M)** 8414009333
5.	**Date of joining at ICFRE**	29/01/2014
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 01/07/2017
7.	**Discipline/Specialization**	Botany, Silviculture, Lichenology
8.	**Education Qualification (Graduation or above)**	M.Sc. (Botany)

9. Important research contributions

- Regular monitoring of Bamboo flowering in the state of Mizoram.
- Documentation of lichen diversity in Mizoram.
- Discovery of *Basidiolichen* genus Multiclavula in Mizoram.
- Report of new lichen records such as *Dibaeis absoluta* and *Heterodermia echinata*.

10. Important Research Papers/Publications

- Sharma, H.R., S. Yadav, B. Deka, R.K. Meena and N.S. Bisht (2014). Sporadic flowering of *Dendrocalamus longispathus* (Kurz) Kurz in Mizoram, India. Tropical Plant Research, 1(1): 26–27.
- Raj, H., S. Yadav and N.S. Bisht (2014). Current status, issues and conservation strategies for Rattans of North-East India. Tropical Plant Research, 1(2): 1–7.
- Bajpai, R., S. Yadav and D.K. Upreti (2015). 'Lichen flora of Mount Abu, Sirohi district of Rajasthan, India with two new records'. Phytotaxonomy, (15):75-80.
- Yadav, S., H. Raj and H.R. Bora (2017). Lichen Diversity of Zongaw Reserve Forest, Mamit district, Mizoram. Proceedings of the National Seminar on Biodiversity, Conservation and Utilization of Natural Resources with reference to Northeast India held on 30-31 March 2017 organised by Botany Department, Mizoram University, pp.37–48.

Dr. Anubha Srivastav

1.	**Designation**	Scientist - C
2.	**Date of birth**	01/07/1967
3.	**Institute/Place of Posting**	Forest Research Centre for Eco-rehabilitation, Allahabad
4.	**Contact Details**	**(O)** 0532-2440796 **(M)** 09451180868
5.	**Date of joining at ICFRE**	14/03/1991
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 01/01/2018
7.	**Discipline/Specialization**	Agro-forestry, Bio-prospecting
8.	**Education Qualification (Graduation or above)**	M.Sc. (Organic Chemistry), Ph.D. (Chemistry)

9. Important research contributions

- Site-specific species packages have been developed for silica mining site of Allahabad.
- Analyzed demand -supply gap of important timber species viz. *Mangifera indica, Tectona grandis, Artocarpus heterophyllus, Acacia nilotica, Dalbergia sissoo* and *Azadirachta indica* in Tarai region of Eastern UP and identified deficit species of the area for their promotion in plantations.
- Marketing channel of important agro forestry species between traders and growers has been linked in selected districts of Eastern UP.
- Tested *Adhatoda vasica* leaf extractives as bio-control measures.

10. Important Research Papers/Publications

- Srivastav, Anubha, A. K. Pandey and R. Dubey (2012). Assessment of Trees Outside Forests (TOFs) in Gorakhpur district of Eastern U.P. Indian Forester, 138 (3):252-256.
- Srivastav, Anubha, A. Tomar and P. Singh (2015). Need to Strengthen Market Strategy of Timber Products in Eastern Uttar Pradesh . Int. J. Med. Pharm. Res., 3(6): 1225-1230.
- Srivastav, Anubha and Kumud Dubey (2015). Screening of potential species for rehabilitation of silica mined overburdens of Shankargarh in Vindhyan region of Allahabad (UP), My Forest, (51):47-56.
- Srivastav, Anubha (2015). Status of important timber species: A case study in Deoria districts of Uttar Pradesh , India, Journal of Tropical Forestry, 30(4) :55-65.
- Bhrgava, Alka, Srivastav Anubha and Kumbhare Vishakha (1997). Insecticidal activity of leaf alkaloids of *Adhatoda vasica* on *Albizia lebbek* defoliator *Rheasla imparata* wak. Lepidoptera - Noctudae, Pestology , 21 (1):16-19.

Dr. N. K. Bohra

1.	**Designation**	Scientist - C
2.	**Date of birth**	01/07/1969
3.	**Institute/Place of Posting**	Arid Forest Research Institute, Jodhpur
4.	**Contact Details**	**(O)** 0291-2729165 **(M)** 9460769124
5.	**Date of joining at ICFRE**	07/09/1990
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-11 01/01/2019
7.	**Discipline/Specialization**	Silviculture, Plant Physiology, Seed Technology.
8.	**Education Qualification (Graduation or above)**	Ph.D (Botany), L.L.M., M.A. (Hindi)

9. Important research contributions

- Refinement of Modern Nursery Practices in Arid Zone Tree Species.
- Seed Technology and Nursery Technology.
- Medicinal Plants Research.
- Changing climatic scenario in desert.
- Propagation of sandal with development of agroforestry models.

10. Important Research Papers/Publications

- Gupta, G.N., Singh, Neelu, Bohra, N.K. and Bilas Singh (1995). Effect of fertilizer application on growth and biomass production of *Ailanthus excelsa* on an arid land. Annals of Arid Zone, 34(2):121-125.
- Gupta, G.N., Kuppuswamy, V., Chaudhary, K.R., Bohra, N.K., Singh, Neelu and Kusumlata (1996). Annals of Forestry, 4(1):29-33.
- Bohra, N.K. and D.K. Purohit (1997). Aflatoxin Contamination in stored seeds and pods of *Acacia senegal* (L.Willd) Proceeding of IUFRO Symposium 1997.
- Arya, Ranjana, Gupta, G.N., Kacchawaha and N.K.Bohra (1998). Growth and Ameliorative Effect of *Atriplex lentiformis* in response to management Practices on an Arid Salt Affected Land. Current Agriculture,22(1-2):69-75.
- Bohra, N.K. and D.K. Purohit (2000). Fungal Toxins-Their Adverse Effects on Living Organism. Indian Journal of Environment Sciences, 4(2):163-168.

Dr. M .V Durai

1.	**Designation**	Scientist - B
2.	**Date of birth**	15/02/1975
3.	**Institute/Place of Posting**	Institute of Wood Science & Technology, Bengaluru
4.	**Contact Details**	**(O)** 0177-262677 **(M)** 9445944288
5.	**Date of joining at ICFRE**	20/03/2008
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-10 20/03/2008
7.	**Discipline/Specialization**	Forestry, Tree Improvement Forest Soil
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry), Ph.D. (Forestry).

9. Important research contributions

- Cost effective method for enriched vermicompost developed using different organic amendments.Vermi-leachate identified as a potential liquid fertilizer. A simple technique for sustainable vermi-compost production for households was developed.
- Developed a simple LPG operated Kjeldhal distillation unit for N- distillation.
- More than 100 candidate plus trees of *Gmelina arborea* were identified in Jharkhand, West Bengal and Orissa for breeding programme.
- Reclamation methods for coal-mine soil were developed using organic amendments.
- Best performing tree species for coal-mine soil were screened.
- More than 120 candidate plus trees of 50 populations of *Swietenia macrophylla* and 15 candidate plus trees of 4 populations of S.mahagani were identified in Kerala, Karnataka and Tamil Nadu for future breeding programme.Two progeny trials of mahogany established with 63 families at Neyveli and Madurai.
- First report on Armillaria root rot in *Dalbergia sissoo* and heart wood borer in *Swietenia macrophylla* .

10. Important Research Papers/Publications

- Durai, M.V., A. Balu, R. Raja Rishi and A. Karthikeyan (2017). First Report of *Apate monachus* (Coleoptera: Bostrychidae) in Big-leaf Mahogany (*Swietenia macrophylla* King) Plantations in India. Journal of Entomology and Zoology Studies 2017; 5(6): 1900-1902.
- Durai, M.V. (2017). Cost Effective Method for Sustainable Vermicompost Production. Online International Interdisciplinary Research Journal , (7): 95-96.
- Durai, M.V., G. Balamuniappan, R. Anandalakshmi, S. Geetha and N. Senthil Kumar (2016). Qualitative and quantitative analysis of phytochemicals in crude extract of big – Leaf mahogany (*Swietenia macrophylla* King.), International Journal of Herbal Medicine, 4(6): 88-91.
- Durai, M. V. (2013). First report on *Armillaria tabescens* causing root rots in *Dalbergia sissoo* in India, Current biotica, 6(4): 504 – 508.
- Durai, M.V. and A. Senthil Murugan (2013). Responses of tree species in vermicompost and vermin-lechate incorporated coal mine soil. Indian Forester, 139 (12): 1092 - 1096.
- Durai, M. V. (2013). First report on *Armillaria tabescens* causing root rots in *Dalbergia sissoo* in India, Current biotica, 6(4): 504 – 508.

Ajoy Debbarma

1.	**Designation**	Scientist - B
2.	**Date of birth**	25/11/1987
3.	**Institute/Place of Posting**	Forest Research Centre for Livelihood Extension, Agartala, Tripura
4.	**Contact Details**	**(O)** 0381-2397097 **(M)** 9436741352
5.	**Date of joining at ICFRE**	20/12/2013
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-10 20/12/2013
7.	**Discipline/Specialization**	Environment Management, Extension
8.	**Education Qualification (Graduation or above)**	M.Sc. (Environment Management)
9.	**Important research contributions**	

- Nil

10. Important Research Papers/Publications

- Debbarma, A. and A. Debbarma (2018). Perspectives on Rubber Monoculture in Tripura, North-East India. International Journal of Ecology and Environmental Sciences, 44 (1): 27-31.
- Research Abstract : A. Debbarma (2014). Forestry Initiative in the wake of Climate Change Impact: A Case Study from Tripura. In: National Conference on Sustainable Development of Environmental Systems held at Indian Institute of Technology, Guwahati from June 20-21.
- Research Abstract : A. Debbarma (2018). Ecological, Social and Legal Implications of Rubber Monoculture: A Case Study from Tripura. In: International Symposium on Biodiversity and Biobanking held at Indian Institute of Technology, Guwahati from January 27-29.

Dr. P. K. Verma

1.	**Designation**	Scientist - B
2.	**Date of birth**	14/12/1976
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224489 **(M)** 7579422246
5.	**Date of joining at ICFRE**	13/01/2009
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-10 13/07/2016
7.	**Discipline/Specialization**	Botany, Plant Taxonomy, Ethnobotany, Conservation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Plant Science), Ph.D. (Botany)

9. Important research contributions

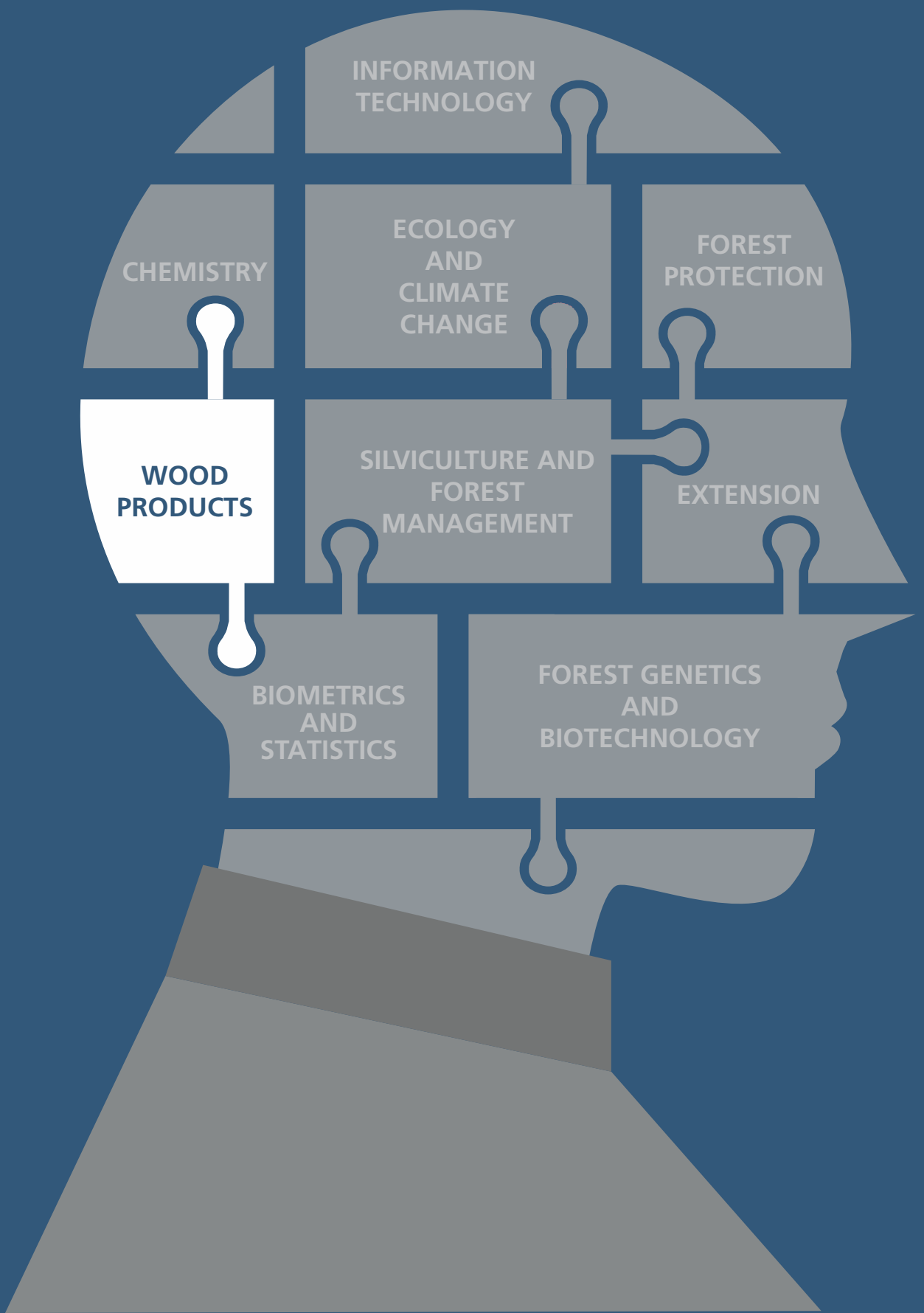
- In the National Programme for Conservation and Development of Forest Genetic Resources of Uttarakhand, a list of 250 Forestry important species has been prepared which includes 141- tree species, 29 Shrubs, 15 lianas/ woody climbers and 65 RET species. Field trips have been undertaken to different Forest Divisions of Uttarakhand and collected field data regarding FGR species.
- For easy, handy and on spot identification of the ligneous flora, a online identification system has been developed.
- Plant samples were identified and authenticated received from different research organizations and academic institutes.

10. Important Research Papers/Publications

- Verma, P.K. and K. K. Rawat, S.C. (2013). *Lejeunea srivastavae* sp. nov. (Hepaticae, Lejeuneaceae), from Nilgiri hills of Western Ghats (India), Taiwania, 58 (1): 7–11.
- Verma, P.K., V. Kumar, A. Yadav and P. K. Kaushik (2013). Bryophyte Invasion on famous archeological site of Ahom dynasty 'Talatal-ghar' of Sibsagar, Assam (India) Proc. Natl. Acad. Sci., India, Sect. B Biol. Sci.; DOI 10.1007/s40011-013-0198-2
- Verma, P. K. and N. S. Bisht (2013). Livelihood Opportunities through Forestry Based Interventions - A Success Story of RFRI association with Bhogpur, Govindpur and Madhupur Villages in Jorhat District of Assam, India, SAARC Forestry Journal, (2): 59- 77.
- Verma, P. K., N. Das, P. K. Kaushik V. Kumar and A. Yadav (2014). Air Layering through *Sphagnum* moss in *Guadua angustifolia* Kunth, a Commercial Important Bamboo Indian Forester, 132 (12):1088-1091.
- Verma, P. K. and K. K. Rawat (2014). Present status of *Genus Rectolejeunea* E. Evans (Marchantiophyta) in India, Journal of Bryology, 36 (2): 160-162.

11. Awards

- Brandis Award, ICFRE 2015-16 for best research paper (2015-16).


INFORMATION TECHNOLOGY
CHEMISTRY
ECOLOGY AND CLIMATE CHANGE
FOREST PROTECTION
WOOD PRODUCTS
SILVICULTURE AND FOREST MANAGEMENT
EXTENSION
BIOMETRICS AND STATISTICS
FOREST GENETICS AND BIOTECHNOLOGY

Dr. Vimal Kothiyal

1.	**Designation**	Scientist - G
2.	**Date of birth**	15/08/1962
3.	**Institute/Place of Posting**	ICFRE (HQ), Dehradun
4.	**Contact Details**	**(O)** 0135-2753290 **(M)** 9412988641
5.	**Date of joining at ICFRE**	27/08/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/01/2012
7.	**Discipline/Specialization**	Wood Science/Timber Mechanics
8.	**Education Qualification (Graduation or above)**	M.Sc. (Physics), Ph.D.

9. Important research contributions

- Carried out research in the field of timber mechanics, NDT (non destructive testing), wood quality assessment. Focus was on plantation/secondary timbers including bamboo. Published the findings in international and national journals.
- Developed testing and evaluation methods for properties evaluation and estimation spectroscopic based methods were developed and published in international Journals.
- Prepared vision plan 2040 of ICFRE.
- Formulated guidelines for All India Coordinated Research Projects (AICRPs)

10. Important Research Papers/Publications

- Kothiyal, V., Jaideep, S. Bhandari, H.S. Ginwal, S. Gupta (2015). Multi species NIR calibration for estimating holo cellulose in plantation timber. Wood Science and Technology, 49:769-793.
- Kothiyal, V., A. Raturi, Jaideep, Y.M. Dubey (2014). Enhancing the applicability of near infra-red spectroscopy for estimating specific gravity of green timber from *Eucalyptus tereticornis* by developing composite calibration using both radial and tangential face of wood. European Journal of Wood and Wood Products, 7(2):11-20.
- Kothiyal, V. and A. Raturi, (2011). Estimating mechanical properties and specific gravity for five year old *Eucalyptus tereticornis* having broad moisture content range by NIR Spectroscopy. Holz for Schung, 65(5):7570762.
- Kothiyal, V., A. Negi, R.V. Rao, M.G. Gogate and S.K. Dakshindas (1998). Wood quality of eighteen year old *cupressus lusitanica*. Wood Science and Technology, 32(2):119-127.
- Kothiyal, V., (2014). Eucalyptus : Solid wood utilization research in India. Chapters in Eucalyptus in India Envis Centre on Forestry, pp 381-420.
- Kothiyal, V., S.K. Dakshindas, R. Sudheendra and R.V. Rao (2002). Strength properties of different clones of *Eucalyptus tereticornis* from Andhra Pradesh, India. J/ Trop For. Prod, 8(1): 39-44.
- Rao, R.V., S. Shashikala, P. Sreevani, V. Kothiyal, C.R. Sarma and P. Lal (2002). Within tree variation in anatomical properties of some clones of *Eucalyptus tereticronis*. Wood Science and Technology, 36(3):271-285.
- Singh, I.D., V. Kothiyal, M.P. Kapoor, V. Ramaswamy and M.K.S. Aloopvan (1993). Structural changes during Visbreaking of light Arabian mix short residue: Comparison of feed and product asphaltenes. Fuel, 72(6):751-754.
- Singh, I.D., V. Kothiyal, V. Ramaswamy and R. Krishna (1990). Characteristics changes of asphaltenes during Visbreaking of North Gujarat short residue. Fuel, 69(3):289-292.

Dr. K. K. Pandey

1.	**Designation**	Scientist - G
2.	**Date of birth**	07/05/1962
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bangalore
4.	**Contact Details**	**(O)** 080-22190175 **(M)** 9880432854
5.	**Date of joining at ICFRE**	02/12/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/01/2012
7.	**Discipline/Specialization**	Wood Science and Technology, Molecular Spectroscopy, Wood Protection, Wood Modification
8.	**Education Qualification (Graduation or above)**	M.Sc. (Physics), Ph.D.

9. Important research contributions

- Non invasive FTIR spectroscopic technique for the characterization and rapid evaluation of degradation of wood has been developed.
- Process of solvent free chemical modification of wood by acetic anhydride using conventional and microwave heating.
- Process of chemical modification of wood using new acetylating agent isopropenyl acetate which avoids formation of acid byproducts.
- The process of thermal modification of wood and bamboo for uniform coloration improved dimensional stability and decay resistance.

10. Important Research Papers/Publications

- Giridhar, B.N., K.K. Pandey (2016). UV resistance and dimensional stability of wood modified with isopropenyl acetate. J. Photochemistry & Photobiology B: Biology, (155):20-27.
- Salla, J., K.K. Pandey and K. Srinivas (2012). Improvement of UV resistance of wood surfaces by using zinc oxide nanoparticles. Polymer Degradation and Stability, (97):592-596.
- Pandey, K.K. (2005). Study of effect of photo-irradiation on surface chemistry of wood. Polymer Degradation and Stability, 90 (1):9-20.
- Pandey, K.K. and A.J. Pitman (2003). FTIR studies of the changes in wood chemistry following decay by brown-rot and white-rot fungi. International Biodeterioration & Biodegradation, (52) :151-160.
- Pandey, K.K. (1999). A Study of chemical structure of soft and hardwood and wood polymers by FTIR spectroscopy. J. Applied Polymer Science, (71):1969-1975.

11. Awards

- National Awards for Excellence in Forestry Research by ICFRE (2012).

Dr. S.K. Sharma

1.	**Designation**	Scientist - G
2.	**Date of birth**	30/06/1961
3.	**Institute/Place of Posting**	Institute of Wood Science & Technology, Bangalore
4.	**Contact Details**	**(O)** 080-22190170 **(M)** 9448711392
5.	**Date of joining at ICFRE**	20/10/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/01/2013
7.	**Discipline/Specialization**	Wood Science, Wood Properties
8.	**Education Qualification (Graduation or above)**	M.Sc. (Physics), M. Tech. (Solid State Materials), Ph.D. (Electronic Science)

9. Important research contributions

- *Simarouba glauca*, basically grown for oil seed was recommended as an additional and alternate species for handicraft sector in place of *Wrightia tinctoria* and also an alternative raw material for match wood industry.
- Studied acoustical behaviour of plantation timbers for musical instruments and wall paneling by using computerized test setup. *Swietenia mahagony* grown as plantation was found to be suitable for making *Chitra* Veena in place of *Artocarpus heterophyllus*. *Bombax ceiba* (Semul) was found to be useful for making Veena for learners.Few Bamboo sps were recommended as alternative for wooden dunnage pallets to address demand of wooden pallets in the market for food grain storage purpose.
- Ultrasonic technique was used for detection of defects (including hidden or invisible defects) in converted timber and logs.

10. Important Research Papers/Publications

- Sharma, S.K., S.R. Shukla, S. Shashikala and V. Sri Poornima (2015). Axial variations in anatomical properties and basic density of *Eucalypt hybrid* urograndis (Eucalyptus grandis × E. urophylla) clones. Journal of Forestry Research, 26(3): 739-744.
- Sharma, S.K., S.R. Shuykla and M. Sujatha (2016). Radial variation of anatomical properties in 8-year-old clones of *Acacia hybrid* (*A. mangium* × *A. auriculaeformis*). African Journal of Wood Science and Forestry, 4(3): 238-246.
- Sharma, S.K., S.R. Shukla, M. Sujatha, S. Shashikala and P. Kumar (2012). Assessment of certain wood quality parameters of selected genotypes of *Melia dubia* Cav. grown in a seedling seed orchard. Journal of the Indian Academy of Wood Science, 9(2): 165-169.
- Sharma, S.K., R.V. Rao, S.R. Shukla, P. Kumar, R. Sudheendra, M. Sujatha and Y.M. Dubey (2005). Wood quality of coppiced *Eucalyptus tereticornis* for value addition. IAWA Journal, 26(1): 137-147.
- Sharma, S.K., S.R. Shukla and B.S. Kamala (1997). Studies on DC electrical resistivity of plantation grown timbers. Holz als Roh-und Werkstoff, (55): 391-394.

11. Awards

- 'Guru Vandana' Appreciation Award by Rotary Bangalore South and Karnataka Civil Defence Corps (2013).

Dr. Sadhna Tripathi

1.	**Designation**	Scientist - G
2.	**Date of birth**	15/03/1962
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224845 **(M)** 9410357541
5.	**Date of joining at ICFRE**	28/10/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-14 01/07/2015
7.	**Discipline/Specialization**	Wood Science and Technology, Wood Preservation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Chemistry), Ph.D.

9. Important research contributions

- Eco-friendly wood preservatives ZiBOC which can be suitably applied to the wood products was developed and tested.
- Value addition of imported timbers for different end uses in India in different agro climatic zones.
- Efficacy evaluation of non biocidal / thermal/ microwave treatment to improve service life are also worked.

10. Important Research Papers/Publications

- Poonia, P.K., Sadhna Tripathi and K. Sihag (2017). Effect of microwave on longitudinal air permeability of soft wood and hardwood. Indian Forester, 143(3) : 198:202.
- Shweta Bhatt and Sadhna Tripathi (2017). A step towards plywood preservation through boric and silicic acid combination. International Journal of Advanced biological sciences, 7 (1) 2017: 101-106.
- Bhatt, S., S. Tripathi and D.P. Khali (2017). Performance evaluation of Boric acid and Silicic acid treatment in plywood by shear strength. Indian Forester, 143(1):38-42.
- P.K. Poonia and S. Tripathi (2016). Moisture-related properties of *Eucalyptus tereticornis* after thermal modification Journal of Tropical Forest Science, 28(2): 153–158.
- Bhatt, S., S. Tripathi and D.P. Khali (2016). Study on Silicic –Boric acids combination against wood decaying fungi in Plywood. Prolignin, 12(3): 12-18.
- Poonia, P.K., S. Tripathi and I. Kaur (2015). Development of Fire Retardant Formulations for Plywood Protection – Indian Forester, 141 (9): 956-960.

Patents

- No. 24825: VAC-FRI Technology for treatment of green Bamboo.
- No. 244254: New efficacious eco-friendly wood Preservative: Lignin Copper complex A & B.
- No. 257393: An eco-friendly, economical and non hazardous wood preservative (ZiBOC).

11. Awards

- Recipient of SK Seth Prize (2012) for valuable contribution in the Indian Forester.
- Award to paper entitled "Amelioration of Neem leaves and Oil for wood protection" Environment and Forestry Category (2006) by UCOST Uttrakhand.
- Received Indian Council of Forestry Research and Education Award for Significant contribution in the field of Forest protection (2002).

Dr. Kishan Kumar V.S.

1.	**Designation**	Scientist - G
2.	**Date of birth**	25/05/1960
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224399 **(M)** 9358102293
5.	**Date of joining at ICFRE**	15/01/1993
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-14 01/07/2015
7.	**Discipline/Specialization**	Wood Processing/ Wood utilization/ Finger Jointing, Arid Zone Forestry
8.	**Education Qualification (Graduation or above)**	M.Sc. (Physics), Ph.D.

9. Important research contributions

- Reduction of tip area in relation to the total area encountered in a joint for strength parameters.
- The role of film thickness of wood coatings in controlling water vapor transmission rate by PU was illustrated for *Dalbergia sissoo*.
- Easy to operate schedules for fast seasoning of poplar (two steps) and teak (three steps) using a vacuum press dryer.

10. Important Research Papers/Publications

- Kumar, V.S. Kishan (1999). *Prosopis cineraria* and *Ailanthus excelsa* – fodder trees of Rajasthan, India. International Tree Crops Journal, 10 (1):79-86.
- Kumar, V. S. Kishan, C. M. Sharma and S. Gupta (2013). Role of finger tip area on flexural strength properties of finger-jointed sections. International Wood Products Journal, 4 (2):101-106.
- Kumar, V.S. Kishan, N.K. Upreti and Sachin Gupta (2016). Scope of vacuum press drying for fast removal of moisture below fiber saturation point. Drying Technology, 34 (10): 1204–1209.
- Gupta, Sachin, Asieleavio John and V.S. Kishan Kumar (2016). Studies on effect of coat thickness on the moisture uptake by a hardwood substrate. Maderas-Cienc Tecnol, 18 (3): 443-456.
- Shukla, S., S. Gupta and V. S. Kishan Kumar (2015). Staining effects on moisture resistance and gloss of lacquer coated bamboo surfaces. Journal of Bamboo and Rattan, 14 (1-4): 53-62.

Dr. N. K. Upreti

1.	**Designation**	Scientist - G
2.	**Date of birth**	24/06/1965
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224316 **(M)** 9456597401
5.	**Date of joining at ICFRE**	15/10/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/01/2016
7.	**Discipline/Specialization**	Wood Science, Wood Seasoning
8.	**Education Qualification (Graduation or above)**	M.Sc. (Physics), Ph.D., MCA

9. Important research contributions

- Modular plant for plasticization of wood using ammonia vapors.
- Modified design based solar kiln for timber seasoning.
- Dehumidifier kiln for timber seasoning.
- Vacuum kiln for timber seasoning.
- Kiln drying behavior of timber and bamboo species.

10. Important Research Papers/Publications

- Pandey, K. K., N. K. Upreti and V. V .Srinivasan (1998). A Fluorescence Spectroscopic study on wood. Wood Science and Technology, 32:309-315.
- Upreti, N.K., K.K. Pandey and A.K. Ananthanarayana (1999). Prevention of extractive leaching by chemical treatments of wood surface. Holzforzchung, 53: 675-676.
- Upreti, N. K. and K.K. Pandey (2005). Role of pretreatments in protection of wood surface and finishes in weathering of Pterocarpus marsupium wood. Journal of Tropical Forestry Science, 17(1):141-150.
- Upreti, N.K., M.C. Kukreti and R.C. Kandpal (2009). A cost effective solar kiln for wood seasoning. J. Tim. Dev. Asso. of India, 55(1-4): 72-80.
- Upreti, N.K., M.C. Kukreti, R. P. Kandpal and Chetan Swaroop (2013). Convection heating based vacuum kiln for timber drying and its performance. The Indian Forester, 139(1): 43-48.

Dr. P. K. Aggarwal

1.	**Designation**	Scientist - G
2.	**Date of birth**	03/07/1967
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bangalore
4.	**Contact Details**	**(O)** 080-22190179 **(M)** 9880034208
5.	**Date of joining at ICFRE**	06/12/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/01/2017
7.	**Discipline/Specialization**	Wood Science, Wood Polymer Composites- Extension
8.	**Education Qualification (Graduation or above)**	Ph.D. (Wood Science)

9. Important research contributions

- Natural fiber composites thermoplastics- preparation and characterization of HDPE and PP, development of composites with other lignocellulosic fibers like arecanut and poplar wood, moisture absorption studies of Jute-PP composite.
- Effect of coupling agents, particle size, additives investigated on jute-PP composites. Profile extruded with 70% filler content and injection moulded products from lantana fiber filled polypropylene composite.

10. Important Research Papers/Publications

- Aggarwal, Pankaj K., S.S. Chauhan, Ajay Karmarkar and A.K. Ananthanarayana (1998). Distribution of growth stresses in logs of *Acacia auriculaeformis*. J. of Tropical Forest Products, Malaysia, 4 (1):87-89.
- Aggarwal, Pankaj K. and Shakti Chauhan (2013). Longitudinal growth strains in five clones of *Eucalyptus tereticornis* Sm. J. of Forestry Research,24 (2): 339-344.
- Aggarwal, Pankaj K., N. Raghu, Shakti Chauhan and Ajay Karmarkar (2013). Effect of coupling agent – m-TMI-g-PP on mechanical properties of Jute-PP composites. Materials and Design, 43 : 112-117.
- Aggarwal, Pankaj K., Shakti Chauhan, N. Raghu, Sonali Karmarkar, G.M. Shashidhar (2013). Mechanical properties of bio-fibers-reinforced high density polyethylene composites: effect of coupling agents and bio fillers. J. of Reinforced Plastics and Composites, 32 (22): 1722-1732.
- Aggarwal, Pankaj K., N. Raghu, Amey Kale, C.N. Vani, S.S. Chauhan (2015). Moisture adsorption and absorption behaviour of biofiber filled thermoplastic composites. J. of Ind. Academy of Wood Science, 12 (2):106-109.

11. Awards

- Brandis Prize for best publication in Indian Forester (2005).

Dr. S.P.S. Rawat

1.	**Designation**	Scientist - G
2.	**Date of birth**	17/07/1960
3.	**Institute/Place of Posting**	ICFRE (HQ), Dehradun
4.	**Contact Details**	**(O)** 0135- 2224827 **(M)** 7579286577
5.	**Date of joining at ICFRE**	07/12/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-14 03/07/2017
7.	**Discipline/Specialization**	Wood Science, Wood Water Relations
8.	**Education Qualification (Graduation or above)**	M.Sc. (Physics), Ph.D.

9. Important research contributions

- Changes in free energy, enthalpy entropy for sorption (desorption and adsorption) of water in wood. Changes are different for desorption and adsorption, have a strong dependence on moisture content and have a weak dependence on temperature. A linear relationship was found to exist between enthalpy and entropy for both desorption and adsorption of water in wood.
- Clustering behavior of water molecules during adsorption of water in wood was studied. Average cluster size progressively increased with an increase in humidity. At humidities corresponding to fiber saturation, larger clusters were formed. Cluster size increased sharply with an increase in temperature at humidities close to saturation. Formation of large clusters at high temperature at humidities close to saturation was attributed to increased fraction of weakly bonded water and capillary condensation in such conditions. A description of adsorption of water in wood was provided in terms of average cluster size.
- Methods of chemical kinetics were used to study stress relaxation behavior of wood blocks made from *Pinus sylvestris* and compressed parallel to grain at 20C and 65% relative humidity. Both activation volume and activation energy decrease with increasing stress level.
- Comparative studies of the moisture adsorption behavior of undecayed and brown rot decayed wood blocks *pinus sylvestris*. BET theory was validated in the elucidation of adsorption mechanism.

10. Important Research Papers/Publications

- Rawat, S.P.S.,M.C. Breese and D.P. Khali (1998). Chemical Kinetics of Stress Relaxation of Compressed Wood Blocks, Wood Science and Technology, (32):95-99.
- Rawat, S.P.S. and D.P. Khali (1999). Adsorption Behaviour of Water in Lignin, Holz als Roh-und Werkstoff, (57):203-204.
- Rawat, S.P.S., D.P. Khali, M.D. Hale and M.C. Breese (1998). Studies on the Moisture Adsorption Behaviour of Brown rot Decayed and Undecayed Wood Blocks of Pinus sylvestris using the Brunauer –Emmett-Teller Theory, Holzforschung, (52): 463-466.
- Rawat, S.P.S. and D.P. Khali (1998). Clustering of Water Molecules during Adsorption of Water in Wood, Journal of Polymer Science, Part –B: Polymer Physics, 36, 665-671.
- Rawat, S.P.S. and D.P. Khali (1996). Enthalpy-Entropy Compensation During Sorption of Water in Wood, Journal of Applied Polymer Science, 60, 787-790.

Dr. S. S. Chauhan

1.	**Designation**	Scientist - G
2.	**Date of birth**	08/06/1971
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bengaluru
4.	**Contact Details**	**(O)** 080-22190176 **(M)** 9980125863
5.	**Date of joining at ICFRE**	26/07/1993
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/07/2018
7.	**Discipline/Specialization**	Wood Scienceand Wood polymers, Wood Quality, Wood Polymer Composites
8.	**Education Qualification (Graduation or above)**	M.Sc. (Physics), M. Tech. (Futures Studies and Planning) , Ph.D. (Forestry/Wood Science)

9. Important research contributions

- Extensive studies on wood polymer composites including synthesizing a novel isocyanate based coupling agent; standardizing the process parameters for the composite preparation; developing completely biobased compostable composites and development of product specific formulations for composite materials.
- Novel rapid and reliable methods for wood quality assessment in young trees, logs and sawn wood.
- Standardized process of converting woody biomass into chemically active liquid which can effectively be used as a substitute of petroleum based phenol in preparation of phenolic adhesives used for making panel products.

10. Important Research Papers/Publications

- Kale, Amey, N. Raghu, H. Natu, P. Aggarwal, Shakti Chauhan (2016). Effect of grafting yield and molecular weight of m-TMI-grafted-PP on the mechanical properties of wood fiber filled polypropylene composites, Journal of Applied Polymer Science, DOI: 10.1002/app.44196.
- Chauhan, Shakti, Monika Sharma, Jimmy Thomas, Luis A. Apiolaza, David Collings, John Walker (2013). Methods for the very early selection of *Pinus radiata* D.Dun. for solid wood products, Annals of Forest Science, 70: 439-449.
- Chauhan, Shakti, Pankaj Aggarwal (2011). Segregation of Eucalyptus tereticonis Sm. clones for properties relevant to solid wood products. Annals of Forest Science, 68:511-521.
- Karmarkar, Ajay, S. S. Chauhan, Jayant M. Modak, Manas Chanda (2007). Mechanical properties of wood–fiber reinforced polypropylene composites: Effect of a novel compatibilizer with isocyanate functional group. Composites Part A 38: 227-233.
- Chauhan, Shakti and J.C.F. Walker (2006). Variations in acoustic velocity and density with age, and their interrelationships in *radiata pine*. Forest Ecology and Management: 229:388-394.

11. Awards

- Appreciation Award for the contribution in the field of Wood Technology by Rotary South and Karnataka Civil Defense Corp (2013).

Dr. P. K. Gupta

1.	**Designation**	Scientist - G
2.	**Date of birth**	07/09/1966
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224386 **(M)** 9358126046
5.	**Date of joining at ICFRE**	08/12/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-14 01/01/2019
7.	**Discipline/Specialization**	Forest Products, Cellulose & Paper Technology, Cellulose polymorphism
8.	**Education Qualification (Graduation or above)**	M.Sc. (Organic Chemistry), Ph.D.

9. Important research contributions

- Prepared alpha cellulose its cellulosic derivatives from *Lantana camara* lignocelluloses.
- Protocol established for physico-chemical conditions for the maximum recovery of reducing sugars from black liquor.
- Pre-extraction of sugar from agro-residue for bioethanol production established.
- Chemical structure of important plant polysaccharides from *Prosopis juliflora* established.

10. Important Research Papers/Publications

- Rana, Vikas, R.K. Bachheti, S. Gogoi, P.K. Gupta and G. Joshi (2015). Physicochemical, Functional and Antioxidant Properties of *Diplazium esculentum* Leaf Protein Concentrate. Current Traditional Medicine, 1(2): 145-158.
- Joshi, Gyanesh, Sanjay Naithani, V.K.Varshney, Surender Bist, Vikas Rana and P.K.Gupta (2015). Synthesis and characterization of carboxymethyl cellulose from office waste paper: A greener approach towards waste management. Waste Management, 38:33-40.
- Dubey, Alok K., P. K. Gupta, Neelam Garg and Sanjay Naithani (2012). Bioethanol production from waste paper acid pretreated hydrolyzate with xylose fermenting *Pichia stiptis*. Carbohydrate Polymer, 88 (4):825–829.
- Bhatt, Neetu, P. K. Gupta and Sanjay Naithani (2011). Hydroxypropyl cellulose from -cellulose isolated from *Lantana camara* with respect to DS and rheological behaviour, Carbohydrate Polymer, 86 (4):1519 – 1524.
- Bhatt, Neetu, P. K. Gupta and Sanjay Naithani (2011). Ceric-induced Grafting of Acrylonitrile onto cellulosic material from *Lantana camara*, Cellulose Chemistry and Technology, 45 (5-6):321-327.

Dr. S.R. Shukla

1.	**Designation**	Scientist - F
2.	**Date of birth**	09/02/1963
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bengaluru
4.	**Contact Details**	**(O)** 080-22190171 **(M)** 08088530619
5.	**Date of joining at ICFRE**	7/12/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 01/01/2014
7.	**Discipline/Specialization**	Wood Science and Wood Technology, Wood properties, Wood Modification
8.	**Education Qualification (Graduation or above)**	M.Sc. (Physics), M.C.A., Ph.D.

9. Important research contributions

- Improved Utilization of Plantation Timbers: Significant contribution was made in the success of *Acacia auriculiformis* as a potential alternative species for furniture and construction.
- Thermally Modified Plantation Woods: Thermal treatment process has been optimized for a plantation timbers and bamboos. Treated wood is found to be suitable for different value-added application.
- Nano-based Copper Wood Preservatives: Nano-technology based waterborne micronized copper was used as an advanced and cheaper alternative to conventional preservatives. Low amount of copper leaching was observed from treated wood. Impregnated wood samples showed excellent durability against fungus and termite activities.
- Near Infrared Spectroscopy (NIRS): Work has been carried out as rapid, cost effective and reliable technique for evaluation of various physical, mechanical and chemical properties wood.

10. Important Research Papers/Publications

- Shukla, S.R., R.V. Rao, S.K. Sharma, P. Kumar, R. Sudheendra and S. Shashikala (2007). Physical and mechanical properties of plantation grown *Acacia auriculiformis* of three different ages. Australian Forestry 70 (2): 86-92.
- Shukla, S.R. and D.P. Kamdem (2008). Physical and mechanical properties of red pine (*Pinus resinosa* Ait.) from three provenances. Wood and Fiber Science, 40(1):103-110.
- Shukla, S.R. and D.P. Kamdem (2010). Swelling of polyvinyl alcohol, melamine and urethane treated southern pine wood. Eur. J. Wood Prod., 68: 161-165.
- Shukla, S.R. and D.P. Kamdem (2012). Effect of copper based preservatives treatment of the properties of southern pine LVL. Construction and Building Materials, 34: 593-601.
- Shukla S. R. and Syam Viswanath (2014). Comparative study on growth, wood quality and financial returns of teak (*Tectona grandis* L.f.) managed under three different agroforestry practices. Agroforest Syst .,88:331–341.

D. P. Khali

1.	**Designation**	Scientist - F
2.	**Date of birth**	30/07/1970
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135 -2224451 **(M)** 9359995405
5.	**Date of joining at ICFRE**	20/11/1992
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13A 01/01/2014
7.	**Discipline/Specialization**	Forrest Products, Composite Wood
8.	**Education Qualification (Graduation or above)**	M.Sc. (Physics)

9. Important research contributions

- Developed combiply using plantation species to improve the functional properties of plywood.
- Combi LVL for load bearing components using Poplar and Eucalypts developed.
- Reconstituted Wood from destructured Bamboo was developed which exhibited excellent physical and mechanical properties and also falls under standard group to which teak belongs and is favourable for structural applications.
- Treatment of plywood and other composite wood items with fire retardant chemicals for enhancing their properties. Four fire retardant compositions developed and the plywood treated with these compositions passed the glue shear strength and fire retardant tests.
- Composites using lops and tops of Melia composita, Poplar, Eucalypts etc. also developed.

10. Important Research Papers/Publications

- Khali, D.P., Anil Negi and J.P. Singh, (2005). Combi Plywood for General Purpose (interior grade) of Plantation Species – *Eucalyptus hybrid*, *Populus deltoides* and *Paulownia fortunei* Journal of Timber Development Association of India, 51(1-2):43-50.
- Sinha, Satish Kumar and D. P. Khali (2015). Synthesis and Comparison of Phenol-Urea-Formaldehyde (PUF) Thermosetting Resin with Commercial Synthetic Resins. Asian Journal of Research in Chemistry, 8(7):449-452.
- Khali, D.P. and J.P. Singh (2014-15). Reconstituted Wood from Destructured Bamboo (*Dendrocalamus giganteus*) for Structural use. Journal of Timber Development Association of India, 60-61:1-7.
- Ranjan, Manish and D.P. Khali (2016).Effect of Cement: Bamboo Particle Ratios on Physical and Mechanical Properties of Cement Bonded Particle Board. Research Journal of Agriculture and Forestry Sciences, 4(11):1-4.
- Khali, D.P., Ashok Kumar and Priyanka Shrivastava (2017). Plywood for general purpose (interior grade) of selected different progenies of *Melia composita* Benth. J Indian Acad Wood Sci, 14(2): 139-145.

Rajesh Bhandari

1.	**Designation**	Scientist - F
2.	**Date of birth**	30/10/1970
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2755491 **(M)** 9837427994
5.	**Date of joining at ICFRE**	23/05/1997
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay level-13A 01/07/2016
7.	**Discipline/Specialization**	Forest Products, Timber Engineering
8.	**Education Qualification (Graduation or above)**	M.Sc. (Physics), B. Tech (Instrumentation)

9. Important research contributions

- Bending & compression properties of round plantation timber. Strength properties of these species i.e. Eucalyptus spp., *Melia azedarach*(Bakain) and *Dalbergia Sissso* (Shisham) were evaluated in round form.
- Development of cost effective house by using pole structure under this project design, analysis & testing of different structural components with Eucalyptus hybrid pole were carried out and a demonstration pole house using eucalyptus pole was also constructed within the premises of Timber Engineering Museum for display of technologies used in the construction with round Eucalyptus pole.
- Studies on wooden pallets using joints sections for industrial purposes from plantation timbers.
- Studies on bamboo Joints for structural purposes.

10. Important Research Papers/Publications

- Nil

Ajmal Samani

1.	**Designation**	Scientist - E
2.	**Date of birth**	16/11/1971
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224613 **(M)** 9410317334
5.	**Date of joining at ICFRE**	22/10/1998
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/01/2013
7.	**Discipline/Specialization**	Forest Products, Wood & Bamboo Preservation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Bio-Chemistry)

9. Important research contributions

- Development of eco-friendly Fire retardant and preservative combinations for the treatment of plywood, solid wood and bamboo.
- Chemical modification of wood to impart dimensional stability and protection against biodegradation.
- Evaluation of natural Durability of bamboo and plantation grown species with conventional and eco-friendly preservatives.
- Evaluation of suitability of plantation grown species in cooling tower.
- Development of pretreatment method for the preservative treatment of refractory timbers.

10. Important Research Papers/Publications

- Samani, Ajmal and D.P. Khali (2016). Performance evaluation of plywood prepared from fire retardant treated veneers. J. Indian Acad. Wood Sci, 13:108-113.
- Samani, Ajmal and D.P. Khali (2016). Effect of fire retardant chemicals on glue shear strength of plywood. Indian Forester, 142(12): 1225-1229.
- Samani, Ajmal and Sadhna Tripathi (2014-15). Performance evaluation of fire retardant cum preservative compositions on structural bamboos. J. of Timber Development Association of India, (60-61): 52-61.
- Samani, Ajmal and Sachin Gupta (2011). Effect of weathering on preservative treated finished wood. The Indian Forester, 137(9) :1089-1091.
- Hon, Sanjeet Kumar, Pawan Kumar Poonia, Ajmal Samani and Sadhna Tripathi (2016). Effect of different pressure treatment methods on dimensional stabilization of chemically modified *Pinus radiata* wood. Indian Forester, 142(7): 675-679.

Dr. Vikas Rana

1.	**Designation**	Scientist - E
2.	**Date of birth**	12/11/1977
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224386 **(M)** 0135-2224390
5.	**Date of joining at ICFRE**	01/09/2008
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/07/2016
7.	**Discipline/Specialization**	Forest Products, Cellulose & Paper Technology, Vat and additives
8.	**Education Qualification (Graduation or above)**	M.Sc. (Chemistry), Ph.D.

9. Important research contributions

- Reaction conditions optimized for the preparation of cellulosic derivatives from various lignocellulosic wastes. Extraction of Alpha cellulose from Areca waste.
- Physico-chemical conditions for the maximum recovery of reducing sugars from black liquor. Pre-extraction of sugar from agro-residue for bioethanol production.
- Chemical structure of two important plant polysaccharides (*Dalbergia sissoo* and *Mimosa diplotricha*) established.
- Leaf Protein concentrate from *Diplazium esculentum* prepared and nutritive properties evaluated.

10. Important Research Papers/Publications

- Joshi, Gyanesh, Sanjay Naithani, V.K. Varshney, Surendra S. Bisht, Vikas Rana (2017). Potential use of waste paper for the synthesis of cyanoethyl cellulose: A cleaner production approach towards sustainable environment management. Journal of Cleaner Production, 142:2759- 2768.
- Rana, Vikas, R.K. Bachheti, S. Gogoi, P.K. Gupta and G. Joshi (2015). Physicochemical, Functional and Antioxidant Properties of *Diplazium esculentum* Leaf Protein Concentrate. Current Traditional Medicine, 1(2): 145-158.
- Joshi, Gyanesh, Sanjay Naithani, V.K.Varshney, Surender Bist, Vikas Rana and P.K.Gupta (2015). Synthesis and characterization of carboxymethyl cellulose from office waste paper: A greener approach towards waste management. Waste Management, 38:33-40.
- Rana, Vikas, M. K. Das, S. Gogoi, V. Kumar (2014). Multifunctional properties of polysaccharides from *Dalbergia sissoo*, *Tectona grandis* and *Mimosa diplotricha*. Carbohydrate Polymers, 102(1):341-350.
- Rana, Vikas, V. Kumar and P.L. Soni (2012). Structural characterization of an acidic polysaccharide from *Dalbergia sissoo Roxb*. leaves. Carbohydrate Polymers, 90 (1):243-250.

D. Venmalar

1.	**Designation**	Scientist - E
2.	**Date of birth**	21/04/1959
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bangalore
4.	**Contact Details**	**(O)** 080-22190177 **(M)** 9900271515
5.	**Date of joining at ICFRE**	05/03/1986
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/01/2017
7.	**Discipline/Specialization**	Wood Preservation, Wood Preservation
8.	**Education Qualification (Graduation or above)**	M.Sc. (Chemistry)

9. Important research contributions

- Developing eco- friendly wood preservatives and studying their efficacy on plantation grown and imported timbers under laboratory and field conditions. Studies with eco-friendly preservative developed from *Pongamia pinnata* oil.
- Effectiveness of the bark extractives of *Acacia auriculiformis* and *Acacia nilotica* in resistant to termites, fungi and borers.
- Treatability class based on anatomical assessment for plantation timbers were determined by treating timbers using two coloured dyes.
- Treatability and durability of *Melia composite* with non edible oils.

10. Important Research Papers/Publications

- Venmalar, D. and Priscilla (2016). Screening of oils of *Pongamia pinnata* Linn., *Jatropha curcus* Linn. and *Simarouba glauca*. D.C. for developing eco-friendly wood preservatives, In "Wood is Good: Current Trends and Future Prospects in Wood Utilization", Springer Publication (ISBN 978-981-10-3115-1).
- Venmalar, D., H.C. Nagaveni, O.K. Ramadevi, P. Babu, G. Vijayalakshmi and P. Shalini (2011). Resistance of different age groups of timber of Ailanthus species to biodeterioration in Karnataka conditions. J. Indian Acad Wood Sci 2011, 8 (2):165-168.
- Nagaveni, H.C., G. Vijayalakshmi, D. Venmalar and O.K. Remadevi (2011). Durability of timber of *Grevillea robusta* of different age-groups grown in dry and wet region. J. Indian Acad Wood Sci 2011 8 (2):173-176.
- Venmalar, D., C.N. Vani and P. Babu (2011). Treatability of three selected bamboo species of Karnataka with three preservatives by Modified Boucherie Process. Proceedings of National seminar on "Recent advances in bamboo propagation, management and utilization" organized by the IWST Bangalore during 17-18 February 2011, 176-181.
- Published Technology transfer treatment of bamboo/small girth timber in Forestry in the Service of Nation: ICFRE. Technologies Chapter 4; Page No: 146-150.

R. K. D. Ram

1.	**Designation**	Scientist - E
2.	**Date of birth**	01/03/1976
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bangalore
4.	**Contact Details**	**(O)** 080-22190178 **(M)** 09449056230
5.	**Date of joining at ICFRE**	25/04/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/01/2017
7.	**Discipline/Specialization**	Wood Science & Technology/ Bio-energy, Wood Polymer Composite
8.	**Education Qualification (Graduation or above)**	M.Sc. (Wood Science & Technology)

9. Important research contributions

- Microwave assisted transesterification of P. pinnata seed oil for the production of biodiesel. Transesterification of *P. pinnata* seed oil can be done in 5 min as compared to conventional heating where approximately 3 hour is required. Catalyst concentration i.e., sodium hydroxide (0.5%) and potassium hydroxide (1.0%) were found optimum for microwave assisted biodiesel production from P. pinnata oil.
- A study on effect of microwave irradiation on seed oil extraction suggested a higher oil yield in significantly less extraction time in microwave irradiated seeds as compared to untreated seeds. Most importantly the quality of oil remains unchanged and some of the parameters (acid value and oxidative stability) get improved by treatment.
- A systematic study on variation in fuel properties of five bamboo species i.e. *D. brandisii, D. stocksii, D. strictus, B. bambos* and *B. balcooa* was carried out. *B. balcooa* stands out as suitable feedstock compared to other bamboo species .

10. Important Research Papers/Publications

- Kumar, Ritesh, K.K. Pandey, N. Chandrashekar and Sanjay Mohan (2010). Effect of tree-age on calorific value and other fuel properties of *Eucalyptus hybrid*. Journal of Forestry Research, 21(4):514 –516.
- Kumar, Ritesh, K.K. Pandey, N. Chandrashekar and Sanjay Mohan (2011). Study of age and height wise variability on calorific value and other fuel properties of *Eucalyptus hybrid, Acacia auriculaeformis* and *Casuarina equisetifolia*. Biomass and Bioenergy, 35: 1339-1344.
- Kumar, Ritesh, G. Ravi Kumar, N. Chandrashekar (2011). Microwave assisted alkali-catalyzed transesterification of *Pongamia pinnata* seed oil for biodiesel production. Bioresource Technology, 102:6617–6620.
- Kumar, Ritesh and N. Chandrashekar (2013). Study on chemical, elemental and combustion characteristics of *Lantana camara* wood charcoal. J Indian Acad Wood Sci., 10(2):134-139.
- Kumar, Ritesh and N. Chandrashekar (2014). Fuel properties and combustion characteristics of some promising bamboo species in India. Journal of Forestry Research, 25(2):471-476.

R. S. Topwal

1.	**Designation**	Scientist - E
2.	**Date of birth**	01/12/1965
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224273 **(M)** 7579185387
5.	**Date of joining at ICFRE**	14/03/1991
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/01/2018
7.	**Discipline/Specialization**	Forest Products, Timber Engineering
8.	**Education Qualification (Graduation or above)**	Diploma (Civil Engg.), B.Sc. (PCM), B. Tech (Civil Engg.)

9. Important research contributions

- Bending & compression properties of round plantation timber. Under this project strength properties of these species i.e. Eucalyptus spp., *Melia azedarach* (Bakain) and *Dalbergia Sissso* (Shisham) were evaluated in round form.
- Development of cost effective houses by using pole. The design, analysis & testing of different structural components with *Eucalyptus hybrid* pole were carried out and a demonstration pole house using eucalyptus pole was also constructed within the premises within the premises of Timber Engineering museum for display of technologies used in the construction with round Eucalyptus pole.
- Studies on wooden pallets using joints sections for industrial purposes from plantation timbers.
- Studies on bamboo Joints for structural purposes.
- Development of Biodiversity Park at Vigyan Dham Jhajra Dehradun.

10. Important Research Papers/Publications

- Nil

Dr. A. K. Sethy

1.	**Designation**	Scientist - D
2.	**Date of birth**	10/07/1977
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bangalore
4.	**Contact Details**	**(O)** 080-22190172 **(M)** 8971074462
5.	**Date of joining at ICFRE**	10/04/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/07/2014
7.	**Discipline/Specialization**	Wood Science and Technology, Wood Quality Assessment, Wood Modification, Wood Composite
8.	**Education Qualification (Graduation or above)**	M.Sc. (Wood Science and Technology),Ph.D.

9. Important research contributions

- Short rotation plantation grown hardwoods were modified with furfuryl alcohol which showed significant improvement in dimensional stability and decay resistance without compromising mechanical properties.
- Microwave heating was found to be very effective in conditioning wood to lower moisture content which is a pre-requisite for most of the chemical modification reaction. Microwave heating also accelerated the chemical modification reaction of wood with acetic anhydride and reduced the reaction time from 8 hours to 30 minutes.
- Opportunities to replace phenol in phenol formaldehyde resin were studied.
- Effect of flowering on physical, mechanical and histo-anatomical properties of bamboo (*Dendrocalamus brandisii*) were determined.
- Anti-leaching treatment using inorganic chemicals were standardized to prevent extractive leaching from wood surface of *Pterocarpus marsupium, Pterocarpus soyauxii* and Intsia spp.

10. Important Research Papers/Publications

- Sethy, A. K., P. Vinden, G. Torgovnikov, H. Militz, C. Mai, L. Kloeser and S. Przewloka (2012). Catalytic acetylation of *Pinus radiata* (D. Don) with limited supply of acetic anhydride using conventional and microwave heating. J. Wood Chem and Tech, 32(1): 1-9 .
- Sethy, A. K., P. Vinden, G. Torgovnikov and S. Przewloka (2016). Moisture conditioning of wood using continuous microwave drying. J. of Drying Technology, 34(3): 318-324.
- Chauhan, S. and A.K. Sethy (2016). Differences in dynamic modulus of elasticity determined by three vibration methods and their relationship with static modulus of elasticity. Maderas, Cienc. tecnol, 18(2): 373-382.
- Kumar, R., A.K. Sethy (2015). Microwave assisted energy efficient biodiesel production from crude *Pongamia pinnata* (L.) oil using homogeneous catalyst , J. of forest science, 31(1): 1-6.
- Kumar, A., A.K. Sethy and S. Chauhan. Liquefaction behaviour of twelve tropical hardwood species in phenol. Maderas Ciencia Tecnologia Journal (In- Press), DOI:10.4067/S0718-221X2018005000017.

Dr. Anil Negi

1.	**Designation**	Scientist - E
2.	**Date of birth**	30/06/1959
3.	**Institute/Place of Posting**	ICFRE (HQ), Dehradun
4.	**Contact Details**	**(O)** 0135- 2224863 **(M)** 9917720509
5.	**Date of joining at ICFRE**	1/09/1984
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-13 01/01/2019
7.	**Discipline/Specialization**	Forest Products, Composite Wood
8.	**Education Qualification (Graduation or above)**	M.Sc. (Chemistry), Ph.D.

9. Important research contributions

- Development of MDF boards from bamboo (*Dendrocalamus strictus*) using needle punch technique for improving its Internal Bond Strength.
- Fumigation of veneer/plywood by ammonia was carried out to up bring the latent figure with prominent colour from single plantation species as well as species in combination. Although ammonia fumigation upgraded the surface quality of plywood but reduction in bond strength was observed.
- Development of particle board from *Bambusa polymorpha*.
- Development of combi Laminated Veneer Lumber (LVL) from plantation species i.e. poplar and eucalyptus. Development of Laminated Veneer Lumber (LVL) from *Ailanthus excelsa*.
- Development of reconstituted wood from *Eucalyptus hybrid* and *Lantana camera*.
- Development of Particle and Fibre board from *Parthenium hysterophorus*.

10. Important Research Papers/Publications

- Negi, Anil, M.S. Rajawat and K.S. Shukla (1990).Influence of extractives in *eucalyptus hybrid* on glue bond strength of UF bonded plywood. J. Ind. Acad. Wood Sci., 21(1):13-17.
- Sagar, Vidya, Anil Negi and D.P. Khali (2014-15). Suitability of Medium Density Particleboard from Bamboo and Rice husk J. Timb. Dev. Assoc.(India),60-61:69-71.
- Sihag, Kapil, Anil Negi, D.P. Khali, Sumit Manohar Yadav (2015). Development of Particle Board from Bamboo (*Bambusa polymorpha*) International Journal on Environment Science, 7(1): 38-40.
- Chaudhary, Chirange Lal, Sumit Manohar Yadav, Kapil Sihag and Anil Negi (2015). Role of Resin Content in Manufacture of Particle board from mixed Plantation Species. International Journal on Biological Science, 6(2): 132-135.
- Sihag, Kapil, Anil Negi, Pawan Kumar Poonia and D.P. Khali (2017). Physical and Mechanical properties of MDF board from Bamboo (*Dendrocalamus strictus*) using Needle Punching Technique. International Journal of Chemical Studies, 5(6): 2028- 2030.

N. C. M. Rajan

1.	**Designation**	Scientist - D
2.	**Date of birth**	05/07/1959
3.	**Institute/Place of Posting**	Institute of Wood Science and Technology, Bengaluru
4.	**Contact Details**	**(O)** 080-22190149 **(M)** 9449695510
5.	**Date of joining at ICFRE**	14/04/1988
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/01/2017
7.	**Discipline/Specialization**	Wood Science & Technology, Civil Engineering, Wood Properties
8.	**Education Qualification (Graduation or above)**	B.E. (Civil)

9. Important research contributions

- The finger jointing techniques applied under adequate quality control enables the building industry to utilise the shorter lengths to build-up longer structural members.
- Use of different adhesives viz., polyvinyl acetate (Fevicol), urea melamine formaldehyde (UMF), phenol resorcinol formaldehyde (PRF) and phenol formaldehyde (PF) for assembling of joints.
- Finger jointed wood samples were tested as per BIS standards for evaluating the flexural properties.
- The bending strength of the finger jointed wood was found to be 40-50% lesser than the solid wood.
- Among all adhesives, PRF jointed wood samples exhibited highest values of MOR.

10. Important Research Papers/Publications

- Nil

R. Ezhumalai

1.	**Designation**	Scientist - D
2.	**Date of birth**	26/12/1974
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224395 **(M)** 919449081910
5.	**Date of joining at ICFRE**	09/04/2003
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/07/2017
7.	**Discipline/Specialization**	Forest Products, Chemistry of Forest Products, Wood Gasification, Wood Timber Mechanics
8.	**Education Qualification (Graduation or above)**	M.Sc. (Forestry)

9. Important research contributions

- Fuel properties of wood, wood pellets were studied and during wood gasification, dolomite chemicals found to be efficient tar cracker and it produces clean producer gas than untreated wood.
- Developed lab for wood to liquid which consists of gasifier, FT Reactor, pellet press, high pressure air compressor and gas analyzer at IWST.
- Steam Volatile Creosote (SVC) was distilled from crude creosote and the yield was improved with direct steam passing upto 35 %W/W. Selected eight species of wood samples were treated with SVC, synthetic and natural dye by different methods of application and are evaluated under terrestrial and marine conditions.
- Compared the gasification properties of wood, lantana weed, coconut shell and bamboo and found that coconut shell performs better than others.
- In wood gasification, bamboo treated with calcium oxide (CaO) was having higher percentage of carbon monoxide(16.3%) than untreated bamboo (9.7%).

10. Important Research Papers/Publications

- Ezhumalai, R. (2012). Wood Science and Technology, In: Forestry: Principles and Applications (eds.) Antony Joseph Raj and S.B.Lal, Scientific Publishers: Jodhpur, India.
- Mohan, S., R. Ezhumalai, S.H.Jain and G Ravikumar. Chemical constituents of essential oil from *Dysoxylum malabaricum* Bedd. wood of western ghats. 2011,Journal of Indian Academy of wood science,7(1&2):71-74.
- Ezhumalai, R., Ritesh Kumar D Ram and S.C. Joshi. Sustainable Utilization of Forest Biomass: A Review of the Method th at can Tapp this Valuable Resource to the Fullest Page no.271-280, in proceeding of Renewable Energy and Sustainable Development in the National Seminar organized on the 23rd to 25th of March 2010,Tezpur university and entitled on. Edited by Rupam Kataki and Anil C Borah (2012), published by EBH Publishers (India), Guwahati-1.
- Ezhumalai, R., Ritesh kumar, D Ram. "An opportunity explore the possibility for Wood to Liquid " paper was published in the proceeding of National conference on innovation in chemical Engineering ICE-2013 Nov 15-16, 2013 at BITS Pilani, Hyderabad Campus.
- Ezhumalai. R, and Ritesh Kumar (2017). Study on Chemical, Elemental and Gasification characteristics of *Lantana camara* Wood: K.K. Pandey et all (ed) Wood is Good Current Trends and Future Prospects in Wood Utilization, Springer press.pp. 403-409.

Ismita Nautiyal

1.	**Designation**	Scientist - D
2.	**Date of birth**	06/05/1983
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-224396 **(M)** 09412917065
5.	**Date of joining at ICFRE**	25/04/2011
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-12 01/01/2019
7.	**Discipline/Specialization**	Forest Products, Composite Wood and Nano-composites
8.	**Education Qualification (Graduation or above)**	M.Sc. (Wood Science and Technology)

9. Important research contributions

- The effect of Nano-clay (filler) on physical and mechanical properties of plywood has been investigated. Results indicated that addition of nanoclay improved the physical and mechanical properties of plywood. Glue Shear Strength, MOR and Tensile strength performed better at lower levels of nanoclay (1%).Role of nano-fillers and nanotechnology to produce less formaldehyde emitting composites is being investigated.
- Efforts were made to utilize lops and tops of Poplar to develop MDF. Utilization of Lops and tops in board preparation.

10. Important Research Papers/Publications

- Ismita, N. and Lokesh Chavan (2017). Effects of different nanoclay loadings on the physical and mechanical properties of *Melia Composita* particle board. Bois and forets des tropiques, 334 (4):07-12.
- Ismita, N. and Manish Ranjan (2017). "Exploratory studies on utilization of lop and tops of poplar for development of fiber board". International Journal of Forestry and crop improvement, 8(2): 113-116.
- Nautiyal. I and S. Gautam (2013-14). "Suitability of combination plywood from *Melia composita* and *Populus deltoides* and effect of curing pressure on their glue shear strength". Journal of tree science.
- Ismita N., Punetha, V, and Vipin Chandola (2014-15) "Effect of nanoclay loadings on physical and mechanical properties of bamboo particle boards" J. Tim. Dev. Assoc. of India, (60-61).
- Ismita N. (2016). "Effect of curing pressure on Glue shear strength of 7 & 9-ply combination from *Melia composita* and *Populus deltoides*'' Research Journal of Agriculture and Forestry Sciences, 4(12):1-4.

Shailendra Kumar

1.	**Designation**	Scientist - C
2.	**Date of birth**	01/03/1981
3.	**Institute/Place of Posting**	Forest Research Institute, Dehradun
4.	**Contact Details**	**(O)** 0135-2224423 **(M)** 9837086111
5.	**Date of joining at ICFRE**	11/12/2009
6.	**Pay level and Date of continuous appointment to the present post/grade**	Pay Level-11 01/01/2018
7.	**Discipline/Specialization**	Wood Science and Technology, Wood Seasoning
8.	**Education Qualification (Graduation or above)**	M.Sc. (Wood Science & Technology)

9. Important research contributions

- Development of a New Improved Design Solar wood drying Kiln with a solar thermal storage system.
- Comprehensive studies on wood properties evaluation of *Melia dubia* including development of wood drying schedule.

10. Important Research Papers/Publications

- Kumar, Shailendra and V. S. Kishan Kumar (2017). Charging-discharging characteristics of macro encapsulated phase change materials in an active thermal energy storage system for a solar drying kiln. Thermal Science, 21 (6A): 2525-2532.
- Kumar, Shailendra, B.U. Kelkar, A.K. Mishra, *et al.* K. Jena. Susanta (2017). Variability in physical properties of plantation-grown progenies of *Melia composita* and determination of a kiln-drying schedule. Journal of Forestry Research, DOI.org/10.1007/s11676-017-0527-z.
- Kumar, Shailendra, Rushikesh R. Topare, Jitendra K Nagar. (2017). Vacuum press drying studies on two fast-growing Indian wood species. Journal of Forestry Research, DOI: 10.1007/s11676-017-0474-8.
- Kumar, Shailendra and V. S. Kishankumar (2016). Thermal energy storage for a solar wood drying kiln: estimation of energy requirement J Indian Academy of Wood Science (2016) 13:33-37 DOI 10.1007/s13196-016-0162-x.
- Kumar, Shailendra and V. S. Kishankumar (2017). A new design solar wood dryer. Journal of Basic and Applied Engineering Research, 4(6):419-424.

11. Awards

- Young Scientist Award, Science and Technology Congress, Uttarakhand State Council for Science and Technology (2018).

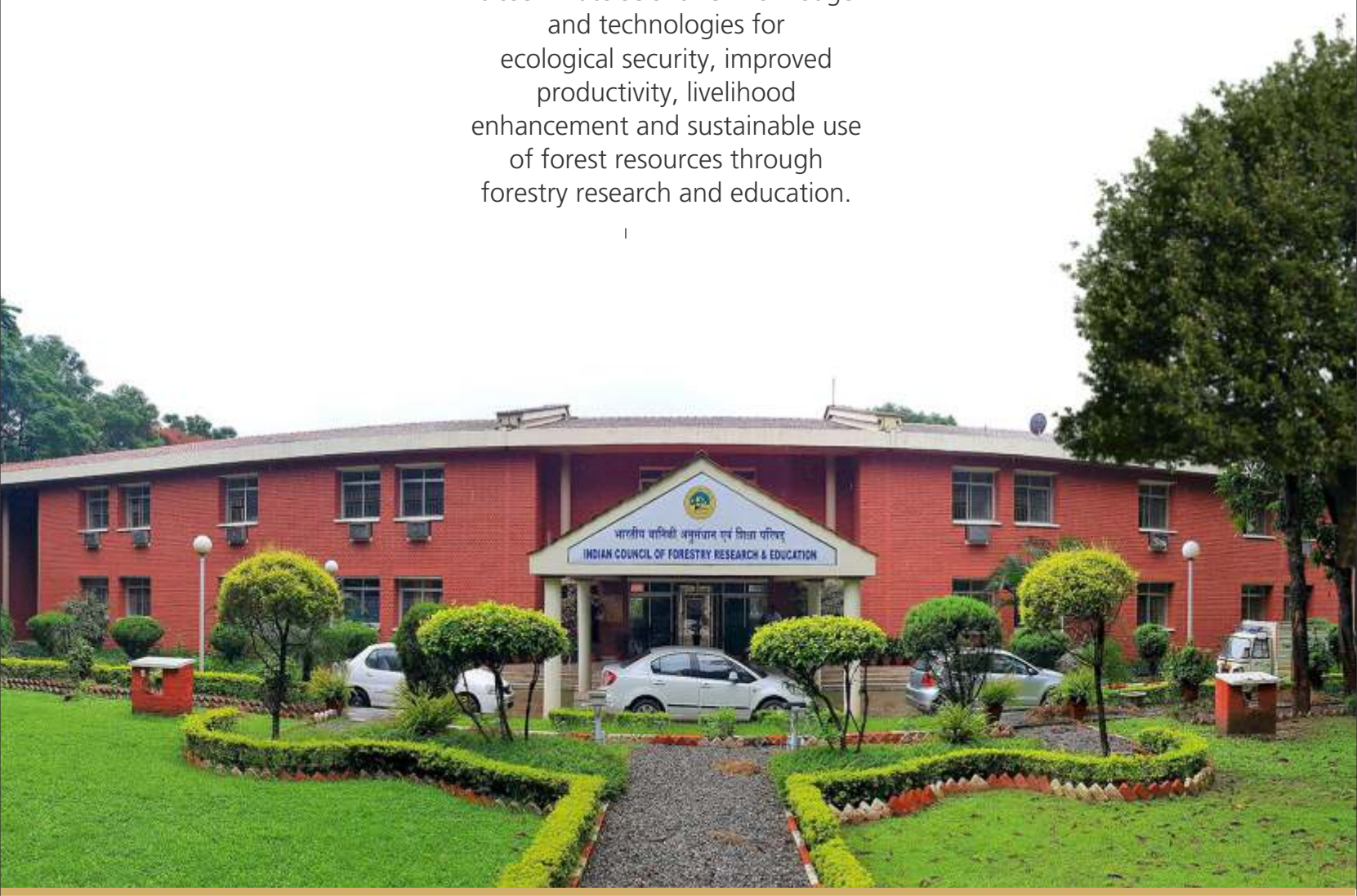
INDEX

VISION OF ICFRE

To achieve long-term ecological stability, sustainable development and economic security through conservation and scientific management of forest ecosystems.

MISSION OF ICFRE

To generate, advance and disseminate scientific knowledge and technologies for ecological security, improved productivity, livelihood enhancement and sustainable use of forest resources through forestry research and education.



INDIAN COUNCIL OF FORESTRY RESEARCH & EDUCATION
DIRECTORATE OF EDUCATION, ICFRE
P.O. New Forest, Dehradun- 248006