

Faculty Profile of Dr. R. Muthukrishnan



Dr. R. Muthukrishnan
Professor & Director (School of Distance Education)
Department of Statistics

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Research Area

- Robust Statistics
- Statistical Inference
- Multivariate Statistical Methods

Education & Career

Education

Ph.D.

Subject : Statistics

Institution : Manonmaniam Sundaranar University, Tirunelveli

Affiliated University : Manonmaniam Sundaranar University, Tirunelveli

Year of Award : 2000

M.Sc.,

Subject : Statistics

Institution : Manonmaniam Sundaranar University, Tirunelveli

Affiliated University : Manonmaniam Sundaranar University, Tirunelveli

Year of Award : 1993

B.Sc.,

Subject : Computer Science

Institution : M.D.T. Hindu College, Tirunelveli

Affiliated University : Madurai Kamraj University, Madurai

Year of Award : 1991

Career**At Bharathiar University (Reverse Order)**

Professor : March 2018 to Till Date

Associate Professor : March 2015 to March 2018

Assistant Professor : June 2007 to March 2015

Past Experience

Assistant Professor : March 2003 to June 2007 at Indira Gandhi College of Arts and Science, Puducherry

Lecturer : June 2001 to March 2003 at DRBCCC Hindu College, Chennai

Awards**Membership****Membership in Academic Bodies**

Organization : Indian Statistical Institute, Kolkata

Type of Membership : Life Membership

Period : From January 2020

Organization : Society for Statistics and Computer Applications

Type of Membership : Life Membership

Period : From October 2017

Organization : International Indian Statistical Association

Type of Membership : Life Membership

Period : From January 2014

Organization : Indian Bayesian Society

Type of Membership : Life Membership

Period : From May 2008

Organization : Indian Society for Probability and Statistics

Type of Membership : Life Membership

Period : From February 2004

Visits

Foreign Visits/Exposure

Countries Visits : Singapore

Duration of Visit : One week

Month and Year : May 23-27, 2011

Purpose of Visit : Academic, National University of Singapore

Countries Visits : Singapore

Duration of Visit : One week

Month and Year : Nov 22-26, 2011

Purpose of Visit : Academic , National University of Singapore

Collaborators

Others

Administrative / Additional Responsibilities

National Service Scheme

Designation : Programme Officer

Institution : Indira Gandhi College of Arts and Science, Puducherry. (Affiliated

to Pondicherry Univ.)

Period : Dec 2005 to June 2007

Nature of Responsibility: Service to Society

Projects

Funded Projects (National Level)

- [Ongoing](#)
- [Completed](#)

Ongoing Projects List with necessary Information

1. Robust Statistics and its applications in Computer Vision

Dr. R. MUTHUKRISHNAN PI

UGC(2011-2014), India.

Consultancy Projects

- [Ongoing](#)
- [Completed](#)

Ongoing Consultancy Project Informations

Completed Consultancy Project Informations

Research Guidance

- [Post Doc.](#)
- [Ph.D.](#)
- [M.Phil.](#)
- [M.Sc.](#)

Ongoing

Title

Name

Completed

Title

Name

Ongoing

Robust Data Depth Procedures, Robust Support Vector Machines, Robust Feature Selection Methods

Completed

M. Radha

Contribution to a Study on Robust Statistics and its application in Computer Vision
2013

K. Mahesh

Contribution to a Study on Robust Estimators for Location and Scatter parameter and their application in Discriminant Analysis
2015

J. Ravi

Contributions to a Study on Sample Consensus Estimators Based on Robust Statistics and Their Application in Computer Vision
2017

E.D. Boobalan

Some Contributions to the Theory and Applications of Robust Estimation in Multivariate Distributions
2017

R. Reka

Contributions to a Study on Robust Regression Procedures for Model Fitting and their Applications in Computer Vision
2017

G. Poonkuzhali

Contributions to a Study on Data Depth Procedure and their Applications in

Discriminant Analysis

2019

M. Vadivel

Contributions to Computational Aspects and Applications of Projection Depth

2019

N. Ramkumar

Contributions to Computational aspects of Adjusted Projection Depth and its Applications

2021

Ongoing

Sample Data.

Completed

1. Radha M, Some Contributions to the Theory and Applications of M-estimation, 2008
2. Mahesh K, Study on Robust Estimators in Regression Models, 2010
3. Kanneswari T, Effects of Robust Estimators on Multivariate data, 2010
4. Jothikannan A, Data Mining – Time Series Modeling Approach, 2011
5. Palanisamy A, Robust Statistics for Computer Vision – A Review, 2011
6. Maheswari R, Random Sample Consensus Estimators for Computer Vision – A Review, 2012
7. Saroja A, A Study on Clustering and Robust Clustering Techniques, 2012
8. Krishnamurthy M, Classical and Discriminant Analysis – A Review, 2012
9. Reka R, Evaluation of Random Sample Consensus Techniques - A Simulation Approach, 2013

10. Nagaraju R, A Study on Classical and Robust Linear Discriminant Methods, 2013
11. Vadivel M, Contribution to a Study on Robust Procedures for Multivariate Location and Scatter Parameters, 2014
12. Mathaiyan R, Robust Procedures for Principal Component Analysis with application to Image Processing, 2014
13. Vanitha K, A Study on Robust Estimation with reference to Location and Scale, 2016
14. Ranganathan A, A Study on Robust estimation in Control Chart Analysis, 2016
15. Rohini R, Feature Selection Techniques in Predictive Modeling, 2017
16. Thangamalar K, A Study on Robust Procedures for Correlation and Canonical Correlation, 2018
17. Gowri D, A Study on Data Depth Procedures with reference to Measure of Location, 2019
18. MaryamJamila S, A Study on Predictive Modeling using Support Vector Regression, 2020
19. Suganya A, A Study on Normality Test Procedure and Outlier Detection Methods, 2020

Ongoing

Sample Data.

Completed

1. Mahesh K, Statistical Survey on Food Crops in Tamilnadu, 2008
2. JothiKannan A, Statistical Survey on Health Care System Prevalent in Tamilnadu, 2009
3. Manikandan S, Statistical Survey on literacy rate in India, 2009
4. Sathishkumar R, Statistical Survey on student opinion about internal assessment system, 2009

5. Suresh K K, Statistical Study on Wind Energy, 2009
6. Maheswari R, A Study on Consumer's Opinion Towards Health Drinks (Maddukarai Village), 2010
7. Ramesh R, Socio Economic Status of Saverityaappatti Village, 2010
8. Nirmala R, A Study On Consumer's View Towards ATM Services of Banks, 2010
9. Ganesan R, A Statistical Study on Consumer Satisfaction of Buying Textile Products, 2011
10. Pulenthiran J, Statistical Study on Yarn Industry, 2011
11. Sharmila R, A Statistical Study on Yarn Dyeing Industry, 2011
12. GouthamSiddarthan R, A Statistical Study on Postal Services And Schemes, 2011
13. Suresh Kumar K, A Statistical Study on Cotton Industry, 2011
14. Bhuvaneshwari P, A Study on The Level of Employee Motivation in Maruti Service Masters, 2012
15. Mouli N, A Study on Classical and Robust Outlier Detection Procedures, 2012
16. Saranya J, A Statistical Study on Borderline Personality Disorder, 2012
17. Dhasaratharaman T, Forecasting Depletion of Indian Rupee, 2012
18. Nandhini S, A Statistical Study on Internet Awareness, 2012
19. SundarRajan M, A Study on Student's Opinion about School Public Examination, 2012
20. Karthikeyan V, A Study on Production and Consumption of Tea in North and South India, 2013
21. Sihabudeen T, A Study on Pain and Palliative Care Clinic in Area code, 2013
22. Karuppuchamy M, A Study on Acupuncture Treatment, 2013
23. Rekha C, A Study on Petrol Prices in Bharath Petroleum Corporation Limited and Indian Oil Corporation Limited, 2013
24. Nithya R, A Statistical Study on Academic Performance of Bharathiar University, 2014

25. Vinothkumar R, A Statistical Study on HIV/AIDS in India with respect to factors causing AIDS, 2014
26. Ramkumar G, Birth and Death Trend Analysis on the World Population, 2015
27. Sasikala S, A Statistical Study on Categories of workers – Census 2011, 2015
28. Maqsood M K, A Study on Cancer with reference to Regional Cancer center, Thiruvananthapuram, 2016
29. Sureshkumar S, Time Series Analyses on Seasonal Rainfall Data, 2016
30. Tinu Thomas, A Study on exchange rate of Indian Currency, 2016
31. Gowri D, A Study on the performance of textile Industry, 2017
32. James C K, A Study on Youth's entertainments and their habits, 2017
33. Nivetha R, A Study on Crime against Women in India, 2017
34. Sathishkumar C, A Statistical Study on Sugarcane Production in Tamilnadu, 2017
35. SnehaPriya G, A Study on Production of Milk in India, 2017
36. Anusiya A, Production of Fruits in India – Statistical Study, 2018
37. Devendiran R, A Statistical Analyses of the Medal won in Summer Olympic Games with reference to Continents, 2018
38. Sudheer Kumar G, A Study on Tuberculosis and Respiratory Disease in India, 2018
39. Akilananthan S, A Statistical Study on Major Crops in India, 2018
40. Anila P, A Statistical Study on Rape Cases in India, 2018
41. Gomathi V, A Study on Registered Newspapers and Periodicals in India, 2018
42. Suganya A, Studies on Performance of top 5 Indian Players with reference to one day International Match, 2018
43. Dhayananthan S, A Study on the Batting Performance of Virat Kohli and Mahendra Singh Dhoni, 2019
44. Nandha Kumar K, A Statistical Investigation on Lung Cancer Data, 2019

45. Satheesh Kumar S, A Study on the Weight of New Born Babies along with its related Features, 2019
46. Dharaniselvan A, A Study on the Cotton Cultivation in India, 2019
47. Ragavi R, A Study on the Major Crops in India, 2019
48. Saravanaraj K, A Study of ARIMA Models with Robust Filtering, 2019
49. Vinoth Kumar V S, A Study on the Road Accidents in India, 2019
50. Balamurugan. P, A statistical study on child sexual abuse, 2020
51. Dhaaranipankaj. P, Forecasting exchange rate of INR against USD, 2020
52. Dineshram, G, A study based on consumer price in India, 2020
53. Kavya S, Trade statistics of India for export and import of commodities, 2020
54. Sriseenivasan, P, A statistical study on food crops, 2020
55. Anand R,G, A statistical study on school education in India, 2020
56. Kaleeswaran R, A statistical study on the importance of milk, 2020
57. Pachiappan P, A study on various type of crimes against children, 2020
58. Poornimadevi M, A study on foreign direct investment pattern in India, 2020
59. Prabakaran S, A comparative study of red and white wine, 2020
60. Mariappan M, Statistical study of Covid-19 corona virus pandemic in top five countries, 2021
61. Mohan M, Statistical study of debit card and credit card usages in India, 2021
62. Pavithra P, A survival analysis on lung cancer, 2021
63. Reshma R, Study on trending motor cars road tests data, 2021
64. Aarthi D, Analysis of apps in google play store, 2021

65. Lenin, CP, A statistical study on student higher education enrollment in India, 2022
66. Sneha B, A statistical study on student performance in examination, 2022
67. Umameena N, A statistical study on present population in India, 2022
68. Anusha S, A study on gender distribution of teaching faculty in Tamilnadu, 2022
69. Renuga SP, A statistical study on road accident cases in India, 2022
70. Veeranan C, A statistical study on two-wheelers sales in India, 2022

Research Publication

- [International](#)
- [National](#)
- [Patents](#)
- [Conferences](#)
- [Books / Chapters](#)
- [Database](#)

2022

44. Feature Selection Through Robust LASSO Procedures in Predictive Modelling

Muthukrishnan. R, James. C.K

Advances and Applications in Mathematical Sciences, Vol. (10), pp 6103-6115, 2022.

43. Data depth approach in fitting linear regression models,
Muthukrishnan. R, Kalaivani. S
Materials Today: Proceedings, Vol.57(5), pp 2212-2215, 2022.

2020

42. Predictive Modeling Using Support Vector Regression
Muthukrishnan. R, Maryam Jamila. S
International Journal of Scientific & Technology Research, Vol.9(2), 4863-4865, 2020.

2019

41. Robust Classification using Skew-Adjusted Projection Depth
Muthukrishnan. R, Ramkumar. N
International Journal of Scientific & Technology Research, Vol.8(12), 2999-3003, 2019.
40. Performance of Classification Techniques along with Support Vector Machine
Muthukrishnan. R, Udaya Prakash. N
International Journal of Innovative Technology and Exploring Engineering, Vol.9(2), 4366-4369, 2019.
39. Expected Maximization Algorithm: Projection Depth Approach
Muthukrishnan. R, Vadivel. M and Ramkumar. N
Far East Journal of Theoretical Statistics, Vol.56(1), 35-46, 2019.
38. Robust Approaches on the Estimation of Correlation
Muthukrishnan. R, Thangamalar. K, Ramkumar. N and Mahalakshmi. P
International Journal of Research and Analytical Reviews, Vol.6(1), 77-83, 2019.

2018

37. Measures of Location using Data Depth Procedures
Muthukrishnan. R, Gowri. D and Ramkumar. N
International Journal of Scientific Research in Mathematical and Statistical Sciences, Vol.5(6), 273-277, 2018.

36. L1 Penalized Regression Procedures for Feature Selection,
Muthukrishnan. R, Mahalakshmi. P
International Journal of Scientific Research in Mathematical and
Statistical Sciences, Vol.5(5), 88-91, 2018.
35. Robust Depth based Weighted Estimator with application in Discriminant
Analysis
Muthukrishnan. R, Poonkuzhali. G
International Journal of Scientific Research in Mathematical and
Statistical Sciences, Vol.5(3), 96-101, 2018.
34. Projection based Data Depth Procedure with application in Discriminant
Analysis
Muthukrishnan. R, Vadivel. M and Ramkumar.N
International Journal of Research in Advent Technology, Vol.6(5), 824-
832, 2018.

2017-2008

33. A Comprehensive Survey on Outlier Detection Methods
Muthukrishnan. R, Poonkuzhali. G
American-Eurasian Journal of Scientific Research, Vol.12(3), 161-
171, 2017.
32. Gram-Schmidt Orthonormalization based Projection Depth
Muthukrishnan. R, Vadivel. M and Ramkumar.N
International Journal of Mathematics Trends and
Technology, Vol.52(6), 430-434, 2017.
31. Robust Canonical Correlation Analysis: MCD Approach
Muthukrishnan. R, Thangamalar.K
International Journal of Pure and Applied Mathematics, Vol.117(14), 9-
17, 2017.
30. Breakdown Plot of Symmetry Distance based Robust Estimators
Muthukrishnan. R, Reka. R

International Journal of Current Advanced Research, Vol.6(9), 6150-6155, 2017.

29. SFAST: A new Robust Regression based combined Edges and Corner Detection

Muthukrishnan. R, Ravi. J

International Journal of Advanced Research in Computer Science, Vol.8(7), 462-469, 2017.

28. Computing Robust Measure of Multivariate Location – Data Depth Approach

Muthukrishnan. R, Poonkuzhali. G

Global Journal of Pure and Applied Mathematics, Vol.13 (2), 691-700, 2017.

27. Robust Regression Procedure for Model Fitting with Application to Image Analysis

Muthukrishnan. R, Reka. R and Boobalan. E.D

International Journal of Statistics and Systems, Vol.12 (1), 79-92, 2017.

26. M-estimator based Symmetry Distance: A Robust Estimator for Model Fitting

Muthukrishnan. R, Reka. R

International Journal of Image Processing and Applications, Vol.7 (2), 181-188, 2016.

25. LASSO: A Feature Selection Technique in Predictive Modeling for Machine Learning,

Muthukrishnan. R, Rohini. R

IEEE, International Conference on Advances in Computer Applications, 18-20, 2016.

24. A Robust Regression Scale of Residual Estimator: SSAC

Muthukrishnan. R, Ravi. J

International Journal of Applied Engineering Research, Vol.11(7), 5086-5090, 2016.

23. Locally optimized SSAC: LOSSAC

Muthukrishnan. R, Ravi. J and Boobalan. E.D
International Journal of Scientific Engineering and Research, Vol.7 (3),
1148-1155, 2016.

22. Rank based Weighted Scale estimator with application to Discriminant Analysis

Muthukrishnan. R, Boobalan. E.D
International Journal of Statistics and Analysis, Vol.5(2), 161-169, 2015.

21. Model fitting based on Robust Regression Procedures

Muthukrishnan. R, Reka. R and Boobalan. E.D
International Journal of Statistics and Analysis, Vol.5(2), 151-160, 2015.

20. Time based appraisal of corner detection techniques

Muthukrishnan. R, Ravi. J
International Journal of Statistics and Systems, Vol.10(2), 175-181, 2015.

19. Image type-based Assessment of SIFT and FAST Algorithms

Muthukrishnan. R, Ravi. J
International Journal of Signal Processing, Image Processing and Pattern Recognition, Vol.8(3), 211-216, 2015.

18. MCD based Principal Component Analysis in Computer Vision

Muthukrishnan. R, Boobalan. E.D and Mathaiyan. R
International Journal of Computer Science Technologies, Vol.5(2), 8293-8296, 2014.

17. Factor Analysis Based on Classical and Robust Estimators

Muthukrishnan. R, Boobalan. E.D
International Journal of Statistika and Matematika, Vol.11(2), 53-58, 2014.

16. Image segmentation Techniques to Determine the Time from the Blurred Image of a Wall Clock

Muthukrishnan. R, Ravi. J
International Journal of Engineering Development and Research, Vol.2(4), 3703-3707, 2014.

15. Performance of RANSAC Techniques under Classical and Robust Methods
Muthukrishnan. R, Boobalan. E.D and Reka. R
International Journal of Innovative Research in Computer and
Communication Engineering, Vol. 2(7), 5185-5189, 2014.
14. Robust Procedure for Estimating Multivariate Location and Scatter
Muthukrishnan. R, Mahesh. K
American International Journal of Research in Science, Technology,
Engineering and Mathematics, Vol. 2(6), 189-195, 2014.
13. Best Points Selection Procedure for Estimating Location and Scatter in
Multivariate Data with Application to Discriminant Analysis
Muthukrishnan. R, Mahesh. K
Journal of Advances in Mathematics, Vol. 7(3), 1285-1292, 2014.
12. Evaluation of classical and robust discriminate methods under apparent
error rate
Muthukrishnan. R, Mahesh. K
International Journal of current research, Vol.5(10), 2817-2820, 2013.
- 11 A New Robust Estimator with Application to Image Analysis
Muthukrishnan. R, Radha. M and Boobalan. E.D
International Journal of Engineering Research and Development,
Vol.5(1), 01-04, 2012.
10. Robust methods for regression outliers using R
Muthukrishnan. R, Mahesh. K and Radha. M
International Journal of Statistics and Analysis, Vol. 2(4), 411-416, 2012.
9. INAPSAC: A New Robust Inliers Identification Technique
Muthukrishnan. R, Radha. M
Journal of Advanced Computer Science and Technology, Vol.1(4), 284-
290, 2012.
8. A comparative study of robust RANSAC techniques
Muthukrishnan. R, Radha. M
International Journal of Statistics and Analysis, Vol. 2(3), 227-232, 2012.

7. Performance of Classical and Robust Linear Discriminant Analysis
Muthukrishnan. R, Mahesh. K
International Journal of Statistics and Analysis, Vol. 2(3), 239-243, 2012.
6. A survey of Robust Estimators for Computer Vision
Muthukrishnan. R, Radha. M
International Journal of Computing, Vol.2(1),174-179, 2012.
5. Edge detection techniques for image segmentation
Muthukrishnan. R, Radha. M
International journal of computer science and information technology,
Vol. 3(6), 259-267, 2011.
4. M-estimators in Regression Models,
Muthukrishnan. R, Radha. M
Journal of Mathematics Research, Vol.2(4), 23-27, 2010.
3. Evaluation and Comparisons of Robust Estimators in Regression Models

Muthukrishnan. R, Radha. M
Interstat, Statistics on the Internet, #3, 2010.
2. Robust Estimators in Multivariate Models using R
Muthukrishnan. R, Radha. M and Kanneswari. T
Interstat, Statistics on the Internet, #2, 2009.
1. A Study On The Variance Of Estimators In Sampling With Varying Probabilities
Muthukrishnan. R
Bulletin of Statistics & Economics, Vol.2(A08), 94-99, 2008.

10. Computing Median with Data Depth in Multivariate Data
Muthukrishnan. R, Poonkuzhali. G
Journal of Modern Science, Vol.7(2), 11-19, 2015.

2014

9. Robust Procedures for Model Fitting
Muthukrishnan. R, Reka. R and Boobalan. E.D
Proceedings of UGC-sponsored National Seminar on Recent
Developments in Statistical Models and Methods, Government Arts College,
Coimbatore, 254-265, 2014

2008-2012

8. A comparative study on robust clustering methods
Muthukrishnan. R, Mahesh. K
Proceedings of the International Conference on Mathematical Modelling
and applied soft computing, Coimbatore Institute of Technology, Coimbatore,
Vol.2, 245-249, 2012.
7. Prediction and Classification techniques for Data-Mining Using XLminer

Muthukrishnan. R, Mahesh. K and Krishnamoorthy. M
Proceedings UGC Sponsored National Conference on Advances in
Applied Mathematics, Bharathiar University, Coimbatore, 146-155, 2011.
6. Robust Estimators for real parameters
Muthukrishnan. R, Radha. M and Maheswari. R
Proceedings UGC sponsored National Conference on Recent Advances in
Statistics and Computer Applications, Bharathiar University, Coimbatore,
152-158, 2011.
5. Multivariate Statistical Techniques with R
Muthukrishnan. R, Mahesh. K
Proceedings of the Third National Conference on Mathematical Modeling in
Global Perspective, Velammal Engineering College, Chennai, 84-91, 2011.
4. Comparison of Robust and Non-parametric methods under regression
model

Muthukrishnan. R, Radha. M

Proceedings of National Conference on Recent trends in Statistical Research, Manonmaniam Sundaranar University, Tirunelveli, 265-270, 2010.

3. Time Series Techniques in Data Mining Applications

Muthukrishnan. R, Jothikannan. A

Proceedings of National Conference on Mathematical Modeling in Global Perspective, Velammal Engineering College, Chennai, 66-73, 2010.

2. Robust Estimators for Computer Vision - A review

Muthukrishnan. R

Proceedings of UGC National Seminar on Applied Statistics, Sri Saradha College for women, Salem, 181-188, 2009.

1. Certain results on M-estimator for scale and location parameter

Muthukrishnan. R, Radha. M

Proceedings of UGC sponsored National Seminar on Applied Bayesian Statistical Analysis, Government Arts College, Salem, 165-180, 2008.

Patent Info

Conference Info

Books & Chapters Related Info

Robust Statistics: Methods and Applications, Big Data Applications in Industry 4.0, CRC Press (Taylor & Francis Group), FL, Chapter 12, pp 233-257, 2022.

Database Related Info

Alumini Reflections: