

# SUJAY K MUKHOTI

---

Indian Institute of Management Indore,  
Prabandh Shikhar, Rau-Pithampur Road  
Indore, Madhya Pradesh, India - 453356  
e-mail: sujaym@iimidr.ac.in  
Alternative e-mail: sujay.mukhoti@gmail.com  
Phone: +91-7583034808 (M)

---

## Education

|                             |                        |      |
|-----------------------------|------------------------|------|
| Fellow<br>(eq. Ph.D)        | IIM, Bangalore         | 2014 |
| M.Sc. (Statistics)          | University of Kalyani  | 2000 |
| B.Sc. (Hons. in Statistics) | University of Calcutta | 1998 |

**Research Interests:** *Stochastic Volatility Models, Gaussian Process Models, Ranked Set Sampling*  
**Dissertation Title:** Essays on generalized stochastic volatility model for financial returns with sparse

jumps

## Publications

6. Sengupta, S. and **Mukhuti, Sujay** (2009): Unbiased Estimation of the Distribution Function of a Two-Parameter Exponential Population Using Order Statistics, *Communications in Statistics - Theory and Methods*, **38(15)**, 2578-2585.
5. Sengupta, S. and **Mukhuti, Sujay** (2008): Unbiased estimation of  $P(X > Y)$  using ranked set sample data, *Statistics*, **42(3)**, 223-230, *Google Scholar Citation:7*.
4. Sengupta, S. and **Mukhuti, Sujay** (2008): Unbiased Estimation of  $P(X > Y)$  for Exponential Populations Using Order Statistics with Application in Ranked Set Sampling, *Communications in Statistics - Theory and Methods*, **37(6)**, 898-916, *Google Scholar Citation:5*.
3. Sinha, Bikas K., Das, Kishore K. and **Mukhuti, Sujay** (2008): On Some Aspects of Unbiased Estimation of Parameters in Quasi-Binomial Distributions, *Communications in Statistics - Theory and Methods*, **37(19)**, 3023-3028, *Google Scholar Citation:1*.
2. Sengupta, S. and **Mukhuti, Sujay** (2006): Unbiased variance estimation in a simple exponential population using ranked set samples, *Journal of Statistical Planning and Inference*, **136(4)**, 1526-1553, *Google Scholar Citation:9*.

1. Sinha, Bikas K., Sengupta, S. and **Mukhoti, Sujay** (2006): Unbiased Estimation of the Distribution Function of an Exponential Population Using Order Statistics with Application in Ranked Set Sampling, *Communications in Statistics - Theory and Methods*, **35(9)**, 1655-1670, *Google Scholar Citation:4*.

## Working Papers

- Ranjan, P., Thomas M., Tiessman, H. & **Mukhoti, S.**, & (2016): Inverse problem for time-series valued computer model via scalarization. arXiv preprint arXiv:1605.09503.
- **Mukhoti, S.**, & Ranjan, P. (2016): Mean-correction and Higher Order Moments for a Stochastic Volatility Model with Correlated Errors. arXiv preprint arXiv:1605.02418.
- **Mukhoti, S.** & Guhathakurta, K.(2015): Product Market Performance and Capital Structure: A Hierarchical Bayesian Semi-Parametric Panel Regression Model (February 18, 2015), SSRN: <http://ssrn.com/abstract=2566832>
- **Mukhoti, S.**(2014): Dynamic Feedback Effect And Skewness In Non-Stationary Stochastic Volatility Model With Leverage, IIM Kozhikode Working paper series, IIMK/WPS/145/QM&OM/2014/03

## Current Research

7. **Mukhoti, Sujay K.** (2015): Sequential estimation in stochastic volatility models (*Work in progress*)
6. **Mukhoti, S.**, & Ranjan, P. (2016): New class of generalized stochastic volatility models (*Work in progress*).
5. **Mukhoti, S.**, & Ranjan, P. (2016): Inverse problems in Gaussian Process models for business (*Work in progress*).

## Seminar Presentations

- **Mukhoti, S.** and Guhathakurta, K. (2015): Product market performance and capital structure, TAPMI-CSU international conference in finance, April 17 & 18, 2015, TAPMI, Manipal.
- **Single factor stochastic volatility model for skewed returns:** International Conference on Applied Economics and Finance, Vishakhapatnam, February, 2015
- **Single factor stochastic volatility model for bounded stationary returns:** Invited talk at Department of Economics, IIT Kanpur, November, 2014
- **Simultaneous Modeling of Skewness and Sparse Time-Varying Jumps in Asset Return with Stochastic Volatility** (with Ghosh, P.): ISBA Regional Meeting and International Workshop/Conference on Bayesian Theory and Applications (IWCBTA) at *Banaras Hindu University, Varanasi, INDIA*, January 2013
- **Modeling Stock Market Jump Intensity Dynamics With Macroeconomic Surprises: A Bayesian Approach:** India Finance Conference, December, 2011, Indian Institute of Management, Bangalore.

## Awards and Fellowships

- Awarded **Senior Research Fellowship** from Council of Scientific and Industrial Research (CSIR) (2004) for research project on “Estimation problems in Ranked Set Sampling and Order Statistics”.
- Awarded **Junior Research Fellowship** from Council of Scientific and Industrial Research (CSIR) (2002) for research project on “Estimation problems in Ranked Set Sampling and Order Statistics”.
- **S. B Dasgupta memorial endowment** award for standing first in first class in M.Sc examination in Statistics.

## Work Experience

|   |   |                   |
|---|---|-------------------|
| Assistant Professor   | Indian Institute of Management,<br>Indore           | April '14 -       |
| Visiting Assistant Professor  | Indian Institute of Management,<br>Kozhikode        | June'13- March'14 |
| Quantitative Methods and Operations Management Area                 |   |                   |
| Business Analyst  | HSBC, Data Processing India Pvt.<br>Ltd.            | Dec'07-May'10     |
| Statistical Analyst   | Tyfone Communications India Pvt.<br>Ltd.            | Mar'07-Dec'07     |
| Lecturer (Full time), Statistics<br>Undergraduate Statistics Honors | St. Xavier's College, Kolkata                       | Aug'05-Feb'07     |
| Research Fellow   | Department of Statistics, University of<br>Calcutta | Jul'02- Aug'05    |
| Lecturer, Statistics<br>(Undergraduate Statistics Honors)           | St. Xavier's College, Kolkata                       | Aug'01-Jun'02     |

## Courses Taught

- PhD Courses: Statistical Decision Making, Bayesian Inference for Management, Advanced Statistical Techniques I, Mathematics for management research
- Post-Graduate Course: Quantitative Methods, Business Forecasting
- Under Graduate Courses in Statistics (Hons): Categorical Data Analysis, Large Sample Theory, Theoretical Distributions, Real Analysis for Statistics