

Soudeep Deb

CURRENT POSITION	Assistant Professor Decision Sciences Area Indian Institute of Management, Bangalore, India.	Webpage: soudeepd.github.io Phone: +91 80-26993387 E-mail: soudeep@iimb.ac.in
CITIZENSHIP	India	
RESEARCH INTERESTS	Time series data, Spatial statistics, Spatio-temporal modeling, Sports analytics, and Application of time series and spatial statistics in finance and other disciplines.	
PREVIOUS EXPERIENCE	NBC Universal Media, LLC., New York, NY, USA. <ul style="list-style-type: none">Senior Lead Data Scientist, Decision Sciences Division.	Sep 2018 - Feb 2020
EDUCATION	University of Chicago , Chicago, IL, USA. Ph.D., Statistics <ul style="list-style-type: none">Thesis: Irregular spaced random field, Spatio-temporal data and Clustering of time seriesAdvisor: Dr. Wei Biao WuOther committee members: Dr. Ruey S. Tsay and Dr. Michael L. Stein Indian Statistical Institute , Kolkata, WB, India. Master of Statistics (M. Stat.) <ul style="list-style-type: none">First Division with DistinctionSpecialization: Mathematical Statistics and ProbabilityDissertation: Association analysis for identifying rare genetic variantsAdvisor: Dr. Saurabh Ghosh Bachelor of Statistics (B. Stat.) <ul style="list-style-type: none">First Division with Distinction	
TEACHING	Course instructor , at Indian Institute of Management, Bangalore: <ul style="list-style-type: none">Statistical Inference (FPM)Decision Sciences I (PGP) Course instructor , at University of Chicago: <ul style="list-style-type: none">Introductory Statistics at Chicago Academic Achievement ProgramStatistical Models and Methods I	 Term 2 of 2020 Term 1 of 2020 Summers of 2015, 2017 Winter 2015
PUBLICATIONS	<ol style="list-style-type: none">Rawat, S., Deb, S. (2020). A spatio-temporal statistical model to analyze COVID-19 spread in the USA. Under review. Pre-print available on request.Deb, S. (2020). Forecasting count data using time series model with exponentially decaying covariance structure. Under review. Pre-print: https://arxiv.org/abs/2004.03130.Deb, S., Deb, S. (2020). An ensemble method for early prediction of dengue outbreak. Under review. Pre-print available on request.Deb, S. (2020). Analyzing airlines stock price volatility during COVID-19 pandemic through internet search data. Under revision. Pre-print available on request.Deb, S., Majumdar, M. (2020). A time series method to analyze incidence pattern and estimate reproduction number of COVID-19. Under review. Pre-print: https://arxiv.org/abs/2003.10655.Majumdar, M., Banerjee, M., Sengupta, J., Deb, S., Jana, C. K., Roy, B. K. (2020). Prevalence and spectrum of diabetic peripheral neuropathy and its correlation with insulin resistance-An experience from eastern India. Under review. Pre-print available on request.	

7. **Deb, S.**, Tsay, R. S. (2019). Spatio-temporal Models with Space-time Interaction and Their Applications to Air Pollution Data. *Statistica Sinica*, 29, 1181-1207.
8. **Deb, S.** (2019). VAR Model Based Clustering Method for Multivariate Time Series Data. *Journal of Mathematical Sciences*, 237(6), 754-765.
9. Prickett, K.C., Guiterrez, C., **Deb, S.** (2019). Family Firearm Ownership and Firearm-related Mortality among Young Children: 1976-2016. *Pediatrics*, 143(2), e20181171.
10. Chazin, H., **Deb, S.**, Falk, J., Srinivasan, A. (2019). New Statistical Approaches to Intra-individual Isotopic Analysis and Modelling of Birth Seasonality in Studies of Herd Animals. *Archaeometry*, 61(2), 478-493.
11. **Deb, S.** (2018). Irregular Spaced Data, Spatio-temporal Modeling and Clustering of Time Series. The University of Chicago.
12. **Deb, S.**, Pourahmadi, M., Wu, W. B. (2017). An Asymptotic Theory for Spectral Analysis of Random Fields. *Electronic Journal of Statistics*, Vol. 11, No. 2, p. 4297-4322.
13. **Deb, S.**, Dey, D. (2017). Spatial modeling of shot conversion in soccer to single out goalscoring ability. *Journal of Sports Analytics*, (Preprint), 1-17.
14. Zechner, C., **Deb, S.**, Koeppl, H. (2013). Marginal Dynamics of Stochastic Biochemical Networks in Random Environments. In *Control Conference (ECC)*, 2013 European, p. 4269-4274, IEEE.
15. Ghosh, S., **Deb, S.** (2013). A Clustering Approach for Mapping Rare Variants Based in Mutual Association. *Human Heredity*, Vol. 76, No. 2, pp. 98-98.

SEMINARS

1. New Methods of Clustering Time-series Data and its Applications; Colloquium, Indian Statistical Institute, Bangalore, India. Nov 2019
2. Spatio-temporal Models with Space-time Interaction and Their Applications to Air Pollution Data. Statistics colloquium, Northern Illinois University, Dekalb, USA. Dec 2017
3. VAR Model Based Clustering Method for Multivariate Time Series Data. XXXIV. International Seminar on Stability Problems for Stochastic Models, Debrecen, Hungary. Aug 2017
4. Spatio-temporal Models with Space-time Interaction and Their Applications to Air Pollution Data. NBER/NSF Time Series Conference, New York, USA. Sep 2016
5. Hydropower Construction and Deforestation in the Tapajós River Basin: Linking Forest Cover to Changes in Water Balance. Symposium on deforestation, Ministry of Environment, Brasília, Brazil. Aug 2016
6. Estimating Genetic Relationship between Random Individuals from Genome Sequence Data. Young Statisticians Conference, Melbourne, Australia. Feb 2013
7. Estimating Genetic Relationship between Random Individuals from Genome Sequence Data. Conference on Contemporary Issues and Applications in Statistics, Kolkata, India. Jan 2012
8. Estimating Genetic Relationship between Random Individuals from Genome Sequence Data. D. Basu Memorial Award Lecture Series, Indian Statistical Institute, Kolkata, India. Sep 2011

PEER REVIEW SERVICES **Worked as a Reviewer** for the following journals:

- Biometrics
- Electronic Journal of Statistics
- Statistics and Probability Letters
- Linear Algebra and its Applications
- Journal of Sports Analytics

HONORS	University of Chicago:		
	• International House Ralph W. Nicholas Fellowship Award	2017-18	
	• Graduate Council Travel Fund Award	2017	
	• Senior Consultant, Department of Statistics	2016-17	
	• Runner-up for Department of Statistics Consulting Award	2016	
	• Nominated for Best Teaching Assistant in Physical Sciences Division	Winter 2014	
	Other Awards:		
	• Kishore Vaigyanik Protsahan Yojana scholarship, Indian Institute of Science	2007 to 2013	
	• Selected for International Mathematical Olympiad Training Camp, India	2007 & 2008	
OTHER EXPERIENCE	The Alan Turing Institute , London, United Kingdom		Dec 2017
	• Position: Delegate for the Data Study Group.		
	• Project: Geospatial time-series analyses to predict demand for a global satellite communications network.		
	Instituto de Pesquisa Ambiental do Amazônia , Brasília, Brazil		Jun - Aug 2016
	• Position: Summer fellow.		
	• Project: Hydropower Construction and Deforestation in the Tapajós River Basin: Linking Forest Cover to Changes in Water Balance.		
	Eidgenossische Technische Hochschule (ETH), Zurich, Switzerland		May - Jul 2013
	• Position: Summer research intern.		
	• Project: Moment-Closure Approximations for Mass-action Models in Chemical Kinetics.		
	Eidgenossische Technische Hochschule (ETH), Zurich, Switzerland		Jun - Jul 2012
	• Position: Summer research intern.		
	• Project: Marginal Dynamics of Stochastic Biochemical Networks in Random Environments.		
Ministry of Statistics and Programme Implementation , Govt. of India		May 2012	
• Position: Team member			
• Project: Forecasting of Foreign-tourist Arrivals in India.			
Johns Hopkins University , Baltimore, United States of America		May - Jul 2011	
• Position: Summer research intern			
• Project: Estimating Genetic Relationship between Random Individuals from Genome Sequence Data.			
OTHER INFORMATION	Technical strength:		
	• Proficient: R, MATLAB, L ^A T _E X, Microsoft Office		
	• Working knowledge: Python, SQL, C.		
	Languages:		
	• Fluent in reading, writing, speaking: English, Bengali, Hindi.		
	• Basic reading and speaking: Portuguese.		