### VIPIN N

Assistant Professor

Department of Data Science

Manipal Academy of Higher Education (MAHE)

Manipal, Karnataka, India 576 104

Date of Birth: May 23, 1992

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### Education

2019 PhD, Statistics

Cochin University of Science and Technology (CUSAT)

Kerala, India- 682 022

Thesis Title: Bivariate and Conditional Partial Moments: Some Properties

and Applications

Supervisor: Dr. S. M Sunoj, Professor, Department of Statistics, CUSAT

2014 M.Sc Statistics

Cochin University of Science and Technology

Kerala, India- 682 022

2012 B.Sc Mathematics

St. Thomas College, Thrissur, affiliated to University of Calicut

Kerala, India- 682 022

## Positions Held

05-07-2017 — present Assistant Professor

Department of Data Science, PSPH

Manipal Academy of Higher Education (MAHE)

Manipal, Karnataka, India- 576 104

01-08-2016 to 04-07-2017 Senior Research Fellow

Department of Statistics

Cochin University of Science and Technology,

Cochin, Kerala, India

01-08-2014 to 31-07-2016 Junior Research Fellow

Department of Statistics

Cochin University of Science and Technology,

Cochin, Kerala, India

### Research Areas of Interest

Truncated data analysis, Survival analysis, Time series analysis, Regression modelling, Longitudinal data analysis, Nonparametric statistical inference

### Honors and Awards

- Prof U. S Nair Best Paper Presentation Award, Fourth International Conference on Statistics for Twenty-First Century (ICSTC-2018) organized by the Department of Statistics, University of Kerala, Trivandrum, India in association with American Statistical Association (ASA). December 13-15, 2018.
- Prof R. N. Pillai Young Statistician Award for the best research paper, organized by the Kerala Statistical Association (KSA) in association with the National Conference on Advances in Statistical Sciences organized by the Department of Statistical sciences, Kannur University, Kannur, Kerala, India on 17-18, February 2017.
- Prof Alyemma George Best Paper Presentation Award, Second International Conference on Statistics for Twenty-First Century(ICSTC-2016) organized by the Department of Statistics, University of Kerala, Trivandrum, India in association with American Statistical Association (ASA). December 21-23, 2016.
- First Rank, Department Admission Test (DAT) for Ph.D. in Statistics, Cochin University of Science and Technology, Kerala, India, 2014.
- First prize, National level project competition for the post graduate students in statistics conducted by the Indian Society for Probability and Statistics (ISPS) sponsored by International Indian Statistical Association (IISA), Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Maharashtra, India, December 26-28, 2013.

### **Publications**

#### **Published Articles**

- 1. N. Unnikrishnan Nair, S. M. Sunoj and **Vipin N**. (2018) On characterizations of some bivariate continuous distributions by properties of higher-degree bivariate stop-loss transforms, <u>Communications in Statistics - Theory and Methods</u>, DOI: 10.1080/0361092 6.2018.1543768, <u>Impact Factor = 0.406</u>.
- 2. Sunoj, S. M. and **Vipin N**. (2018). On conditional lower partial moments and its applications.

  \*\*American Journal of Mathematical and Management Sciences\*, 37 (1), 14-32, **SJR Index** = **0.412.**
- 3. Sunoj, S. M. and **Vipin, N**. (2017). Some properties of conditional partial moments in the context of stochastic modeling. <u>Statistical Papers</u>, DOI: 10.1007/s00362-017-0904-x, **Impact Factor = 1.024.**

### Manuscripts Communicated/Revised

- 1. **Vipin N** and Sunoj, S. M. (2019). On some properties and applications of first-order bivariate and conditional partial moments.
- 2. Vipin N and Sunoj, S. M. (2019). Bivariate weighted partial moments.

- 3. Siddharth Sagar, Shrinidhi Nathany; Tushar Shaw, **Vipin N**, Vishnu Shenoy and Chiranjay Mukhopadhyay (2020). An insight into the diverse infectious etiologies of slowly resolving pneumonia an experience from a tertiatry care centre in south India
- 4. **Vipin N** and Rahul T (2020). Modelling and Forecasting Road Traffic Accidents Mortality: An analysis of Kerala State, India

## Papers Presented in Conferences

- 1. Presented a paper entitled "Role of copula based upper partial moments in the context of stochastic modelling" in the International Conference on Computer Age Statistics in the Era of Big and High Dimensional Data organized by the Department of Statistics, Savitribai Phule Pune University, Pune, Maharashtra, India, January 3-5, 2019.
- 2. Presented a paper entitled "Role of copula based upper partial moments in the context of stochastic modelling" in the Fourth International Conference on Statistics for Twenty-First Century (ICSTC-2018) organized by the Department of Statistics, University of Kerala, Trivandrum, India in association with American Statistical Association (ASA), December 13-15, 2018.
- 3. Presented a paper entitled "Applications of conditional lower partial moments" in the National Conference on Advances in Statistical Sciences in conjunction with the Annual conference of the Kerala Statistical Association (KSA) organized by the Department of Statistical Sciences, Kannur University, Kannur, Kerala, India on February 1-18, 2017
- 4. Presented a paper entitled "Some properties of conditional partial moments in the context of stochastic modelling" in the Second International Conference on Statistics for Twenty-First Century (ICSTC-2016) organized by the Department of Statistics, University of Kerala, Trivandrum, India in association with American Statistical Association (ASA), December 21-23, 2016.

### Conference, Seminars and Workshops Organized

- 1. Served as a resource person in the National Workshop on 'Survey Research and Statistical Analysis' organized by the Department of Data Science, Manipal Academy of Higher Education, Manipal, Karnataka on August 1-3, 2019.
- 2. Served as a resource person in the National Workshop on 'Computation of Sample Size in Health Science Research' organized by the Department of Data Science, Manipal Academy of Higher Education, Manipal, Karnataka on July 31, 2019.
- 3. Served as a resource person in the National Workshop on 'Regression Analysis' organized by the Department of Data Science, Manipal Academy of Higher Education, Manipal, Karnataka on July 29-30, 2019.
- 4. Served as a resource person in the National Workshop on 'Survey Research and Statistical Analysis' organized by the Department of Statistics, Manipal Academy of Higher Education, Manipal, Karnataka on September 6-8, 2018.
- Served as a resource person for the two day workshop on 'Data analysis using SPSS' at Department of European Studies, Manipal Academy of Higher Education, Manipal, Karnataka, December 6-7, 2017.
- 6. Served as a resource person for the one day workshop on 'Time Series analysis using R' at Department of Commerce, Manipal Academy of Higher Education, Manipal, Karnataka, November 11, 2017.

# Conference, Seminars and Workshops Attended

### **International**

- 1. International workshop on 'Introduction to Health Technology Assessment (HTA) and Health Economics' organized by Prasanna School of Public Health, Manipal, India, in association with University for Health Sciences, Medical Informatics and Technology (UMIT), Austria during 2-6 December 2019
- 2. International Conference on Computer Age Statistics in the Era of Big and High Dimensional Data organized by the Department of Statistics, Savitribai Phule Pune University, Pune, Maharashtra, India, January 3-5, 2019.
- 3. Fourth International Conference on Statistics for Twenty-First Century (ICSTC-2018) organized by the Department of Statistics, University of Kerala, Trivandrum, India in association with American Statistical Association (ASA), December 13-15, 2018.
- 4. International Workshop on Times-to-Events and Time Series Data Analysis in association with International Society for Business and Industrial Statistics (ISBIS) organized by the Department of Statistics, Cochin University of Science and Technology, Kerala, India, December 15-18, 2017.

- 5. International Conference on Linear Algebra and its Applications organized by the Department of Statistics, Manipal Academy of Higher Education, Manipal, Karnataka on December 11-15,2017.
- 6. Second International Conference on Statistics for Twenty-First Century (ICSTC-2016) organized by the Department of Statistics, University of Kerala, Trivandrum, India in association with American Statistical Association (ASA), December 21-23, 2016.
- 7. International Workshop on Reliability Theory and Survival Analysis (IWRS-2016) organized by the Department of Statistics, Savitribai Phule Pune University, Pune, Maharashtra, India, November 3-5, 2016.
- 8. International Workshop on Reliability and Time Series Methodology Relevant to Business and Industry (IWRT-2015) organized by the Department of Statistics, Cochin University of Science and Technology, Kerala, India, January 5-7, 2015.
- International Conference on Recent Advances in Statistics and their Applications and 33rd Annual Convention of Indian Society for Probability and Statistics organized by the Department of Statistics (ISPS 2013), Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Maharashtra, India, December 26-28, 2013.

#### National

- 1. National Workshop on 'Time Series Analysis using R' organized by the Department of Statistics, Manipal University, Manipal, Karnataka, India on August 1-2,2018
- 2. National Workshop on 'Applications of Logistic Regression in Health Science Research' organized by the Department of Statistics, Manipal University, Manipal, Karnataka, India on August 3-4,2017
- 3. National Workshop on Basic Bio-Statistical Methods in Health Science Research organized by the Department of Statistics, Manipal University, Manipal, Karnataka on August 1-2,2017
- 4. National Conference on Advances in Statistical Sciences in conjunction with the Annual conference of the Kerala Statistical Association (KSA) organized by the Department of Statistical Sciences, Kannur University, Kannur, Kerala, India on February 1-18, 2017
- 5. National Workshop on Applied Statistical Techniques organized by Department of Statistics, Cochin University of Science and Technology, Cochin, Kerala, India, January 19-21, 2017
- 6. National seminar on conventional and innovative practices in statistics, Nirmala college, Muvattuppuzha, Kerala, India, October 24, 2015
- 7. National Workshop on Official Statistics at Department of Statistics, Cochin University of Science and Technology, Cochin, Kerala, India, October 20, 2015
- 8. One day Workshop on Statistical Methods For Analysis of Business data at Department of Statistics, Cochin University of Science and Technology, Cochin, Kerala, India, February 7, 2015

## Memberships in professional bodies

- Member, International Biometric Society (IBS)- India Region
- Life member, Indian Society for Probability and Statistics (ISPS)
- Life member, Kerala Statistical Association (KSA)
- Life member, Old Students Forum (OSF), Department of Statistics, CUSAT

# Teaching Experience

### Manipal Academy of Higher Education (MAHE)

Hierarchical Linear and Hierarchical- Generalized Linear Models	MBS 605	Third Semester, M.Sc Biostatistics
Generalized Linear Models	MBS~504	Second Semester, M.Sc Biostatistics
Probability and Probability Distributions	$\mathrm{MBS}\ 503$	First Semester, M.Sc Biostatistics
Time Series Analysis	MBS 707.1	Third Semester, M.Sc Biostatistics
Linear Models	$\mathrm{MBS}\ 604$	Second Semester, M.Sc Biostatistics
Introductory Biostatistics for Public Health	MPH 603	First Semester, Master of Public Health
Probability and Statistical Inferences	BDA 605	First Semester, M.E Big Data Analytics
Biostatistics, Epidemiology and Research Methodology	STAT 402	School of Allied Health Sciences
Multiple Linear Regression and Logistic Regression	BDA 606	Second Semester, M.E Big Data Analytics
Certificate Course in Biostatistics, Epidemiology and Research Methodology		

## Cochin University of Science and Technology (CUSAT)

Statistical Methods for Quality Assurance MBS 707.1 M.Tech, Engineering Statistics

# **Consultation Experiences**

- Since July–2017 to present at Department of Data Science, MAHE, Manipal, Karnataka: As assigned by faculties of my department on daily basis, I did statistical consultancy for teaching faculties/clinicians, social scientists, Ph.D. students, ME/MTech students, MD/MS students, MBBS students, M.Sc. students and other project staffs.
- Assisted in developing methodology of the study and defined study design
- Calculated sample size and preparation of random number tables for trials using softwares R and PASS

- Wrote the statistical analysis plan. Developed and maintained statistical programs as necessary to perform analyses, to prepare data displays and to verify data accuracy
- Performed statistical analyses and interpreted the results
- Frequently performed per protocol and intention to treat analysis for logistic regression analysis, regression analysis, and survival analysis and other multivariate methods using software such as SPSS and R, etc.
- Wrote sections of statistical analysis, report writings or publications as needed.

## Advising

#### M.Sc Projects

- 1. Lavanya P (2020). Subgroup Identification for Precision Medicine.
- 2. Sreerag T N (2020). Stochastic Modelling of Cardiovascular Disease Cases and its Association with Environmental Factors.
- 3. Joseph Francis (2019). Applications of Time Series Models in Road Accident Data Analysis.
- 4. Supriya (2018). Analysis of Vaccine Impact by Count Time Series Models: Review and Applications, in association with GSK pvt ltd, Bengaluru.

### M.Sc Students Research Supervising

- 1. Gowtham Hegde (2019), Time dependent ROC curve analysis for right censored data.
- 2. Gokul Pradeep (2019), A gender based comparative study on seasonal variations of mortality due to Septicemia.
- 3. Sreerag T N (2019), A study on role of the environmental factors on deaths due to cardiac arrest.
- 4. Yogesh Chattar (2019), Statistical analysis of air quality in Bangalore, India.

### Research Collaborations

- Dr. N. Unnikrishnan Nair Emeritus Professor (Retd)
   Department of Statistics
   Cochin University of Science and Technology
   Cochin, India
- Dr. Rahul T
   Research Officer
   Department of Statistics and Information Management
   Reserve Bank of India (RBI), Mumbai, India

## Software Skills

R, Wolfram Mathematica, Python, SPSS, PASS, Minitab, MS-Office, Latex.

## References

Dr. S. M. Sunoj Professor, Department of Statistics Cochin University of Science and Technology Kerala, India smsunoj@gmail.com,+91 94466 27103

Dr. N. Balakrishna Professor, Department of Statistics Cochin University of Science and Technology balajicusat@yahoo.com,+91 94466 05682 Dr. P. G. Sankaran Pro-Vice Chancellor Cochin University of Science and Technology Kerala, India sankaran.pg@gmail.com,+919847348528