

PROFILE OF Dr. (Mrs.) KIRTEE KIRAN KAMALJA



Name : Dr. (Mrs.) Kirtee Kiran Kamalja

Present working position : Associate Professor,
Department of Statistics,
School of Mathematical Sciences,
Kavayitri Bahinabai Chaudhari
North Maharashtra University, Jalgaon

Permanent address : Plot No. 22 (B), Gat No. 93/2,
Gurudatta Nagar, Behind Morbi Tiles,
Opposite to Dadawadi,
Jalgaon, Maharashtra State,
PIN-425 001

Contact Numbers : Mobile No. : +91 94215 15631

E-mail Address : kirteekamalja@gmail.com,
kkkamalja@nmu.ac.in

Date of Birth : 18th October 1973

Educational Qualifications :

Degree/Diploma	University/Institute/Board	Percentage	Year
Ph.D. (Statistics)	North Maharashtra University, Jalgaon	--	2007
M.Sc. (Statistics)	North Maharashtra University, Jalgaon	80.65	1996
A.D.C.S.S.A.*	Bombay Technical Board, Bombay	69.20	1996
B.Sc. (Statistics)	North Maharashtra University, Jalgaon	87.75	1994
H.S.C	Maharashtra State Board of Secondary and Higher Secondary Education, Pune	77.00	1991
S.S.C.	Maharashtra State Board of Secondary and Higher Secondary Education, Pune	86.28	1989

*A.D.C.S.S.A.: Advanced Diploma in Computer Software, System Analysis and Applications. (The Diploma is completed in parallel with M.Sc. (Statistics))

Details of Ph.D. :

Date of registration : 12.04.2002

Ph.D. Thesis title : Distributions of Statistics based on Runs, Scans and Patterns in Sequences of Markov Dependent Trials

Name of Research Guide: Prof. R. L. Shinde,
Director, School of Mathematical Sciences,
North Maharashtra University, Jalgaon

Date of Degree Notification: 05.12.2007

Other Qualifications:

Qualifying Exam	Subject	Year of passing
SET	Statistics	March 2000
NET	Mathematical Sciences	June 2002
NET+JRF	Mathematical Sciences	December 2002

Achievements:

1. Received the '*Best Doctoral Dissertation Presentation Award*' (which carries a cash prize of Rs. 1500/- and citation) in the Best Doctoral Dissertation Presentation Competition organized in '*International Conference on Statistical Sciences, OR and IT*' in conjunction with XXVI Annual Conference of Indian Society for Probability and Statistics (ISPS) at Tirupati during 7th to 9th January 2007 (organized by Indian Society for Probability and Statistics (ISPS))
2. Received *First prize* in the Paper Presentation Competition (Mathematical Sciences) in 'C.V. Raman Memorial Seminar-2007' conducted by North Maharashtra University, Jalgaon on 28th February 2007.
3. Received *First prize* in the Paper Presentation Competition (Mathematical Sciences) in 'C.V. Raman Memorial Seminar-2004' conducted by North Maharashtra University, Jalgaon on 28th February 2004.
4. Selected in top 20% of the NET qualified candidates for June 2002 NET Examination (Eligibility to appear for the Shyama Prasad Mukharjee Examination) and appeared for 'The Shyama Prasad Mukharjee Examination, July-2002'.
5. Attended a Lead Accessor course conducted by Jain Irrigation Systems Ltd. (JISL) and qualified as an *Auditor*.
6. During M.Sc.(I) shortlisted to attend '*Summer Orientation Program*' of six weeks' duration for M.Sc. (Part I) students of Statistics during May 28 to July 8,1995 organized by Department of Statistics, University of Poona, Pune and successfully attended the Program.
7. Received National Merit Scholarship during period 1989 to 1994.

Work Experience:

Position held	Name of the Institution	Period and Duration of work
Statistician	Jain Irrigation Systems Ltd. Jalgaon	1 st May-96 to 21 st Dec-98
Lecturer (Contributory)	Department of Statistics, North Maharashtra University Jalgaon	July 98 to Dec-02
Lecturer (Regular)		27.12.02 to 30.06.03
JRF		01.07.2003 to 06.02.2005
Assistant Professor		07.02.2005 to 15.12.2009
Reader (Against Lien)		16.12.2009 to 11.06.2011
Assistant Professor		12.06.2011 to 06.08.2013
Associate Professor (Against Lien)		07.08.2013 to 02.07.2014
Assistant Professor	Department of Statistics, Kavayitri Bahinabai Chaudhari	03.07.2014 to 10.01.2021
Associate Professor	North Maharashtra University Jalgaon	11.01.2021 to till date

Academic Programs attended:

Sr. No.	Course	Name of the Institution	Dates		Subject/Topic
			From	To	
1.	Orientation program	Academic Staff College, University of Pune	26.02.07	25.03.07	Statistics
2.	Refresher course	Academic Staff College, University of Mumbai.	03.11.08	22.11.08	Mathematical Sciences
3.	Refresher course	UGC-HRDC, University of Delhi, Delhi	26.11.15	16.12.15	Mathematical Sciences
4.	Faculty Development Programme (FDP)	Teaching Learning Centre, Ramanujan College, University of Delhi and sponsored by Ministry of HRD	20.04.20	06.05.20	Managing online classes and co-creating MOOCS
5.	Short Term Course (Online STC)	Government College Una (HP) in association with Spoken Tutorial, IIT Bombay	15.05.20	20.05.20	LaTex

• Details about the Research Projects:

Sr. No.	Title of MRP	Sanctioning authority	Duration	Grant Sanctioned
1.	Computational Methods in Reliability Theory	UGC, New Delhi	01.07.2011 to 31.12.2014 (3½ years)	₹ 8,02,270
2.	Partition of asymmetric measures of association for multi-way contingency tables	K.B.C. North Maharashtra University, Jalgaon (VCRMS scheme)	29.06.2020 to 28.06.2022 (2-years)	₹ 4,50,000

Details of Ph.D. students:

Sr. No.	Name of the Research Student	Topic of Research	Status
1.	Mr. Kalpesh Prabhakar Amrutkar	Study of various Reliability Importance Measures and sensitivity analysis of some coherent systems	Degree awarded on 09.08.2017
2.	Ms. Yogita Shivram Wagh	A Study of Regression on Count Data	Degree awarded on 24.06.2019
3.	Ms. Nutan Vijay Khangar	A Study of Simple and Multiple Correspondence Analysis of Ordered Categorical Data	Degree awarded on 16.10.2020
4.	Mr. Rohan Dilip Koshti	A study on Concomitants of Order Statistics and its applications in Ranked Set Sampling	Ongoing

Research papers published in Journals:

1. Kamalja K.K. and Amrutkar K.P. (2021) Joint Reliability Importance of Weighted Consecutive Systems, *Life Cycle Reliability and Safety Engineering* 10, 1-14. (January 2021)
2. Koshti R.D. and Kamalja K.K. and (2021) Efficient estimation of a scale parameter of bivariate Lomax distribution by Ranked Set Sampling, *Calcutta Statistical Association Bulletin*, 73(1) 24–44 ([10.1177/0008068321992520](https://doi.org/10.1177/0008068321992520)). (April 2021)
3. Koshti R.D. and Kamalja K.K. and (2021) Parameter estimation of Cambanis-type bivariate uniform distribution with Ranked Set Sampling, *Journal of Applied Statistics*, **48** (1), 67-83. (DOI: [10.1080/02664763.2019.1709808](https://doi.org/10.1080/02664763.2019.1709808)), (Impact factor 1.013)
4. Kamalja K.K. and Koshti R.D. (2019) Estimation of Scale Parameter of Morgenstern Type Bivariate Generalized Uniform Distribution by Ranked Set Sampling, *Journal of Data Science*, **17** (3), 513-533 (July Issue)
5. Kamalja K.K. and Amrutkar K.P. (2018), Reliability and Reliability Importance of Weighted-r-within-consecutive-k-out-of-n: F System, *IEEE Transactions on Reliability*, **67** (3), pp 951-969 (Impact Factor: 2.729, Issue September 2018)
6. Wagh Y.S. and Kamalja K.K. (2018) Zero-Inflated models and estimation in Zero-Inflated Poisson distribution, *Communications in Statistics-Simulation and Computation* **47** (8), 2248-2265 (2017 Impact factor: 0.501).
7. Kamalja K.K. and Wagh Y.S. (2018), Estimation in zero-inflated Generalized Poisson distribution, *Journal of Data Science*, **16** (1), 183-206. (January Issue)
8. Wagh Y.S. and Kamalja K.K. (2017), Modelling Auto Insurance Claims in Singapore, *Sri Lankan Journal of Applied Statistics*, **18** (2), 104-118.
9. Kamalja K.K. (2017), Markov Binomial Distribution of order k and its applications, *Statistical Papers*, **58** (3), 831-853. (December 2017 issue, DOI: 10.1007/s00362-015-0728-5, Impact factor: 0.781)
10. Khangar N.V. and Kamalja K.K. (2017) Multiple Correspondence Analysis and its applications, *Electronic Journal of Applied Statistical Analysis*, **10** (2), 432-462.
11. Khangar N.V. and Kamalja K.K. (2017) A statistical study of suicidal behavior of Indians, *Egyptian Journal of Forensic Sciences*, 7, 12.1-12.14 (DOI: 10.1186/s41935-017-0007-9).
12. Amrutkar K.P. and Kamalja K.K. (2017), An overview of various importance measures of reliability systems, *International Journal of Mathematical, Engineering and Management Sciences*, **2** (3), 150-171.
13. Kamalja K.K. (2017) Reliability computing method for generalized k-out-of-n system, *Journal of Computational and Applied Mathematics*, 323, 111-122 (2016 Impact factor: 1.328).
14. Koshti R.D. and Kamalja K.K. (2017) Estimation of Scale Parameter of a Bivariate Lomax distribution by Ranked Set Sampling, *Model Assisted Statistics and Applications*, **12**, 107-113.
15. Amrutkar K.P. and Kamalja K.K. (2017). Efficient algorithm for reliability and importance measures of linear weighted-(n,f,k) and $\langle n,f,k \rangle$ systems, *Computers & Industrial Engineering*, **107**, 85-99 (May 2017, 2016 Impact factor: 2.083)
16. Wagh Y.S. and Kamalja K.K. (2017), Comparison of methods of estimation for parameters of Generalized Poisson distribution through Simulation study, *Communications in Statistics-Simulation and Computation*, **46**(5), 4098-4112 (2016 Impact factor: 0.325).

Research papers published in Journals...:

17. Kamalja K.K. (2014), Birnbaum reliability importance for (n, f, k) and $\langle n, k, f \rangle$ system, *Communications in Statistics-Theory and Methods*, **43** (10), 2406–2418 (Impact factor: 0.274, Issue May 2014).
18. Amrutkar K.P. and Kamalja K.K. (2014). Reliability and importance measures of weighted- k -out-of- n system. *International Journal of Reliability, Quality and Safety Engineering*, **21** (3), 1450015:1-21 (June 14 issue)
19. Kamalja K.K. and Amrutkar K.P. (2014), Computational method for reliability and importance measures of weighted-consecutive-systems, *IEEE Transactions on Reliability*, **63** (1), pp 94-104 (Impact Factor: 2.293, Issue March 2014).
20. Kamalja K.K. and Shinde R.L. (2014), On the reliability of (n, f, k) and $\langle n, f, k \rangle$ systems, *Communications in Statistics-Theory and Methods*, **43** (8), 1649–1665 (Impact factor: 0.274, Issue March 2014).
21. Kamalja K.K. (2014), On the joint distribution of success runs of several lengths in the sequence of MBT and its applications, *Statistical Papers*, **55** (4), 1179-1206. (Impact factor 0.813, Issue November 2014)
22. Kamalja K.K. and Khangar N.V. (2013), Singular Value Decomposition for Multidimensional Matrices, *International Journal of Engineering Research and Applications*, **3**(6), 123-129.
23. Kamalja K.K. (2012). Birnbaum Importance for Consecutive- k systems, *International Journal of Reliability, Quality and safety Engineering*, **19** (4), 1250016:1-25 (2012 H-index: 15)
24. Kamalja K.K. and Shinde R.L., (2011). Runs and patterns in a sequence of Markov dependent bivariate trials, *American Open Journal of Statistics*, **1**, 115-127. (Impact factor: 0.110)
25. Shinde R.L. and Kotwal K.S. (2008). Distributions of scan statistics in a sequence of Markov Bernoulli trials. *Metron*, Volume LXVI (No.2), 135-155. (Impact factor: 0.20).
26. Shinde R.L. and Kotwal K.S. (2006). On the joint distribution of runs in the sequence of Markov dependent multi-state trials. *Statistics & Probability Letters*, **76** (10), 1065-1074. (Impact factor: 0.445)
27. Kotwal K.S. and Shinde R.L. (2006). Joint distributions of runs in a sequence of higher-order two-state Markov trials, *Annals of the Institute of Statistical Mathematics*, **58**, 537-554. (Impact factor: 0.350)
28. Kotwal K.S. and Shinde R.L. (2005). Markov Binomial and Trinomial Distributions, *Journal of Indian Statistical Association*, **43** (1), 15-31.

Interdisciplinary papers:

29. Marathe K. Chaudhary A.B., Kamalja K.K. and Maheshwari V.L. (2016), Magnesium dependent proteinaceous protease inhibitor with pesticidal potential from alkali-halotolerant *Streptomyces* spp.: Optimization of production using statistical tools, *Biocatalyst and Agricultural Biotechnology*, **5**, 28-68. (SNIP: 0.901) (January 2016)
30. Mohite B., Kamalja K.K., Patil S.V. (2012), Statistical optimization of culture conditions for enhanced bacterial cellulose production by *Gluconoacetobacter hansenii* NCIM 2529, *Cellulose*, **19** (5), 1655-1666 (Impact factor: 3.476)
31. Patil K.P., Kamalja K.K. and Chaudhari B.L. (2011). Optimization of medium components for hyaluronic acid production by *Streptococcus zooepidemicus* MTCC 3523 using a statistical approach, *Carbohydrate Polymers*, **86** (4), 1573-1577 (2011 Impact factor: 3.628)

Served as Referee for the following journals:

- Journal of Computational and Applied Mathematics
- Thailand Statistician
- Statistics and its Interface
- Computational and Applied Mathematics
- IEEE Transactions on Reliability
- Naval Research Logistics
- Reliability Engineering and System Safety (RESS)
- Communications in Statistics-Simulation and Computation
- Communications in Statistics-Case Studies and Data Analysis
- Journal of Applied Statistics
- Model Assisted Statistics and Applications
- Vidarbha Journal of science
- Pakistan Journal of Statistics
- Journal of Data Science
- Journal of Indian Statistical Association

List of Paper presentations in National /International Conferences/workshops:

(* denotes the name of paper presenting author.)

1. **Kamalja K.K.** (2021) '*Reliability and Reliability Importance measures for circular consecutive systems*' An Invited talk at the Fifth International Webinar on Recent Trends in Statistical Theory and Applications-2021 (WSTA-2021) organized by Indian Society for Probability and Statistics (ISPS), Kerala Statistical Association (KSA) and the Department of Statistics, University of Kerala, Trivandrum during June 29 -July 02, 2021
2. **Koshti R.D.* and Kamalja K.K.** (2020), Efficient estimation of a scale parameter of bivariate Lomax distribution by Ranked Set Sampling, at International Virtual Conference on Prof. CR Rao's School of Thought in Statistical Sciences, organized by Department of Statistics, Pondicherry University & Mrs. A.V.N. College, Visakhapatnam during 21-22 and 28-29th November 2020.
3. **Kamalja K.K.** (2020), On Reliability of Generalized k-out-of-n system, at National Seminar on advances in Statistical Modelling and Inference (NSASMI-2020) organized by the Department of Statistics, Shivaji University, Kolhapur during 14-15 February 2020.
4. **Kamalja K.K.** (2019), A New Algorithm for the Partition of Pearson's Chi-squared Statistic for Multiway Contingency table, at Innovations in Data and Statistical Sciences (INDSTATS 2019) organized by IIT Bombay and International Indian Statistical Association (IISA) during December 27-30, 2019
5. **Kamalja K.K.** (2018) 'Partition of Symmetric and Asymmetric Measures of Association for Multiway Contingency Table', at *National Conference for Women in Statistics and Analytics* Organized by Department of Statistics Savitribai Phule Pune University, Pune during 14-16 February 2018.
6. **Koshti R.D.* and Kamalja K.K.** (2018) Application of Ranked Set Sampling in Parameter Estimation of Cambanis Type Bivariate Uniform Distribution, at *National Conference for Women in Statistics and Analytics* Organized by Department of Statistics Savitribai Phule Pune University, Pune during 14-16 February 2018.

7. **Kamalja K.K.* and Khangar N.V.** (2017) Decompositions in multiway correspondence analysis, *National conference on recent advancements in statistics and their applications to society* organized by Department of Statistics & Centre for Advanced Studies, Savitribai Phule Pune University, Pune during 23-25 March 2017.
8. **Koshti R.D.* and Kamalja K.K.** (2017) Estimation of Scale parameter of Morgenstern type Bivariate Generalized Uniform Distribution by Ranked Set Sampling, *National conference on recent advancements in statistics and their applications to society* organized by Department of Statistics & Centre for Advanced Studies, Savitribai Phule Pune University, Pune during 23-25 March 2017.
9. **Amrutkar K.P.* and Kamalja K.K.** (2017) A Study of reliability importance measures for linear weighted- r -within-consecutive- k -out-of- n : F system, *National Seminar on Recent Advances in Statistics and their applications* organized by Department of Statistics, Sardar Patel University, Anand during 17-18 March 2017.
10. **Khangar N.V.* and Kamalja K.K.** (2017) Various approaches of multiple correspondence analysis and its applications, *National Seminar on Recent Advances in Statistics and their applications* organized by Department of Statistics, Sardar Patel University, Anand during 17-18 March 2017.
11. **Wagh Y.S.* and Kamalja K.K.** (2017), Estimation in zero-inflated generalized Poisson distribution, *National Seminar on Recent Advances in Statistics and their applications* organized by Department of Statistics, Sardar Patel University, Anand during 17-18 March 2017.
12. **Kamalja K.K.* and Amrutkar, K.P.** (2016), Reliability and Reliability Importance of weighted- r -within-consecutive- k -out-of- n : F System at 'International Workshop on Reliability Theory and Survival Analysis' organized by the Department of Statistics, Savitribai Phule Pune University, Pune during 3-5, November 2016.
13. **Kamalja K.K.** (2015), Reliability and Reliability Importance measures for circular consecutive systems, *International Conference on 'Celebrating Statistical Innovation and Impact in a world of Big and small Data'* jointly organized by the Department of Statistics, Savitribai Phule Pune University and International Indian Statistical Association (IISA), at Pune during 20-24 December, 2015.
14. **Amrutkar K.P.* and Kamalja K.K.** (2014), Joint Reliability Importance of Weighted-Consecutive-Systems, *International Conference on Statistics and Information Technology for a Growing Nation* organized by Department of Statistics, Sri Venkateswara University, Tirupati during November 30-December 02, 2014.
15. **Khangar N.V.* and Kamalja K.K.** (2014), Application of Subset Multiple Correspondence Analysis to study the Suicidal behavior of Indians, *International Conference on Statistics and Information Technology for a Growing Nation* organized by Department of Statistics, Sri Venkateswara University, Tirupati during November 30-December 02, 2014.
16. **Kamalja K.K.** (2013), On the distribution of runs in the generalized sequence of multivariate Bernoulli trials and its applications, *International Conference on Recent Advances in Statistics and their Applications*, organized by Department of Statistics, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad at Aurangabad during December 26-28, 2013.

17. **Amrutkar, K.P.* and Kamalja, K.K.** (2013), Reliability and importance measures of weighted- (n, f, k) and $\langle n, f, k \rangle$ systems, *International Conference on Recent Advances in Statistics and their Applications* organized by Department of Statistics, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad at Aurangabad during December 26-28, 2013.
18. **Khangar, N.V.* and Kamalja, K.K.** (2013), Multiple correspondence analysis using multi-dimensional matrices, *International Conference on Recent Advances in Statistics and their Applications* organized by Department of Statistics, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad at Aurangabad during December 26-28, 2013.
19. **Wagh, Y.S.* and Kamalja, K.K.** (2013), Comparison of method of estimation for parameters of generalized Poisson distribution through simulation study, *International Conference on Recent Advances in Statistics and their Applications* organized by Department of Statistics, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad at Aurangabad during December 26-28, 2013.
20. **Amrutkar* K.P. and Kamalja K.K.** (2013), Computational methods for reliability and Importance measures of weighted-consecutive-systems, *International Conference on Statistics, Science and Society: New challenges and Opportunities* organized by International Indian Statistical Association (IISA) during 2-5, January 2013 at Chennai.
21. **Kamalja K.K.** (2013), Reliability Importance Measures for (n, f, k) And $\langle n, k, f \rangle$ System, *International Conference on Statistics, Science and Society: New challenges and Opportunities* organized by International Indian Statistical Association (IISA) during 2-5, January 2013 at Chennai.
22. **Amrutkar* K.P. and Kamalja K.K.** (2012), Reliability and Importance Measures of weighted-k-out-of-n:F system, *International Conference on Optimization Modeling and Applications* organized by Operational Research Society of India, Delhi during November 29-December 01, 2012 at New Delhi
23. **Kamalja K.K.** (2011), On Reliability of Generalized k-out-of-n system and reliability importance for (n, f, k) system, *International Conference on Advances in Probability and Statistics-Theory and Applications*, during 28-31, December 2011, at The Chinese University of Hong Kong (China), SAR
24. **Kamalja K.K. and Amrutkar* K.P.** (2011), An overview of various importance measures of reliability systems, *XXXI Annual Convention of Indian Society for Probability and Statistics (ISPS) and International Conference on Statistics, Probability and Related Areas*, Organized by Department of Statistics Cochin University of Science and Technology Cochin during December 19-22, 2011
25. **Kamalja K.K.* and Shinde R.L.** (2008), On reliability of (n, f, k) and $\langle n, f, k \rangle$ system, *National Conference on 'Statistical Inference and Inferential Aspects of Industrial Statistics'*, during December 16-18, 2008, Department of Statistics, University of Pune, Pune.
26. **Kotwal K.S.* and Shinde R.L.** (2007), Distributions of Statistics based on Runs, Scans and Patterns in Sequences of Markov Dependent Trials, (Ph.D.Thesis presentation in the annual conference of Indian Society for Probability and Statistics held at Tirupati during January 07-09, 2007.)
27. **Shinde, R.L.* and Kotwal, K.S.** (2006), Distributions of patterns in a sequence of Markov dependent bivariate trials, *National conference on 'Statistical Inference' held at University of Pune during January 8-10, 2006.*
28. **Shinde, R.L.* and Kotwal, K.S.** (2005), Joint distributions of runs and patterns in the sequence of Markov dependent multi-state trials and their applications in

reliability of multi-state consecutive-k-out-of-n systems, *International Conference on Reliability and Survival Analysis held at Indian Statistical Institute, Delhi during December 20-22, 2005.*

29. **Kotwal K.S.* and Shinde R.L.** (2005), Joint distributions of runs in a sequence of Markov dependent bivariate trials, *National Conference on Statistics, Computer and Applications held at Amaravati during November 28-30, 2005.*
30. **Shinde, R.L.* and Kotwal, K.S.** (2005), Distributions of scan statistics in a sequence of Markov Bernoulli trials, *International conference held at Tirupati during January 3-4, 2005.*
31. **Shinde R.L. and Kotwal K.S.*** (2003), Distributions of Success Runs in n Markov Bernoulli Trials, *5th International Triennial on 'Probability and Statistics' held at Kolkota during December 28-31, 2003.*
32. **Shinde R.L.* and Kotwal K.S.** (2003), Markov Binomial and Negative Binomial Distributions of order k by the l -overlapping Enumeration Scheme, *Golden Jubilee conference on Recent Developments in Statistics and Probability held at Pune during December 22-24, 2003.*
33. **Kotwal K.S.* and Shinde R.L.** (2003), Sooner and Later Waiting Time Problems in a Sequence of Markov Dependent Trials, *Golden Jubilee conference on Recent Developments in Statistics and Probability held at Pune during December 22-24, 2003.*

Paper presentations in Workshops:

1. **Kotwal K.S. * and Shinde R.L.** (2007), 'Reliability of $(n, f, k):F$ system using joint distribution of runs', *C.V. Raman Memorial Seminar -2007 held at North Maharashtra University Jalgaon on 28th February 2007. (Received the award for Best Paper Presentation.)*
2. **Kotwal K.S.* and Shinde R.L.** (2006), 'Joint distribution of patterns in the sequence of Markov dependent multi-state trials and its applications in reliability of multi-state consecutive-k-out-of-n systems', *C.V. Raman Memorial Seminar - 2006 held at North Maharashtra University Jalgaon on 28th February 2006.*
3. **Kotwal K.S.* and Shinde R.L.** (2004), 'Generalized Markov Binomial and Markov Negative Binomial Distributions of order k by l -overlapping counting scheme', *C.V. Raman Memorial Seminar -2004 held at North Maharashtra University Jalgaon on 28th February 2004. (Received the award for Best Paper Presentation.)*

Conferences attended:

1. National Conference on 'Applied Statistics and Related Working Practices' organized by School of Mathematical Sciences, North Maharashtra University, Jalgaon during January 30-31, 2014
2. National Conference on 'Current Practices in Mathematics, Statistics and Actuarial Science', organized by School of Mathematical Sciences, North Maharashtra University, Jalgaon during March 7-8, 2013. (Worked as Joint Organizing Secretary) Sponsored by UGC.
3. A National conference on 'Industrial Statistics and Computational Mathematics' organized by School of Mathematical Sciences, North Maharashtra University, Jalgaon during 21-23, January 2010 (Member of organizing committee).
4. State Level Conference on 'SQC & ISO 9000', held during 19th to 20th Dec 1998, at Moolji Jaitha College, Jalgaon.
5. National Conference on 'Business Competitiveness and growth through Quantitative methods', Chennai during 6-8 August 1998.

Served as a Resource person for workshops/RC/OC/STC/Seminars with following details:

1. Delivered lectures at Pre-Ph.D. Course Workshop on '*Research Methodology and Research and Publication Ethics*' organized during 01-08, February 2021.
 - 'Measures of central tendency, dispersion, and Association/Relationship' for Arts & Humanities (Except Law), Commerce & Mgt., Interdisciplinary Studies Faculties (on 03 February 2021).
 - 'Testing of Hypothesis' and 'Analysis of Variance' for Science and Technology, Law (Humanities) Library and Information Sciences Faculties (on 03, 04 February 2021).
2. Delivered lectures at *Pre-PhD Course work* organized by UGC-Human Resource Development Center, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad during 02.01.2021 to 15.02.2021.
 - 'Multivariate Analysis' for Statistics students (for Paper II) (on 25 and 27, January 2021)
 - 'Design of Questioners and its qualitative Analysis' for Social Sciences students (on 21 and 22, January 2021)
 - 'Design of Experiments and its Applications' for Sciences students (on 18 and 19, January 2021)
3. Delivered a lecture on 'Environmental Statistics' at '*Refresher Course in Environmental Science/Education*' sponsored by UGC-HRDC, Savitribai Phule Pune University, Pune during 05.01.2021 to 18.01.2021 organized by K.T.H.M. College Nashik (on 13th January 2021)
4. Delivered a lecture at '*World Statistics Day-2020 Celebration*' at Pratibha College, Pune (on 20th October 2020)
5. Delivered lecture on 'Guidelines for students for successful execution of their Statistics Project work' for B.Sc. (Statistics) students at Pratap College Amalner on 10.10.2019.
6. Delivered lectures in two sessions on "Spectral Decomposition Theorem and Singular Value Decomposition (SVD)" and "Introduction to Simple and Multiple Correspondence Analysis" at Refresher Course in Mathematics on 29.08.2019 organized by UGC-HRDC, Savitribai Phule Pune University, Pune during 21.08.2019 to 01.09.2019.
7. Delivered lectures in two sessions on "Regression Analysis" and "Testing of Hypothesis" at Short Term Course in Research Methodology (Science) on 26.06.2019 organized by UGC-HRDC, Babasaheb Ambedkar Marathwada University, Aurangabad during 24.06.2019 to 29.06.2019.
8. Delivered lectures at One-week TEQIP-STTP Workshop on 'Application of Soft Computing Techniques in Research' on 27.02.2019 organized by Department of Civil Engineering, Government College of Engineering, Jalgaon during 25 Feb-01 March 2019.
9. Delivered lectures at National Workshop on 'Data Analysis using Recent Techniques in Statistics with R software' on 26.02.2019 organized by Department of Statistics, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad during 25.02.2019 to 27.02.2019.
10. Engaged 3 sessions (each of 2 hours) at Science Pre-Ph.D. program on 17.07.2018 and 18.07.2018 and 2 sessions at Engineering Pre-Ph.D. program on 19.07.2018 in 6-days Workshop for Pre-Ph.D. students.
11. Delivered lectures in two sessions on 21.12.2018 on 'Statistical Analysis of Data' and 'Testing of Hypothesis' at Short Term Faculty Development Program on Research Methodology organized by HRDC, Savitribai Phule Pune University, Pune During 17.12.2018 to 23.12.2018.
12. Delivered a lecture on 'Data Analysis with Minitab' on 16.12.2017 at A State Level Workshop on '*Statistical Tools in Research and Data Analysis*' organized

- by Pratibha College of Commerce and Computer Studies, Pune during 15-16, December 2017.
13. Delivered two lectures on ‘Statistical Inference using R programming’ and ‘Multivariate Analysis using R programming’ at National Workshop on ‘*Data Analysis using R Programming*’ on 7th March 2017 organized by Department of Statistics, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad during 6-7 March 2017.
 14. Delivered a lecture on ‘Guidelines for students for successful execution of their undergraduate Statistics Project work’ for T.Y. B.Sc. (Statistics) students at M.J. College, Jalgaon on 17.09.2016.
 15. Delivered lectures in 6 sessions (each of 1½ Hour) at Lecture Series organized by BAMU, Aurangabad for M.Sc. (Statistics) students during 19-20, March 2016.
 16. Delivered a lecture on 26th April at ‘Workshop on Statistical Techniques’ organized (in tune of faculty Development for Quality Enhancement under the scheme of college excellence) by M.J. College, Jalgaon during 26-27, April 2016.
 17. Worked as a Judge for evaluation of posters/models under Pure Sciences theme at *Dhule district level Avishakar-2015*, at Shirpur on 22.11.2015.
 18. Worked as Judge for Essay Writing and Group Discussion Competition organized for UG and PG students at ‘Celebration of National Science Day-2016’ with theme “*Make in India: S&T Driven Innovations*” on March 15, 2016.
 19. Delivered lecture at Refresher Course (in Mathematics/Statistics) at Academic Staff College, BAMU, Aurangabad on 7th March 2015.
 20. A lecture is delivered in the Workshop on Mathematics and Statistics at Shanbhag Vidyalaya, Savkheda on 30th July, 2014.
 21. Delivered expert lectures at one-week TEQIP-STTP on ‘Computational and Statistical Techniques applied in Engineering’ during 07-11 July 2014, at Government College of Engineering, Jalgaon.
 22. A lead lecture was delivered at the 5th National conference on “Advances in Microbial Biotechnology and interdisciplinary approaches-2014” (AMBI-2014) organized by M.J. College, Jalgaon during 21-22, February 2014.
 23. Delivered lectures and conducted lab sessions at the National Workshop on “Statistics for Experimental Researchers” during February 14-15, 2014
 24. Conducted lab sessions at the State Level Workshop for College Teachers in Statistics on “Introduction of Statistical Software” and “Modifications required in the Syllabus of B.Sc. (Statistics)” during January 10-11, 2014.
 25. Delivered lectures at the workshop on ‘*Research Methodology*’ (organized as a part of course work for Pre-Ph.D. theory course, Paper-I) organized by North Maharashtra University, Jalgaon during 20.09.2013 to 25.09.2013.
 26. Delivered lectures for various subjects (Computer Science and Applications, Commerce, History/Geography, Environmental Sciences and Life Sciences) at the ‘NET-SET coaching classes’ organized by *NET-SET coaching centre, North Maharashtra University, Jalgaon* during every academic year (2006-2013).
 27. Conducted lab sessions at One-day Training Program for College Teachers of Statistics on ‘*F.Y.B.Sc. (Statistics) Practical using MS Excel*’ organized by Department of Statistics, N.M.U. Jalgaon on 10th February, 2013.
 28. A workshop on ‘*Research Methodology*’ (organized as a part of course work for Pre-Ph.D. theory course, Paper-I) organized by North Maharashtra University, Jalgaon during 20.09.2012 to 24.09.2012.
 29. Delivered a talk on ‘*An Overview of Matlab and Statistical Analysis using it*’ in National Workshop on ‘*Exploratory Statistical Data Analysis using Statistical Software*’ during 22-23, February 2012 organized by Department of Statistics, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.
 30. Worked as resource person for ‘*A workshop on MS-Excel and SYSTAT*’ held at *Moolji Jaitha College, Jalgaon* on 4th January 2010.

Workshops/Seminars attended:

1. 'Workshop for preparation of Draft Syllabi of F.Y.B.Sc. Statistics of North Maharashtra University', held at Mooljee Jaitha College, Jalgaon on 18-02-2002.
2. 'C.V. Raman Memorial Seminar -2005' held at North Maharashtra University Jalgaon on 28th February 2005.
3. A workshop on 'Total Quality Management', 31st October 2007, organized by North Maharashtra University, Jalgaon
4. 'Value education, Gandhian thoughts and use of Gandhian thoughts in interrelating Science, Education and business', 28th January 2008, organized by North Maharashtra University, Jalgaon
5. Workshop on Patent Awareness, Organized by TIFAC, DST (Govt. of India), New Delhi, 4th August 2008 at North Maharashtra University, Jalgaon.
6. Workshop on Conversational English', Organized by Department of Comparative Languages, 22-23 January 2009 at North Maharashtra University, Jalgaon.
7. Workshop on SPSS, Organized by Department of Management Studies, 10-11 February 2009 at North Maharashtra University, Jalgaon.
8. A five-day Workshop on '*Training of SAS software*' conducted by Ultramax Solutions, Pune and organized during 10-14 May 2010 at Department of Statistics, North Maharashtra University, Jalgaon.
9. A Sensitivity-Awareness-Motivation workshop on 'Capacity Building of Women Managers in Higher Education' organized by Women's Study Center, North Maharashtra University, Jalgaon, 19-23 October 2010. (Also worked as member of organizing committee).
10. Workshop on Syllabus framing in Statistics conducted on behalf of North Maharashtra University, Jalgaon, organized by S.P.D.M. Arts, S.B.B. & S.H.D. Commerce and S.M.A. Science College Shirpur on 2nd February 2013.
11. '*International Workshop on Reliability Theory and Survival Analysis*' organized by the Department of Statistics, Savitribai Phule Pune University, Pune during 3-5, November 2016
12. One Day Workshop on '*Indian Patenting & Filing Procedures*' organized by RUSA, Government of Maharashtra, Mumbai in collaboration with RGNIIPM, Nagpur and North Maharashtra University Jalgaon on 23rd August 2016.
13. Attended one day workshop on 'URKUND: Anti-plagiarism software' organized by IQAC and Knowledge Centre, North Maharashtra University on 7th July 2017.
14. Attended Workshop on '*Lilavati: Bhasaksracharya's Treatise*' conducted by Dr. Sudhakar Agarkar, Professor and Dean at VPM's Academy of International Education and Research, Thane organized by School of Mathematical Sciences, North Maharashtra University, Jalgaon
15. A five-day training program on '*Official Statistics*' for Training of Trainers for HODs/Faculties of Department of Statistics of Indian Universities by the National Statistical Systems Training Academy (NSSTA), Greater Noida during September 10-14, 2018.
16. Workshop on 'NAAC Awareness Programme (NAP)' organized by IQAC cell, K.B.C. North Maharashtra University, Jalgaon (sponsored by National Assessment and Accreditation Council, Bangalore) during January 17-18, 2019
17. A one-day workshop on 'SWAYAM: MOOCs and e-content Development' organized by IQAC, K.B.C. North Maharashtra University, Jalgaon on 21.05.2019.
18. Attended 'Train-the-Teacher-Training (TTT) Programme' on the Theme Online Learning: Live Classroom Teaching Platforms organized by Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon (Maharashtra-425 001) during July 20-23, 2020.

Contributed in organization of various activities/events at Department of Statistics, N.M.U. Jalgaon:

1. Summer School on 'Computational Statistics', for S.Y.B.Sc. and T.Y.B.Sc. (Statistics) students during 01-05 June 2004.
2. 'Summer camp for B.Sc. (Statistics) students' during 02-08 June 2005.
3. Celebration of National Science Day-2006 on February 17, 2006.
4. Summer School on 'Actuarial Statistics' for B.Sc. (Statistics) students during 5-7 June 2006.
5. Celebration of National Science Day-2007 on February 24, 2007.
6. Winter workshop on 'Industrial Statistics and Career as a Statistician in Industries' during 12-14 January 2008.
7. One-Day Meeting of Alumni of Department of Statistics during 23-02-2008.
8. Celebration of 'National Science Day-2008' on 25th February 2008.
9. Celebration of National Science Day-2009 on 21st March 2009.
10. Workshop on 'Statistical computing using R-Software' during 29.06.2009-01.07.2009.
11. A National conference on 'Industrial Statistics and Computational Mathematics' during 21-23 January 2010.
12. Workshop on 'Statistical and Economical Aspects on Gender Inequality, Sex Ratio and Related Socioeconomic Issues' on 8th March 2010.
13. A Five-day Workshop on 'Training of SAS software' conducted by Ultramax Solutions, Pune and organized during 10-14 May 2010.
14. University level Research festival 'Avishkar-2011'.
15. National Workshop on 'Official Statistics in National Development' during 17-19 January 2011.
16. University level Research festival 'Avishkar-2012'.
17. A National Conference on 'Mathematical Sciences' on March 5, 2012.
18. Workshop on 'Energy Statistics, Clean Energy Options and Safety Issues' on 13th March 2012.
19. One-day Training Program for College Teachers of Statistics on '*F.Y.B.Sc. (Statistics) Practical using MSEXcel*' organized by Department of Statistics, N.M.U. Jalgaon on 10th February 2013.
20. Worked as Joint Organizing Secretary for the National Conference on 'Current Practices in Mathematics, Statistics and Actuarial Science' during March 7-8, 2013.
21. Conducted Quiz Competition for M.Sc. students at the Celebration of National Statistics Day 2013, on 29th June 2013
22. University level Research festival 'Avishkar-2013' during October 18-19, 2013.
23. University level Research festival 'Avishkar-2013' in December 2013 and State-level Research festival 'Avishkar-2013' organized during 16-18 January 2014.
24. State Level Workshop for College Teachers in Statistics on "Introduction of Statistical Software" and "Modifications Required in the Syllabus of B.Sc. (Statistics)" during January 10-11, 2014.
25. Worked as Convener of the National Conference on "Applied Statistics and Related Working Practices" during January 30-31, 2014.
26. Member of organizing committee at the National Workshop on "Statistics for Experimental Researchers" during February 14-15, 2014
27. Member of organizing committee at University-level Research festival 'Avishkar-2014' in October 2014.
28. Member of organizing committee for celebration of 'National Statistics Day-2015' on 29th June 2015.

29. Celebration of National Science Day-2016 with theme “*Make in India: S&T Driven Innovations*” on March 15, 2016.
30. Member of organizing committee at University-level Research festival ‘Avishkar-2016’ organized in January 2016.
31. Member of organizing committee at ‘Yuvarang-2016’ organized in January 2016 at Faizpur.
32. Worked as member of organizing committee for ‘Workshop on Actuarial Science’ organized by Department of Actuarial Science, NMU Jalgaon during 6-7 Feb 2018.
33. Organized a Webinar on Celebration of National Statistics Day-2021 on 29th June 2021 through two popular lectures.
34. Organized a Webinar on the occasion of Celebration of International Women’s Day 2021 on 8th March 2021.

Served as member of various committees at home/other universities/Institutes:

- Member of Research Advisory Committee for the subject of Statistics at K.B.C. N.M.U., Jalgaon (June 2021)
- Member of Board of Studied Board of Studies in Statistics Ruia College, Mumbai and K.B.C. N.M.U., Jalgaon.
- Exam Coordinator for M.Sc. (Statistics) and B.Sc. (Actuarial Science) from 2011-2017 and Member of Exam Committee.
- Member of committee as subject expert for pre-submission presentation for Ph.D. (Statistics) (5th December 2016, 28th Dec-2016, 12th June 2017)
- Chairman of Ph.D. Viva-voce Committee for Ph.D. Viva-voce of Mr. Y.P. Patil (22nd July 2017)
- Examiner for M.Sc. (Statistics) Project Viva at Department of Statistics, BAMU, Aurangabad at April 2016 examination on 4th May 2016.
- Member of panel of interviewers for ‘Walk in Interviews’ for Statistics at Moolji Jaitha college, Jalgaon on 7th June 2016, 2nd June 2017.
- Member of LIC committee: visit to Pratap College Amalner on 23rd July 2016, P.G. College, Jalgaon on 08.08.2017.
- Member of Expert Committee at M.G. Shikshan Mandal’s Arts, Science & Commerce College, Chopda on 29.11.2017.
- Worked as Observer for UGC NET 2016 exam at Jalgaon on July 10, 2016.
- Worked as Paper setter at PET at MUHS Nasik on 28.03.2016.
- Paper setter at PET at North Maharashtra University, Jalgaon.
- Worked as Observer for JEE 2015, JEE 2017 exam at Government College of Poly-technique Bombay, Kerwadi, Andheri on December 26-27, 2015.

List of Courses Taught at Department of Statistics and Department of Actuarial Science, K.B.C. North Maharashtra University, Jalgaon:

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|---|--|
| • Linear Algebra | • Asymptotic Inference |
| • Distribution Theory | • Design, Planning and Analysis of Experiments |
| • Computer Programming in C | • Optimization Techniques |
| • Computer Programming in C++ and Numerical Methods | • Time series Analysis |
| • Probability Theory | • Stochastic Models |
| • Stochastic Processes | • Linear Models and Regression Analysis |
| • Multivariate Analysis | • Actuarial Statistics |
| | • Applied Statistics |

List of some Project Topics on which M.Sc. students guided for the Project work:

- A Statistical Analysis of Agriculture Production and Global Farming
- Drug Trafficking Analysis in INDIA
- Statistical Analysis of Indian Premier League Data
- Analysis of Water Quality Index during Ganesh Festival and Specific River Basins
- Survival Analysis of Aircraft Engine Data
- Statistical Analysis on Performance of Electronic Weighing Machines
- Analysis of Various Parameters of Rajmah using Split-Plot Design
- A Statistical Study of Various Parameters of Ridge Gourd
- Statistical Analysis of Products and Services in Rohini Industries
- Performance of different Anti-caking agents on the moisture content in onion dehydrated products over a long period of time
- Impact of Daily commuting (Travelling to and fro) on health, family sharing, work efficiency of commuters
- Study and Analysis of suicides in India
- Statistical Analysis of Weather parameters and Yield of Agriculture Commodities in Jalgaon District
- Statistical Analysis of Safflower Disease Intensity in Different Agro Climatic Zones
- Analysis of Commodity Prices and Various Currency Exchange Rates
- Statistical analysis of Disease frequency, Bed availability and number of In-patients served
- Statistical analysis of latest trends and needs of Indian women regarding beauty Fitting of Probabilistic Inventory Model For Raw Materials' Inventory aspects through market research
- Statistical Analysis of Various Characteristics of SUMUL Milk and milk Products at SUMUL (Surat)
- An introductory study of Some Count Data Regression Models
- Analysis of Productivity and forecasting of key crops in some districts of Maharashtra
- Study of different educational Aspects of secondary/higher secondary students
- Study of attendance database and work efficiency of Welders at Mazagaon Dock
- Statistical Analysis of Agriculture (Banana) data
- Process Capability Study for Non-normal data
- Statistical Analysis of Inter-cropping in Banana crop
- Analysis of Bioequivalence and Bioavailability study
- Statistical Analysis of Banking data
- Process Capability Analysis and Applications of Control chart technique
- Development of Matlab code for some statistical tests for implementation in SYSTAT 13.0.

(Dr. (Mrs.) Kirtee Kiran Kamalja)