#### **FACULTY PROFILE**

NAME	Dr. BINDU P. P.
DESIGNATION	Assistant Professor of Statistics
QUALIFICATION	M. Sc; B. Ed., Ph. D, FSAB (Research Guide in Statistics, Research Center: Govt. Arts and Science College, Calicut Affiliated to University of Calicut)
EMAIL ID	ppbindukannan@gmail.com
TOTAL YEARS OF SERVICE	13 Years
DATE OF JOINING INTO THIS COLLEGE	04/06/2014
ADDRESS	KRISHNA, KOCILATH, RAMANATTUKARA



#### POSITIONS HELD IN COLLEGE

- Nodal Officer AISHE, Government Arts and Science College, Calicut, 2015- present.
- Nodal Officer ARIIA (2020 to present)
- Member Academic Master Plan (2021-present)
- Co-ordinator CSIR/UGC NET Coaching, Directorate of Minority Welfare, Govt. of Kerala (2021)
- Chief Superintendent of Examinations, Government Arts and Science College, Calicut, January 2018 to April 2018.
- Co-ordinator of the Govt. Arts & Science College Website (2014-2018)
- Member of editorial board of Research Journal of Government Arts and Science College, Calicut 2014-2015 & 2016-17.
- Member of the Govt. Arts & Science College Website (2018-2021)
- Member of NAAC Steering Committee, Govt. Arts & Science College. 2016-17
- Mentor of the Walk With Scholar Program, Government Arts and Science College, Calicut (2014-2018)
- Member of CQAC Govt. Arts & Science College (2014-15)
- Member of Executive Editorial Committee of, Reflections-A peer reviewed multi-disciplinary Research Journal for Women, Vimala College, Thrissur, Kerala, 2013 to 2015.
- Member of the Editorial Committee of Vimala International Science Research Journal for Pure and Applied Sciences (2012 to 2015)
- Co-ordinator of the Under Graduate Tutorial System of T. M. Govt. College, Tirur (2013-14).

- Co-ordinator of RUSA of T. M. Govt. College, Tirur (2013-14)
- Mentor of the Walk With Scholar Program, T. M. Govt. College, Tirur (2013-14)
- Co-coordinator of Nature club, E.M.E.A. College, Kondotti during 2007-2008

#### TEACHING INTERESTS

Biostatistics, Computational Statistics, Sampling Theory, Design of Experiments, Distribution Theory, Reliability Theory, Survival Analysis, Statistical Inference and Statistical Programming Languages.

### **RESEARCH AREAS**

Biostatistics, Computational Statistics, Data Mining, Distribution Theory, Epidemic modeling, Microarray and NGS modeling, Machine Learning, Reliability, Spatial-Temporal modeling and Statistical Genetics.

#### SOFTWARE KNOWLEDGE

R Software, Python, Matlab, Maple, SPSS, OpenBUGS, Mathcad and LateX

### REVIEWER OF INTERNAL STATISTICS JOURNALS

- Communications in Statistics- Theory and Methods, Taylor & Francis, Impact factor- 0.424.
- Communications in Statistics- Simulation and Computation, Taylor & Francis, Impact factor, -0.49.
- Statistics, Taylor & Francis, Impact factor, 0.675.
- Journal of Applied Statistics, Taylor & Francis, Impact factor- 0.664.
- Statistics and Probability Letters, Elsevier, Impact factor- 0.615.
- Journal of Statistical Computations and Simulation, Taylor & Francis, Impact factor-0.767.
- Anais da Academia Brasileira de Ciências, Annals of Brazilian Academy of Science.

#### RESEARCH GUIDESHIP AND CENTRE

**Research Guide: Statistics** 

Research Center: PG and Research Department of Statistics, Govt. Arts and Science College, Calicut Affiliated to University of Calicut

### **ACADEMIC/PROFESSIONAL QUALIFICATIONS**

NAME OF THE PROGRAMME	INSTITUTION/UNIVERSITY	YEAR OF PASSING
B. Sc. Mathematics	Providence Women's College, Calicut, Calicut University	1994
M. Sc. Statistics	Calicut University	1996
CSIR JRF	Council of Scientific and Industrial Research, New Delhi, India	1997
B. Ed. Mathematics	Govt. College of Teacher Education, Kozhikode, Calicut University	1998

Certificate Course in Software Applications	Washtenaw Community College, Michigan, USA	2004
Certificate Course in Bioinformatics	Anna University, Madras	2007
Training in Gender sensitization	Center for Women Studies, Vimala College, Thrissur	2013
Ph. D	M. G. University	2014
Certificate Course in Descriptive Statistics Using R (Gold Medal)	NPTEL	2018
Certificate Course in Big data Computing	NPTEL	2018
Certificate Course in Introduction to R Programming (Gold Medal)	NPTEL	2019

## **TEACHING EXPERIENCE**

DESIGNATION	INSTITUTION/UNIVERSITY	YEAR OF SERVICE
Lecturer in Statistics	E. M. E. A. Arts and Science College, Kondotty, Affiliated to University of Calicut	01-09-2005 to 09-07-2008
Assistant Professor	Vimala College, Thrissur	01-10-2012 to 08-10-2013
Assistant Professor	T. M. Govt. College, Tirur	09-10-2013 to 03-06-2014
Assistant Professor	Govt. Arts & Science College, Kozhikode	04-06-2014 to present

# PHD THESIS

SL.N	TITLE	GUIDE NAME	INSTITUTION	MONTH/YEA R
1.	Statistical Applications in Microarray Technology and Bioinformatics	Dr. Sebastian George	St. Thomas College, Pala, Mahatma Gandhi University, Kottayam	February 2014

# RESEARCH PROJECTS/GRANTS RECEIVED

SL.N O	TITLE	INVESTIG ATORS	SPONSOR ING AGENCY	AMOUNT	MONTH /YEAR
1.	Statistical Applications in Microarray Technology and Bioinformatics	Bindu P. P.	DST, India	Rs. 9,01,666	09-11-2009
2.	Statistical analysis of seasonal variation and disease outbreaks in Kerala	Bindu P. P.	UGC	Rs. 1,50,000	Sanctioned for 2015-17
3.	New Statistical Methods for identification and Ranking of Differentially expressed genes in Microarray.	Bindu P. P.	DST-SERB	Rs. 11,79,640	29-03-2019

# AWARDS/ACHIEVEMENTS/OTHERS

	NAME OF AWARDS/		
SL.NO.	ACHIEVEMENTS /OTHERS	DESCRIPTION	MONTH/ YEAR
1.	Best oral paper presentation Award (Scientist)	Best oral presentation Award in 34 <sup>th</sup> Kerala Science Congress 2022 for the paper entitled "Identification of differentially expressed gene in Covid-19 gene expression data"	10-12, February 2022
2.	Best Poster presentation Award (Scientist)	Best Poster Award in 33rd Kerala Science Congress 2021 for the poster entitled "New Error Distribution for Microarray gene expression data"	25-30, February 2021
3.	Best oral paper presentation Award (Scientist)	Best oral presentation Award in 32 <sup>nd</sup> Kerala Science Congress 2020 for the paper entitled "Identification and ranking of differentially expressed genes in microarray studies"	25-27, January 2020
4.	Best Poster presentation Award	Best Poster Award in 31 <sup>th</sup> Kerala Science Congress 2019 for the poster entitled "A new family of alpha power transformed Fréchet distribution and its applications in rainfall data analysis"	2-3, February 2019
5.	Best Poster presentation Award	Best Poster Award in 30 <sup>th</sup> Kerala Science Congress 2018 for the poster entitled "New family of Multimodal skewed slashes Laplace distributions and its applications".	27-30, January 2018
6.	Selected for the Best Student Speaker section	Presented paper in the Best Student Speaker section in the 22 <sup>nd</sup> Annual Conference of 'The International Environmetrics Society (TIES)'.	January 2012
7.	Fellow Award 2012	Awarded by the society for applied biotechnology in recognition of the outstanding achievements and contributions to the field of Bioinformatics	November 2012
8.	Women Scientist Fellowship	Ministry of Science & Technology, DST, India	November 2009
9.	Selected for M.S. / Ph.D Program in Biostatics of School of Public Health, University of Michigan, USA	Selected for the Masters and Ph.D program in Biostatistics, University of Michigan (which is one among the first 11 Universities in USA).	September 2004
10.	Junior Research Fellowship of CSIR, India.	Junior Research Fellowship in Mathematical Science, Council of Scientific and Industrial Research, India.	July 1997
11.	Third Rank for M.Sc. Statistics	Third rank for M.Sc. Statistics, University of Calicut	August 1996
12.	Individual First prize and team prize in Dr. U. S. Nair Memorial Ever rolling trophy Quiz	Dr. U. S. Nair Memorial Ever rolling Trophy Quiz Competition in Statistics conducted by Kerala Statistical Association	1993 and 1994

	Competition conducted by Kerala Statistical Association		
13.	General Proficiency Prize in Mathematics	Awarded by Providence Women's College, Calicut	1994

### **JOURNAL PUBLICATIONS**

#### **International**

- 1. <u>Bindu Punathumparambath</u> (2022). On record based Transmuted Inverse Exponential Distribution, <u>International Journal of Statistics and Applied Mathematics</u>, 25-30.
- 2. <u>Bindu Punathumparambath</u> and Kannan Vadakkadath Meethal (2021). New approach for estimating Differentially expressed genes in Microarray, **Advances and Applications in Statistics**, 66(2), 191-208 (Web of Science Indexed).
- 3. M. Vijayakumar, <u>Bindu Punathumparambath</u> and Anwar Shameem Z. A. (2021). Impact of Multiple Time Scales in Survival Analysis. **Compliance Engineering Journal**, 15(7), 603-610 (UGC listed).
- 4. **Bindu Punathumparambath** (2020). Transmuted Esscher transformed Laplace distribution and its application to Microarray analysis, **Journal of Statistical Research**, 54 (2) 167-181.
- 5. <u>Bindu Punathumparambath</u> and Kannan Vadakkadath Meethal (2020b). Generalized *p*-value approach for multiple hypothesis testing in Microarray. **JP Journal of Biostatistics**, 17(2), 443-451(Web of Science Indexed).
- 6. **Bindu Punathumparambath** (2020c). Slash exponential distribution: theory and applications. **Bulletin of Mathematics and Statistics Research**, 8(4), 38-49.
- 7. Bindu Punathumparambath (2020d). Compound Exponential Power Distribution and its Applications to Microarray. **International Journal of Scientific Engineering and Research**,8 (4), 4-8.
- 8. M. Vijayakumar, Anwar Shameem Z. A., and <u>Bindu Punathumparambath</u> (2020e). Length Biased Rani Distribution with Survival Data Analysis. **High Technology Letters**, 26(6), 559 573(Scopus Indexed).
- 9. M. Vijayakumar, Anwar Shameem Z. A., and <u>Bindu P. P.</u> (2020f). Weighted Two Parametric Rama Distribution with Survival Data Analysis. **Journal of Xi'an University of Architecture & Technology**, 12(4), 5840 5857(Web of Science Indexed).
- 10. **Bindu Punathumparambath** (2016). Stress-Strength Reliability of type II compound Laplace distribution. **International Research Journal of Engineering and Technology**, 3 (2), 1182-85.
- 11. <u>Bindu Punathumparambath</u> and Sangita Kulathinal (2015). Double Lomax and its applications. *STATISTICA*, 75(3), 331-342(Web of Science indexed).
- 12. Bindu Punathumparambath (2013). A new family of skewed slash distribution generated by Cauchy kernel. *Communications in Statistics- Theory and Methods*, 42, 2351-2361(Web of Science indexed).
- 13. **Bindu Punathumparambath**, Sebastian George and Kannan V. M. (2013b). Statistical methods for identifying differentially Expressed genes in microarray data. *International Journal of Scientific & Engineering Research*, **4**(9), 1405-1409.
- 14. C.Resmitha, R.M. Reshma, <u>Bindu.Punathumparambath</u> and Kannan.Vadakkadath Meethal. The ecdysone mimic, methoxyfenozide, alters the level of major haemolymph proteins in the larvae of *Spodoptera mauritia*. **Acta Biologica Indica** 2014, 3(2):726-733.
- 15. Ramya P.P., Sameena U., Sasi S., Shamiyath A., <u>Bindu.P.P</u>, Kannan V.M. Identification of plant extracts containing protease inhibitors

- against the gut protease of *Spodoptera mauritia* Boisdual (Lepidoptera: Nuctuidae). **Acta Biologica Indica** (2013) 2(2):451-455
- C.Divya, Srrejina Sreedharan, <u>Bindu Punathumparambath</u> and Kannan Vadakkadath Meethal. Identification of plant extracts expressing trypsin Inhibitor. Acta Biologica Indica 2014 3(1):522-526
- 17. <u>Bindu Punathumparambath</u> and Kannan V. M. (2013a). Error Distribution for Microarray Gene Expression Data. *VIRJ for Pure and Applied Sciences*, **1**(1), 41-57.
- 18. <u>Bindu Punathumparambath</u>, Sangita Kulathinal and Sebastian George (2012). Asymmetric type II compound Laplace distribution and its application to microarray gene expression. *Computational Statistics and Data Analysis*, 56, 1396-1404(Web of Science indexed).
- 19. **Bindu Punathumparambath** (2012). The multivariate skew-slash t and skew-slash Cauchy distributions. *Model Assisted Statistics and Applications*, 7, 33-40.
- 20. Bindu Punathumparambath (2012). The multivariates asymmetric slash Laplace distribution and its applications. *STATISTICA*, 72(2), 235-249. (Web of Science indexed).
- 21. <u>Bindu Punathumparambath</u> and Sebastian George (2012). A New family of skew Slash logistic distributions. *Journal of Applied Statistical Sciences*, 19(3), 9-16.
- 22. <u>Bindu Punathumparambath</u> and Kannan V. M. (2012). Two component mixed Laplace model for microarray gene expression data. *JP Journal of Fundamental and Applied Statistics*, 2(1), 15-25.
- 23. Bindu Punathumparambath (2011). A new family of skewed slash distribution generated by normal kernel. *STATISTICA*, 71(3), 345-353. (Web of Science indexed).
- 24. <u>Bindu Punathumparambath</u>, Sebastian George and Kannan V. M. (2011). Statistical Techniques for microarray Technology. *Journal of Informatics and Mathematical Sciences*, 3(3), 257-275.
- 25. **Bindu Punathumparambath** (2011). Estimation of P(X>Y) for double Lomax distribution. *ProbStat Forum*, 4(1), 1-11.

### NATIONAL LEVEL

- 1. Swalih K, <u>Bindu Punathumparambath</u> (2018). Process Capability Indices and its Applications, Research Journal Govt. Arts and Science College, 9(1), 9-25.
- 2. Nihala, N C, <u>Bindu Punathumparambath</u> (2018). Generalizations of Weibull distribution and its Applications in Life Time Data Analysis, Research Journal Govt. Arts and Science College, 9(1), 53-68.
- 3. Anusha, <u>Bindu, P. P.</u> (2016). Time Series Modelling of the Silver Price data. Research Journal Govt. Arts and Science College, 6(1), 64-88.
- 4. Nihala, <u>Bindu, P. P.</u> (2016). Generalizations of Exponential distribution and its Applications in Life Time Data Analysis. Research Journal Govt. Arts and Science College, 6(1), 193-207.
- 5. Raisa, T. P., <u>Bindu P. P.</u> (2015). Survival Analysis of Cancer patients using parametric and non-parametric methods. Research Journal Govt. Arts and Science College, 5(1), 9-19.
- 6. Raisa, T. P., <u>Bindu P. P.</u> (2014). Statistical Analysis of Road Accidents in Kerala. Reflections: A peer reviewed multi-disciplinary Research Journal for Women, 2(1).

### **PUBLICATION IN PROCEDINGS**

1. Bindu Punathumparambath (2021). Mathematical modeling for prediction of COVID-19. Proceedings of the CSIR Sponsored International Conference on Statistical Mechine Learning and its application to COVID-19 organized by WMO College, Muttil, Wayad, Kerala.

- 2. Reshmi Ramesh, **Bindu Punathum parambath** (2021). Outbreak prediction of COVID-19 in Kerala using Time series and Regression Analysis. *Proceedings of the CSIR Sponsored International Conference on Statistical Mechine Learning and its application to COVID-19 organized by WMO College, Muttil, Wayad, Kerala.*
- 3. Prabisha T. P., **Bindu Punathum parambath** (2021). Outbreak prediction of COVID-19 in USA using Time Series Analysis. *Proceedings of the CSIR Sponsored International Conference on Statistical Machine Learning and its application to COVID-19 organized by WMO College, Muttil, Wayad, Kerala.*
- 4. **Bindu Punathumparambath**, J. Sreekumar, Kannan V. M. (2009). Microarray Technology and Statistical Applications. *Proceedings of the UGC Sponsored National Workshop on Bayesian Statistics & MCMC Methods using Open BUGS & R*, pp.43-59.

### **BOOKS REVIEWED**

SL.NO	TITLE	AUTHOR NAMES	ISBN NO.	MONTH/ YEAR
1	INTRODUCTORY STATISTICS, 10 <sup>th</sup> EDITION Pearson International	Neil A. Weiss, Ph.D.	ISBN 978-0-321- 98917-8	October 2014
2.	Probability & Statistics for Engineers & Scientists NINTHEDITION Prentice Hall /Pearson	Ronald E. Walpole Roanoke College Raymond H. Myers Virginia Tech Sharon L. Myers Radford University Keying Ye University of Texas at San Antonio	ISBN 10: 0-321-62911-6 ISBN 13: 978-0-321-62911-1	March 2016

#### PROFESSIONAL AFFILIATIONS/MEMBERSHIPS

- Life member of Indian Science Congress Association
- Life member of Indian Society for Probability and Statistics (ISPS)
- Life member of Indian Society for Medical Statistics (ISMS)
- Life member of Kerala Statistical Association
- Life member of Society for Applied Biotechnology, India

# PAPER PRESENTATIONS

	Tile of Presentation	Organizer	Date	National/ International
1.	<b>Delivered Invited Talk</b> entitled "On Record Based Transmuted Family of Distributions and its Applications, international Conference WSTA 2022	Organized by Department of Statistics, University of Kerala, Trivandrum IISA, ISPS and KSA	29 June -02 July 2022	International
2.	Presented Research paper entitled "Identification of Differently Expressed Genes in Covid-19 Microarray" in the Webinar on Recent Innovations in Statistics.	Organized by Department of Statistics University of Calicut	8-9, June 2022	National
3.	Presented Research Paper entitled " "Double Xgamma Distribution and Its Applications" in the International Virtual Conference on Statistics and Data Science: Theory and Practice for Progress and Prosperity.	Organized jointly by the Department of Statistics, University College of Science, Osmania University, Hyderabad and Indian Society for Probability and Statistics.	11th – 13th March 2022,	International
4.	Presented Research paper entitled  "Identification of differentially expressed gene in Covid-19 gene expression data" in the 34 <sup>th</sup> Kerala Science Congress	Organised by Kerala State Council for Science, Technology and Environment (KSCSTE), at Mar Ivanios College, Thiruvananthapuram	10-12 February 2022	National
5.	Delivered Invited Talk entitled " New family of Record Based Transmuted Inverse Weibull Distribution and its Applications" in the Seventh International Conference on Statistics for Twenty First Century- 2021	Organized by Department of Statistics, University of Kerala, Trivandrum IISA and KSA	15-19, December 2021	International
6.	Presented Research Paper entitled "NGS data on RNA profiling and micro biome in COVID-19: a systematics review and Meta Analysis" in 39th Annual conference of Indian society for medical Statistics	Indian society for medical Statistics ISMS	09-10, December 2021	International
7.	Presented Research Paper entitled " Mathematical modeling for prediction of COVI-19" in the International CSIR Sponsored Conference on Statistical Machine Learning and its application	WMO College, Muttil, Wayanad, Kerala. Sponsored by CSIR	Virtual Conference, 4-6, October 2021	International

	to COVID 10 organized by WMO			
	to COVID-19 organized by WMO College, Muttil, Wayanad, Kerala.			
	Conege, Wattin, Wayanaa, Refala.			
8.	Presented Research Paper entitled " Skew Double Extended Exponential Distribution" in the International Virtual Conference on Emerging Trends in Statistics and Data Science in the 40th Annual Convention of Indian Society for Probability and Statistics.	Indian society for Probability and Statistics (ISPS)	Virtual Conference, 7-10, September 2021	International
9.	Presented Research Paper entitled " Asymmetric Double Extended Exponential Distribution and its Applications" in the International Virtual Conference on Fifth International Webinar on Recent Trend in Statistical Theory and Applications	Indian Society for Probability and Statistics (ISPS), Kerala Statistical Association (KSA) and the Department of Statistics, University of Kerala, Trivandrum	Virtual Conference, 29 June to 2 July, 2021	International
10.	Presented a paper entitled "Beta double Lomax distribution and its applications" in the Three-day International Virtual Conference On "Statistics in the Era of Pandemic".	Research Department of Statistics, Nehru Arts and Science College, Kanhangad,	4-6, March 2021.	International
	Presented a paper entitled "Kumaraswamy double Lomax distribution and its applications" in the "National Webinar on the Recent Developments In Statistics And Probability".	Department of Statistics, St. Thomas' College (Autonomous), Thrissur	18h to 19th February 2021	National
12.	Invited Talk entitled "A new family of Double Pareto-type Distribution and its Applications" in the Sixth International Virtual Conference on Statistics for Twenty First Century- 2020	International Indian Statistical Association (IISA) and Department of Statistics, University of Kerala, Trivandrum	Virtual Conference, 18-20, December 2020	International
13.	Presented Research Paper entitled " Identification of differentially expressed genes in microarray using generalized p-value technique" in 38th Annual conference of Indian society for medical Statistics	Indian society for medical Statistics ISMS	10-12, December 2020	International
14.	Presented a paper entitled "Identification and Ranking of Differentially expressed genes in Microarray Studies" in the International Virtual Conference 2020	Dept. of Statistics, Pondicherry University (A Central University) & Dept. of Mathematics and Statistics, Mrs. A.V.N.	21,22,28,29, November 2020	International

	on Prof. CR Rao's School of Thought in Statistical Sciences	College, Visakhapatnam (Almamater of Prof. CR Rao)		
15.	Presented Research Paper entitled "Transmuted Double Lomax distribution and its Applications to Microarray" in the national seminar on advanced developments in statistical theory and applications	Christ College, Iringalakkuda	28-29, February 2020	National
16.	Presented Research Paper entitled "Identification of Differentially Expressed Genes in Microarray using Modified Generalized p-value" in the National Seminar on Theoretical and Applied Statistics	Organized by postgraduate and research Department of Farook College, Kozhikode	29-01-2020	National
17.	Presented Research Paper entitled "Identification and ranking of Differentially Expressed Genes in Microarray studies" 32nd Kerala Science Congress	Organised by Kerala State Council for Science, Technology and Environment (KSCSTE) and Yuvakshetra Institute of Management	25-27, January 2020	State level
18.	Presented Research Paper entitled  "Transmuted Marshall-Olkin Laplace Distribution and its Applications" in the Fifth International Conference on Statistics for Twenty First Century- 2019	Organized by Department of Statistics, University of Kerala, Trivandrum	18-20, December 2019	International
19.	Presented Research Paper entitled "Stress-Strength Reliability of Asymmetric Double Lomax Distribution", in the National Seminar on Statistical Approaches in Data Science	Department of Statistics, St. Thomas College, Thrissur, UGC	St. Thomas College, 6-7, February 2019	National
20.	Presented Research Paper entitled Asymmetric Double Lomax Distribution and its Applications, National Conference on Advances in Statistical Methods	Department of Statistics, University of Kannur	10/11/2018	National
21.	Presented a poster entitled "A new family of alpha power transformed Fréchet distribution and its applications in rainfall data analysis", in 31st Kerala Science Congress.	Organized by Kerala State Science & Technology, Govt. of Kerala	Fatima Matha National College, Kollam. 2-3,February 2019	National

22.	Presented Research Paper entitled "A new family of skew reflected transmuted Weibull distribution and its Applications", in the International Conference on Statistics for Twenty first Centaury	Department of Statistics, University of Kerala, UGC	Kerala University, Trivandrum December 13-15, 2018.	International
23.	Presented Research Paper entitled  "Asymmetric Double Lomax Distribution and its Applications", in the International Conference on Statistics for Twenty first Centaury	Department of Statistics, University of Kannur, UGC	Kannur University 8-10, November 2018	National
24.	Presented a paper entitled "Skewed Slash double Weibull Distribution and its Applications", in the National Conference.	Department of Statistics, Farook College, Calicut	Farook College, Calicut. during 7-8 March 2018.	National
25.	Presented a paper entitled "A New Family of Skewed Slash Reflected Weibull Distribution and its Applications", in the National Conference.	Department of Statistics, St. Thomas College, Thrissur	St. Thomas College, Thrissur 15-17 February 2018.	National
26.	Presented a poster entitled "New family of Multimodal skewed slash Laplace distributions and its applications", in 30 <sup>th</sup> Kerala Science Congress.	Organized by Kerala State Science & Technology, Govt. of Kerala	Brennen College, Thalassery. 28-30 January 2018	National
27.	Presented a paper entitled "A new family of Skewed Slash Beta-Laplace distribution and its Applications", in the three day International Seminar on International Conference on Recent Advances in Statistical Methodology with Applications in Clinical and Official Statistics	Department of Statistics, St. Thomas College, Pala, DST	St. Thomas College, Pala 3-5 January 2018.	International
28.	Presented Research Paper entitled "A new family of Skewed Slash Reflected Distributions Generated by the Laplace Kernal and its Applications", in the International Conference on Statistics for Twenty first Centaury	Department of Statistics, University of Kerala, UGC	TECHNOPARK, Trivandrum December 13-15, 2017.	International
	National seminar on Advances of Statistics in Applied areas. Presented paper entitled, "Compound Exponential distribution and its Applications"	Department of Statistics, St. Thomas College, Thrissur	St. Thomas College, Thrissur, 28 <sup>th</sup> February 2017	National
30.	National conference on Advances in Statistical Sciences. Presented paper entitled, "A new family of skewed slash distribution generated by student t kernel and its Applications"	Department of Statistical Sciences Kannur University	Kannur University, 17 <sup>th</sup> to 18 <sup>th</sup> February 2017	National

31.	29 <sup>th</sup> Kerala Science Congress. Presented a paper entitled "Stress Strength Reliability of Compound Exponential and its Application"	Govt. of Kerala	Marthoma College, Thiruvalla, January 28 <sup>th</sup> to 30 <sup>th</sup> 2017	National
32.	International conference on Statistics for 21 <sup>st</sup> Century - 2015 Presented a paper entitled "Application of Microarray in Molecular Epidemiology of Cancer"	Department of Statistics, University of Kerala, UGC	Techno Park, Trivandrum, December 21-23, 2016	International
33.	National Seminar on Statistics for Psychological and Educational Assessment. Presented a paper entitled, "Bayesian Methods for Social Science Research"	Department of Statistics, Govt. Arts & Science College, Kozhikode, Calicut UGC	Govt. Arts & Science College, Calicut, March 1 <sup>st</sup> to 3 <sup>rd</sup> 2016	National
34.	28 <sup>th</sup> Kerala Science Congress. Presented a paper entitled "A new family of skewed slash distribution generated by Laplace kernel and its applications"	Govt. of Kerala	Calicut University, Janauary 29-30, 2016.	National
35.	International conference on Statistics for 21 <sup>st</sup> Century - 2015 Presented a paper entitled "A New Family of Multimodal Skewed Slash Laplace Distributions and its applications"	Department of Statistics, University of Kerala, UGC	December 17-19, 2015	International
36.	27th Kerala Science Congress. Presented a paper entitled "Detection Limit Problem in Environmental data analysis"		rall/ijaya Camelot International Convention center, Alappuzha, 27-29 January 2015.	National
37.	National Seminar on Inter Disciplinary realms of Statistics. Presented a paper entitled "Multiple Hypothesis testing of Microarray Experiments using generalized p values"	Department of Statistics, Sree Kerala Varma Colle Thrissur and Kerala Statistical Association	YMCA International Conventional Center Thrissur, 09, 10 January 2015	National
38.	Tools in Medical Research. Presented a paper entitled "Bayesian methods for sample size calculation in clinical Trial"	Organized by Providence Women's College, Kozhikode, Kerala State Council for Science, Technology and Environment	Women's College, 06-01- 2015	National
39.	National workshop on Biostatistical Aspects of Clinical Trials and its Implementation Through R.	PG and Research Department of Statistics, Farook College, Kozhikode, UGC	Farook College, Kozhikode, 18- 19, December 2014.	National

	Presented a paper entitled "Application of Bayesian methods for analysis of clinical Trial data"			
40.	Presented a paper entitled "New Methods for Ranking Differentially Expressed genes in Microarray", National Seminar on Mathematics with applications to Statistics.		Vimala College, Thrissur, 22-23, August 2014	National
41.	"Statistical Applications in Microarray Technology", in the International Conference on Stochastic Models & Annual Conference of Kerala Statistical Association (KSA)	St. Thomas College, Pala, Kerala, India, UGC	3-4, January 2014	International
42.	"Application of Hidden Markov Models in Microarray Analysis", National Conference on Applications of Disceret and Fuzzy mathematics.	Govt. Arts and Science College, Kozkide, India, Collegiate Education Department, Kerala	25-26, November 2013.	National
43.	"Methods for Ranking Differentially Expressed Genes in Cancer Microarray", First international and third national conference in Biotechnology, Bioinformatics and Bioengineering	Society of Applied Biotechnology, India.	Thirupathi, 28-29, July 2013	International
44.	"Statistical Applications in Microarray Technology", National Seminar on Statistical Theory and Applications.	Department of Statistics, St. Thomas college, Pala and Kerala Statistical Association.	St. Thomas College, Pala, 15- 16 March 2013	National
45.	"Applications of Microarray Technology to identify differentially expressed genes in Acute Leukemia", National Conference on Biological Science.	Department of Zoology, University of Calicut. UGC Sponsored.	Calicut University, 11-13 March 2013	National
46.	"Application of Hidden Markov Models in cDNA Microarray Analysis", National Conference on Statistics for Twenty- first Century- 2012 [NCSTC-2012]	Department of Statistics, University of Kerala. UGC Sponsored.	Kerala University, 10-12 December 2012	National
47.	"Application of Microarray in Molecular Epidemiology of Cancer", National Symposium on Innovative Approaches and Modern Technologies for Crop Productivity, Food Safety and Environmental Sustainability	Society for Applied Biotechnology, India	Hotel Mongala Tower, Thrissur, 19-20 November 2012.	National
48.	"Statistical Applications in Molecular Epidemiology of Cancer", International Conference on Epidemiology.	St. Thomas College, Pala, UGC and ICMR	St. Thomas College, Pala, 16- 18 August 2012.	International

	"Statistical methods for detecting differentially expressed genes in microarray experiments", National Seminar on Emerging Trends in Biotechnology and Microbiology.	St. Thomas College, Pala	St. Thomas College, Pala, 29-30 March 2012	National
50.	"Generalized p value approach to detect differentially expressed genes in microarray experiments", National Seminar on Recent Advances in Statistics and Related Areas & Annual Conference of Kerala Statistical Association	University of Calicut, Kerala, India. UGC	University of Calicut, Kerala, India March 15-17, 2012.	National
51.	"Statistical methods for identifying differentially expressed genes in environmental microarray data", in the Best student paper presentation section, 22 <sup>nd</sup> Annual Conference of 'The International Environmetrics Society' (TIES 2012),	Jointly organized by C. R. RAO AIMSCS, Gachibowli, Hyderabad, University of Hyderabad, Gachibowli, Hyderabad, India and International Statistical Institute.	C. R. RAO AIMSCS, Gachibowli, Hyderabad, 3-6 January 2012	International
52.	Presented a poster entitled "The Detection Limit Problem in Environmental Data Analysis", 22 <sup>nd</sup> Annual Conference of 'The International Environmetrics Society' (TIES 2012)	Jointly organized by C. R. RAO AIMSCS, Gachibowli, Hyderabad, University of Hyderabad, Gachibowli, Hyderabad, India and International Statistical Institute.	C. R. RAO AIMSCS, Gachibowli, Hyderabad, 3-6 January 2012	International
53.	"Multiple hypotheses testing of microarray experiments using Generalized p values", International Conference (ISPS 2011)	Cochin University of Science and Technology, Kerala, India and Society for Probability and Statistics.	Cochin University of Science and Technology, Kerala, India. December 19-22, 2011.	International
54.	"Estimation of $P(X > Y)$ for the asymmetric Laplace distribution and its application to microarray analysis", International Conference on Acturial Statistics, Biostatistics and Stochastic Modelling (INCABS 11)	Kannur University, Kerala, India. UGC and ICMR	Kannur University, Kerala, India. January 10-14, 2011.	International
	"The Error distributions for cDNA microarray gene expression data", International Conference on Advances In Statistical Science (AISS 2010), in Celebration of 90 <sup>th</sup> Birth Anniversary of Prof. C.R.Rao.	Indian Statistical Institute, Kolkata, India.	Indian Statistical Institute, Kolkata, India. January 10-11, 2010.	International
56.	"A two component mixed Gaussian distribution for microarray gene expression data", International	St. Thomas College, Pala, Kerala, India. UGC and DST.	St. Thomas College, Pala, Kerala, India.	International

	Conference on Mathematical Sciences in Honour of Professor A. M. Mathai		January 3-5, 2011.	
57.	Presented a poster entitled "Microarray Technology and Statistical Applications", 97 <sup>th</sup> Indian Science Congress	Indian Science Congress Association and Government of India.	Kerala University, 3-7 January 2010	National
58.	Presented a poster entitled  "Reliability and applications of Type II Compound Laplace distribution",97 <sup>th</sup> Indian Science Congress	Indian Science Congress Association and Government of India.	Kerala University, 3-7 January 2010	National
59.	Presented a paper entitled "Statistical Models for Microarray Gene differential expression data", National Workshop on Bayesian Statistics & MCMC Methods using BUGS & R	St. Thomas College, Pala. UGC	St. Thomas College, Pala, June 26-30, 2009	National
60.	Presented a paper entitled "Asymmetric Double Lomax distribution and its applications in microarray gene expression studies" in the UGC Sponsored workshop on Modern Applied Statistical Methods in Statistical Softwares	Department of Statistics, Nirmala College, Moovattupuzha, Kerala.	Nirmala ollege, Moovattupuzha, Kerala. February 24-26, 2009.	National
61.	Presented a paper entitled "On generalizations of Lomax distribution and its applications", International Symposium on Probability Theory & Stochastic Processes in honour of Professor S. R. S. Varadhan FRS	Cochin University of Science & Technology, Kerala, India. Indian Science Lab, CSIR, DST, NBHM and Kerala Mathematical Association.	Cochin University of Science & Technology, Kerala, India. February 6-9, 2009.	International

# WORSHOP/SEMINARS ORGANIZED

SL. NO	NAME OF THE SEMINAR	NAME OF THE ORGANISER & SPONSORING AGENCY	VENUE & DATE	POSITION HELD	LEVEL *
1.	National pre-seminar workshop on "Big Data Analytics"	Directorate of Collegiate Education, Govt. of Kerala	Govt. Arts & Science College, Calicut, 13 <sup>th</sup> to 14 <sup>th</sup> December 2016	Co-ordinator	National
2.	National Seminar workshop on "Statistical Methods and Applications"	Directorate of Collegiate Education, Govt. of Kerala	Govt. Arts & Science College, Calicut, 15 <sup>th</sup> to 17 <sup>th</sup> December 2016	Co-ordinator	National

3.	National Two Day workshop on Method	DST-SERB, Govt. of India, as part of SSR policy associated with Major Research project of Dr. Bindu P. P.	Govt. Arts & Science College, Calicut, 10 <sup>th</sup> to 11 <sup>th</sup> March 2020.	Co-ordinator	National
4.	One Day Workshop on "Introduction to R Programming"	DST-SERB, Govt. of India, as part of SSR policy associated with Major Research project of Dr. Bindu P. P.	Govt. Arts & Science College, Calicut, 30 <sup>th</sup> March 2021	Co-ordinator	National
5.	Three Day National Online Workshop on "Data Analysis Using Python	DST-SERB, Govt. of India, as part of SSR policy associated with Major Research project of Dr. Bindu P. P.	Govt. Arts & Science College, Calicut on 23, 26-27, March 2021	Co-ordinator	National

### INVITED TALKS/IN MEDIA/ANY OTHER

- "Increasing Scope and Relevents of Statistics Studies" at Webinar organized by Department of Mathematics and Statistics, Newman College, Thodupuzha on 16<sup>th</sup> February 2022.
- ""
- "Scope of Statistics" at the Webinar of MAMO College, Mukkom, Calicut, Organized by the Department of Mathematics & Statistics in connection with National Statistics Day on 15<sup>th</sup> July 2020.
- "Some aspects of Statistical distributions and its applications" at SNG College, Chelannur, Calicut, in the Interdisciplinary Seminar organized on 7<sup>th</sup> December 2018.
- "Scope of Higher Studies and career opportunities in Statistics" at Zamorins Guruvayurappan College, Kozhikode, in connection with the orientation program for first year B. Sc. Mathematics Students on 12th July 2018.
- "Scope of Higher Studies and career opportunities in Statistics" at Sree Gokulam College, Balussery Kozhikode, Organized by the Mathematics Association on 28th June 2018.
- "Scope of Higher Studies and career opportunities in Statistics" at Zamorins Guruvayurappan College, Kozhikode, Organized by the Mathematics Association on 20th January 2018.
- "Introduction to R Programming" at UGC HRDC, Calicut University, 5<sup>th</sup> December 2017.
- "Administrative Statistics" during the National Statistics Day 2017 Celebration organized by NSSO, Calicut Region Office, on 29<sup>th</sup> June 2017.
- "Introduction to R Programming" at UGC HRDC, Calicut University, 13<sup>th</sup> May 2017.
- Advances in Research Methodology: Data collection and Quantitative analysis on research data" at SAFI Institute of Advanced Study (SIAS), Vazhayoor, in the Two days National workshop on "Emerging challenges in Research Methodology, Statistical analysis and Manuscript writing Practices" on 5<sup>th</sup> April 2017.
- "Career and Research opportunities in Statistics" at Govt. College Koduvally, Calicut, Organized by the Department of Statistics, 16th March 2017.
- "Research opportunities in Statistics" at Vimala College, Thrissur, Organized by the Department of Statistics, 27th February 2017.

- "Career opportunities in Statistics" at Malabar Christian College, Calicut, Organized by the Department of Statistics, 20th January 2017.
- "Statistics in Every Day Life" at MAMO College, Mukkom, Calicut, Organized by the Department of Mathematics on 18<sup>th</sup> January 2017.
- "Introduction to R Programming" at UGC HRDC, Calicut University, 11<sup>th</sup> January 2017 in connection with Training program for Research Scholars.
- "Career opportunities in Mathematics" at T. M. Govt. College, Tirur, Organized by the Mathematics Association on FN of 30th December 2015.
- "Statistical Data Analysis using EXCEL" at New Nalanda Hotel, Kozhikode, organized by Directorate of Higher Secondary Education, Trivandrum, 16<sup>th</sup> December 2015.
- "Statistical Data Analysis using EXCEL" at New Nalanda Hotel, Kozhikode, organized by Directorate of Higher Secondary Education, Trivandrum, 8<sup>th</sup> December 2015.
- "Scope of Higher Studies and career opportunities in Mathematics and Statistics" at Govt. Arts & Science College, Kozhikode, Organized by the Mathematics Association on 15th July 2015.
- "Scope of Higher Studies and career opportunities in Statistics" at Zamorins Guruvayurappan College, Kozhikode, Organized by the Mathematics Association on 24th January 2015.
- "Scope of Higher Studies and career opportunities in Statistics" at Farook College, Kozhikode, Organized by the Statistics Association on 11th December 2014.
- "Scope of Higher Studies and career opportunities in Mathematics and Statistics" at T. M. Govt. College, Tirur, Organized by the Mathematics Association on FN of 13th November 2014.
- "R Program for Mathematicians" at T. M. Govt. College, Tirur, Organized by the Mathematics Association on AN of 13th November 2014.
- "Scope of Higher Studies for Chemistry graduates" to B. Sc. Chemistry students of Vimala College, Thrissur, Organized by the Chemistry Association 2012-13 on 26<sup>th</sup> March 2013
- "Statistics: An Excellent Career Choice" to B. Sc. Statistics students of Vimala College, Thrissur Origanized by the Statistics Association 2013-14 on 01st August 2013

### WORSHOP/SEMINARS ATTENDED

SL.N O	NAME OF THE PROGRAMME	NAME OF THE ORGANISER& SPONSORING AGENCY	VENUE & DATE	LEVEL
1.	Faculty Training Program	DCE, Govt of Kerala and IISER, Trivandrum	IISER, Trivandrum 14-17, July 2022	State level
2.	Participated in International Webinar on Recent Innovations in Statistical Methods and Applications (RIMSA 2021)	Department of Statistics, Christ College, Irinjalakuda	23, 25, February, March 1, 3, 2021	International
3.	Participated in the three-day International Virtual Conference on Advanced Statistical Techniques in Business and Industry, A Regional Virtual Conference of International Society for Business and Industrial Statistics (ISBIS),	Organized by Department of Statistics, Cochin University of Science &Technology, Kerala, India	28th -30th of December 2020.	International

4.	Participated in the International Workshop on Distribution Theory and its Applications	Department of Statistics, University of Kerala, Trivandrum n association with American Statistical Association (ASA) and Kerala Statistical Association (KSA).	13-15, December 2020.	International
5.	Participated in the two day preconference workshops titled "Non-inferiority trials: designs and sample size calculations" and "Adaptive designs in phase III trials" as part of the 38th Annual Conference of the Indian Society for Medical Statistics (ISMSCON - 2020) held on virtual platform	Indian Society for Medical Statistics	9 <sup>th</sup> -10 <sup>th</sup> , December 2020.	National
6.	Participated in Paid FDP on Moodle Learning Management System organized with course material provided by Spoken Tutorial Project, IIT Bombay	Bishop Kurialacherry College for Women & IIT Bombay	FDP from 09-11- 2020 to 13-11- 2020	National
7.	Attended the National Webinar organised by the PG & Research Department of Statistics, Farook College (Autonomous), Kozhikode-673632 on 28 <sup>th</sup> October 2020.	PG & Research Department of Statistics, Farook College (Autonomous), Kozhikode	28 <sup>th</sup> October 2020.	National
8.	Attended a Three Day National Workshop on <b>Python for Mathematical and Statistical Computations</b> .	Department of Statistics, Govt. Arts and Science College, Calicut. DCE funded.	22-24, October 2019	National
9.	Participated in Two day online workshop on Applied Statistics organized as part of the World Statistics Day and 100th Birth of Dr. C. R. Rao.	Department of Economics and Statistics, Thrissur and Department of Statistics Sri C Achutha Menon Govt. College, Kuttanellur, Thrissur	19-20, October 2020	National
10.	Participated in the International Webinar on "Contributions of Prof. C. R. Rao for Statistics" jointly organized on the occasion of Prof. C. R. Rao's Birth Centenary Celebration on	CR Rao Advanced Institute of Mathematics, Statistics and Computer Science (AIMSCS) and Indian Economic Society and sponsored by APPLY VOLT	10 September 2020.	International
11.	Attended International workshop on "High Performance Computing using R"	Department of Statistics, St. Thomas College, Pala, DST	St. Thomas College, Pala 6-7 January 2018.	International

12.	Attended five-day workshop on Mathematical and Statistical Computations using R and Python	Department of Statistics, Govt. Arts & Science College, Kozhikode, Calicut DCE, Govt. of Kerala	Govt. Arts & Science College, Calicut, December 4 <sup>th</sup> to 8 <sup>th</sup> 2017	National
13.	National Seminar on Statistical Computing using R	Department of Statistics, Farook College, Calicut, UGC	Farook College, Calicut 23 <sup>rd</sup> March 2017	National
14.	Workshop on Advanced Statistical Theory and Applications	Department of Statistics, University of Calicut, UGC	University of Calicut, December 9-10, 2015	International
15.	Workshop on Distribution theory	Department of Statistics, University of Calicut.	Department of Statistics, University of Calicut, 3rd March 2015.	State Level
16.	National workshop on Bioinformatics	Organized by Govt. Arts and Science College, Kozhikode, Directorate of Collegiate Education, Govt. of Kerala	Govt. Arts and Science College, Kozhikode, 12- 13, January 2015	National
17.	National workshop on Statistic Tools in Medical Research. Present a paper entitled "Bayesian methof for sample size calculation in clinic Trial"	Women's College, Kozhikode, Kerala State	Providence Women's College, 06-01- 2015	National
18.	National workshop on Biostatistical Aspects of Clinical Trials and its Implementation Through R. Presented a paper entitled "Application of Bayesian methods for analysis of clinical Trial data"	Department of Statistics, Farook College, Kozhikode, UGC	Farook College, Kozhikode, 18- 19, December 2014.	National
19.	One day workshop for internal Mentors/coordinators of Walk With Scholar Programme	Collegiate Education department, Govt. of Kerala	Govt. arts & Science College, Kozhikode, 17- 10-2014	State
20.	One day National Seminar on Topology and Geometry	T. M. Govt. College, Tirur, Kerala, Collegiate Education Department, Kerala	11 October 2013	National
21.	National Workshop on Recent Developments in Statistics with Special Emphasis on Computational Statistics.	University of Kerala, UGC	Kerala University, 1-7 March 2013	National
22.	"Statistical Applications in Microarray Technology", National Seminar on Statistical Theory and Applications.	Department of Statistics, St. Thomas college, Pala and Kerala Statistical Association.	St. Thomas College, Pala, 15- 16 March 2013	National

	International workshop on Quantitative Methods for Environmental Data Analysis with Statistical Package R	Jointly organized by C. R. RAO AIMSCS, Gachibowli, Hyderabad, University of Hyderabad, Gachibowli, Hyderabad, India and International Statistical Institute.	C. R. RAO AIMSCS, Gachibowli, Hyderabad, 1-2 January 2012	International
24.	ERUDITE Lectures by Prof. Thomas Mathew, University of Maryland, Baltimore, USA	Department of Statistics, University of Calicut. Government of Kerala, under ERUDITE Scheme.	University of Calicut. 6-17 June 2011	National
25.	Work shop on Statistical Applications in Industry, Business, Agriculture and Ecology	National Academy of Science, Bangalore and St. Thomas College, Pala.	St. Thomas College, Pala, 26-28 March 2011.	National
	National Work shop on <i>Statistical Genetics</i>	Indian Statistical Institute, Kolkata, India.	Indian Statistical Institute, Kolkata, India. January 12- 14, 2010.	National
27.	"A two-component mixed Gaussian distribution for microarray gene expression data", International Conference on Mathematical Sciences in Honour of Professor A. M. Mathai	St. Thomas College, Pala, Kerala, India. UGC and DST.	St. Thomas College, Pala, Kerala, India. January 3-5, 2011.	International
28.	International Work shop on Bayesian Compoutation Using OpenBUGS (and R)	Jointly organized by Department of Biostatistics, Christian Medical College, Vellore and the Indic Society for Education and Development, Nashik, India	Christian Medical College, Vellore. 22-26, November 2010.	International
29.	International work shop on "Statistics in Genetics"	Center for Population Studies, Department of Statistics, Cochin University of Science and Technology	Cochin University of Science and Technology, 29- 31 December 2009	International
30.	ERUDITE Lectures by Prof. N. Balakrishnan, University of MacMaster, Canada.	Department of Statistics, Cochin University of Science and Technology. Government of Kerala, under ERUDITE Scheme.	Cochin University of Science and Technology, 16- 20 November 2009	National
31.	National Workshop on Fractional Calculus and Statistical Distributions	Center for Mathematical Sciences, Pala Campus. DST	Center for Mathematical Sciences, Pala Campus. 25-27 November 2009	National

32.	National Seminar on <i>Statistical Computing</i>	Department of Statistics, University of Calicut	University of Calicut. 05-06 March 2009	National
33.	International Workshop on Bayesian Statistics Using OpenBUGS and R	Jointly by Indic Society for Education and Development and St. Thomas College, Pala.	St. Thomas College, Pala. 8-12 December 2008.	International
34.	One day workshop on <b>Research Methodology</b>	All Kerala Research Scholars Association	Calicut University, 19 June 2008.	National
35.	Workshop on Restructuring Undergraduate Education: Interdisciplinary Approach and sharing the Resources	MEA Sullamussalam Science College, Arecode. The Kerala State Higher Education Council.	MEA Sullamussalam Science College, Arecode. 10-11 March 2008.	Regional
36.	Workshop on <i>Distribution Theory</i> and one day Seminar on Simulation Technique.	Department of Statistics, University of Calicut. UGC	Department of Statistics, University of Calicut. 11-13 March 2008.	National
37.	Seminar entitled Advances in Statistical Computing	Department of Statistics, Farooke College, Kerala, UGC	Farooke College, Kerala, India during 17-19 March, 2008.	National
38.	Seminar on <i>Modern trends in Biotechnology</i>	Department of Zoology, Government College Kodenchery, Kerala. Government of Kerala.	Government College, Kodenchery, Kerala. 22 January 2008.	National
39.	Seminar on <i>Gender Equality</i>	Department of Women Studies, University of Calicut, Kerala. UGC	University of Calicut, Kerala, India during 07-08 March, 2007.	National

## PG PROJECTS GUIDED

SL.NO	TITLE	MONTH/ YEAR
1.	Study of Marshall-Olkin extended family of distributions	2022
2.	Some contribution to the study of Transmuted distributions	2022
3.	Some contribution to the study of size biased distributions	2022
4.	Statistical Analysis of COVID-19 in Kerala	2021

5.	Statistical Modeling of COVID-19 in USA	2021
6.	Time Series Modeling of COVID-19 in UK	2021
7.	Statistical Modelling of the Mosquito borne Disease Data in Kerala	2020
8.	Statistical Modelling of the non-Mosquito borne Disease Data in Kerala	2020
9.	Time series modeling of rain fall data in Kerala	2019
10.	Modelling and Forecasting Marine fish production in Kerala using Time Series Regression	2019
11.	Generalizations of Weibull distribution and its Applications	2018
12.	Generalizations of Gumbel distribution and its Applications	2018
13.	Study of Socio Economic status of Kudumbhasree workers in Tirur	2018
14.	Time Series Modelling of Foreign Tourist Arrivals in Kerala	2017
15.	Crime against Women: a statistical analysis across India and Kerala	2017
16.	Statistical analysis of road accident in Kerala	2017
17.	Stress strength reliability of Generalizations of Laplace distribution and its Applications	2016
18.	Statistical Modelling of the communication Disease Data in Kerala	2016
19.	Statistical Analysis Cancer incidence in Kerala	2016
20.	Statistical Modeling of Gold and silver price data	2015
21.	Process capability indices of Gaussian and non-Gaussian distributions	2015
22.	Lifetime Distributions	2015
23.	Statistical Analysis of Survival Data	2014
24.	Statistical Analysis of Traffic Accident data	2014