

Faculty Details proforma for DU Web-site



Title Dr.	First Name	Girish	Last Name	Chandra	Photograph	
Designation	Associate Professor					
Department	Statistics					
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Email	gchandra@stats	.du.ac.in; giris	h.caepht@gmai	il.com		
Web-Page	https://statistics.	.du.ac.in/-				
Education						
Subject	Institution		Year	De	etails	
Ph.D. (Statistics)	Kumaun Un Nainital	Statistical Methods in Risk Assessment and Control of				
M.Sc. (Statistics)	Kumaun Un Nainital	iiversity,	2003	Th pro	Thesis topic: A systematic procedure for square random lattice sampling	
B.Sc. with Statistics	Kumaun Un Nainital	iversity,	2001			
Career Profile						
Organisation / Institution	on Design	ation	Duratio	on Ro	ble	
University of Delhi, D	elhi Associ	ate Professo	or Sep 20 Presen		eaching and Research	
University of Allahabad, Prayagraj		ate Professo	or April 2 to Sep 2023	2022 Te	eaching and Research	
Indian Council of Forestry Research an Education, Dehradun cum-FRI Deemed Un	-	ist	April 2	2022	esearch and Teaching	
College of Agricultur; Engineering and Post Harvest Technology (Central Agricultural University), Gangtok, Sikkim.	-	ant Professo	r Feb 20 March		eaching and Research	

Research Interests / Specialization

Sampling Methods, Probability Theory, Forestry Statistics, Applied Statistics

Teaching Experience (Subjects/Courses Taught)

Following papers were taught at UG/PG/Ph.D. level

Sampling Methods; Measure and Probability Theory; Estimation Theory; Statistical Inference; Forestry Statistics; Applied Statistics; Mathematical Statistics.

Publications (Books and Edited Books)

- 1. Anjoy, P., Kumar, K., Chandra, G. and Gaikwad, K. (2024). Genomic Data Analysis for Crop Improvements. Springer.
- 2. Latpate, R. Kshirsagar, J., Gupta, V. K. and Chandra, G. (2021). Advanced Sampling Methods. Springer.
- 3. Hanagal, D., Latpate, R. and Chandra, G. (Eds) (2022). Applied Statistical Methods. Springer.
- Chandra, G., Nautiyal, R. and Chandra, H. (Eds.) (2020). Statistical Methods and Applications in Forestry and Environmental Sciences. Forum for Interdisciplinary Mathematics. Springer.
- Nautiyal, R. and Chandra, G. (Eds.) (2020). Forest Sector Report India 2019. Indian Council of Forestry Research and Education, Dehradun, India.
- Rawat, R. S., Arora, G., Rawat, V. R. S., Borah, H. R. Singson, M. Z., Chandra, G., Nautiyal, R. and Rawat, J. (2018). Estimation of Biomass and Carbon Stock of Bamboo Species through Development of Allometric Equations. *Indian Council of Forestry Research and Education*, Dehradun, India.
- Chandra, G., Nautiyal, R., Chandra, H., Roychoudhury, N. and Mohammad, N. (Eds.) (2015): Statistics in Forestry: Methods and Applications. *Bonfring Publication*. Coimbatoor.

Publications (Research Papers)

- Tiwari, N., Banerjie, J., Chandra, G. and Bhari, S. (2023). Adaptive Cluster Sampling Based on Balanced Sampling Plan Excluding Contiguous Units, *Communications in Statistics: Theory and Methods*.
- Dabral, A., Shankhwar, R., Martins-Ferreira, M.A.C., Pandey, S., Kant, R., Meena, R.K., Chandra, G., Ginwal, H.S., Thakur, P.K., Bhandari, M.S.; et al. (2023). Phenotypic, Geological, and Climatic Spatio-Temporal Analyses of an Exotic *Grevillea robusta* in the Northwestern Himalayas, *Sustainability*.
- Ansari, T., Chandra, G., Gupta, P.K., Joshi, G. and Rana, V. (2023). Synthesis of pine needle cyanoethyl cellulose using Taguchi L25 orthogonal array, *Industrial Crops & Products*, 191(B).
- Tiwari, N., Chandra, G. and Nautiyal, R. (2023). Favourable allocation models for symmetric distributions in ranked set sampling. *Journal of the Indian Society of Agricultural Statistics*.
- Prabhu, P., Gowda, P. and Chandra, G. (2023). Effect of *Prana vidya* practices on cognitive abilities of adolescents: A randomized control trial. *Journal of Applied Conscious Study*, 11(1), 12-21.
- Kumar, A., Kumar, J. and Chandra, G. (2022). Effect of defoliation on tree growth of *Populus deltoides Bartr*. ex Marsh in India, *Current Science*, 123(10), 1268-1273.
- Bhoj, D. S. and Chandra, G. (2022). Ranked set sampling with varied order statistics for skew distribution. *Model Assisted Statistics and Applications*, 17(3), 161-166.
- Prabhu, P., Gowda, P. and Chandra, G. (2022). Effect of *Prana vidya* practices on intelligence quotient and performance quotient of adolescents: A randomized control trial. *Journal of Applied Conscious Study*, 10(2), 124-133.
- Pandey, S., Nautiyal, R. Kumar, P., Chandra, G. and Panwar, V. (2022). A grey relational model for soil erosion vulnerability assessment in sub watershed of lesser Himalayan region, *CATENA*, 210., 105928.

- Bisht, S.S., Mishra, K., Pandey, K.K., Chandra, G., Nayak, M. and Shashikala, S. (2022). Chromatographic and spectrophotometric analysis of heartwood extracts of four *Pterocarpus* species, *Wood Science and Technology*, 56, 459-476.
- Bisht, S. S., Kumar, D. and Chandra, G. (2021). Variation in essential oil gland density, yield and composition of aerial parts of *Eucalyptus tertecornis Sm.* and *Eucalyptus camaldulensis Dehnh.*, *Journal of Essential Oil Bearing Plants*, 24(5), 998-1009.
- Nautiyal, R., Tiwari, N. and Chandra, G. (2021). Quantile estimation using near optimal unbalanced ranked set sampling. *Communications for Statistical Applications and Methods*, 28(6), 645-655.
- Nautiyal, R., Tiwari, N. and Chandra, G., Kershaw, J.A. and Shaktan, T. (2021). Alternate ranked set sampling for skewed and mound shaped symmetric distributions: Accounting for forestry and environmental research. *Mathematical and Computational Forestry and Natural Resource Sciences*, 13(2), 14-26.
- Chandra, G., Tiwari, N. and Nautiyal, R. (2021). Adaptive cluster sampling-based design for estimating Corona COVID-19 cases with random samples, *Current Science*, 120(7), 1202-1210.
- Giri, K., Chandra, G., Jayraj, RSC, Borah, R.K., Kardong, P, Borah, S. and Goswami, A.K. (2021). Regression models for estimating stem volume of *Aquilaria malaccensis* (Lamk.) in North East India. *Environmental Challanges*, 5, 1-6.
- Kumar, A., Chandra, G. and Singh, K.P. (2021). Relative infestation intensity of bamboo leaf roller, algedonia coclesalis on different bamboo species in Ranchi region. *Indian Forester*, 147(5), 496-499.
- Bisht, S. S., Chandra, G. and Pandey, K. K. (2021). Simple and rapid FTIR spectral data and chemometric analysis-based method for evaluation of the quality of Indian Sandalwood oils, *Journal of Essential Oil Research*, 33(4), 376-384.
- Bhoj, D. S. and Chandra, G. (2021). Ranked set sampling with lowest order statistics for Pareto distribution. *Communications in Statistics: Simulation and Computation*.
- Saha, R., Ginwal, H.S., Chandra, G. and Barthwal, S. (2021). A comparative study on grey relational analysis and C5.0 classification algorithm on adventitious rhizogenesis of *Eucalyptus*. Trees, 35, 43-52.
- Saha, R., Ginwal, H.S., Chandra, G. and Barthwal, S. (2020). Root distribution, orientation and root length density modelling in Eucalyptus and evaluation of associated water use efficiency. *New Forests*, 51, 1023-1037.
- Bisht, S.S., Chandra, G., Ravindra, M. and Kumar, R. (2020). Evaluation of chemical and physical properties of commercial sandalwood essential oils and their comparison with essential oil extracted from *Santalum album* L, *Journal of Essential Oil Bearing Plants*, 23(2), 345-355.
- Bhoj, D. S. and Chandra, G. (2019). Simple unequal allocation procedure for ranked set sampling with skew distributions, *Journal of Modern Applied Statistical Methods*, 18(2), eP2811.
- Chandra, G., Jain, A. and Kumar, S. (2020). Logit application model for valuating intangible benefits from the afforested areas, *Journal of Forestry Economics Review*, 2(1), 33-42.
- Kumar, A., Chandra, G. and Kumar, S. (2019). Estimating bark eating caterpillars *Indarbela quadrinotata* (walker) in *Populous deltoides* using ranked set sampling, *Indonesian Journal of Applied Statistics*, 3(1), 1-11.

- Saha, R., Ginwal, H.S., Chandra, G. and Barthwal, S. (2019). Integrated assessment of adventitious rizogenesis in *Eucalyptus*: Root quality index and rooting dynamics, *Journal of Forestry Research*, 31, 2145-2161.
- Bhandari, M.S., Meena, R.K., Shankhwar, R., Chandra, G. et al. (2019). Prediction Mapping Through Maxent Modeling Paves the Way for the Conservation of Rhododendron arboreum in Uttarakhand Himalayas. Journal of the Indian Society of Remote Sensing, 48, 411-422.
- Chandra, G., Tiwari, N. and Nautiyal, R. (2019). Two stage adaptive cluster sampling based on ordered statistics, *Metodoloski Zvezki (Advances in Methodology and Statistics)*, 16(1), 43-60.
- Tiwari, N., Chandra, G. and Nautiyal, R. (2019). Ranked set sampling: A review with new initiative on extreme ranked set sampling, *Statistics and Applications*, 17(1), 121-139.
- Bhandari, M.S. and Chandrag, G. National Workshop on 'recent Advances in Statistical Methods and Applications. In Forestry and Environmental Sciences 2018. *Indian Forester*, 144(12), 1232-1233.
- Uniyal, K., Chandra, G., Khan, R. U. and Singh, Y. P. (2018). Selection of potent pathogenic isolates from a population of *Alternaria alternata*, a leaf spot pathogen of poplar. *American Journal of Applied Mathematics and Statistics*, 6(6), 232-238.
- 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(1). Article 28.
- 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.
- Debnath, P., Pattanaaik, S.K., Sah, D., Chandra, G. and Pandey, A.K. (2018). Effect of boron and zinc fertilization on growth and yield of cowpea (*Vigna unguiculata* Walp.) in inceptisols of Arunachal Pradesh, *Journal of the Indian Society of Soil Science*. 66(2), 229-234.
- Chandra, G. and Tiwari, N. (2017). A systematic procedure for square random lattice sampling, *Journal of Mathematics and Statistics*, 13(3), 231-239.
- 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.
- Kumar, A. and Chandra, G. (2017). Insect pest infestation on *Gmelina arborea* Roxb. in different agroclimatic zones of Jharkhand, India, *Arthropods*, 6(1), 8-20.
- Chandra, G., Tiwari, N., Nautiyal, R. and Gupta, D. S. (2016). On Partial Ranked Set Sampling in parameter estimation of lognormal distribution. *International Journal of Statistical and Agricultural Sciences*, 12(2), 321-326.
- Chandra, G., Nain, NPS, Prakasham U, Khatri, P.K. and Singh, K (2015): On Seed Collection Levels in Various Types of Shorea Robusta Forest in Hill and Plain Agro-climatic Zones of Central India. *International Journal of Statistics and Analysis*. 5(1), 1-13.
- Debnath, P., Pattanaaik, S. K., Sah, D., Pandey, A. K., Sen, D., Chandra, G. and Ghosh, S. K. (2015). Response of boron and zinc fertilization to productivity of rice in piedmont soil of Arunachal Pradesh. *International Journal of Agriculture, Environment and Biotechnology*, 8(4), 907-914.

Chandra, G. and Nautiyal, R. (2015). On statistical methods in forestry research. Van Sangyan, 2(4), 37-42.

- Chandra, G. and Nautiyal, R. (2015). An overview of adaptive cluster sampling in estimating rare species. *Van Sangyan*, 2(2), 9-16.
- Chandra, G., Tiwari, N. and Singh, S.K. (2014): A generalized approach on ranked set sampling theory for large set size. *Journal of the Indian Society of Agricultural Statistics*, 68(1), 55-65.
- Chandra, G. and Tiwari, N. (2012). Estimation of location and scale parameters of lognormal distribution using ranked set sampling. *Journal of Statistics and Applications*, 7(3-4), 139-152.
- Chandra, G., Tiwari, N. and Chandra, H. (2011). Adaptive cluster sampling based on ranked sets, *Metodoloski Zvezki*, 8(1), 39-55.
- Chandra, G., Tiwari, N. and Singh, S.K. (2011). Near optimal allocation model for skewed distributions in ranked set sampling. *International Journal of Statistics and Systems*, 6(1), 57–65.
- Tiwari, N. and Chandra, G (2011). A systematic procedure for unequal allocation for skewed Distributions in Ranked Set Sampling. *Journal of the Indian Society of Agricultural Statistics*, 65(3), 331-338.

Debnath, P., Chandra, G. and Ghosh, S. K. (2009). Critical limit of available boron for rice under red and leterite zone of West Bengal, India. SAARC Journal of Agriculture, 7(1), 99-105.

Articles in the Edited Books:

- Malakar, A., Chandra, G. and Barthwal, S. (2023). Tree genome databases: a new era in the development of cyber-infrastructures for forest trees. In: Genomic Data Analysis for Crop Improvements, Springer.
- Uniyal, K., Chandra, G., Khan, R.U. and Singh, Y.P (2022). Grey relational analysis for the selection of potential isolates of *Alternaria Alternata* of poplar. In: Applied Statistical Methods, Springer Proceedings in Mathematics and Statistics, Springer Nature.
- Chauhan A.S., Chandra G., Singh Y.P. (2020). Statistics in Indian forestry: A historical perspective. In: Statistical Methods and Applications in Forestry and Environmental Sciences. Springer, Singapore.
- Chandra H., Chandra G. (2020). Small area estimation for total basal cover in the state of Maharashtra in India. In: Statistical Methods and Applications in Forestry and Environmental Sciences. Springer, Singapore.
- Nautiyal, R. and Chandra, G. (2017): Resource overview on bamboo conservation, management and utilization in India. In, Bamboo conservation, Management and Utilization in India: A Status Report. ICFRE Publication, Dehradun.
- Chandra, H., Sud, U. C. and Chandra, G. (2015): Importance of statistical software in survey data analysis. In: Statistics in Forestry: Methods and Applications. Coimbatoor: *Bonfring Publication*.
- Chandra, H. and Chandra, G. (2015): An Overview of small area estimation techniques. In: Statistics in Forestry: Methods and Applications. Coimbatoor: *Bonfring Publication*.
- Chandra, G., Tiwari, N. and Nautiyal, R. (2015): Near optimal allocation models for symmetric distributions in ranked set sampling. In: Statistics in Forestry: Methods and Applications. Coimbatoor: Bonfring Publication.
- Kulkarni, N., Roychoudhary, N. and Chandra, G. (2015): Probit analysis for toxicological experiments against forest insect pests. In: Statistics in Forestry: Methods and Applications. Coimbatoor: Bonfring Publication.

to	Chandra, G. and Tiwari, N. (2012). Ranked set sampling theory for large set size with probability proportional to rank size matrix. In: <i>Interface between Statistics, Mathematics and Allied Sciences</i> , Excel India Publishers, New Delhi.				
Chano	dra, G., Tiwari, N. and Nautiyal, R. (201	16): Assessment of non-timber forest products in India. In: <i>Their Application</i> , New Delhi, Narosa Publication.			
di	•	015): Estimation of location and scale parameters of normal Statistics in Forestry: Methods and Applications. Coimbatoor:			
as P	Verma, M. R., Pandey, R., Chandra, G. and Agnihotri, R.K. (2017). Sample allocation procedure for assessment of impact of development programme under joint effect of linear and exponential phases, In Proceedings of the Conference on "Recent Statistical Computing Techniques and their Applications" in Special Issue of Engineering and Scientific International Journal, 10-13.				
Awa	rds/ Grants/Fellowships received				
SN	Fellowship/Award Name	Name of the Academic body/Association			
1.	International Cochran-Hansen Award	International Statistical Institute, the Netherlands Given during World Statistics Congress 2017 at Morocco			
2.	National ICFRE Outstanding Research Award	Ministry of Environment, Forest and Climate Change, Gol <i>Given during World Forestry Day 2019</i>			
3.	Young Scientist Award in Math., Stat. & Comp. Sc.	UCOST, Government of Uttarakhand (2016)			
4.	Adjunct Faculty in Sampling	Uttar Banga Krishi Vishwavidhyalaya, CoochBehar			
5.	Travel Grant Assistance (Morocco)	World Bank			
6.	Travel Grant Assistance (Slovenia)	Ministry of Statistics and Program Implementation, GOI.			
7.	National Eligibility Test (NET)	Qualified in Mathematical Sciences by CSIR			
Research and Consultancy Projects					

S.	Title	Funding Agency	Period	Grant
No.	(as Principal Investigator (PI)/Co-PI/Nodal Officer)		(in months) (Status)	(in Rs. lakh)
1.	All Indian Coordinated Project "Assessment of	MoEFCC, GOI	36	143.75
	demand and supply of timber, fuel-wood and fodder in India" (As National Project Co- ordinator and PI)		(Till 11.04.2022)	
2.	All Indian Coordinated Project "Valuation of	MoEFCC, GOI	48	315.60
	forests for GDP, Green GDP and Payment of eco-system goods and services" (As PI)		(Till 11.04.2022)	
3.	Development of Regression Models, Volume,	Manipur State Forest	6	3.85
	Biomass and Carbon Tables for <i>Quercus serrata</i> and <i>Pinus khasiana</i> in Manipur State (As co-PI)	Department, Imphal	(Completed)	

spp. in India (As Co-PI)MoEFCC, GOI(Completed)5.Non-detrimental finding study of Pterocarpus marsupium in India (As Co-PI)Wild life division, MoEFCC, GOI6 months18.00 (Completed)6.Forestry Sector Report-2018 (As Co-PI)MoEFCC, GOI934.00 (Completed)7.Standardization of Plantation Techniques in Madhya Pradesh (As Co-PI)StateForest6022.22 (Completed)8.Reassignment of forest types of India (Including hardboard) of India (As PI for central India)ICFRE, Dehradun2440.00 (Completed)9.A Sample Survey for Pulp, Paper and plyboard (Including hardboard) of India (As PI for central India)International Tropical Timber Organization, Japan60.73 (Completed)10.Preparation and Publication of Forestry Statistics India 2011 (As PI for central India)Ministry of Agriculture, GOI42 (Completed)62.00 (Completed)11.Identification of Extents of Forest Lands and in the forest Fringe Villages (As Team leader for Maharashtra and Chhattisgarh StatesMinistry of Environment and Forest, GOI24 (Completed)12.Forestry Sector Report-2010 (As PI for central India)National Thermal Power Corporation Limited36 (Completed)13.Assessment of Green Cover, its Tangible and Intangible Benefits and Tree Cover Management Plan for NCPP Dadri Project (As Co-PI)National Thermal Power Corporation Completed)36 (Completed)14.Assessment of Green Cover and its Tangible and Intangible Benefits and Tree Cover <td< th=""><th></th><th></th><th></th><th></th><th></th></td<>					
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PI)		Management Plan for KSTPC Project (As Co-	Power Corporation Ltd	(Completed)	

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Conference Presentations:					
SN 1.	Title of the paper Statistical Methods in Environmental Studies using R	Conference Name Statistical Methods in Environmental Studies using R software	Organized by G. B. Pant National Institute of Himalayan Environment, Sikkim (March 01-03, 2023)	Level National	
2.	Multi-Criteria Decision Making Approaches: Some Case Studies	Integrated Approaches of Stochastic Modelling and Data Science for Sustainable Development	· •	International	
3.	Weighted Ranked Set Sampling for Skew Distributions	Statistics and Machine Learning for Big Data Analytics at SKAUST Srinagar, J&K	Indian Society of Agricultural Statistics (Nov 14-16, 2022)	National	
4.	Pharmaceutical Data Analysis	Recent Advancements in Pharmaceutical Sciences: Research to Revenue	United Institute of Pharmacy, Naini Prayagraj (May 16-20, 2022)	National	
5.	Ranked set sampling with lowest order statistics (RSSL) for skew distribution	Statistical Techniques in Business and Industry	CUSAT, Cochi 28th - 30th Dec 2020	International	
6.	Unbalanced ranked set sampling for Skewed Distribution	-	Pune University and Society of Statistics and Computer Application	National	
7.	Simple unbalanced ranked set sampling for mean estimation of response variable of developmental programs	Statistics for Better Future	Rajasthan Statistical Association	National	
8.	Two stage adaptive cluster sampling based on ordered statistics	World Statistics Congress 2017	International Statistical Institute and its Associations (Marrakech, Morocco)	International	
9.	Ranked set sampling approach for estimating response of developmental programs with linear impacts under	World Statistics Congress 2017	International Statistical Institute and its Associations	International	

	successive phases		(Marrakech, Morocco)	
10.	Adaptive Cluster Sampling Based on Ranked Sets	Applied Statistics-2010	Statistical Society of Slovenia (Ribno, Slovenia)	International
11.	Near optimal allocation model for skewed distributions in ranked set sampling	Statistics, Probability, Operation Research, Computer Science and Allied Areas (Vishakhapatannam, Andhra Pradesh)	Andhra University (Vishakhapattanam, India)	International
12.	On ranked set sampling allocation models for symmetric distributions	International Workshop on Environmental Statistics	Statistical and Mathematical Science Institute and Indian Statistical Institute, Kolkata, India (Kolkata, India)	International
13.	Simple unbalanced ranked set sampling for mean estimation of response variable of developmental programs	StatisticsforHumanitiesandSocialSciences:StatisticsforABetter FutureKetter	Rajasthan Statistical Association at Jaipur (Sep 04-05, 2018)	National
14.	Willingness-to-Pay estimation for selected intangible socioeconomics due to Plantations in and around a power Plant of India	Annual National Conference of Society of Statistics, Computer and Application 2017	Society of Statistics and Computer Applications and SKAUST, Jammu, India	National
15.	Two stage adaptive cluster sampling based on ordered statistics		Uttarakhand Council of Science and Technology, Dehradun, India	State
16.	Estimation of location and scale parameters of lognormal distribution using ranked set sampling	Indian Forestry Congress	Indian Council of Forestry Research and Education, Dehradun (New Delhi, India)	National
17.	Assessment of non-timber forest products in India: an adaptive cluster sampling approach	Recent advances of Statistical and Mathematical Sciences and Their Applications	Kumaun University, Nainital, India	National
18.	On adaptive cluster sampling in forestry research: an overview	Role of Statistics, Computer and	Society of Statistics and Computer	National

		Application in Women	Application (Mahila Vishwavidhalya,
		Empowerment	Sonipat, India)
19.	Large Set Size with Probability	Mathematics, Statistics and	
	Proportional to Rank Size Matrix	Computer Science	(Almora, India)
20.	On sampling methodology for assessing important non timber forest		Uttarakhand Council State of Science and
	products of India	Technology Congress	Technology, Dehradun, India

Workshops attended:

2019: *International Conference on Agricultural Statistics* (November 18-22, 2019): at Indian Agricultural Research Institute, Pusa, New Delhi funded by EUROSTAT

2017: Training on **Practical Bayes for Beginners** (July 13-14, 2017): at Medicine University, Marrakech, Morocco, organized by International Statistical Institute.

2017: Workshop on ISI-Young Statistician Workshop (July 16, 2017): at Palais des Congres, Marrakech, Morocco, organized by International Statistical Institute

2014: Training on **Data Analysis for Tree Volume, Biomass and Carbon Stock Assessment** (Nov 10-13, 2014): at Kerala Forest Research Institute, Peechi, Kerala, organized by Food and Agricultural Organization and Kerala Forest Research Institute.

2014: Training on Climate Change and Carbon Mitigation (Feb 22-26, 2017): at Indian Council of Forestry Research and Education, Dehraudn, India

2012: Annual workshop on National Knowledge Network (Oct 31-Nov 02, 2012): at Indian Institute of Technology, Bombay.

- **2013**: Annual Workshop on **IUIM Meet** (March 11-12, 2013): at Indian Institute of Remote Sensing, Dehradun.
- **2011**: National Workshop on **Non Timber Forest Products Marketing: Issues and Strategies** (Feb 19, 2011): at TFRI, Jabalpur.

2011: Workshop-cum-Training Programme on **Environment and Afforestation** (March 22-24, 2011): at TFRI, Jabalpur.

2012: Technical workshop on **National Knowledge Network** (March 21, 2012): at RCVP Noronha's Academy of Administration, Bhopal.

2011: Induction Training for Scientists and Research Officers of ICFRE, (March 21-May 27, 2011): at FRI Deemed University, Dehradun

2009: Recent Advances in Sampling Methodology, (Feb 10-March 02, 2009): at Indian Agricultural Statistics Research Institute, Pusa, New Delhi.

Conferences/ Session of conferences Organized

- 2019: Organized an Invited Paper Session "Significance of Ranked Set and Adaptive Cluster Sampling in Forestry and Environmental Research" for 62nd WSC 2019, Kualalumpur, Malaysia (Session Organizer)
- **2018:** Organized a national Workshop "Recent Advances in Statistical Methods and Application in Forestry and Environmental Sciences" at Indian Council of Forestry Research and Education,

Dehradun, India (**Organizing Secretary**).

- 2014: Organized a session Forestry and Environmental Statistics during the national conference "Recent Advances in Statistical and Mathematical Sciences and their Applications" organized by Department of Statistics, Kumaun University, Nainital (Chairman and Session Organizer)
- **2013:** Organized a national seminar "Recent Advances in Applied Statistics and its Application in Forestry" at Tropical Forest Research Institute, Jabalpur, Madhya Pradesh, India (Organizing Secretary).

Professional Societies Memberships

Regular member of International Association of Survey Statisticians

Regular member of International Statistical Institute

Life member of Indian Society of Agricultural Statistics

Life member of International Indian Statistical Association

Life member of Computational and Methodological Statistics

Life member of Indian Society for Probability and Statistics

Other Details

Supervision (Supervisor/Co-supervisor) of Completed/Ongoing Ph.D. Students

- 1. Contributions of Ranked Set Sampling and Adaptive Cluster Sampling in Forestry Research, Kumaun University (awarded)
- 2. Clonal Variations in rooting dynamics and root architecture of *Eucalyptus tereticornis* and *Eucalyptus Camaldulensis*, FRI (Deemed) University (awarded)
- 3. Analysis of Genetic Diversity and Efficacy of Biocontrol Agents on Growth Parameters in *Grevillea robusta* A. Cunn., FRI (Deemed) University (awarded)
- Effect of Shifting Cultivation on Forest Cover Change and Soil Characteristics of Serchhip District, Mizoram, FRI (Deemed) University (submitted)
- 5. Valuation of Selected Forest Ecosystem in High Sensitive Zones of Uttarakhand, FRI (Deemed) University (submitted)
- Small Domain Estimation Approach for Important Forestry Attributes in India based on Survey and SAR Data, FRI (Deemed) University (ongoing)
- 7. Effect of Prāna Vidyā on Cognitive Abilities; Āgya Cakra, of Adolescents, Patanjali University (awarded)
- Development of Unique Sex Associated DNA Markers for Medicinally Important Himalayan Species Myrica esculenta, FRI (Deemed) University (ongoing)
- 9. The organic carbon distribution in the soil plant system in Keibul Lamjao National Park, Manipur, FRI (Deemed) University (ongoing)

Mentoring Women Scientist Under Department of Science and Technology

Supervised two women scientists under WOS B scheme of DST at ICFRE, Dehradun (total project amount Rs. 36 lakh)

Administrative Responsibilities

Responsibility Resident Director, Van Vigyan Bhawan, New Delhi (Apr 2017 to Jan 2018)

Course Coordinator, Ph.D. Students (2016-2017)

Head, Department of Statistics, Computer and IT (Mar 2012 to Sep 2013)

Member of Board of Studies/Academic Committee

Committee Member, Academic Council

Expert Member, Research Advisory Group meeting committee

Expert Member, National Research Policy Committee, ICFRE

Expert Member, Research Advisory Committee **Organization** ICFRE, Dehradun, India

FRI (Deemed) University, Dehradun, India

Tropical Forest Research Institute, Jabalpur

Organization FRI (Deemed) University, Dehradun

Tropical Forest Research Institute, Jabalpur

ICFRE, Dehradun

FRI (Deemed) University, Dehradun

(Signature of Faculty Member)