

Shubhabrata Das

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Employment History

Indian Institute of Management Bangalore	Professor (HAG scale)	2005 –
	Associate Professor	2002 – 2005
	Assistant Professor	1999 – 2002
ESSEC Business School	Visiting Professor	May 2012, April 2011, Jan – May 2008, May 2007
Indian Institute of Management Lucknow	Assistant Professor	1997 – 1999
Indian Statistical Institute Calcutta	Visiting Scientist	Aug 1996 – May 1997 May – July 1995
University of Nebraska at Lincoln	Visiting Assistant Professor	1994 – 1996
University of Montana at Missoula	Visiting Assistant Professor	1993 – 1994
Glaxo Inc.	Research Assistant	May – July, 1993
University of North Carolina Chapel Hill	Graduate Instructor & TA	1989 – 1993

Education

1989 – 1993	📖 Ph.D. , University of North Carolina at Chapel Hill Thesis title: <i>Restricted Canonical Correlations</i> Best performance in the Ph.D. qualifier 16 H, 2 P grade in coursework
1992	📖 M.S. , University of North Carolina at Chapel Hill Thesis title: <i>Study of Dependence in high Dimensional Neurophysiological Problems</i>
1987 – 1989	📖 M.Stat. , Indian Statistical Institute, Calcutta First Division with 74% marks (second in the batch)
1984 – 1987	📖 B.Stat. , Indian Statistical Institute, Calcutta First Division with 75% marks (batch topper)
1984	📖 Higher Secondary , West Bengal Council of HS Education Ramakrishna Mission Residential College, Narendrapur First Division with 88% marks Ranked twelfth in West Bengal
1982	📖 Secondary , West Bengal Board of Secondary Education Ramakrishna Mission Vidyalaya, Narendrapur First Division with 84% marks

Research Publications

Articles Published in Refereed Journals

- 1 Deb, S., & **Das, S.** (2025). Optimal selection of the starting lineup for a football team. accepted for publication in *IIMB Management Review*.
- 2 Deb, S., Roy, R., & **Das, S.** (2024). Forecasting elections from partial information using a bayesian model for a multinomial sequence of data. *Journal of Forecasting*, 43(6), 1814–1834. Retrieved from <https://doi.org/10.1002/for.3107>
- 3 Chandrakar, P., Bhalla, M., & **Das, S.** (2023). Sequential auctions with multiple synergies. *International Game Theory Review*, 25(1). [doi:10.1142/S0219198923500019](https://doi.org/10.1142/S0219198923500019)
- 4 **Das, S.** (2023). Maximum likelihood estimation of two-sample population proportions under constraint on their difference. *Communications in Statistics - Theory and Methods*, 52(9), 2836–2851. [doi:10.1080/03610926.2021.1961152](https://doi.org/10.1080/03610926.2021.1961152). eprint: <https://doi.org/10.1080/03610926.2021.1961152>
- 5 Chandrakar, P., **Das, S.**, & Bhalla, M. (2022). Lease auctions with retention options. *Journal of Quantitative Economics*, 20, 97–136. [doi:10.1007/s40953-021-00279-3](https://doi.org/10.1007/s40953-021-00279-3)
- 6 Chandrakar, P., & **Das, S.** (2021). Measuring the values of cricket player. *Australian & New Zealand Journal of Statistics*, 63 (4), 565–578. Retrieved from <http://dx.doi.org/10.1111/anzs.12353>
- 7 **Das, S.** (2017). On generalized geometric distribution and improved estimation of batting average in cricket. *Communications in Statistics: Theory and Methods*, 46 (6), 2736–2750. [doi:10.1080/03610926.2015.1048888](https://doi.org/10.1080/03610926.2015.1048888)
- 8 **Das, S.**, & Kratz, M. (2010). Alarm system for insurance companies: A strategy for capital allocation. *Insurance: Mathematics and Economics*, 51 (1), 53–65. [doi:10.1016/j.insmatheco.2012.02.009](https://doi.org/10.1016/j.insmatheco.2012.02.009)
- 9 **Das, S.**, Mandal, P., & Ghosh, D. (2009). On homogeneous skewness of unimodal distributions. *Sankhya B*, 71-B, 187–205. Retrieved from https://www.jstor.org/stable/41343028?seq=1#metadata_info_tab_contents
- 10 **Das, S.** (2008). Joint life insurance policies with differential benefits and premiums to the policyholders. *Asia-Pacific Journal of Risk and Insurance*, 2 (2), 1–18. [doi:10.2202/2153-3792.1018](https://doi.org/10.2202/2153-3792.1018)
- 11 **Das, S.**, & Mitra, A. (2008). On trade-off between utility and confidentiality in shared database –a perspective in indian insurance industry. *Journal of Insurance and Risk Management*, VII (13), 7–16.
- 12 **Das, S.** (2007). Information loss in grade point conversion. *Communications in Statistics-theory and Methods*, 36, 2377–2393. [doi:10.1080/03610920701215605](https://doi.org/10.1080/03610920701215605)
- 13 **Das, S.** (2006). On measuring imprecision in human response due to respondent and attribute and its utility in questionnaire design. *International Journal of Uncertainty, Fuzziness and Knowledge-based Systems*, 14(2), 155–173. Retrieved from <https://www.worldscientific.com/doi/pdf/10.1142/S0218488506003923>
- 14 **Das, S.** (2004). The role of credibility theory in life insurance. *Journal of Insurance and Risk Management*, III (5), 25–34.
- 15 **Das, S.**, & Basu, S. (2003). A markov chain based no-claim-discount system. *Journal of Insurance and Risk Management*, II (3), 61–72.
- 16 **Das, S.**, & Ghosh, D. (2003). Binary knapsack problems with random budgets. *Journal of the Operational Research Society*, 54(9), 970–983. [doi:10.1057/palgrave.jors.2601596](https://doi.org/10.1057/palgrave.jors.2601596)
- 17 **Das, S.** (2002). Quantifying fuzziness due to the scale of measurement in response systems. *Fuzzy Sets and Systems*, 132, 317–333. Retrieved from [https://doi.org/10.1016/S0165-0114\(01\)00244-5](https://doi.org/10.1016/S0165-0114(01)00244-5)

- 18 **Das, S., & Krishen, A.** (1999). Some bootstrap methods for non-linear mixed effect models. *Journal of Statistical Planning and Inference*, 75(2), 37–45. Retrieved from [https://doi.org/10.1016/S0378-3758\(98\)00145-1](https://doi.org/10.1016/S0378-3758(98)00145-1)
- 19 **Das, S., & Sen, P.** (1996). Asymptotic distribution of restricted canonical correlation and relevant resampling methods. *Journal of Multivariate Analysis*, 56, 1–19. Retrieved from <https://doi.org/10.1006/jmva.1996.0001>
- 20 **Das, S., & Sen, P.** (1995). Simultaneous spike-trains and stochastic dependence. *Sankhya, Series B*, 57 (1), 32–47. Retrieved from <https://www.jstor.org/stable/25052874>
- 21 **Das, S., & Sen, P.** (1994). Restricted canonical correlations. *Linear Algebra and Its Applications*, 210, 29–47. Retrieved from <https://core.ac.uk/download/pdf/82507765.pdf>

Published Books and Chapters

- 1 **Das, S., & Deb, S.** (2025). *Business analytics: Data to decisions*. University Press.
- 2 Hatton, D., Joshi, N., Li, F., Vaidyanathan, R., Jyothilaxmi, S., **Das, S.**, & Basu, S. (2007). *Facing the future: Indian pension systems*. Tata McGraw Hill Publishing Company.
- 3 **Das, S., & Sen, P.** (2003). Canonical correlations. In P. Armitage & T. Colton (Eds.), *Encyclopaedia of biostatistics, vol. 1*, (pp. 468–482). John Wiley & Son Inc. Retrieved from <https://doi.org/10.1002/0470011815.b2a13005>

Journal Articles under Preparation

- 1 Bhowmick, A., Deb, S., & **Das, S.** (2025). Prediction of the final standing of a sports league.
- 2 **Das, S.** (2025a). A new measure of non-parametric correlation for variables in the likert scale.
- 3 **Das, S.** (2025c). On forming similar clusters based on multiple characteristics.
- 4 **Das, S.** (2025d). Revenue management and pricing models in a best-of-n series in sports.
- 5 De, A., Deb, S., Roy, R., & **Das, S.** (2025). Basketball team selection and substitution: A case study from nba.

Technical Reports and Working Papers

- 1 **Das, S.** (2025b). A new measure of non-parametric correlation for variables in the likert scale. *IIM Bangalore Working Paper*, 716.
- 2 **Das, S.**, Guru, S., & Iyer, A. (2022). Forecasting mortality rates and population pyramid for india using lee-carter model. *IIM Bangalore Working Paper*, 656. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4037026
- 3 Lakshmanan, A., & **Das, S.** (2017). Two-stage models for time series with multiple seasonality. *IIM Bangalore Working Paper*, 540.
- 4 Singh, A., & **Das, S.** (2014). Rank consistent bradley-terry models for repeated tournaments. *IIM Bangalore Working Paper*, 466.
- 5 **Das, S.** (2013). Impact of fuzziness in measurement scale on basic statistical inference. *IIM Bangalore Working Paper*, 423.
- 6 Ghosh, D., Mandal, P., & **Das, S.** (2005a). On solving some stochastic discrete optimization problems with multiple random elements. *University of Twente, TW-Report*, 1785.
- 7 Ghosh, D., Mandal, P., & **Das, S.** (2005b). On solving some stochastic discrete optimization problems with single random elements. *University of Twente, TW-Report*, 1784.

- 8 Mitra, A., & Das, S. (2004). A study on price indices to indian economy. *IIM Bangalore Working Paper*, 232.
- 9 Bhasker, B., Das, S., & Ghosh, D. (2000). Web usage patterns in india — results from the first indian www survey. *IIM Lucknow Working Paper Series*, 1999-15.
- 10 Das, S. (1995). Degeneracy of coefficients in principal component analysis under l1 norm. *University of Nebraska at Lincoln, Division of Statistics; T.R.*, 29.
- 11 Das, S. (1994). Modification and restrictions of weights in principal component analysis. *University of Nebraska at Lincoln, Division of Statistics; T.R.*, 28.

Research topic / domain

- All aspects of statistics, operational research, actuarial mathematics, fuzzy data analysis, measurement and scaling, applications in management, social, environment and other discipline
- **Sector:** Sports, health, education, election, demographics

Other Research

- 2020- ■ Partial lockdown and economic impact using ESIR model with Prabasaj Paul, Centers for Disease Control and Prevention, USA
- 2014-2016 ■ On a relation for ruin probabilities under light and heavy tails with Corina Constantinescu, Univ. of Liverpool, and Marie Kratz, ESSEC Business School
- 2014 ■ On mortality studies with Severine Arnold, Univ. of Lausanne
- 1996-97 ■ Cryptography with Bimal Roy, Indian Statistical Institute
- 1997 ■ Principal Component Analysis for Censored data with Jayanta Ghosh, Indian Statistical Institute
- 1995-96 ■ Statistical prediction based multimedia synchronisation with Sarit Mukherjee, University of Nebraska

Invited Seminar and Conference Presentations

- A New Measure of Non-Parametric Correlation for Variables in the Likert Scale, Royan Statistical Society International Conference 2025, Edinburg.
- On Balanced Scheduling and Dynamic Updates in Double Round-Robin Tournaments: Applications in the Indian Super League, Keynote seminar in Mathsport Asia conference, December 2024, in Udaipur.
- Optimizing Prices of Tickets and Advertisement in Sports Series with Variable Game Counts, 2024 International Indian Statistical Association Conference, December 2024, Cochi
- P.K.Sen Memorial lecture - Prof. Pranab Kumar Sen, the Advisor & the Academic Guru, 2024 International Indian Statistical Association Conference, December 2024, Cochi

- On Constraints and Interrelations between Nonparametric and Polychoric Correlations for Variables measured on the Likert Scale, International Conference on Trends and Perspectives in Linear Statistical Inference, LinStat'2024, September, 2024 in Poprad, Slovakia
- Revenue Management in a Best-of-n Series in Sports, 23rd Conference of the International Federation of Operational Research Societies, July 2023, Santiago, Chile
- Optimal Soccer Squad Selection, EURO 2022, July 2022, Espoo, Finland
- Two sample testing of proportion: non-null case. 7th International Conference on Data Science and SDGs: Challenges, opportunities and realities, Rajshahi, Bangladesh; Dec. 2019
- Formation of homogeneous sections of students based on multiple characteristics
 - 29th European conference of operational research, Valencia, Spain; July 2018
 - Advancing frontiers in operational research: towards a sustainable world, Kolkata; Dec. 2017
- Forecasting mortality rates and population demographics for India using Lee-Carter model. Concluding international "RARE" conference, La Baule, France; July 2016
- Forecasting high frequency data with complex multi-layer seasonality using covariates. 60th ISI world statistics congress – ISI2015 at Rio de Janeiro, Brazil; July 2015.
- On ultimate and finite Horizon Ruin in Cramer – Lundberg model with Pareto severity. 19th international congress on Insurance: Mathematics and Economics, at Liverpool, UK; June 2015
- Selected problems in sports analytics. Big data public lecture at Indian Institute of Science, Bangalore; Nov. 2015
- Breaking the barrier of Likert scale in statistical inference. EUROFUSE 2013, Uncertainty and imprecision modeling in decision making, Oviedo, Spain; Dec. 2013.
- Facing the future: Indian pension system. ESSEC Business School, Paris, France; Nov. 2013,
- On maximum likelihood estimation and model selection for a family of generalized geometric distributions with random right-censored data. 8th International Triennial Calcutta symposium on Probability and Statistics, Kolkata; Dec. 2012
- Validity of one and two sample inference drawn from imprecise data. ESSEC Business School, Cergy, France; May 2012,
- Two sample inference about mean, variance and proportion using imprecise data. 4th International Conference of the ERCIM and 5th CSDA Computational and Financial Econometrics (CFE'11), London, UK; Dec 2011
- Constrained multivariate methods – principle, solutions and applications
 - University of Birmingham, UK; May 2011,
 - ESSEC Business School, Cergy, France; May 2007
- Fuzziness in human response due to scale, respondent or attribute
 - University of New Castle; May 2011
 - University of Durham, UK; May 2011
 - ESSEC Business School, Cergy, France; Apr. 2008
- Discrete optimization problems with random elements
 - University of Southampton; May 2011