# <u>RESUME</u>

# **Ranjita Pandey**

Professor Department of Statistics, University of Delhi. Mobile: 09868539655 | Email: ranjitapandey111@gmail.com

#### Academic Qualification:

- **French Certificate** course (2003), Banasthali Vidyapith. 78.4%.
- **D. Phil. (2002)**, University of Allahabad.
- **PGDCA** (1998), MCRP University, Bhopal. 64.17%.
- Certificate in Computing (1998), IGNOU. 73.21%.
- □ M.A. *Statistics* (1997), University of Allahabad. 74.5%.
- **B.A.** *Mathematics, Statistics, Economics* (1995), University of Allahabad. 62.89%.
- □ ISC Mathematics Group (1991), Girls' High School and Intermediate College, Allahabad 75.5%
- □ ICSE (1989), Girls' High School and Intermediate College, Allahabad 73.4%

#### **Details of Research work:**

- D. Phil. (2002)
  Title of the thesis: Bayesian Analysis of some Time Series Models
  Supervisor: Dr. Anoop Chaturvedi, Professor, University of Allahabad
- Research Fellowship Recipient of Summer Research Teacher-Fellowship during the period May 2004 July 2004 sponsored by Indian Academy of Science, Bangalore Title of the Project: Exploratory Data Analysis on Land Wind Speeds at selected weather stations in India Supervisor: Dr. A.P. Gore, Professor, Pune University

#### Career Profile:

- **Lecturer (Permanent)** at **Banasthali Vidyapith, Rajasthan** from July 2000 to Jan 2005
- Assistant Professor (Senior Grade) at University of Delhi from Jan 2005 to Jan 2010
- **Reader** at **University of Delhi** from Jan 2010 to Jan 2013
- Associate Professor at University of Delhi from Jan 2013 to Jan 2016
- **Professor** at **University of Delhi** from Jan 2016 to present

#### **Additional Administrative Position Held:**

**Warden**, UHW Hostel, University of Delhi since Jan. 18, 2019 - Jul. 11,2019

# **Courses/Training attended:**

- 1. Attended a **One-Day Webinar on Youth Power taking India Ahead** organized by N.S.S. PGDAV College, DU on September 2, **2020**
- 2. Attended a **One-Day National Webinar** on Modelling and Analysis of Demographic Data organized by Department of Statistics, Banaras Hindu University on July 24, **2020**
- 3. Attended a **One-Day National Webinar** on Mathematical Modelling and Sample size Determination in Research organized by Department of Mathematics, GITAM University on June 11, **2020**
- 4. Attended a **One-Day National Webinar** to celebrate the 14 th National Statistics Day in the memory of Prof. P. C. Mahalnobis organized by PGDAV College, DU on June 29, **2020**
- 5. Attended a UGC Sponsored Six-Day National Webinar on Discovering Statistics Using-R organized by KBN College, Vijayawada during June 16-June 20, 2020.
- 6. Attended a Short Term Course on E- contents/MOOCS Development and Delivery-ICT Tools for online Teaching organised by CPDHE, University of Delhi during May 15-17, 2020.
- Attended a Faculty Development Program on LATEX & SCILAB organised by Delhi University Computer Centre, University of Delhi, Delhi in collaboration with Spoken Tutorial, IIT Bombay on 20<sup>th</sup> February, 2019
- 8. Attended a Ministry of Statistics and Programme Implementation, Government of India sponsored **one week residential training programme on Official Statistics** organised for HODs/Faculties of Statistics department of Indian Universities by National Statistical Systems Training Academy, Greater Noida, during 1<sup>st</sup>-5<sup>th</sup> January, **2018**
- 9. Short Term Training Programme on Nonlinear Analysis, Computations using Matlab, Mathematica, Maple, LINGO and CPLEX with applications in engineering and sciences organized by Sardar Vallabhbhai National Institute of Technology, Surat. Sept. 30- Oct. 4, 2016
- **10.** Attended a **UGC sponsored Refresher Programme** at the University of Delhi from 12 December 2011 to , 31 December **2011**
- **11.** Attended a **UGC sponsored Refresher Programme** at the University of Delhi from 6 June, 2011 to 25 June, **2011**
- 12. Attended the Winter School on Design of Experiments and sample surveys at

3

Chandigarh, jointly organized by Applied Statistics unit, ISI Kolkata and Department of Statistics, Panjab University, Chandigarh during Oct. 4-9, **2004** 

- **13.** Attended a **UGC sponsored Orientation Programme** at the University of Lucknow from 16 Apr, 2003to 13 May, **2003**
- **14.** Attended a short term course on **'Appreciation of Art'** held at Allahabad Museum, Allahabad from 4 June,1992 to 27 June,**1992**
- **15.** Proficiency in **'Computer concepts & programming in BASIC'** awarded by ICS, Training Division, N.Delhi **, 1988. Grade A**+

# Workshops and Seminars attended:

- 1. National seminar on Vibrant Teacher Education: Need of Times. March 24-25, 2001. Organized by Faculty of Education, Banasthali Vidyapith.
- Workshop on Combinatorics and Optimization Techniques in Statistics. Dec 18-20, 2002. Jointly organized by Department of Mathematics & Statistics, University of Allahabad.
- **3. Preparatory/Tutorial Bayesian lectures** organized by Department of Statistics, BHU, Varanasi. Jan 4-5, **2005**
- 4. National Seminar on Recent Trends in Combinatorics and its Applications organized by Banasthali Vidyapith, Rajasthan. Mar. 5-6, 2006
- 5. 'Quality Matters' Workshop Jointly organized by University of Delhi and The Open University under the UK India Education and Research Initiative. Mar. 8-12, 2010
- 6. UGC sponsored workshop on Innovative Teaching Methodologies and use of ICT in Teaching. Organized by UGC-HRDC, CPDHE, University of Delhi. Oct. 20-26, 2016

# National and International conferences (only) attended:

- 1. International conference on Statistical Inference & Reliability to honour Prof. J. V. Deshpande alongwith The XXI annual conference of Indian Society for Probability & Statistics (ISPS) and Annual conference of Indian chapter of International society of Bayesian Analysis, Dec 21-24, 2001. Organized by Department of Statistics, Punjab University, Chandigarh.
- 2. Conference on current trends in Mathematics. Organized by department of Mathematics. Nov. 9-10, 2002. University of Allahabad.

# Papers presented at National and International conferences:

1. International conference SCRA 2002-FIM IX: Statistics, Combinatorics &

related areas. Dec 21-23, 2002. Jointly organized by Department of Mathematics & Statistics, University of Allahabad. Cosponsor: University of South Alabama, USA.

Title of the paper: Bayesian Analysis of SSM with Panel Data.

- 7<sup>th</sup> conference of International Biometric Society (India Region) and workshop 2. Nov. 23-27, 2003. Organized by Department of Zoology, BHU, Varanasi. Title of the paper: Bayesian Analysis of SSM with Edgeworth series distribution.
- 91<sup>st</sup> session of **Indian Science Congress** Association. Jan 3-7, **2004**. Jointly 3. organized by Panjab University and Institute of Microbial Technology, Chandigarh. *Title of the paper:* SSM with spherically symmetrical disturbances.
- 4. International workshop and conference on Bayesian Statistics and its Applications organized by Department of Statistics, BHU, Varanasi. Jan 6-8, 2005.

*Title of the paper:* SSM with Error in variables.

5. International Indian Statistical Association (IISA) Joint Statistical Meeting and International Conference on Statistics, Probability and Related Areas organized by Department of Statistics, Cochin University of Science and Technology, Cochin, India. Jan. 2-5, 2007.

*Title of the paper:* SSM with Errors in variables in Panel Data.

- 6. International Conference on Development and Applications of Statistics in Emerging Areas of Science & Technology alongwith XXX Annual Convention of Indian Society for Probability and Statistics organized by Department of Statistics, University of Jammu. Dec. 8-10, 2010. *Title of the paper:* Shrinkage Estimation for a Family of Lifetime Distributions under Type II Censoring.
- 7. National Conference on Time Series, Analytics and Recent Advances in Statistical Modelling organized by Department of Statistics, Central University of Rajasthan. Aug. 24-25, 2015. *Title of the paper:* An Alternate Estimation of Population Mean using Exponential

**Ratio Type Imputation Method under Survey Non-Response.** 

- International Conference on Statistics and Related Areas for Equity, Sustainability 8. and Development in conjunction with XXXV Annual Convention of Indian Society for Probability and Statistics organized by Department of Statistics, Lucknow University. Nov. 28-30, 2015. Title of the paper: Birth Dynamics in the States of India.
- 9. International Conference on Statistics for Twenty First Century organized by Department of Statistics, University of Kerela, Dec. 17-19, 2015.

*Title of the paper:* Socio-Economic influence on Birth Counts : A Regression Approach.

- 10. International Conference on Celebrating Statistical Innovation and Impact in a World of Big & Small data organized by Department of Statistics & Centre for Advanced Studies, Savitribai Phule Pune University. December 20-24, 2015. *Title of the paper:* Inverse Size Biased p-Dimensional Rayleigh Distribution.
- 18<sup>th</sup> Annual National Conference of Society of Statistics, Computer and Applications on significance of Statistics as Interdisciplinary Sciences organized by Department of Statistics, University of Jammu. February 18-20, 2016. *Title of the paper:* Fertility in India - A Spatially Continuous Regionalised Analysis.
- 12. International Conference on Current Scenario and Prospects of Nanotechnology and Bio-Statistics organized by School of Sciences, U.P. Rajarshi Tandon Open University, Allahabad. 25-26 February, 2016.
   *Title of the paper:* Bayesian Inference of Errors in Variable Linear Dynamic Model
- National Conference on Recent Statistical Computing Techniques and their Applications organized by Department of Statistics and Department of Computer Science, Ramanujan College, University of Delhi. Mar. 11-12, 2016. *Title of the paper:* Bayesian Analysis of Linear Dynamic Model with Non-Normal Disturbances.
- International Conference on Mathematical Modeling & Simulation jointly organized by Department of Statistics, Institute of Science, Banaras Hindu University, Varanasi and Indian Academy of Mathematical Modeling and Simulation, IIT Kanpur. August 29-31, 2016.

*Title of the paper:* Exploring Spatial Dimensions of Births in India: 1985-2011.

- **15.** 37th **Annual Conference** of Indian Association for the study of Population organized by IASP at Institute of Economic Growth, University of Delhi. December 7-9, **2016**. *Title of the paper:* **Proposing a model for Births in India**
- 16. International Conference on Advances in Statistical Methods and Data Science organized by Department of Statistics, University of Madras. December 21-22, 2018. *Title of the paper:* Inference under Progressive Type II Censoring Scheme for Beta Log Weibull Distribution.
- 9<sup>th</sup> International Conference on Quality, Reliability, Infocom Technology & Business Operations jointly organized by Department of Operational Research, University of Delhi and Lulea University of Technology, Sweden during 27-29,2018.
  *Title of the paper:* Bayesian Estimation via approximations under Type II Progressive Censoring.

# **Invited Papers:**

- 1. **Presented an** *invited paper* on *Discrete Time Series A Bayes Predictive Approach* at TEQUIP II sponsored one week short term **Training Programme** on Nonlinear Analysis, computations using MATLAB, Mathematica, Maple, Lingo and CPLEX with applications in Engineering and Sciences organized by Department of Applied Mathematics and Humanities, Sardar Vallabhbhai National Institute of Technology, Surat during Sept. 30- Oct. 04, **2016.**
- Presented an invited paper on 'Bayesian Analysis of a Stochastic Coefficient Regression Model with Covariates subject to Measurement Error' at the National Conference on Time Series, Analytics and Recent Advances in Statistical Modelling organized by Department of Statistics, Central University of Rajasthan during Aug. 24-25, 2015.

# Invited Talks (Each of one and a half hour duration):

- 1. *One* invited lecture at the Two Week Online Refresher Course on 'Application of Statistical Techniques in Real World' organized by Teaching Learning Centre Ramanujan College, University of Delhi, during 26.04.2021-09.05.2021 The topic of talk was:
  - Bayesian Reliability
- 2. *Two* invited lectures at Department of Psychology, School of Social Sciences, IGNOU on 24/03/21.

The topics of talk were:

- ♦ Multidimensional Scaling
- ♦ Structural Equation Modeling.
- One invited lecture at the Virtual Short Term Training Program on Data Science and Statistical Applications held during March 15-22, 2021 organised by Bharathiar University, Coimbatore, Tamil Nadu on 19/03/2021. The topic of talk was :
  - ♦ Scientific Evidence for Mathematical Reasoning.
- 4. *Five* invited lectures at the Institute of Applied Statistics in collaboration with National Institute of Medical Statistics ICMR & Division of Epidemiology & Biostatistics, National Institute of Cancer Prevention Research-ICMR held at Christian Medical College, Ludhiana during Feb. 14-15, **2020**.

The topics of talk were :

- ♦ Philosophy behind Sample Size Determination
- Sample size for Estimation of Relative Risk & Odds Ratio
- ♦ Sample Size for Estimation & Comparison of Incidence Rate
- ♦ Sample Size for Equality & Equivalence Trials
- Use of Correction Factor & Design Effect

- 5. One invited lecture at the DST Inspire Internship Science Camp for school children from 25<sup>th</sup> to 29<sup>th</sup> November 2019 at Sir Padampat Singhania University, Udaipur, Rajasthan on 25.11.19 The topic of talk was :
   ◆ The Joy of Statistics
- 6. *One* invited lecture at the DST Inspire Internship Science Camp for school children from 26<sup>th</sup> to 30<sup>th</sup> November 2019 at Vivekananda Global University, Jaipur on 27.11.19 The topic of talk was :

♦ The Art of Inferential Statistics

 One invited lecture at the CEP on Modelling, Simulation and Systems Analysis Techniques organised by Institute for Systems Studies and Analyses, DRDO, Delhi on Oct. 16, 2019

The topic of talk was:

♦ Introduction to Bayesian Statistics

- 8. Conducted a *ten* day workshop on Data Analytics in R at Shyam Lal College, University of Delhi from Apr. 08-18, 2019
  The topics of talk were:
  - R Environment: Genesis and Introduction
  - Operators, Dates and working in R
  - ♦ Data Manipulation and Mathematical Functions
  - Character Vector, Data Types and Matrices
  - ♦ Statistical and user Defined Functions in R
  - ♦ Data Frames and Data Analytics
  - Graphics in R and its variations
  - ♦ Control Flow in R
  - Linear Models and Prediction in R
  - Export and Import of data in R
- **9.** *One* **Invited lecture** at the **DST Inspire Internship Science Camp** for school children from Jan. 14-18, **2019** at Sir Padampat Singhania University, Udaipur, Rajasthan.

The topic of talk was:

♦ Statistics and Truth

**10.** *Two* **invited lectures** at Department of Psychology, School of Social Sciences, IGNOU on 29/08/18.

The topics of talk were:

- ♦ Multidimensional Scaling
- ♦ Structural Equation Modeling.
- One invited talk in a Faculty Development Programme organized by Department of Mathematics, Jaypee Institute of Information Technology, Noida on 10/07/18. The topic of talk was:
  - ♦ Model Building in Time Series Analysis
- Seven Invited lectures in Faculty Development Programme on Biostatistics: Theoretical and Practical aspects held during 14 -18, March 2018, organized by the Department of Mathematics and Botany, Deen Dayal Upadhayaya College, University of Delhi, Delhi.

The topics of talk were:

Probability Model, Introduction to basic discrete and continuous distributions
 Introduction to Biostatistics: Types of measurements, Types of data and Frequency distributions and Descriptive measures

♦ Statistical Inference: Estimation methods and Hypothesis testing: t, F and Chi-Square test, Large Sample Theory- z- test, Central Limit Theorem.

◆Sampling techniques, Determination of sample size

◆Survival Analysis: Some lifetime distributions, Survival and Hazard function, Censoring schemes

♦ Regression Analysis

♦ Matrix Theory and its applications in Multivariate Analysis: Factor analysis, Cluster analysis, logistic regression, discriminant analysis

- 13. One Invited lecture at the DST Inspire Internship Science Camp for school children from Jan. 21-25, 2018 at Sir Padampat Singhania University, Udaipur, Rajasthan. The topic of talk was:
  - ♦ Statistical Thinking
- 14. *Three* Invited lectures in Faculty Development Programme on Financial Statistics held during 20-22, December 2017, organized by the Department of Statistics, University of Delhi, Delhi.

The topics of talk were :

- Brownian Motion and Related Processes
- ♦ Stochastic Calculus
- ♦ Ito's Lemma and Dynamical Systems
- 15. *One* **Invited lecture** at the **DST Inspire Internship Science Camp** for school children

from Oct. 17-21, **2016** at Sir Padampat Singhania University, Udaipur, Rajasthan. The topic of talk was:

♦ Probabilities: Rules for Numbers

16. One Invited lecture at the DST Inspire Internship Science Camp for school children from Dec. 20-24, 2015 at Sir Padampat Singhania University, Udaipur, Rajasthan. The topic of talk was:

♦ Scientific Inferences and Paradoxes

**17.** *One* **Invited lecture** at the **DST Inspire Internship Science Camp** for school children from April 06-10, **2015** at Sir Padampat Singhania University, Udaipur, Rajasthan. The topic of talk was:

Practicing Probability and Statistics

- 18. Five Invited lectures at the Workshop on Research Fundamentals and Data Analytical Tools organised by All India Management Association Centre for Management Education, Delhi from 23-27 July 2013. The topics of talk were :
  - Evolution and Principles of Modern Time Series
  - ♦ Univariate Stationary Processes an Overview
  - ♦ Linear Regression Models versus Lag Models Forecast Evaluation using EViews
  - ♦ Nonstationarity Unit roots and Test of Causality
  - ♦ Modelling the variance using Generalised Family of Conditional Heteroscedasticity in Time Series - concepts and applications using EViews
- **19.** *Two* **Invited lectures** in the **Refresher Course for Library and Information Sciences**, **University of Delhi** on **02/07/12**.

The topics of talk were:

- ◆ Data Analysis and Simulation
- ♦ Modelling Discrete Events
- 20. *Five* Invited lectures at International workshop on Geometric Morphometrics organized by the Centre for Environmental Management of Degraded Ecosystems, University of Delhi under AICOPTAX scheme of the Ministry of Environment & Forests, Government of India on 20/03/12 and 28/03/12. The topics of talk were:

The topics of talk were:

- ♦ Fundamentals of Matrix Algebra
- ♦ General Linear Model
- ♦ Exploratory and Confirmatory Factor Analysis
- Principal Component Analysis, Canonical Correlation and Hotelling  $T^2$
- ♦ Multivariate Inference using SPSS

- 21. *Four* Invited lectures at the Department of Library and Information Sciences, University of Delhi on 30/01/12 and 06/02/12 under 'Lecture Series' The topics of talk were :
  - Measures of Data Distribution with special reference to Library and Information science
  - Practical Orientation using Excel spreadsheet
  - ♦ Data Preparation and Statistical Analysis using SPSS Software
  - Practical Orientation using SPSS Software
- **22.** *Three* **invited lectures** at the **Summer school on Statistical Applications** held from 4-25 July, **2005** at Allahabad Agricultural Institute, Deemed University, Allahabad. The topic of talk was:
  - ♦ Parametric Testing

# **Research interest(s):**

- Theoretical and Applied Bayesian Inference
- Lifetime Distributions
- □ Time Series Models

- □ Demography
- □ Imputation Methods
- □ Ecological Modelling

# **Research Guidance:**

# Ph. D. Degree (Awarded)

- **1.** *Ms. Neera Kumari* : thesis **submitted on 23.04.18** (*Viva-voce* **conducted**) Some Contributions to Bayesian Estimation Procedures for Lifetime Models
- **2.** *Ms. Charanjit Kaur* : thesis **submitted on 27.03.17** (*Viva-voce* **conducted**) Some contributions to fertility models and its determinants in context of India
- **3.** *Ms. Kalpana Yadav* : thesis **submitted on 27.01.17** (*Viva-voce* **conducted**) Some Contributions to estimation procedures in sample surveys using Auxiliary Information based on Imputation

# Ph. D. Degree (under Progress)

- 1. Mr. Danish Ali, DST-INSPIRE Fellow
- 2. Mr. Pulkit Srivastava
- **3.** Ms. Nidhi Jain
- 4. Mr. Himanshu Tolani
- 5. Mr. Dipendra Chand

# M.Phil. Degree (Awarded)

- **1.** *Ms. Neena Yadav* : A Review of Fertility Patterns : Theoretic and Modelling Approaches (submitted July 2014)
- Mr. Mohammed Tayyab : Inferential and Stochastic Aspects of Some Lifetime Models : A Review From Classical and Bayesian Perspective (submitted November 2014), (ISS selection 2015)
- **3.** *Mr. Pulkit Srivastava* : Some Applications based on Markovian Models and Game Theory: A Review. (submitted on 22. 05. 2017).
- Ms. Alisha Khan : Fertility, Mortality and Population Density : Review of Some Estimation and Modelling Procedures (submitted on 25. 05. 2017) (ISS selection 2017)
- 5. *Mr. Himanshu Tolani* : Applied Bayesian Practices : A Review (submitted on 06.12.17)
- 6. *Ms. Sayani Dey* : Review of some classical and Bayesian Methods for Complete and Censored Data (submitted on 08.02.19)
- 7. *Mr. Abhay Kumar* : Asymptotics, Moment Relations, Characterization and Records: an Order Statistics Review (submitted on 21.08.19; Viva –Voce conducted on 29.11.19)

# M. Phil. Degree (under Progress)

1. Ms. Nausheen

# Papers taught so far:

- **UG** level
  - **1.** Statistical Methods
  - **2.** Applied Statistics
  - 3. Statistical Inference
- $\square$  **PG** level
  - **1.** Bayesian Inference
  - 2. Stochastic Processes
  - 3. Applied Stochastic Processes
  - 4. Operational Research
  - 5. Queueing theory
  - **6.** Theory of Reliability

- **M.Phil**. level/ Ph.D. Coursework
  - **1.** Bayesian Statistics
  - **2.** Applied Bayesian Statistics
  - **3.** Research Methodology
  - 4. Stochastic Processes

M.Sc. level Practical Papers based on

1. **SPSS** 2. **C** 3. **Excel** 

#### Papers taught in current academic session: (Five Theory and One Practical Paper)

M.Sc. Sem IV	1. Bayesian Inference
M.Sc. Sem III	1. Operational Research
M.Sc. Sem II	1. Stochastic Processes
M.Phil./ Ph. D. coursework	<b>1.</b> Research Methodology <b>2.</b> Bayesian Statistics
M.Sc. Final year	1. Practical based on SPSS

#### Membership of Academic Bodies:

- □ Life member of Indian Bayesian Society since 2002
- □ Annual membership of Indian Science Congress, 2002-2003
- Life Member of Indian Society for Probability and Statistics (ISPS) since 2011
- □ Member Human Ethics Committee- North Campus, DU since 2011
- □ Associate Executive Committee Member, ISPS, Feb. 2021- Jan. 2022

#### Membership of Department Committees:

- 1. Committee of courses for post graduate and B.Sc. (Hons.) Studies
- 2. Committee of courses for undergraduate studies (excluding Honours)
- 3. Committee for Internal Assessment Tests
- 4. Purchase Committee
- 5. Committee for conduct of M.A./M.Sc. examinations (2013-14)
- 6. Committee for conduct of Undergraduate Theory Examinations
- 7. Admission Committee
- 8. Internal Audit Committee
- **9.** Committee for interviewing candidates for admission to Ph. D. Programme in the Department
- **10.** Committee for drawing up a panel for appointment of Assistant Professors in the Colleges/Department on ad-hoc basis
- **11.** CBCS Committee
- 12. Committee to prepare SSR and ER related to NAAC
- 13. M. Phil. Committee (for examination work)
- 14. M. Phil. Committee
- 15. Workload Committee

- 16. Convenor, Moderation Committee for Under Graduate courses
- **17.** Member, Moderation Committee for Post Graduate courses
- **18.** Committee to classify the papers in DC-I, DC-II and AC-Applied course of Statistics for FYUP
- **19.** Committee to finalise appropriate titles and contents of two applied courses on TQM and Environmental Statistics under FYUP
- **20.** Student Feedback Committee
- **21.** Nodal Officer, NAAC
- 22. Syllabus Revision Committee
- **23.** Superintendent for Departmental MTS Examination
- 24. Selection Committee for appointment of Guest Faculty

# **Membership of Boards:**

- 1. Convenor, Board of moderators for B. Sc.(Hons.) Statistics Semester, B. Sc.(Hons.) Statistics under CBCS
- **2.** Convenor, Board of moderators for B. Sc.(Math Sciences) Statistics Semester, B. Sc.(Math Sciences) Statistics Concurrent, B.Sc. (Prog.) CBCS and B. A. (Prog.) CBCS
- 3. Board of moderators for erstwhile FYUP exams.
- 4. Board of Departmental Research Committee
- **5.** Board of Research Studies
- **6.** Faculty of Mathematical Sciences

# **List of Publications:**

1. Y. S. C. Khuman, **R. Pandey**, K. S. Rao (Aug. 2011). Fuelwood Consumption Patterns in Fakot Watershed, Garhwal Himalaya, Uttarakhand, *Energy*, Vol. 36(8), pp. 4769-4776. cited by 40. ISSN : 0360-5442. UGC LIST NO. 19547 IF= 5.537

2. Y. S. C. Khuman, **R. Pandey**, K. S. Rao (Oct. 2012). Micro-watershed level population based fuel wood consumption dynamics : implications of seasonal versus annual models for sustainable energy resource planning, *Renewable and Sustainable Energy Reviews*, Vol. 16(8), pp. 6142-6148. cited by 6. **IF= 10.556. ISSN 1364-0321.** UGC LIST NO. 10266

**3. R. Pandey** (April **2014**). Shrinkage Estimation for a Family of Lifetime Distributions under Type II Censoring , *American Journal of Computational and Applied Mathematics*, Vol.4(3), pp.92-96. **p-ISSN: 2165-8935, e-ISSN: 2165-8943.** 

4. **R. Pandey**, N. S. Thakur and K. Yadav (Sep. **2015**). Estimation of Population Mean using Exponential Ratio Type Imputation Method under Survey Non-response, *Journal of the* 

Indian Statistical Association, Vol. 53(2), pp. 89-107. ISSN: 0537-2585. UGC CARE LIST I NO. 295

5. Y. S. C. Khuman, N. Raina, **R. Pandey** and K. S. Rao (2015). Fuelwood assessment at the micro-watershed level: a case study in Garhwal Himalaya, India, *Chinese Journal of Population Resources and Environment*. **IF**= 0.212. pp. 177-186. **p-ISSN: 1004-2857, e-ISSN: 2325-4262.** UGC LIST NO. 18495. UGC CARE LIST II : science citation index expanded

6. R. Pandey (2015). Posterior Analysis of State Space Model With Spherical Symmetricity, *Journal of Probability and Statistics*. pp.1-7. IF.= 0.819. p-ISSN: 1687-952X, e-ISSN: 1687-9538. UGC LIST NO. 19357. UGC CARE LIST II : science citation index expanded

7. R. Pandey and C. Kaur (2015). Modelling fertility: an application of count regression models, *Chinese Journal of Population Resources and Environment*. pp. 349-357. p-ISSN: 1004-2857, e-ISSN: 2325-4262. UGC LIST NO. 18495. UGC CARE LIST II : science citation index expanded

8. **R. Pandey** and N. Yadav (2015). Fertility Decline: A Statistical Demographic Review of Parsi Community. *Bulletin of Mathematics and Statistics Research, Vol.* 3(4), pp. 104-122. ISSN: 2348-0580. I.F. 0.250

9. **R. Pandey** and A. Chaturvedi (2016). Bayesian Inference for State Space Model with Panel Data, *Statistics in Transition new series*, Vol. 17(2), pp. 211-220. IF.= 0.04. ISSN : 1234-7655, e-ISSN 2450-0291. UGC LIST NO. 33725

 R. Pandey, K. Yadav and N. S. Thakur (2016). Adapted Factor-Type Imputation Strategies, *Journal of Scientific Research*, Vol. 8(3). pp. 321-339. ISSN : 2070-0237, e ISSN 2070-0245. UGC LIST NO. 46443. UGC CARE LIST I NO. 295

**11. R. Pandey** and K. Yadav (Nov. **2016).** An Alternative Class Of Exponential Ratio-Product Type Mean Imputation Using Auxiliary Information, *Journal of Applied Probability and Statistics*, Vol. 11(2). pp. 125-141. **IF= 0.102**. **ISSN : 1930 – 6792.** UGC LIST NO. **21429** 

12. R. Pandey and K. Yadav (2016). Mean Estimation under Imputation based on Two-Phase Sampling Design using an Auxiliary Variable, *Pakistan Journal of Statistics and Operations Research*. Vol. 12 (4). pp. 639-658. IF=0.383. p-ISSN: 1816-2711 , e-ISSN: 2220-5810. UGC LIST NO. 36873 **13. R. Pandey** and N. Kumari (**2016**). A New Lifetime Distribution for Modeling Monotonic Decreasing Survival Patterns, *Journal of Reliability and Statistical Studies*, Vol. 9(2). pp. 53-70. **ISSN : 0974-8024.** 

14. **R. Pandey** and C. Kaur (Jan. 2017). Spatial Analysis of Factors Influencing Birth Patterns in the States of India: 1985-2011. *Journal of Scientific Research*. Vol. 9 (1). pp. 43-56. ISSN: 2070-0237, e ISSN 2070-0245. UGC LIST NO. 46443

15. R. Pandey and K. Yadav (Sep. 2017). Population Variance Estimation using Factor Type Imputation Method. *Statistics in Transition new series*, Vol 18(3). pp. 375-392. p-ISSN : 1234-7655 , e-ISSN 2450-0291 . UGC LIST NO. 33725

16. R. Pandey and N. Kumari (Dec. 2017). Bayesian Estimation for Inverse Size Biased p-Dimensional Rayleigh Distribution. *International Journal of Essential Science*. Vol.11 (1 & 2). pp. 16-24. ISSN : 0973-8436, e-ISSN : 2347-1840. UGC LIST NO 48536

**17. R. Pandey** and N. Kumari (Jan. **2018**). Estimation for ISB p-dim Rayleigh distribution under progressive type-II censored data using different loss functions. *International Journal of Engineering, Science and Mathematics*. **IF=6.765.** Vol. 7 (1). pp. 467-477. **ISSN : 2320 – 0294.** UGC LIST NO.

**18. R. Pandey** and N. Kumari (Jan. **2018**). Bayesian Estimation for ISB p-dim Rayleigh distribution under type-II censored data using Lindley's Approximation. *World Wide Journal of Multidisciplinary Research and Development*. Vol. 4 (1), pp. 207-211. **ISSN : 2454-6615.** UGC LIST NO. 47762

**19. R. Pandey** and K. Yadav (June 2018). On Variance Estimation under Factor Type Imputation using Auxiliary Attribute. *International Journal of Agricultural and Statistical Sciences*. Vol. 14(1), pp. 95-101. **ISSN : 0973-1903, p-ISSN : 0976-3392.** UGC LIST NO. 2525

20. R. Pandey and N. Kumari (Oct. 2018). Bayesian Analysis of Power Generalized Weibull Distribution. *International Journal of Applied and Computational Mathematics*. Vol. 4(6) : 141 (16 pages) . IF= 1.694. p-ISSN : 2349-5103, e-ISSN : 2+199-5796. UGC LIST NO. 48876

**21. R. Pandey** and N. Kumari (Dec. 2018). Bayesian Estimation via numerical approximations under Progressive Type II Censoring. *International Journal of Scientific Research in Mathematical and Statistical Sciences*. **IF**= **1.021**. Vol. 5(6) : pp. 362-379. **ISSN : 2348-4519.** UGC LIST NO. **63061** 

N. Kumari and R. Pandey (*online* Mar. 2019). On Bayesian Parameter Estimation of Beta Log Weibull Distribution under Type-II censoring. *Communications in Statistics-Simulation and Computation*. IF=0.490. p-ISSN: 0361-0918 e- ISSN : 1532-4141. UGC LIST NO.16261

**23. R. Pandey** and C. Kaur (Apr. **2019**). Modelling Fertility Schedules of India. *Canadian Studies in Population*. Vol.46 (1) . pp. 47-60. **ISSN : 0380 -1489.** UGC LIST NO. **4936** 

24. R. Pandey, J. Kumar and N. Kumari (*online* Jun 2019). Bayesian Parameter Estimation of Beta Log Weibull Distribution under Type II Progressive Censoring. *Journal of Statistics and Management Systems*. Vol. 22. p- ISSN : 0972-0510, e- ISSN: 2169-0014. UGC LIST NO. 48569

**25. R. Pandey**, P. Srivastava and N. Kumari (*online* Aug. **2020**). On some Inferential Aspects of Length Biased Log Logistic Model. *International Journal of System Assurance Engineering and Management*. **ISSN: 0975-6809** 

**26. R. Pandey** and D. Ali (Apr. **2021**). Bayesian Analysis of Hjorth Distribution under Generalised Type I Progressive Hybrid Censoring Scheme. Journal of Scientific Research. Vol. 65(3), pp. 191-201. UGC LISTED

# Chapter in Books (Conference Proceedings):

**1.** A. Chaturvedi and **R. Misra** (2006). State Space Models with Edgeworth Series Distributed Disturbances in *Statistical Advances in Biosciences and Bioinformatics*. Ed. Prof. Manju Pandey. *Allied Publishers Pvt. Ltd.*, pp. 217-226, **ISBN: 81-7764-968-X**.

2. R. Pandey, N. S. Thakur and K. Yadav (Mar. 2015). Separate Regression Type Imputation Methods to Estimate Population Mean in *International Conference on Innovative Research in Engineering, Science and Management, McGraw Hill Pvt. Ltd.*, pp. 394-403. ISBN : 978-93-85880-72-8

**3. R. Pandey**, K. Yadav and N. S. Thakur (**2016**). Combined Exponential Type Estimators of Population Mean in Stratified Random Sampling. Proceedings of International conference in *Recent Advances in Mathematics, Statistics and Computer Science*. eds. A. K. Sinha, R. Rajesh, P. Ranjan and R.P. Singh, World Scientific, Singapore. pp. 303-312. **ISBN: 978-981-4696-16-6** 

4. A. Chaturvedi and **R. Pandey** (**2016**). Estimation and Testing Procedures for the Reliability Function of a Family of Inverse Distributions, *Proceedings of National Conference on Recent Advances in Statistical and Mathematical Sciences and their Applications*, Narosa Publishing House, New Delhi. ed. Neeraj Tiwari. pp. 74-89. **ISBN : 978-981-4696-16-6** 

# **General Article :**

**R. Pandey** (2017-18). Knowledge or Curtain : A Statistical View in the first edition of the magazine published by the Department of Statistics, University of Delhi

# **Post Publication Book Review :**

**R. Pandey** (June 2018). Information Geometry and Population Genetics, The Mathematical Structure of the Wright - Fisher Model by Julian Hofrichter, Jurgen Jost and Tat Dat Tran, Springer (2017) : ISSN 1860-0832 in Canadian Studies in Population , 45(1-2), pp. 93-94. ISSN : 0380 -1489

# **Pre Publication Book Review :**

- 1. Contributed a few questions and reviewed a portion of the *Pre-Published Indian Edition book* by Pearson (2015-16) : Global Edition of Statistics: The Art and Science of Learning from Data, 4<sup>th</sup> Edition by *Alan Agresti, Christine A. Franklin, and Bernhard Klingenberg* (ISBN: 9781292164779).
- 2. **Reviewed** a portion of the *Pre-Published Indian Edition book* by **Pearson (2018-19)**: Global Edition by *Sheldon Ross*, First Course in Probability, 10e.
- 3. Review of a text book on R (2018). Publisher: Black Swan, Kolkata

Software Skills: Conversant with SPSS, Amos, Minitab, EViews

# Programing Proficiency: Clanguage, R

# **Document Preparation System:** Latex

# **Research Grants:**

- 1. Recepient of grant under scheme to strengthen R&D Doctoral research Programme by DU for the years **2008-2009**, **2011-2012**, **2012-2013**, **2013-2014**, **2015-2016**
- 2. Co-Receptent of DU-DST PURSE grant 2010-2013
- 3. Co-Recepient of FRP grant of IoE ,DU for 2020-2021

# **Guest Faculty:**

Additionally have taught Statistics Paper in the following Departments of DU:

- M. Phil. African Studies (**2006-07**)
- M. Sc. Zoology (2010-11)
- M. Sc. Botany (**2010-11**) and (**2011-2012**).

Also framed the syllabus for the Biostatistics course in this Department (2011).

# **Reviewer for Journals:**

- 1. Journal of Indian Statistical Association
- 2. Scholarly Journal of Mathematics and Computer Science
- 3. Journal of Advanced Research in Applied Mathematics and Statistics
- 4. Research and Reviews: Journal of Statistics
- 5. Pakistan Journal of Statistics and Operations Research
- 6. Journal of Reliability and Statistical Studies
- 7. The Open Statistics and Probability Journal
- 8. Journal of Modern Applied Statistical Methods
- **9.** Phytomorphology
- **10.** Applied Economics
- **11.** The Indian Economic Journal
- 12. Conference organized by University of Jaffna 2018
- 13. Model Assisted Statistics and Applications
- 14. Canadian Studies in Population
- 15. Scientia Iranica
- 16. Journal of Quantitative Economics
- 17. Reliability Engineering and System Safety
- 18. Journal of Statistical Computation and Simulation
- **19.** Journal of King Saud University

# **Organizing Academic Events:**

- 1. Convener of a *two* day workshop on "Statistical Computing using R" during 14-15 September 2013, organized by the Department of Statistics, University of Delhi, Delhi.
- 2. Coordinator of a *three* day Faculty Development Programme on Financial Statistics held during 20 -22, December 2017, organized by the Department of Statistics, University of Delhi, Delhi.
- **3.** Coordinator of a *two* day Faculty Development Programme on Actuarial Statistics held during 27 -28, December 2017, organized by the Department of Statistics, University of Delhi, Delhi.
- **4.** Conducted a *ten* day workshop on Data Analytics in **R** at Shyam Lal College, University of Delhi from Apr. 08-18, **2019**

# **Other Academic Activities:**

- Syllabus Creation / Revision for the following UG and PG courses: Research Methodology (M. Phil.) Bayesian Inference (M. Phil. & M.Sc.) Stochastic Processes (UG & M.Sc.) Environmental Statistics (UG) Clinical Trials (M.Sc.) C Programming (M.Sc.) SPSS Hands On (M.Sc.)
- 2. Chaired a session of Invited Paper at the 9<sup>th</sup> International Conference on Quality, Reliability, Infocom Technology & Business Operations jointly organized by Department of Operational Research, University of Delhi and Lulea University of Technology, Sweden during 27-29, 2018.
- 3. Chaired a session of contributory paper presentation at National Conference on Recent Statistical Computing Techniques and their Applications organized by Department of Statistics and Department of Computer Science, Ramanujan College, University of Delhi. Mar. 11-12, 2016.
- 4. Subject expert at various state and national level forums and commissions.
- 5. Paper setter and evaluator for about Ten Central & State Indian Universities since 2002
- 6. Guiding various applied researchers from Indian Universities and associated medical colleges, hospitals and research institutes in **statistical analysis of their research data**.
- 7. External examiner for M.Sc. Dissertation in
  - Computer Science Department, DU: 2011-12
  - Department of Social Work, DU : 2017-18, 2018-19, 2019-20
- 8. Mentored a M. Sc. Student Ms. Alexandra H. Ackroyd from University of California under a visiting student initiative of University of Delhi (2011-12) for a period of six months.