




# Shivaji College



Title	Prof.	First Name	Kumari	Last Name	Priyanka	Photograph
<b>Designation</b>	Professor					
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<b>Web-Page</b>	<a href="https://sites.google.com/view/kumari-priyanka">https://sites.google.com/view/kumari-priyanka</a>					
<b>Educational Qualifications</b>	M.Sc., M. Phil., Ph. D.					
<b>Degree</b>	<b>University/Institute</b>			<b>Year</b>		
<b>Ph.D.</b>	IIT (ISM), Dhanbad			2009		
<b>M.Phil./M.Tech.</b>	IIT (ISM), Dhanbad			2006		
<b>PG</b>	IIT (ISM), Dhanbad			2005 (Gold Medallist)		
<b>UG</b>	SSLNT Mahila Mahavidalaya, Dhanbad (VBU, Hazaribagh)			2003		
<b>Any Other Qualification</b>	ISM (JRF)			2006		
<b>Career Profile</b>						
<b>Name of Institution</b>		<b>Position held</b>		<b>From</b>	<b>To</b>	
Department of Computer Science, Shaheed Rajguru College of Applied Sciences for Women (University of Delhi)		Lecturer in Mathematics		16.07.2008	07.10.2008	
Department of Mathematics, Shivaji College (University of Delhi)		Assistant Professor		08.10.2008	13.09.2011	
Cluster Innovation Centre, University of Delhi		Assistant Professor (on deputation)		14.09.2011	14.02.2012	
Department of Mathematics, Shivaji College (University of Delhi)		Assistant Professor		15.02.2012	15.07.2020	
		Associate Professor		16.07.2020	15.07.2023	
		Professor		16.07.2023	Continued...	

- 15 years 01 months of teaching experience.

### Administrative Assignments

- Bursar, Shivaji College for 07 consecutive years [January 20, 2015 to January 19, 2022]
- Teacher-in-charge, Department of Mathematics, Shivaji College [2014-2015]

### Areas of Interest/Specialisation

Sampling Theory, Statistical Inference, Sensitive Estimation Theory, Statistical Modelling, Missing Data Analysis

### Subjects Taught

Calculus, Multivariate Calculus, Differential Equation, Probability Theory and Statistics, Mathematics for Life Sciences, Reliability Theory, Numerical Methods, Statistics, Computer Programming

### Research Projects

S. No.	Grant Agency	Title	Reference No.	Duration /Type	Status
1.	U.G.C. New Delhi <b>Scheme:</b> Major Research Project (MRP)	Search of Good Rotation Patterns on Successive Occasions and its Applications	MRP[42-42/2013/SR]	3 Years Major Research Project	Complete
2.	SERB, New Delhi <b>Scheme:</b> Core Research Grant (CRG)	Design and Analysis of Sensitive Characteristics on successive Occasions and its Applications	EMR/2016/000 455	3 Years Major Research Project	Complete
3.	SERB, New Delhi <b>Scheme:</b> Mathematical Research Impact Centric Support(MATRICS)	Development of Tuned Estimation Methodologies for Modelling Non Sampling Errors in Survey Sampling	MTR/2019/000 329	3 Years Major Research Project	Complete

### Publications Profile (Research Papers/Books)

**Research Papers: 44 Research papers are published in International Journals of repute**

1. **Priyanka, K.** and Trisandhya, P. (2023). Calibration Estimator in presence of Measurement Error on Successive Occasions. To appear in International Journal of Mathematics and Statistics.
2. **Priyanka, K.** and Trisandhya, P. (2023). Advances in Estimation by the Item Sum Technique in Two Move Successive Sampling. To appear in Statistics in Transition-new Series, 24 (4).
3. **Priyanka, K.,** Trisandhya, P. and Kumar, A. (2023). Evaluating the effect of measurement error under randomized response techniques of the sensitive variable in successive sampling. Proceedings of the National Academy of Sciences, India Section A: Physical Sciences, DOI: 10.1007/s40010-023-00836-w [August 11, 2023]
4. **Priyanka, K.** (2022). Hybrid Estimators of Population Mean in presence of Non-response and Correlated Measurement Errors. Communications in Statistics - Simulation and Computation, DOI: <https://doi.org/10.1080/03610918.2022.2155310> (Published online December 15, 2022)

5. **Priyanka, K.** (2022). Analyzing the Behavior of General Class of Estimators of Population Mean in Presence of Correlated Measurement Errors. *Communications in Statistics - Theory and Methods*, DOI: 10.1080/03610926.2022.2122842 (Published Online September, 19, 2022)
6. Trisandhya, P., **Priyanka, K.** and Kumar, A. (2022) Application of Item Sum Technique for estimating quantitative sensitive mean on successive moves using auxiliary information. *Communications in Statistics-Simulation and Computation*, 51 (7), 3868-3887, DOI:10.1080/03610918.2020.1722839. [Print ISSN 0361-0918 , Online ISSN 1532-4141 | (12 February 2022)
7. **Priyanka, K.** (2021). Tuning design weights to deal with non-response in successive sampling. *Model Assisted Statistics and Applications*, 16(2), 97 - 108. DOI: 10.3233/MAS-210522 [Print ISSN 1574-1699, Online ISSN 1875-9068 ] (02 July 2021)
8. **Priyanka, K.,** Trisandhya, P. and Kumar, A. (2021). Partial Optional Randomized Response Technique with Calibration Weighting to adjust Non-Response in Successive Sampling. *Communications for Statistical Applications and Methods*, 28, 5, 493-510. [Print ISSN 2287-7843 , eISSN 2383-4757 ] (30 September 2021)
9. Kumar, D. N. and **Priyanka, K.** (2021). COVID-19 Impact on Air Quality of Indian National Capital City Delhi. *Indian Journal of Environmental Sciences*, 25(2), 45-50. [ISSN 0971-8958] (Published Online August 21, 2021)
10. Kumar, D. N. and **Priyanka, K.** (2021). An extensive assessment of ambient air quality in city Delhi: Air quality monitoring, source apportionment and Analysis. *Journal of Indian Association for Environmental Management*, 41(1), 54-67.[e-ISSN 2582 - 4228] (29 April 2021)
11. **Priyanka, K.,** Kumar, A. and Trisandhya, P. (2021) Calibration estimators for quantitative sensitive mean estimation under successive sampling . *Communications in Statistics - Theory and Methods*, 50 (6), 1341-1361. <https://doi.org/10.1080/03610926.2019.1649430> [Print ISSN 0361-0926, Online ISSN 1532-415X, *Mathematical Reviews* 4217713](10 September 2019)
12. **Priyanka, K.** and Trisandhya, P. (2019). Advances in estimation of sensitive issues on successive occasions. *Statistica*, 79(4), 379-398. <https://doi.org/10.6092/issn.1973-2201/8561> [ISSN 1973-2201].(
13. **Priyanka, K.** and Trisandhya, P. (2019). The Item Sum Techniques for Quantitative Sensitive Estimation on Successive Occasions. *Communications for Statistical Applications and Methods*, 26( 2), 1–15. [Print ISSN 2287-7843 , eISSN 2383-4757 ] (31 March 2019)
14. **Priyanka, K.** and Trisandhya, P. (2019). Modelling Sensitive Issues on Successive Waves. *Statistics in Transition –new series*, 20(1), 41–65, DOI 10.21307/stattrans-2019-003. [ISSN 1234-7655, e-ISSN 2450-0291 ] (March)
15. **Priyanka, K.** and Trisandhya, P. (2019). Some classes of estimators for sensitive population mean on successive moves. *Journal of statistical Theory and Practice*,13(1), 9, DOI: 10.1007/s42519-018-0008-5. [Print ISSN 0361-0918 , Online ISSN 1532-4141, *Mathematical Reviews* MR3917084 , *Zentralblatt fur Mathematik* Zbl 1426.62037 | (Published online 26 October, 2018)
16. **Priyanka, K.,** Trisandhya, P. and Mittal, R. (2019). Scrambled Response Techniques in Two Wave Rotation Sampling for Estimating Population Mean of Sensitive Characteristics with Case Study. *Journal of Indian Society of Agricultural Statistics*, 73(1), 41–52. (January)
17. **Priyanka, K.** and Trisandhya, P. (2019). A composite class of estimators using scrambled response mechanism for sensitive population mean successive sampling. *Communications in Statistics- Theory and Methods*, 48(4), 1009–1032, DOI: 10.1080/03610926.2017.1422762. [Print ISSN 0361-0926, Online ISSN 1532-415X, *Mathematical Reviews* MR3950799 ] (Published online 23 January 2018)
18. **Priyanka, K.,** Trisandhya, P. and Mittal, R. (2018). Analysis of Exponential Product type Estimators with Embedded Imputation Techniques on Successive Occasions. *International Journal of Mathematics and Statistics*, 19(1), 19-40. [Print ISSN 0974-7117, Online ISSN 0973-8347, *Mathematical Reviews* MR3747367 ] (January)
19. **Priyanka, K.,**Trisandhya, P. and Mittal, R. (2018). Dealing sensitive characters on successive occasions through a general class of estimators using scrambled response

- techniques. *Metron*, 76(2), 203–230. [Print ISSN 0026-1424 , Online ISSN 2281-695X , Mathematical Reviews MR3828948 , Zentralblatt fur Mathematik Zbl1404.62012] (Published online November 2017)
20. **Priyanka, K.** and Mittal, R. (2017). Multivariate analysis of longitudinal surveys for population median. *Communications for Statistical Applications and Methods*, 24(3), 1-15. [Print ISSN 2287-7843 , eISSN 2383-4757]
  21. **Priyanka, K.** and Mittal, R. (2017). New approaches using exponential type estimator with cost modelling for population mean on successive waves. *Statistics in Transition – new series*, 18(4), 569-587. [Print ISSN 1234-7655, e-ISSN 2450-0291 ]
  22. **Priyanka, K.** and Mittal, R. (2017). A fresh approach for Intercession of Non-Response in Multivariate Longitudinal Designs. *Communication in Statistics -Theory and Methods*, 46(18), 9303-9323. [Print ISSN 0361-0918 , Online ISSN 1532-4141, Mathematical Reviews MR3684570 , Zentralblatt fur Mathematik Zbl 1377.62050 ]
  23. **Priyanka, K.** and Mittal, R. (2017). Cogitation of Incompleteness in the midst of Imputation in Longitudinal Surveys for Population Mean. *Proceedings of the UGC sponsored- National Conference on Recent Statistical Computing Techniques and their Applications*, Department of Statistics, Ramanujan College, University of Delhi 50 -59 (As Special Issue of Engineering and Scientific International Journal).
  24. **Priyanka, K.** and Mittal, R. (2016). Searching Effective Rotation Patterns for Population Median using Exponential Type Estimators in Two-Occasion Rotation Sampling. *Communication in Statistics -Theory and Methods*, 48(18), 5443-5460. [Print ISSN 0361-0918 , Online ISSN 1532-4141, Mathematical Reviews MR3520600 ]
  25. **Priyanka, K.** and Mittal, R. (2016). Longitudinal Analysis of Population Mean on Successive Occasions. *International Journal of Mathematics and Statistics*, 17(2), 47-63 [Print ISSN 0974-7117, Online ISSN 0973-8347, Mathematical Reviews MR3481435 ]
  26. **Priyanka, K.**, Mittal, R., and Min-Kim, J. (2015). Multivariate Rotation Design for Population Mean in sampling on Successive Occasions. *Communications for Statistical Applications and Methods*, 22(5), 445-462. [Print ISSN 2287-7843 , eISSN 2383-4757]
  27. **Priyanka, K.** and Mittal, R. (2015). Estimation of Population Median in Two-Occasion Rotation Sampling. *Journal of Statistics Applications & Probability Letters*, 2(3), 205-219. [Print ISSN 2090-844X , Online ISSN 2090-8458 ]
  28. **Priyanka, K.** and Mittal, R. (2015). A Class of Estimators for Population Median in Two Occasion Rotation Sampling. *Hacettepe Journal of Mathematics and Statistics*, 44(1), 189-202. [e-ISSN 2651-477X, Mathematical Reviews MR3363776 , Zentralblatt fur Mathematik Zbl 1327.62068 ]
  29. **Priyanka, K.** and Mittal, R. (2014). Effective rotation patterns for median estimation in successive Sampling. *Statistics in Transition-new series*, 15(2), 197-220. [Print ISSN 1234-7655, e-ISSN 2450-0291]
  30. Singh, G. N. and **Priyanka, K.**, Prasad, S., Singh, S. and Kim, J. M. (2013). A class of estimators for population variance in two occasions rotation patterns. *Communications for Statistical Applications and Methods*, 20(4), 247-257. [Print ISSN 2287-7843 , eISSN 2383-4757 ]
  31. Singh, G. N., Singh, V. K., **Priyanka, K.**, Prasad, S. and Karna, J. (2012). Rotation patterns under imputation of missing data over two-occasions. *Communications in Statistics-Theory and Methods*, 41(10), 1857-1874. [Print ISSN: 0361-0926, Online ISSN: 1532-415X , Mathematical Reviews MR2913015 ]
  32. Singh, G. N., and **Priyanka, K.** (2010). Use of imputation methods in two-occasion successive sampling. *Journal of Indian Society of Agricultural Statistics*, 64(3), 417 – 432, 2010. [ Mathematical Reviews MR2791583 ]
  33. Singh, G. N. and **Priyanka, K.** (2010). Estimation of population mean at current occasion in presence of several varying auxiliary variates in two-occasion successive sampling. *Statistics in Transition-new series*, 11(1), 105-126. [Print ISSN 0361-0918 , Online ISSN 1532-4141]
  34. Singh, G. N., **Priyanka, K.**, Kim, J. N. and Singh, S. (2010). Estimation of population mean using imputation techniques in sample surveys. *Journal of Korean Statistical Society*, 39(1), 67-74. [Print ISSN 1226-3192, Online ISSN 2005-2863, Mathematical Reviews MR2655812 ]
  35. Singh, G. N. and **Priyanka, K.** (2008). On the use of several auxiliary variates to improve the precision of estimates at current occasion. *Journal of Indian Society of Agricultural*

- Statistics, 62(3), 253 – 265. [Print ISSN 0361-0918 , Online ISSN 1532-4141, Mathematical Reviews MR2509338 ]
36. Singh, G. N. and **Priyanka, K.** (2008) On the use of guess value for the estimation of population median on current occasion in two occasion rotation patterns. Statistics in Transition new series, 9(2), 215 – 232. [ISSN 1234-7655, e-ISSN 2450-0291 ]
37. Singh, G. N. and **Priyanka, K.** (2008) Use of super-population model in search of good rotation patterns on successive occasions. Journal of Statistical Research, 42(1), 127-141. [ Mathematical Reviews MR2571992 ]
38. Singh, G. N., **Priyanka, K.** and Kozak, M. (2008). Use of imputation methods at current occasion in two-occasion rotation patterns. Model Assisted Statistics and Applications, 3(2), 99-112. [Print ISSN 1574-1699, Online ISSN 1875-9068, Mathematical Reviews MR2518791 ]
39. Singh, G. N. and **Priyanka, K.** (2008). Search of good rotation patterns to improve the precision of estimates at current occasion. Communications in Statistics -Theory and Methods, 37(3), 337 – 348. [Print ISSN 0361-0926, Online ISSN 1532-415X , Mathematical Reviews MR2392338 ]
40. Singh, G. N. and **Priyanka, K.** (2007). Estimation of population mean at current occasion in successive sampling under super population model. Model Assisted Statistics and Applications, 2(4), 189-200 ,2007. [Print ISSN 1574-1699, Online ISSN 1875-9068 , Mathematical Reviews MR2418430 ]
41. Singh, G. N. and **Priyanka, K.** (2007). Effect of non-response on current occasion in search of good rotation patterns on successive occasions. Statistics in Transition new series 8(2), 273 - 292. [ISSN 1234-7655, e-ISSN 2450-0291 ]
42. Singh, G. N. and **Priyanka, K.** (2007) On the use of auxiliary information in search of good rotation patterns on successive occasions. Bulletin of Statistics and Economics, 1(A07), 42 – 60. [ISSN 0973-7022, Mathematical Reviews MR2412470 ]
43. Singh, G. N. and **Priyanka, K.**, (2007). One-parameter class of estimators for median estimation in sample surveys. Proceedings of the National Seminar on RAIT-2007, Department of Computer Science, Indian School of Mines, Dhanbad, 286 - 297.
44. Singh, G. N. and **Priyanka, K.** (2006). On the use of Chain-Type Ratio to difference Estimator in Successive Sampling. International Journal of Applied Mathematics and Statistics, 5(S06), 41 – 49. [Print ISSN 0973-1377, Online ISSN 0973-1377, Mathematical Reviews MR2339591 ]

#### Authored Books/ Chapters

1. Single author of a book entitled "**Median Estimation in Successive Sampling**," Lambert Academic Publishing, Mauritius, 2018, ISBN: 978-613-9-91914-7.
2. Authored a chapter entitled "**Analysis of Sampling on Successive Occasions**" in book entitled "Advance Research Trends in Statistics and Data Science" MKSES Publishing (Registered by Department of Higher Education, Ministry of Education, Government of India), Lucknow, India, 2021, ISBN: 978-81-949305-4-9, DOI: <https://doi.org/10.5281/zenodo.4699531>
3. Co-authored "**Handbook of Funding Opportunities for Research and Innovation**" 2021, available at [Handbook of Funding Opportunities for Research and Innovation.pdf](http://Handbook_of_Funding_Opportunities_for_Research_and_Innovation.pdf) ([shivajicollege.ac.in](http://shivajicollege.ac.in))
4. Co-authored a chapter in Laboratory Manual, INSPIRE Science Camp 2015, Shivaji College, December 19-23, 2015 funded by DST, Government of India.

#### Conference/Seminar/Faculty Development Programme/Workshop

#### Conferences/Seminars attended



1. Participated in webinar entitled "Attracting grants and funds for research " held on September 14, 2021 organized by WILEY.
2. Participated in International Conference on Emerging trends in Statistics and Data Science in conjunction with 40th Annual Convention of ISPS to be held during 07-10, September, 2021 and presented a paper entitled "Item Sum Technique Aided with Calibration Technique to Estimate Sensitive Population Mean in Successive Sampling".
3. Participated in webinar entitled "Mastering the craft of academic writing: a systematic approach " held on August 31, 2021 organized by WILEY.
4. Participated in National Webinar entitled "Recent Trends in Statistical Research" held on August 27, 2021 organized by Janki Devi Memorial College (University of Delhi), New Delhi.
5. Participated in webinar entitled "Conquering the intricacies of citations and references " held on August 24, 2021 organized by WILEY.
6. Participated in webinar entitled "Presenting numbers and quantities with precision and style" held on August 17, 2021 organized by WILEY.
7. Participated in One Day National Webinar entitled "Promotion Avenues for Teachers in Higher Education: CAS Regulation-2018" held on September 5, 2020 organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) of MHRD, Govt. of India.
8. Participated in the National Webinar on "Tourism in Space: A Mathematical Overview" held on September 03, 2020 organized by Department of applied Sciences, Galgotias College of Engineering and Technology, Greater Noida, India.
9. Participated in International Webinar on "The Role of Mathematics in Present Global Crises" held from 5<sup>th</sup> – 7<sup>th</sup> August, 2020 organized by Department of Applied Mathematics with Oceanology and Computer Programming, Vidyasagar University, Midnapore, West Bengal, India.
10. Participated in International Webinar on "Environment Gender and Climate Change" held on July 28, 2020 organized by Department of Botany, Shivaji College (University of Delhi), New Delhi 110027.
11. Participated in Eighth International Conference on Agricultural Statistics, held on November 18-21, 2019 hosted by Ministry of Agriculture and Farmers Welfare, Government of India at New Delhi, India. Presented a poster entitled "Analytical and Computational Approach for Estimation of Sensitive Population mean in successive sampling ".
12. Participated in National Conference on Advances in Mathematical Analysis and Its Applications(NCAMMA-2019) , held on November 8-10, 2019 organized by Department of Mathematics, P.G.D.A.V. College(University of Delhi), New Delhi, India.
13. Participated in UGC Sponsored two Days National Conference on Emerging Trends in Statistics and Data Sciences(ETSDS-2019), held on September 6-7, 2019 organized by Department of Statistics, Ramanujan College(University of Delhi), Kalkaji, New Delhi, India. Presented a paper entitled "Item Sum Techniques for Quantitative Sensitive Estimation on Successive Occasions".
14. Participated in Mini Symposium in Mathematics, held on February 22-23, 2019 organized by Department of Mathematics, Deen Dayal Upadhyaya College(University of Delhi).
15. Participated in International conference on Recent Developments in Theory, Computation and Application of Differential Equation to celebrate the 70th birthday of Prof. M.K.

Kadalbajoo, held on January 21-23, 2019 organized by Department of Mathematics, SAU, New Delhi.

16. Participated in International Conference on Mathematical Modelling and Computations, held on December 01-02, 2018 organized by Department of Mathematics, SAU, New Delhi. Presented a paper entitled "Mathematical Modelling of Sensitive Issues on Successive Occasions".
17. Participated in The 33rd Annual Conference of The Ramanujan Mathematical Society, held on 01.06.2018 to 03.06.2018 organized by Department of Mathematics, University of Delhi, New Delhi.
18. Participated in International Conference on Mathematics and Applications, held on 26.04.2017 to 28.04.2017 organized by Ramjas College (University of Delhi), New Delhi.
19. Participated in National Conference on Recent Development in Mathematics, held on 12-13, Jan, 2017 at Kalindi College, New Delhi.
20. Participated in International Conference on Applicable Analysis, held on 8.02.2017 to 11.02.2017 organized by Saheed Bhagat Singh College, New Delhi.
21. Participated in The National Conference on Recent Statistical Computing Techniques and their Applications, 11-12 March, 2016, held at Department of Statistics, Ramanujan College, (University of Delhi), Kalkaji, New Delhi-110019.
22. Participated in The Legacy of Srinivasa Ramanujan, 17-22, December, 2012, held at University of Delhi, Delhi-110007.
23. Participated in National Meet on History of Mathematical Sciences, Jan. 7 – Jan. 9, 2010, held at Department of Mathematics, University of Delhi, Delhi-110007.
24. Participated in 61st Annual Conference of the Indian Society of Agricultural Statistics, November 30 to December 02, 2007 being held at Birsa Agricultural University, Ranchi. Presented a paper entitled "Use of auxiliary variate to improve the precision of estimates at current occasion in two occasion rotation patterns".
25. Participated in National seminar on recent advances in theoretical and applied seismology, March 21- 22, 2007 held in ISM. Presented a paper entitled "Effect of non-response on current occasion in search of good rotation patterns on successive occasions".
26. Participated in National Seminar on recent advances on information technology (RAIT, 2007), February 26-27, held in ISM. Presented a paper entitled "One-parameter class of estimators for median estimation in sample surveys".
27. Participated in National seminar on recent advances in theoretical and applied seismology, March 20- 21, 2006 held in ISM. Presented a paper entitled "On the use of chain type ratio to difference estimator in search of good rotation pattern".
28. Participated in SAP seminar on recent advances in theoretical and applied seismology, March 3-4, 2005 held in ISM. Presented a paper entitled "A linear transformation on auxiliary variable for estimating the population mean in sample surveys".

**Orientation/Refresher /Faculty Development Programme attended**

1. Participated in Orientation Programme, OR – 65, from Jan. 10 – Feb. 7, 2011, held at CPDHE, University of Delhi, Delhi-110007.
2. Participated in Refresher Course in Mathematics, Operational Research and Computer Science, from Dec. 12, 2011 – Dec. 31, 2011, held at CPDHE, University of Delhi, Delhi-110007.
3. Participated in Science Academies' Lecture Workshop on Theory of Equations, held in Shivaji College during 16-17, October, 2014.

4. Participated in Refresher Course in Mathematical Sciences, held from 30th August to 19th September, 2016 at CPDHE, University of Delhi, Delhi-110007.
5. Participated in Faculty development Program in Biostatistics: Theoretical and Practical aspects, from 14th March-18th March, 2018 held in DeenDayalUpadhyaya College(University of Delhi), Sector-3, Dwarka, New Delhi-110078.
6. Participated in Faculty development program cum workshop on Climate Across the Curriculum: Resources for Integrating Climate Topics in Discipline-Specific Teaching, held on October 13-14, 2018 organized by Sri Venkateswara College (University of Delhi) in collaboration with TROPICSU, a climate education project funded by the International Council of Science and IISER, Pune, India.
7. Participated in Faculty development Program on Network Science:Foundation of Social Network Analysis conducted by the Teaching Learning Centre, from 3rd December-08th December, 2018 held in Ramanujan College(University of Delhi), Delhi-110007.
8. Participated in Faculty development Program on Biomathematics held on August 1-7, 2019 organized by Shivaji College (University of Delhi) in collaboration with Mahatma Hansraj Faculty Development center (MHRFDC), Hansraj College under the scheme Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT).
9. Participated in Faculty development Program on "Recent Trends in Research Methodology, E-content, Mathematical and Statistical Methods in Open Education World" held on December 17-23, 2019 organized by Kalindi College (University of Delhi) in collaboration with Mahatma Hansraj Faculty Development center (MHRFDC), Hansraj College under the scheme Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT).
10. Group Monitoring workshop for Science and Engineering Research Board (SERB) sponsored projects held on 20<sup>th</sup> August, 2019 at IISc Bangalore, India.
11. Participated in Faculty development Program on "Open Source Tools for Research" held from June 08- June 14, 2020 organized by Teaching Learning Centre, Ramanujan College (University of Delhi) sponsored by MHRD, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT).
12. Participated in "Two Day National Workshop on Getting Aligned to the Publishing Process"- Author Workshop organized by Research Academy, Elsevier on September 25, 2020 and September 28, 2020.

#### Research Guidance

- Supervised Doctoral Thesis of Research Scholar, Richa Mittal who have been awarded Ph. D degree from University of Delhi in Mathematics, thesis entitled "SEARCH OF EFFICIENT ROTATION PATTERNS AND THEIR APPLICATIONS." (December 21, 2017)
- Supervised Doctoral Thesis of Research Scholar, Ms Pidugu Trisandhya who have been awarded Ph. D degree from University of Delhi in Mathematics, thesis entitled "DESIGN AND ANALYSIS OF SENSITIVE CHARACTERISTICS ON SUCCESSIVE OCCASIONS AND ITS APPLICATIONS". [February 22, 2022]
- Supervised the summer research internship of Ms Somya Jain, B. Sc. (H) Mathematics, SRM University, Delhi-NCR, Sonipat from 7 July 2023 to 9 August 2023.



### Awards and Distinctions

- Recipient of "**International Innovative Women Scientist Award 2021 in Mathematical Sciences**" by Center for Professional Advancement, West Midlands, United Kingdom lionised on the eve of International Women's Day 2021
- Recipient of "**College Lecturer Award**" for the session 2018-2019 by Government of NCT of Delhi.
- **Gold Medallist** in M. Sc. from ISM, Dhanbad
- First Class First with Distinction in M. Phil. from ISM, Dhanbad
- Certificate from Mathematical Society of S.S.L. N. MahilaMahavidlaya Trust, Dhanbad for getting first position in Mathematics (Hons.) in B. Sc. (Hons.)
- B-Level certificate from D.A.M.T. National Mathematics Olympiad contest (1999)
- **Introducer of "Mrs Savita Mishra Memorial Award"** : To motivate girls students towards Mathematics, I have introduced an award entitled "**Mrs Savita Mishra Memorial Award**" given to a girl student of B. Sc.(H) Mathematics every year who secure highest aggregate marks in B. Sc. (H) Mathematics at Shivaji College. The award has been constituted in the memory of my beloved mother "Late Mrs Savita Mishra", which comprises of a fellowship of ₹5,100/- and a certificate of appreciation.

### Memberships

1. Fellow of Royal Statistical Society, London, U.K.
2. Life member of Indian Society of Agricultural Statistics, New Delhi
3. Life member of Indian Statistical Association
4. Life member of the Indian Science Congress Association (Membership No: L34941)
5. Life member of the Indian Society of Industrial and Applied Mathematics (Membership No. : P-57)
6. Life Member of Society of Applied Mathematics (Membership No. 1357)
7. Life Member of The Indian Society for Probability and Statistics (Membership No. LM/2018/33/1251)

## Other Academic Activities

### Invited Talks Delivered entitled

- **"Mathematical Modelling of an Epidemic"** on 17/07/2021 in Lecture organized by Jawahar Navodaya Vidyalaya, Faridkot, Punjab under Department of Science and Technology , Government of India's Vigyan Jyoti Scheme, Phase-II.
- **"An Introduction to Biostatistics"** on 10/07/2021 in Webinar organized by Department of Biochemistry, Shivaji College (University of Delhi) under the aegis of DBT sponsored Star College Scheme.
- **"Statistical Modelling of Dynamic Sensitive Issues"** on 16/01/2021 in Online two-day International Conference entitled Advancement in Mathematical Sciences and its Applications held on 16-17 January, 2021 organized by Ram Krishna College, Madhubani, Bihar.
- **"The basic of Biostatistics"** on 13/01/2021 for students of Biochemistry under DBT sponsored Star College Scheme at Shivaji College.
- **"Overview of basic Statistical Methods"** on 05/03/2020 in ICAR sponsored Winter School on "Recent Advances in Econometric Modeling and Forecasting in Agriculture" from March 4- 24, 2020 at ICAR-IASRI, New Delhi.
- **"Statistical Modelling of Sensitive Issues on Successive Waves "** on 26.12.2019 in Center of Advanced Faculty Training (CAFT) program on "Statistical and Machine Learning Techniques for Modelling and Forecasting Agricultural Data" under the aegis of Education Division, ICAR, New Delhi during 20th December 2019 to 9th January 2020 at ICAR-IASRI , New Delhi.
- **"MATLAB in Complex Analysis"** in Advanced Training School in Mathematics Lectures in Complex Analysis with Modern Perspectives held at Department of Mathematics, University of Delhi from 16th March – 4th April, 2009.
- ***Reviewer of following peer reviewed international journals***
  - Sankhya B
  - Mathematical Reviews, American Mathematical Society, USA
  - Communications in Statistics (Theory and Methods)
  - Hacettepe Journal of Mathematics and Statistics
  - Statistics in Transition–New Series
  - Journal of Applied Statistics
  - Journal of Modern Applied Statistical Methods
  - Journal of Reliability & Statistical Studies
  - Cogent Mathematics
  - Statistics: A Journal of Theoretical and Applied Statistics
  - Journal of Statistics Applications & Probability
  - Journal of Statistical Theory and Practice
  - Mathematical Population Studies: An International Journal of Mathematical Demography
  - Australian and New Zealand Journal of Statistics

- Communications in Statistics (Simulation and Computation)
- Communications for Statistical Applications and Methods
- Proceedings of National Academy of Sciences
- Journal of Taibah University for Science
- Journal of Mathematics
  
- **Reviewer of Books for Pearson Education Pvt. Ltd., New Delhi, India.**
  
- **Research Collaboration with**
  1. Prof. Sarjinder Singh, **Department of Mathematics**,  
Texas A & M University –Kingsville, TX 78363, U. S. A.
  2. Prof. J. Min-Kim, **Statistics, Division of Science and Mathematics**,  
University of Minnesota-Morris, Morris, MN 56267, USA
  3. Prof. M. Kozak, **Department of Biometry and Bioinformatics**,  
Warsaw University of Life Sciences, Nowoursynowska, 15, 02-776, Warsaw, Poland
  4. Prof. C.N. Bouza, **Facultad de Matemática y Computación**, Universidad de La Habana. San Lázaro y L. CP 10400, Habana, Cuba
  5. Prof. V. K. Singh, **Department of Statistics**, Banaras Hindu University, Varanasi, India.
  6. Prof. G. N. Singh, **Department of Applied Mathematics**, IIT(ISM), Dhanbad, India.
  7. Prof. Ajay Kumar, **Department of Mathematics**, University of Delhi, Delhi-110007, India.
  8. Dr Richa Mittal, **Department of Mathematics**, NIT Calicut, Kerala, India.
  9. Dr Pidigu Trisandhya, **Department of Applied Science's**, Bharati Vidyapeeth's College of Engineering, New Delhi- 110 063, India
  
- **Hottest Article/Popular Article**

My one research paper entitled “Estimation of population mean using imputation techniques in sample surveys. **Journal of Korean Statistical Society**, Vol. 39, No. 1, 67-74 is among **“TOP 25 HOTTEST ARTICLE”** in 2010.

  - Subject Expert of UDAAN project, C. B. S. E., MHRD, Govt. of India
  - Reviewed two sample chapters of a book on Differential Calculus for **Pearson Educations Pvt. Ltd.**, New Delhi.
  - Recorded 26 video lectures for students that are available on YouTube. The same is also available at <https://sites.google.com/view/kumari-priyanka/students-corner>

- **ORCID id:** <https://orcid.org/0000-0002-6241-1708>
- **Computer aided software's known:** LATEX, MATLAB, Mathematica, Statistica, R
- Expert to examine Ph. D. synopsis of **Banasthali Vidyapith, Rajasthan, India**
- Acted as judge for CBSE regional **Science Exhibition** held on 15-16, December 2022 at ITL Public School, Sector 9, Dwarka, New Delhi 110075
- Acted as Chief Guest in "INNOVITA"- Mathematics Fair held on December 22, 2022 organized by ITL Public School, Sector 9, Dwarka, New Delhi 110075 on the occasion of "**National Mathematics Day**".
- **Responsibilities as Convener, College Research & Innovation Cell**

As convener of the cell, I have introduced the **Intramural Research Scheme** in the college, in which there is a provision to sponsor Minor Research Projects to teachers and students of Shivaji College with the aim to incline our students towards research and innovation. Till date 19 projects has been sanctioned benefiting 110 students and 36 teachers.

#### **Cultural/Extracurricular Activities**

##### **Conference/Seminar/ Workshop Organised as Convener:**

1. One -day workshop entitled "**Strengthening Research Skills**" on 10.11.2022 at Shivaji College (University of Delhi), New Delhi 110027.
2. Invited talk entitled "**Understanding Research and Publication Ethics**" on 13.04.2022 at Shivaji College (University of Delhi), New Delhi 110027.
3. National Level webinar entitled "**Art of Academic Writing: A systematic approach**" on 04.09.2021 at Shivaji College (University of Delhi), New Delhi 110027.
4. One day National Level workshop on "**Various aspects of research funding, academic writing and publication ethics**" on 30.01.2021 at Shivaji College (University of Delhi), New Delhi- 110027.
5. National Webinar-I entitled "**Impact Centric Research: Funding Opportunities and Challenges in Framing Successful Research Proposal**" on 11.07.2020 at Shivaji College(University of Delhi), New Delhi-110027
6. Seminar entitled "**Mathematics: Historic and Current Perspectives**" held on 10<sup>th</sup> November, 2017 at Shivaji College (University of Delhi), New Delhi-110027.

**Currently serving as a convener/member of following committees:**

1. Convener, Research and Innovation Cell, Shivaji College
2. Member, NAAC committee (Criterion 2), Shivaji College.
3. Member, Advisory Committee for M. Phil. student Ms Sanchita Sen registered with Department of Mathematics, University of Delhi
4. Member, Disaster Management Committee, ITL Public School, Sector-9, Dwarka.
5. Member, Parent Teacher Association (PTA), ITL Public School, Sector-9, Dwarka.

**Served as Convener/Member of following committees:**

1. NCC In-charge (Girls Wing) Shivaji College
2. Member, Internal Quality Assurance Cell (IQAC), Shivaji College
3. Member, NAAC committee, Shivaji College
4. Member, Building Committee, Shivaji College
5. Member, Purchase Committee, Shivaji College
6. Member, Development Committee, Shivaji College
7. Member, Fee Concession Committee, Shivaji College
8. Member, Provident Fund Committee, Shivaji College
9. Member, E-procurement Committee, Shivaji College
10. Member, Technical Committee for purchasing software for Admission and Internal Assessment, Shivaji College
11. Member, Sports Ground Development Committee, Shivaji College
12. Member, Committee for conduct of exam for NTS-Recruitment and Promotions, Shivaji College
13. Resource person in 3<sup>rd</sup> INSPIRE INTERNSHIP SCIENCE CAMP sponsored by Department of Science and Technology (DST) from July 16-20, 2018 organised at Shivaji College.
14. Resource person in 2<sup>nd</sup> INSPIRE INTERNSHIP SCIENCE CAMP sponsored by Department of Science and Technology (DST) from December 14-18, 2016 organised at Shivaji College.
15. Resource person in 1<sup>st</sup> INSPIRE INTERNSHIP SCIENCE CAMP sponsored by Department of Science and Technology (DST) from December 19-23, 2015 organised at Shivaji College
16. Member, Student Advisory Committee, Shivaji College
17. Convener, Physical Verification of Assets Committee for College Accounts and Administration, Shivaji College
18. Member, Magazine Committee, Shivaji College
19. Convener, Project Purchase Committee, SERB sponsored MRP No. [EMR(2016)/000455
20. Convener, Project Purchase Committee, UGC sponsored MRP No. [42-42(2013)/SR]
21. Member, Fact Finding Committee, Shivaji College



22. Member, Screening Committee to screen the applications for the post of Vice Principal, Shivaji College
23. Member, Committee to write off some audit paras, Shivaji College
24. Convener, Evaluation and Review Committee, Cluster Innovation Centre, Delhi University
25. Member, Academic, Purchase Committee, Engineering Kitchen and Computer facilities Committee, Cluster Innovation Centre, Delhi University
26. Member, Board for organizing the entrance test and interview for admission in B. Tech./B.S. Innovation with Mathematics and IT at Cluster Innovation Centre, University of Delhi.
27. Member, Selection committee for appointment of teacher on Adhoc-basic in Mathematics, Bhagini Nivedita College (University of Delhi)

*Kumari Prizanke*

**Date:** 14.08.2023

**Signature of Faculty Member**