

Dr. K. Manoj

Assistant Professor (Academic Level - 11), Department of Statistics
School of Mathematical Sciences, Manonmaniam Sundaranar University, Tirunelveli, India

✉ manoj@msuniv.ac.in | Mobile: +91-9486864138 | Website: www.drkmanoj.wordpress.com
🆔 0000-0002-0022-9011 📄 Scopus ID: 57202613654 📖 WoS ResearcherID: M-4563-2015
Google Scholar: 📄 https://scholar.google.com/citations?user=54h_-8EAAAAJ&hl

Professional Summary

Assistant Professor of Statistics with nine years of university-level teaching and a strong record of research and academic service. Research contributions include international book chapters, peer-reviewed journal publications, and supervision of doctoral and postgraduate research. Expertise in Bayesian inference, multivariate techniques, outlier detection, and applied statistical modeling. Actively engaged in curriculum development, NAAC academic processes, examination administration, and research mentoring.

Teaching Experience

- **Assistant Professor (Academic Level 11)** Nov 2020 – Present
Manonmaniam Sundaranar University, Tirunelveli.
- **Assistant Professor (Academic Level 10)** Nov 2016 – Nov 2020
Manonmaniam Sundaranar University, Tirunelveli.
- **Assistant Professor (Temporary)** Jul 2016 – Nov 2016
Manonmaniam Sundaranar University, Tirunelveli.

Educational Qualifications

Ph.D. in Statistics Manonmaniam Sundaranar University	2016
M.Phil. in Statistics Annamalai University	2011
M.Sc. in Statistics with Computer Applications (Integrated) Annamalai University	2010

Research Expertise

Bayesian statistical modeling; robust multivariate techniques; outlier detection; biostatistics; survival analysis; machine learning applications in medical and social data; statistical computing in R and Python.

Research funding

- UGC XII Plan Grant (2017) — Purchase of equipment and software (INR 1.5 lakh), Manonmaniam Sundaranar University.

Publications

Books

- Manoj, K., A. Peter, and P. Kumar. *Machine Learning for Effective Data Mining: Algorithms and Approach*. Notion Press, 2023. [ISBN:9798890661029]
- K. Senthamarai Kannan & Manoj, K. *Identifying Outliers in Data Mining*. Chess Educational Publishers, 2016.

Book Chapters (04)

- Manoj, K. (2026). Bayesian climate models for long-term sustainability. In R. R., W. El-Ashmawi, Y. Said Al Husaini, & J. Sarvothama Shenoi (Eds.), *Sustainable Innovations in Statistics and Data Science* (pp. 27–62). IGI Global Scientific Publishing. <https://doi.org/10.4018/979-8-3373-1454-9.ch002>
- Manoj, K., & Senthamarai Kannan, K. (2025). Statistical methods for identifying outliers in univariate and multivariate data. In M. M. Ali, R. Imon, I. Ali, & H. M. Yousof (Eds.), *Statistical Outliers and Related Topics* (1st ed., pp. 77–111). CRC Press, Boca Raton. <https://doi.org/10.1201/9781003379881>
- Manoj, K., & Mona, A. J. (2024). Menstrual cycle prediction using logistic regression. In V. Prakash, M. G. Manimannan, & P. Arumugam (Eds.), *Emerging Innovations and Applications in Computer Science, Statistics and Data Science* (Vol. 1, pp. 214–220). Beyond Line Publisher. <https://play.google.com/store/books/details?id=S9wxEQAAQBAJ&pli=1>
- Manoj, K., & Deneshkumar, V. (2022). Analysis and prediction of diabetes using principal component analysis. In A. Kumar & S. Singh (Eds.), *A Statistical Approach to Nutrition and Human Health* (Ch. 6, pp. xx–xx). Vandita Publishing House, Delhi.

International Journal Publications (SCI/Scopus)

1. K. Senthamarai Kannan & Manoj, K. (2015). Outlier detection in multivariate data. *Applied Mathematical Sciences*, 9(45–48). DOI: <http://dx.doi.org/10.12988/ams.2015.53213> (Indexed in: Scopus)
2. Manoj, K., Peter, A., & Kumar, P. (2022). Credit card fraud detection using artificial neural networks. *NeuroQuantology*. DOI: [10.14704/Nq.2022.20.17.Nq88098](https://doi.org/10.14704/Nq.2022.20.17.Nq88098)
3. Manoj, K., Peter, A., & Kumar, P. (2022). Prediction of breast cancer using machine learning techniques – a comparative study. *NeuroQuantology*.
4. Manoj, K., Peter, A., & Kumar, P. (2020). Medical diagnostic system based on data mining classification techniques. *Annals of the Romanian Society for Cell Biology*.

Other Peer-Reviewed Journals (selected)

1. Sampath, G., Kannan, K. S., & Manoj, K. (2018). Robust regression models for identifying outliers in medical data. *Research & Reviews: Journal of Statistics*.
2. Stephen Raj, S., Senthamarai Kannan, K., & Manoj, K. (2018). Principal component analysis for outlier detection. *Research & Reviews: Journal of Statistics*.
3. Senthamarai Kannan, K., & Manoj, K. (2016). Clustering algorithm based outlier detection in data mining. *International Journal of Computer Application*.
4. Senthamarai Kannan, K., Manoj, K., & Arumugam, S. (2015). Labeling methods for identifying outliers. *International Journal of Statistics and Systems*.
5. Senthamarai Kannan, K., Manoj, K., & Arumugam, S. (2015). Outlier Detection and Missing Value in Time Series Ozone Data. *International Journal of Scientific Research in Knowledge* 3(9):0220-226. DOI: <https://doi.org/10.12983/ijsrk-2015-p0220-0226>
6. Manoj, K., & Kannan, K. S. (2013). Comparison of methods for detecting outliers. *International Journal of Scientific & Engineering Research*.

Conference proceedings and presentations

- A. Peter, K. Manoj, and P. Kumar. "Blockchain and machine learning approaches for credit card fraud detection," in *2023 5th International Conference on Smart Systems and Inventive Technology (ICSSIT)* (IEEE), 2023. DOI: <https://doi.org/10.1109/ICSSIT55814.2023.10060999>. (SCI Indexed)
- Manoj, K. "Recent trends in stochastic modeling and its applications," *International Conference on Recent Trends in Stochastic Modeling and Its Applications (MSU)*, Jan 2020.
- Manoj, K. "Robust outlier detection in multivariate samples," *National Conference on Stochastic Modeling and Its Applications*, 2017.

- Manoj, K. and K. Senthamarai Kannan. "Outlier detection in multivariate data," Proceedings of International Conference on Mathematics and its Applications-2014, Anna University College of Engineering, Villupuram, Dec 2014.

Other Publications (Literary Works)

- Manoj, K. *Payanangalil Nerudiya Ninaiougal*. Notion Press, 2023.

Research Metrics

Metric	Value
Total Publications	20
Total Citations (Google Scholar)	442
h-index	06
Scopus Citations	74
Scopus h-index	03

Research supervision

- Ph.D. Statistics 1 Awarded, 4 Ongoing
- M.Phil. Statistics 1 awarded
- M.Sc. Projects 57 Supervised, 6 Ongoing
- B.Sc. Data Science 7 Ongoing

Ph.D. Scholars Awarded

S.No	Name of Scholar	Year	Title of Thesis
1	Dr. A. Peter	2023	Applications of Machine Learning Techniques in Data Mining URL: http://hdl.handle.net/10603/503445

Ph.D. Scholars Ongoing

S.No	Name of Scholar	Reg. Year	Title of Research
1.	Mr. S. Haafiz Ahmed Hafeez	2021	Bayesian Methods for the Analysis of Misclassified Multivariate Data
2.	Mr. A. Tamilarasan	2023	Robust Multivariate Techniques for Outlier Detection in Medical Data
3.	Ms. Ashlin J Mona	2024	Survival Analysis for Assessing Time-to-Event Outcomes in Cancer Research
4.	Mr. K. Harihararaja	2026	Robust Statistical Methods for Imbalanced Financial Data

Doctoral Committee Member

S.No	Ph.D. Scholar	Institution	Year
1.	Dr. D. Kabinath (Awarded)	Department of Statistics, M S University	2024
2.	Ms. M. Grace Sobika	Department of Statistics, M S University	2024
3.	Ms. N. Neelavathy	Department of Statistics, M S University	2025
4.	Mr. V. Manojpandian	Department of Statistics, M S University	2025

M.Phil. Supervision (Degree Awarded)

Name	Title of Dissertation	Year
Mr. S. L. Nitin	A Review on Intervened Poisson Distribution	2018

Selected student projects supervised

- A Cross-sectional Study of Postpartum Depression among Mothers and Fathers (2025).
- Mental Health Challenges among School Students: Prevalence and Coping Strategies (2025).
- Stochastic Modelling for Petrol and Gold Price Prediction (2022).
- Epidemiology and Transmission Dynamics of COVID-19 in Tamil Nadu (2022).

Teaching (postgraduate level)

Multivariate Analysis; Sampling Techniques; Distribution Theory; Design of Experiments; Operations Research; Programming in R; Programming in Python; Statistics Practical (R & Python); Demography; Financial Statistics; Soft Skills for UG Data Science.

Conferences, workshops and seminars organized

- Two-Day Seminar on Statistical Software for Data Analysis (Coordinator), Department of Statistics, MSU, Feb 27–28, 2025.
- Workshop on Stochastic Modelling using Software (Coordinator), MSU, Mar 21–26, 2022.
- National Webinar on Research Methodology and Data Analysis using SPSS (Coordinator), Nov 27–28, 2020.
- Webinar on Connecting the World with Data (Coordinator), Oct 20, 2020.
- UGC Sponsored International Conference on Recent Trends in Stochastic Modeling and Its Applications (Organizing Committee Member), Jan 09–11, 2020.
- Two-Day Workshop on Statistical Computations using SPSS & R (Organizer), Jun 01–02, 2017.

Invited lectures / Resource person (selected)

- Resource Person, State Level Seminar on “*Emerging Trends in Statistics and their Impact on Career Opportunities*”, Department of Statistics, The Madura College (Autonomous), Madurai, 06 March 2026.
- One Day State Level Workshop on Data Analytics using SPSS, Syed Hameedha Arts and Science College, Oct 10, 2024.
- Lecture on Statistics in Clinical Research, Siddha Clinical Research Unit, Oct 18, 2023.
- Workshop on Research Methodology and Technical Writing, Periyar University, Jan 27, 2023.
- Webinar on Recent Trends in Data Analytics, Rathinam Arts and Science College, Oct 21, 2022.
- Two Days Online National Workshop on Descriptive Data Analysis using Open Source Softwares, D.H.S.K. Commerce College, Apr 25–26, 2022.

Professional Courses Attended

Programme	Duration	Institution	Place
Refresher Course in Mathematical Sciences	Oct 03–16, 2025	UGC–CPDHE, University of Delhi	Delhi
Refresher Course in Mathematics and Statistics	Feb 12–24, 2024	UGC–HRDC, Himachal Pradesh University	Shimla
Refresher Course in Mathematics, Statistics, Computer Science & Astrology	Feb 17–29, 2020	UGC–HRDC, University of Lucknow	Lucknow
Orientation Programme (4 Weeks)	Oct 08, 2018 – Nov 02, 2018	UGC–HRDC, Jawaharlal Nehru University	New Delhi
Faculty Development & Orientation Programmes	2016–2020	Manonmaniam Sundaranar University	Tirunelveli

Honors and awards

- Academic Reviewer Award (2018), New Delhi Publisher & AJAD Analytica.
- Best Faculty Award (2018), IARA, Tamil Nadu.
- Rajiv Gandhi National Fellowship (RGNF), UGC (2011–2016).

Professional memberships

- International Society for Clinical Biostatistics (ISCB) — Member ID: 6081.
- Indian Society for Probability and Statistics (ISPS) — Life Member ID: LM/2013/48/1007.
- International Association of Engineers (IAENG) — Member ID: 164943.
- Internet Society (ISOC) — Member ID: 124040.
- International Society for Research and Development (ISRDR) — Senior Member ID: SR4150900592.

Reviewer / Editorial roles

- Peer reviewer for: Communications in Statistics – Theory & Methods (Taylor & Francis)
- Journal of Modern Applied Statistical Methods (Wayne State University)
- Asian Journal of Probability and Statistics
- Archives of Current Research International.
- Book reviewer: Advances in Applied Statistics (New Delhi Publisher).

Technical skills

R, Python, SPSS, LaTeX, SAS, HTML5, MS Office, Adobe Photoshop.

Recent academic engagement (2023–2025)

- Contributor, CRC Press chapter on Statistical Outliers (2025).
- Coordinator, Two-Day Seminar on Statistical Software for Data Analysis (Feb 2025).
- Member, NAAC Research and Evaluation Committee (2025).
- Mentor, M.Sc. Projects in Data Science and Public Health (2023–2025).

Academic and Professional Service

National Level Examination Assignments

S.No	Role	Organization	Year
1	Observer – JEE (Main) Session 1	National Testing Agency (NTA)	2025
2	Observer – NEET (UG) Examination	National Testing Agency (NTA)	2023, 2024

Academic Expert Roles

S.No	Role	Institution	Year
1	Subject Expert (Interview Board)	Kendriya Vidyalaya, Naval Base, Vijayanarayanam, Tirunelveli	2023–2024

Administrative and Institutional Service

Leadership and Coordination Roles

Role	Year
Deputy Warden, Men's Hostel, Manonmaniam Sundaranar University	2025–Present
Coordinator, Certificate Course in Machine Learning, Dept. of Statistics, MSU	2023–2024
Residential Tutor, University Men's Hostel, MSU	2016–2021

Academic Governance and Curriculum Development

Role	Year
Member, Board of Studies – B.Sc. Data Science Programme Curriculum Development	2023
Member, Board of Studies Meeting (PG Statistics), TANSICHE	2019
Member, Constitution of Board of Studies (Statistics)	2018–2021
Interview Board Member, Kendriya Vidyalaya Naval Base, Tirunelveli	2023

Institutional and University Service

Role	Year
University Representative, K.R. College of Arts and Science, Kovilpatti	2025-2027
Member, NAAC 4th Cycle Section Profile Committee, MSU	2025
Member, AQAR Committee – Governance and Leadership	2019–2020
Faculty-in-Charge, Annual Stock Verification, Department of Statistics	2020
Member, NAAC Documentation Committee (Criteria IV & VI)	2017
Member, Annual Inspection Commission – Rajalakshmi College of Arts and Science	2025
Member, Annual Inspection Commission – Muthukaruppan Memorial College	2022
Member, Annual Inspection Commission – Kamaraj College, Thoothukudi	2019
Member, Annual Inspection Commission – Sree Ayyappa College for Women	2019
Member, Annual Inspection Commission – Don Bosco College, Keela Eral	2018
Member, Guest House Management Committee – 31st Convocation	2024
Member, Guest House Management Committee – 28th Convocation	2021
Member, Guest House Management Committee – 26th Convocation	2018

Date: March 10, 2026

(Dr. K. Manoj)