

# Shivaji College Faculty Details Proforma



Title		First Name		Last Name			Photograph
-	Dr.		Kumari		Priyanka		-
Dissig	nation	Assistant Pro	fessor			10	
Addres	s						
		Department o	of Mathemati	cs			
		University of	ge 2f Delhi)			-1	1
		New Delhi-11	.0027				100
		India					
Officel	Phone No.	011 2511664	4			1	
Reside	nce	9968619556				100	
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		priyanka.ism	@gmail.com				
Email		Under constr	uction				
Web-Pa	age	onuci consu	uction				
Educat	tional	M.Sc., M. Phi	il., Ph.D.				
Degree			Universi	itv/Institut	e		Year
8					•		
Ph.D.			IIT (ISM	I), Dhanbad			2009
M.Phil	./M.Tech.		IIT (ISM	I), Dhanbad			2006
PG			IIT (ISN	I), Dhanbad			2005 (Gold Medalist)
UG			VBU, I	Hazaribagh			2003
Qualifi	cation		ISI	M (JRF)			2006
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## **Career Profile**

• 10 years of teaching experience.

Name of Institution	<b>Position held</b>	From	То	<b>Total Period</b>
Department of	Teaching	15.05.2006	28.05.2008	2 Years
School of Mines				13 Days
Department of Computer Science, Shaheed Rajguru College of Applied Sciences for Women (University of Delhi)	Lecturer in Mathematics	16.07.2008	07.10.2008	2 Months 23 Days
Department of Mathematics, Shivaji College (University of Delhi)	Assistant Professor	08.10.2008	13.09.2011	2Years 11Months 7 Days
Cluster Innovation Centre, University of Delhi	Assistant Professor (on deputation)	14.09.2011	14.02.2012	5 Months 1 Day
Department of Mathematics, Shivaji College (University of Delhi)	Assistant Professor	15.02.2012	Continued	

#### Administrative Assignments

Bursar, Shivaji College since January, 2015

#### Areas of Interest/Specialisation

Sampling Theory, Statistical Inference, Sensitive Estimation theory, Randomised Response Theory

#### Subjects Taught

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

Innovation Project/Research Projects (Major Grants/Research Collaboration)

- Completed one UGC sponsored Major Research Project entitled "Search of Good Rotation Patterns on Successive Occasions and its Applications" [No. 42-42(2013)/SR]
- Working on SERB sponsored Major Research Project entitled "Design and Analysis of Sensitive Characteristics on successive Occasions and its Applications" [No. EMR(2016)/000455]

# Publications Profile (*Research Papers/Books*)

• Published 26 research papers in peer reviewed international journals of repute and 2 research papers in national journal/proceedings.

a) In	ternational Journ	als				
S. No ·	Author(s)	Title	Name of Journal	Volume	Page	Year
1.	<b>Priyanka, K.</b> andTrisandhya, P,	A composite class of estimators using scrambled response mechanism for sensitive population mean successive sampling.	Communicati ons in Statistics- Theory and Methods	DOI: 10.108 0/0361 0926.2 017.14 22762.		2018
2.	<b>Priyanka, K.</b> ,Trisandhya, P, and Mittal, R.	Analysis of Exponential Product type Estimators with Embedded Imputation Techniques on Successive Occasions.	International Journal of Mathematics and Statistics,	19(1)	19- 40	2017
3.	<b>Priyanka, K.</b> ,Trisandhya, P, and Mittal, R.	Dealing sensitive characters on successive occasions through a general class of estimators using scrambled response techniques.	Metron	DOI: 10.100 7/s403 00- 017- 0131-1		2017
4.	<b>Priyanka, K.</b> and Mittal, R.	Multivariate analysis of longitudinal surveys for population median.	Communicati ons for Statistical Applications and Methods	24(3)	1-15	2017
5.	<b>Priyanka, K.</b> and Mittal, R.	New approaches using exponential type estimator with cost modelling for population mean on successive waves.	Statistics in Transition – new series	18(4)	569- 587	2017
6.	<b>Priyanka, K.</b> and Mittal, R.	A fresh approach for Intercession of Non- Response in Multivariate Longitudinal Designs.	Communicati on in Statistics (Theory and Methods)	46(18), 9303- 9323.	930 3- 932 3	2017
7.	<b>Priyanka, K.</b> and Mittal, R.	Searching Effective Rotation Patterns for Population Median using Exponential Type Estimators in Two- Occasion Rotation Sampling.	Communicati on in Statistics (Theory and Methods)	DOI: 10.108 0/ 036109 26.201 4.9446 61.	-	2016

8.	<b>Priyanka, K.</b> and Mittal, R.	Longitudinal Analysis of Population Mean on Successive Occasions.	International Journal of Mathematics and Statistics	17(2)	47- 63	2016
9.	<b>Priyanka, K.</b> , Mittal, R., and Min-Kim, J.	Multivariate Rotation Design for Population Mean in sampling on Successive Occasions.	Communicati ons for Statistical Applications and Methods	22(5)	445- 462	2015
10.	<b>Priyanka, K.</b> and Mittal, R.	Estimation of Population Median in Two-Occasion Rotation Sampling.	Journal of Statistics Applications & Probability Letters	2(3)	205- 219	2015
11.	<b>Priyanka, K.</b> and Mittal, R.	A Class of Estimators for Population Median in Two Occasion Rotation Sampling.	Hacettepe Journal of Mathematics and Statistics	44(1)	189- 202	2015
12.	<b>Priyanka, K.</b> and Mittal, R.	Effective rotation patterns for median estimation in successive Sampling.	Statistics in Transition- new series	15(2)	197- 220	2014
13.	Singh, G. N. and <b>Priyanka</b> , Prasad, S., Singh, S. and Kim, J. M.	One parameter class of estimators for estimating the population variance in two occasions rotation patterns.	Communicati ons for Statistical Applications and Methods	20(4)	247- 257.	2013
14.	Singh, G. N., Singh, V. K., <b>Priyanka</b> , Prasad, S. and Karna, J	Rotation patterns under imputation of missing data over two-occasions.	Communicati ons in Statistics (Theory and Methods)	41(10)	1857- 1874	2012
15.	Singh, G. N., and <b>Priyanka</b>	Use of imputation methods in two- occasion successive sampling.	Journal of Indian Society of Agricultural Statistics	64(3)	417 – 432	2010
16.	Singh, G. N. and <b>Priyanka</b> , <b>K.</b>	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	2010
17.	Singh, G. N., <b>Priyanka, K.</b> , Kim, J. N. and Singh, S.	Estimation of population mean using imputation techniques in sample surveys.	Journal of Korean Statistical Society	39(1)	67-74	2010
18.	Singh, G. N. and <b>Priyanka,</b> <b>K.</b>	On the use of several auxiliary variates to improve	Journal of Indian Society of	62(3)	253 – 265	2008

		the precision of estimates at current occasion.	Agricultural Statistics			
<ul><li>19.</li><li>20.</li></ul>	Singh, G. N. and <b>Priyanka,</b> <b>K.</b> Singh, G. N. and <b>Priyanka,</b> <b>K.</b>	On the use of guess value for the estimation of population median on current occasion in two occasion rotation patterns. Use of super- population model in search of good rotation patterns on successive occasions.	Statistics in Transition new series Journal of Statistical Research	9(2) 42(1)	215 – 232 127- 141	2008
21.	Singh, G. N., <b>Priyanka, K.</b> and Kozak, M.	Use of imputation methods atcurrent occasion in two- occasion rotation patterns.	Model Assisted Statistics and Applications	3(2)	99-112	2008
22.	Singh, G. N. and <b>Priyanka,</b> <b>K.</b>	Search of good rotation patterns to improve the precision of estimates at current occasion.	Communicati ons in Statistics (Theory and Methods)	37(3)	337 – 348	2008
23.	Singh, G. N. and <b>Priyanka,</b> <b>K.</b>	Estimation of population mean at currentoccasion in successive sampling under super population model.	Model Assisted Statistics and Applications	2(4)	189- 200	2007
24.	Singh, G. N. and <b>Priyanka,</b> <b>K.</b>	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	2007
25.	Singh, G. N. and <b>Priyanka,</b> <b>K.</b>	On the use of auxiliary information in search of good rotation patterns on successive occasions.	Bulletin of Statistics and Economics	1(A07)	42 - 60	2007
26.	Singh, G. N. and <b>Priyanka,</b> <b>K.</b>	On the use of Chain-Type Ratio to difference Estimator in Successive Sampling.	International Journal of Applied Mathematics and Statistics	5(S06)	41 – 49	2006

S. No	Authors	Title	Conference	Organizing Institute	Page No.	Year
1.	<b>Priyanka,</b> <b>K.</b> and Mittal, R.	Cogitation of Incompleteness in the midst of Imputation in Longitudinal Surveys for Population Mean.	Proceedings of the National Conference on Recent Statistical Computing Techniques and their Applications	Department of Statistics, Ramanujan College, University of Delhi	In Proc ess	2016
2.	Singh, G. N. and <b>Priyanka,</b> <b>K.</b>	One-parameter class of estimators for median estimation in sample surveys.	Proceedings of the National Seminar on RAIT-2007	Department of Computer Science, Indan School of Mines, Dhanbad.	286 - 297	2007

## b) National Journal/Proceedings

- Participated in Orientation Programme, OR 65, from Jan. 10 Feb. 7, 2011, held at CPDHE, University of Delhi, Delhi-110007.
- 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.
- Participated in Science Academies' Lecture Workshop on Theory of Equations, held in Shivaji College during 16-17, October, 2014.
- Participated in Refresher Course in Mathematical Sciences, held from 30th August to 19th September, 2016 at CPDHE, University of Delhi, Delhi-110007.
- Participated in Faculty development Program in Biostatistics: Theoretical and Practical aspects, from 14<sup>th</sup> March-18<sup>th</sup> March, 2018 held in Deen Dayal Upadhyaya College(University of Delhi), Sector-3, Dwarka, New Delhi-110078.
- Convener of a seminar entitled "Mathematics: Historic and Current Perspectives" held on 10<sup>th</sup> November, 2017 at Shivaji College (University of Delhi), New Delhi-110027.
- I have attended the following Conferences/ Seminars:
  - 1. 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".
  - 2. 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".

- 3. 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".
- 4. 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".
- 5. 61<sup>st</sup> 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".
- 6. National Meet on History of Mathematical Sciences, Jan. 7 Jan. 9, 2010, held at Department of Mathematics, University of Delhi, Delhi-110007.
- 7. The Legacy of Srinivasa Ramanujan, 17-22, December, 2012, held at University of Delhi, Delhi-110007.
- 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), Kakaji, New Delhi-110019.
- 9. International Conference on Applicable Analysis, held on 8.02.2017 to 11.02.2017 organised by Saheed Bhagat Singh College, New Delhi.
- 10. National Conference on Recent Development in Mathematics, held on 12-13, Jan, 2017 at Kalandi College, New Delhi.
- 11. International Conference on Mathematics and Applications, held on 26.04.2017 to 28.04.2017 organized by Ramjas College (University of Delhi), New Delhi.

#### Research Guidance (Supervision of Doctoral Thesis/Dissertations)

- 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."
- Supervising the research work of a Research Scholar Ms Pidugu Trisandhya working in Shivaji College as project fellow.

# Awards and Distinctions

- Gold Medalist 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. Mahila Mahavidlaya 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)

#### Memberships

- Life member of Indian Society of Agricultural Statistics, New Delhi
- Life member of the Indian Science Congress Association (Membership No: L34941)
- Life member of the Indian Society of Industrial and Applied Mathematics (Membership No. : P-57)

#### Other Academic Activities

- Associate Editor of the "Journal of Statistics and Mathematics"; BioInfo Publications.
- Reviewer of following peer reviewed international journals
  - 1. Mathematical Reviews, American Mathematical Society, USA
  - 2. Communications in Statistics (Theory and Methods)
  - 3. Hacettepe Journal of Mathematics and Statistics
  - 4. Statistics in Transition-New Series
  - 5. Journal of Applied Statistics
  - 6. Journal of Modern Applied Statistical Methods
  - 7. Journal of Reliability & Statistical Studies
  - 8. Cogent Mathematics
  - 9. Statistics: A Journal of Theoretical and Applied Statistics
  - 10. Journal of Statistics Applications & Probability
  - 11. Journal of Statistical Theory and Practice
  - 12. Mathematical Population Studies: An International Journal of Mathematical Demography
- Academic Interactions with
  - 1. Department of Mathematics, Texas A & M University –Kingsville, TX 78363, U. S. A.
  - 2. **Statistics, Division of Science and Mathematics**, University of Minnesota-Morris, Morris, MN 56267, USA
  - 3. **Department of Biometry and Bioinformatics, ,** Warsaw University of Life Sciences, Nowoursynowska, 15, 02-776, Warsaw, Poland
  - 4. Department of Statistics, Banaras Hindu University, Varanasi, India.
  - 5. Department of Applied Mathematics, IIT(ISM), Dhanbad, India.
- Delivered a lecture entitled "**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 16<sup>th</sup> March 4<sup>th</sup> April, 2009.
- 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.
- Reresourse person in DST sponsored INSPIRE Science Camp held at Shivaji College.
- A member of PTA body, ITL Public School, Sector-9, Dwarka, New Delhi-110075

- Published chapters in Laboratory Manual, INSPIRE Science Camp 2015, Shivaji College, December 19-23, 2015 funded by DST, Government of India.
- Reviewed two sample chapters of a book on Differential Calculus for **Pearson Educations** Pvt. Ltd., New Delhi.

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

- A member of Internal Quality Assurance Cell (IQAC), Building Committee, Development Committee, Purchase Committee at Shivaji College.
- Convener of Project Purchase Committee, SERB sponsored MRP No. EMR(2016)/000455 ;UGC sponsored MRP No. [42-42(2013)/SR], internal physical audit committee for audit of accounts and administration, Shivaji College.
- I am a member of College Research Cell, Shivaji College.
- I am a member of Fee Concession Committee, Shivaji College.
- I am a member of Selection Committee (MACP) for the promotion of Non- Teaching staffs, Shivaji College.
- I am a member of PF committee, Shivaji College.
- I was NCC in-chagre (Girls Wing) of Shivaji College, member of students advisory committee and discipline committee.
- I was the convener of Evaluation & review committee at CIC, DU.
- I was a member of Academic Committee, Purchase Committee, Engineering Kitchen & Computer facilities committee at CIC, DU.
- I was Teacher in-charge, Department of Mathematics, Shivaji College for the academic Session 2014-2015.
- I was a member of board for organizing the entrance test and interview for admissions in B. Tech/B.S. in Innovation with Mathematics & IT at CIC, University of Delhi.

Kumari Priyanka

#### Signature of Faculty Member