UNIVERSITY OF CALCUTTA

ACADEMIC DEPARTMENT

FACULTY ACADEMIC PROFILE/ CV

1. Full name of the faculty member: SUGATA SEN ROY

2. Designation   :   PROFESSOR

3. Specialisation   :   STATISTICS

4. **Passport size photograph**   :

5. Contact information   :   DEPARTMENT OF STATISTICS,
UNIVERSITY OF CALCUTTA
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6. Academic qualifications   :   Ph.D. in STATISTICS

College/ university from which the degree was obtained	Abbreviation of the degree
Calcutta University	Ph.D. in Statistics (1993)
Calcutta University	M.Sc. in Statistics (1983)
Presidency College	B.Sc. with Statistics Honours (1981)

7. Positions held/ holding:

Department of Statistics, University of Calcutta :   Lecturer (1989-1999), Reader (1999-2007),

Professor (2007- till date)

Visiting / Guest **:**

1. Presidency College : Visiting Professor (1996-2000)
2. Indian Statistical Institute : Visiting Professor (2000, Jan- June)
3. University of Nebraska, Lincoln, USA : Visiting Professor (2000-2001)
4. Indian Institute of Management, Calcutta : Visiting Professor (2001,Sept-Dec)
5. Department of Economics, University of Calcutta : Guest Professor (1999-2013)
6. Monash University, Melbourbe, Australia : Visiting Professor 2007

8. Research interests :   Time Series Analysis, Regression Analysis, Econometrics,

Survival Analysis, Development Statistics, Functional data Analysis

9. Research guidance:

Number of researchers awarded Ph.D degrees   :   4

Number of researchers pursuing Ph.D   :   3

10. Projects:

Completed projects :

- e-pathsala, a UGC project to develop a post-graduate level e-course in Statistics (2014-16).
- ICMR project in collaboration with Sri Ramchandra University, Chennai on Innovative statistical techniques for construction of exposure metrics and quantification of the effects of exposure to ambient air pollution on health, (2011–2014).
- Indian/ South African Inter-Governmental Science & Technologiy Cooperation Programme under DST on Nanomedicine as a biomedical intervention against Acute Cardiac Syndrome and associated statistical models, (2011-14).

- Project of the ICMR Task Force on Climate & Respiratory Health entitled Meteorological changes and respiratory health, (2012-15).

- Project with Cytel Inc.Software for designing and developing algorithms for adaptive clinical trials, for the period, (2012-14).

- Project on Education, Human Capital and Urban Employment in West Bengal: Emerging Trends and Future Prospects, with the Economics Department, Calcutta University, (2007-09).

- Consultant for Datainfocom (Canada) (2007) for a project related to the studying of various parameters that govern and determine the performance of BPO centers.

- Consultant for Sri Ramachandra Medical College, Chennai for a HEI (Boston) project (2004-07) on the effect of environmental pollution on mortality in Chennai.

- Consultant in a UGC project (2002-03) for contingency valuation of the heritage sites in and around Calcutta. Involved in the analysis of data which were primarily categorical by nature.

- USAID project (1999 - 2000) for development of manual for conducting a comprehensive situation analysis into the demand, supply and management of micro-nutrient supplements, anti-helminths and anti-malarials.

- NCERT project (1996-97) for studying the effectiveness of the adult literacy programme in West Bengal.

- CMDA project under a British Government funding (1992-93) on the requirements in the various slum areas of Calcutta for allocation of development funds.

Current projects :

- UGC-MOOCs (SWAYAM) project for development of e-content for PG Courses in Statistics

11. Select list of publications:

- A copula-based approach for estimating the survival functions of two alternating recurrent events (with M. Chatterjee), *Journal of Statistical Computation and Simulation* (2018), **88**(16), 3098-3115, DOI 10.1080/00949655.2018.1499741.

- Estimating the hazard functions of two alternating recurrent events in the presence of covariates (with M. Chatterjee), *Advances in Statistical Analysis* (2018), **102**(2), 289-304, DOI 10.1007/s10182-017-0316-1.

- Deletion Diagnostics for detection of influential observations from a Generalised Linear Mixed Model (with B.Ganguli, M.Naskar, E.J.Malloy & E.A.Eisen) : accepted for publication in *Statistics in Medicine*, (2016).

- Diagnostics for a Multivariate Regression Model with Autocorrelated Errors (with S.Guria) : *Journal of Statistical Theory and Applications* (2016), **15**, 4, 424-433.

- Measuring Visible Underemployment (with S.Chakraborty) : *Journal of Economic and Social Measurement*, (2016), 41, 85–101, DOI 10.3233/JEM-160426.

- Estimating the Hazard Functions of two Alternating occurring Recurrent Events : (with M. Chatterjee) : *Journal of Applied Statistics*, (2015), 42, 7, 1547-1555, DOI : 10.1080/02664763.2014. 1001329.

- Diarrhoeal Health Risks Attributable to Water-Borne-Pathogens in Arsenic-Mitigated Drinking Water in West Bengal are Largely Independent of the Microbiological Quality of the Supplied Water (with D. Mondal, B. Ganguli, B. Halder, N. Banerjee, M. Banerjee, M. Samanta, A. K. Giri and D. A. Polya : *Water* (2014), *6*, 1100-1117; DOI : 10.3390/w6041100.

- A spatially disaggregated time series analysis of the short-term effects of particulate matter exposure on mortality in Chennai, India (with K. Balakrishnan, B. Ganguli, S. Ghosh, S. Sambandam, A. Chatterjee) : *Air Quality, Atmosphere and Health*, (2013), **6**, 1, 111-121.

- Rate of Convergence in the CLT for parameter estimation in a causal, invertible ARMA(p,q) model (with S.Bhattacharya) : *Journal of Time Series Analysis*, (2013), **34**, 1, 130-137.

- Missing values in Linear Regression : Imputations using Error Contaminated Linear Predictors (with S.Guria) : *Communications in Statistics – Theory and Methods* (2013), DOI 10.1080/03610926.2012.748918.
- Asymptotic Distribution of Estimators of Parameters in an ARMA(p, q) process in the presence of explosive roots (with S.Bhattacharya) : *Applicationes Mathematicae,* (2012), **39**, 3, 257-272.
- Rate of Convergence to Normality of estimators in a random coefficient ARMA (p, q) model (with S.Bhattacharya) : *Communications in Statistics – Theory and Methods*, (2011), **40**, 1081-1092.
- Estimation and Prediction in an Autoregressive process in the presence of multiple missing observations (with S.Chakraborty) : *Annales de l'I.S.U.P.*, (2011), **55**, 2-3, 27-42.

12. Recent Invited lectures delivered :

- Workshop on Biostatistics organized by Kathmandu University School of Medical Sciences and Nepal Health Research Council, November 18-21, 2018.
- IFCAM (Indo-French Centre for Applied Mathematics) Winter School on Stochastic Methods for Uncertainty Quantification and Sensitivity Analysis of Complex Models organized by Indian Institute of Science Education and Research, Kalyani, December 13, 2018.
- Research Workshop and Conference on Statistical Methods in Finance, Indian Statistical Institute and Chennai Mathematical Institute, December 17-19, 2018.
- Workshop on Prospects and Constraints on Firm Investment, Financing and Innovation in Changing Global Environment organized by the Nottingham University Business School, October 12, 2017
- Seminar on Finance, Growth and Inequality, organized by the Department of Statistics, University of Calcutta, December 19, 2017.