

Dr. Arindam Gupta

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Designation: Associate Professor

Citizenship: India

Research interests Demography, Occupational Mobility, Operations Research, Growth Curve Modelling, Multivariate Analysis etc.

Education **Ph.D.** Calcutta University
Ph.D.in Statistics 2009
Thesis Titled: Problems Related to Social Processes- A Statistical Study

NET- CSIR-UGC
JRF 2002

M.Sc. Calcutta University
M.Sc in Statistics 2001

B.Sc. Calcutta University
B.Sc in Statistics 1999
(R.K.M.R. College, Narendrapur)

Honors K. Srinivasan Award (Indian Association for Study of Population) 2023

Guide of Ph.D. Students [1] **Mr Debashis Samanta** Awarded: November, 2019

Title of The Thesis: Analysis Of Life Testing Data Using Step-Stress Model

[2] **Mrs Anindita Ghosal** Awarded: December, 2019
Title of The Thesis: Development Of New
Occupational Mobility Models: A Statistical Investigation

[3] **Mrs Chowdhury Sadeka Nazrin** Awarded: November, 2022
Title of The Thesis: Intimate Partner Violence: A Statistical Study

[4] **Mrs Frahana Yesmin** Awarded: October, 2023
Title of The Thesis: Some Applications of Relative Growth Rate in Various Growth Curve Inference Problems

Joint Supervisor: Prof Sabyasachi Bhattacharaya, ISI. Kolkata

[5] **Mr Amartya Bhattacharyay**

Submitted

12.02.2024

Title of The Thesis: A Study on Statistical Inference in Process Capability Analysis

Joint Supervisor: Prof S. S. Maiti, Visva- Bharati

Ongoing

[1] Suman Kapoor

[2] Debjit Konai

[3] Sumit Mondal

[4] Bristi Bose

[5] Arga Nath Bhattacharya

Teaching experience

Assistant Professor

2007-2009

Department of Statistics
Vivekananda Mahavidyalaya, Burdwan

Assistant Professor

2009-2019

The Department of Statistics
The University of Burdwan, Burdwan

Associate Professor

2019-

The Department of Statistics
The University of Burdwan, Burdwan

Publications

[1] Asis Kumar Chattopadhyay and Arindam Gupta. A model based study on the career prospects of individuals in an Indian university. Journal of Statistical Research, 37(2):231-239, 2003.

[2] Asis Kumar Chattopadhyay and Arindam Gupta. Study on diffusion of rumours through epidemic models under non identical set up. Calcutta Statistical Association Bulletin, 58(3 & 4):263-280, 2006.

[3] Sudipta Tripathi, Sabitri Kumari, Ashis Chakraborty, Arindam Gupta, Kalyan Chakrabarti, and Bimal Kumar Bandyopadhyay. Microbial biomass and its activities in salt-affected coastal soils. Biology and Fertility of Soils, 42(3):273-277, 2006.

- [4] Asis Kumar Chattopadhyay and Arindam Gupta. A stochastic manpower planning model under varying class sizes. *Annals of Operations Research*, 155(1):41-49, 2007.
- [5] Sabyasachi Bhattacharya; Arindam Gupta and Asis Kumar Chattopadhyay. Effect of migration on population growth under dynamical system. *Journal of Applied Probability and Statistics*, 4(2): 239-253,2009.
- [6] Sabyasachi Bhattacharya, Arindam Gupta, and Asis Kumar Chattopadhyay. Effect of migration on population growth under dynamical system. *Journal of Applied Probability and Statistics*, 4(2): 239-253,2009.
- [7] Arindam Gupta, Sabyasachi Bhattacharya, and Asis Kumar Chattopadhyay. Exploring new models for population prediction in detecting demographic phase change for sparse census data. *Communications in Statistics - Theory and Methods*, 41(7):1171-1193, 2012.
- [8] Arindam Gupta and Samba Siva Rao Pasupuleti. A new behavioural model for fertility schedules. *Journal of Applied Statistics*, 40(9):1921-1930, 2013.
- [9] Arindam Gupta and Anindita Ghosal. A manpower planning model based on length of service under varying class sizes. *OPSEARCH*, 51(4):615-623, 2014.
- [10] Arindam Gupta and Anindita Ghosal. Occupational mobility among residents of burdwan town and durgapur town. *Journal of Statistics Applications &3 Probability*, 5(1):141-146, 2016.
- [11] Arindam Gupta and Anindita Ghosal. Prediction of employees through semi-markov process and measure of occupational mobility based on first passage time. *Journal of Applied Probability and Statistics*, 6(1):75-90, 2016.
- [12] Arindam Gupta; Chowdhury Sadeka Nazrin and Sudhansu Sekhar Maiti. Situation of intimate partner violence - a statistical study. *International Journal of Reviews and Research in Social Sciences*, 5(2):93-102, 2017.

[13] Raju Thapa, Srimanta Gupta, Arindam Gupta, Dontireddy Venkat Reddy, and Harjeet Kaur. Geochemical and geostatistical appraisal of fluoride contamination: An insight into the quaternary aquifer. *Science of The Total Environment*, 640641(1 November):406-418, 2018.

[14] Raju Thapa, Srimanta Gupta, Arindam Gupta, DV Reddy, and Harjeet Kaur. Use of geospatial technology for delineating groundwater potential zones with an emphasis on water-table analysis in dwarka river basin, birbhum, india. *Hydrogeology Journal*, 26(3):899-922, 2018.

[15] Arindam Gupta and Anindita Ghosal. Reward structure model for faculty members of indian university. *International Journal of Research in Business Management*, 7(2):1-12, 2019.

[16] Arindam Gupta and Chowdhury Sadeka Nazrin. Intimate partner violence- a statistical measure. *Statistica Applicata - Italian Journal of Applied Statistics*, 31(2):215-226, 2019.

[17] Arindam Gupta and Chowdhury Sadeka Nazrin. Muslim women in south asia and intimate partner violence- a statistical modelling. *International Journal of Research in Applied Natural and Social Sciences*, 7(2):51-56, 2019.

[18] Debashis Samanta; Arindam Gupta and Debasis Kundu. Analysis of weibull step stress model in presence of competing risk. *IEEE Transaction on Reliability*, 68(2):420-438, 2019.

[19] Harjeet Kaur, Srimanta Gupta, Surya Parkash, Raju Thapa, Arindam Gupta, and G. C. Khanal. Evaluation of landslide susceptibility in a hill city of sikkim himalaya with the perspective of hybrid modelling techniques. *Annals of GIS*, 25(2):113-132, 2019.

[20] Debaashis Samanta, Ayon Ganguly, Arindam Gupta, and Debasis Kundu. On classical and bayesian order restricted inference for multiple exponential step stress model. *Statistics*, 53(1):177-195, 2019.

[21] Debashis Samanta, Arnab Koley, Arindam Gupta, and Debasis Kundu. Exact inference of a simple step stress model with hybrid type-ii stress changing time. *Journal of Statistical Theory and Practice*, 14(12), 2020. DOI: <https://doi.org/10.1007/s42519-019-0072-5>

[22] Arnab Bandyopadhy; Arindam Gupta and Chowdhury Sadeka Nazrin. Logarithmic estimation strategy in cluster sampling in presence of random-non response and measurement error. *Journal of Statistics Applications and Probability*, 10(1):135-146, 2021.

[23] Farhana Yeasmin; Ranadeep Daw; Bratati Chakraborty; Arindam Gupta; Sabyasachi Bhattacharya and Biman Chakraborty. A new growth rate measure in identifying extended gompertz growth curve and development of goodness-of-fit test. *Calcutta Statistical Association Bulletin*, 73(2):127-145, 2021.

[24] Arindam Gupta and Chowdhury Sadeka Nazrin . The main factors of intimate partner violence - a statistical study. *Journal of Statistics Applications and Probability*, 10(1):103-112, 2021.

[25] Arindam Gupta Ardhendu Banerjee and Asis Kumar Chattopadhyay. Migration through aspiration: A model based investigation. *Demography India*, Vol. 51, No. 2, pp.111-124 2022.

[26] Arindam Gupta Arnab Bandyopadhy and Chowdhury Sadeka Nazrin. Development unbiased estimation strategy for population mean through two-occasion successive sampling scheme. *Journal of Statistical Approaches in Research*, Vol. 1, 98-112, 2023.

[27] Chowdhury Sadeka Nazrin; Arnab Bandyopadhyay and Arindam Gupta. General estimation procedures for population mean in successive cluster sampling in presence of scrambled response situation. *Proceedings of the National Academy of Sciences, India Section: A Physical Sciences*, 93:95-105, 2023.

[28] Abhimanyu Singh Yadav; Mahendra Saha; Amartya Bhattacharya and Arindam Gupta. Assessment of generalized lifetime performance index for lindley distribution using progressive type-ii samples, *Reliability: Theory and Applications*, Vol- 18 (4(76)), pp- 69-86, 2023.

[29] Sudhansu S. Maiti; Amartya Bhattacharya; Mriganka Mouli Choudhury and Arindam Gupta. On Estimation of Generalized Process Capability Index C_{py} for One Parameter Polynomial Exponential Family of Distributions and Its Natural Discrete Version, *International Journal of Reliability, Quality and Safety Engineering*, Vol- 31(01), pp- 2350033-1 to 2350033-28, 2024.

[30] Mahendra Saha; Amartya Bhattacharya; Sukanta Pramanik; Sudhansu S Maiti and Arindam Gupta. A unified generalized process capability index and its applications to logistic-exponential distributed characteristic. Accepted in European Journal of Industrial Engineering, 2023.

[31] Arindam Gupta Ardhendu Banerjee and Asis Kumar Chattopadhyay. Estimation of undocumented migration - a model based approach. Submitted.

[32] Arindam Gupta Ardhendu Banerjee and Asis Kumar Chattopadhyay. Psychosocial Stress Model of Fertility. Submitted.

Project Completed

Title: Study of Mobility pattern over socio-economic categories: A model based Approach Scheme: SERC Fast Track Scheme for Young Scientist in Mathematical Science

Agency: Department of Science and Technology, Govt of India

Amount Sanctioned: 3.5 L

Duration: 3 Years (2012-2015)

Title: Development of Effective Estimation Strategies for Socio Economic, Agriculture and Health Care Parameters in Presence of Non Response Situations and their Applications in Real Life Problems in India

Scheme: Extra Mural Research

Agency: Department of Science and Technology, Govt of India

Amount Sanctioned: Rs 1339040/-

Duration: 3 Years (2017-2020)