Dr. KOUSIK GUHA THAKURTA

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Type V, House No 79, IIM Indore
Prabandh Shikhar, Rau-Pithampur Road,Indore- 453556
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website: https://sites.google.com/site/kousikguhathakurta/ email : kousikg@gmail.com; kousikg@iimk.ac.in;

Academics

PhD	Jadavpur University 2012
MBA	Jadavpur University 1997
B.Prod.E	Jadavpur University 1992

PhD Thesis Topic:	Indian Stock Market: Examination of validity of the Geometric Brownian Motion (GBM) model to Stock Price Behaviour with particular emphasis on the Black Scholes Option Pricing Model
Supervisors:	Prof Basabi Bhattacharya, Department of Economics, Jadavpur University Prof Asesh Roychowdhury, Department of Physics, Jadavpur University

Awards

National Scholarship, 1986 for attaining 96th position (out of over 300, 000 candidates) in merit list of Secondary Education Examination
National Scholarship, 1988 for attaining 110th position (out of over 200, 000 candidates) in merit list of Higher Secondary exam

Positions held – Academics

June 2021 onwards	Professor, Indian Institute of Management Indore (IIMI)
Oct 2014- June 2021	Associate Professor, Indian Institute of Management Indore (IIMI)
Nov 2013- Sep 2014	Assistant Professor, Indian Institute of Management Kozhikode (IIMK)
Nov 2011-Nov 2013	Visiting assistant Professor, Indian Institute of Management Kozhikode
Aug 2007-Oct 2011	Assistant Professor, Army Institute of Management, Kolkata (AIMK)
July 2004-July 2007	Senior Lecturer, Army Institute of Management, Kolkata
July 2002-July 2004	Lecturer, Haldia Institute of Technology, Haldia, West Bengal (HIT)

Positions held – Industry

Jan 1998- June 2002	Manager, Proposals, Mitsui Babcock Energy (India) Ltd (MBEIL)
Sep1993- Dec 1997	Project Engineer, Metal Engineering & Treatment Co Ltd (METCO)
Aug 1992- Aug 1993	Graduate Engineer Trainee, Thermax Ltd

Experience & expertise

Research

Research interests include empirical finance and econophysics. Right now I am engaged in network analysis of multiple asset markets.

Selected Publications (Finance and Econophysics)

Book

1. Guhathakurta, K., Bhattacharya, B., Roychowdhuri, A. (2012). Examining Stock Markets: a nonlinear dynamics perspective: Examining the Geometric Brownian Motion model with respect to Stock Price Movement in an Emerging Market. Germany: VDM Verlagsservicegesellschaft GmbH

Articles in Journals

1. Pandey, A., & Guhathakurta, K. (2022). Value Relevance of Loan Loss Provision Components and the Choice of Model Specification. *Advances in accounting*, Forthcoming (ABDC A)
2. Pandey, A., Tripathi, A., & Guhathakurta, K. (2022). The impact of banking regulations and accounting standards on estimating discretionary loan loss provisions. *Finance Research Letters*, 102068. (ABDC A)
3. Maitra, D., Guhathakurta, K., & Kang, S. H. (2021). The good, the bad and the ugly relation between oil and commodities: An analysis of asymmetric volatility connectedness and portfolio implications. *Energy Economics*, *94*, 105061. (ABDC A*)
4. Sandhu, H., Guhathakurta, K., & Banerjee, P. (2021). Do Individual Investors Prefer a Price Range in the Equity Markets?. *The Journal of Wealth Management*, 24(1), 105-118. (ABDC B).
5. Guhathakurta, K., Bhattacharya, S. N., & Bhattacharya, M. (2020). A Network Analysis of the Asia-Pacific and Other Developed Stock Markets: Pre and Post Global Financial Crisis. *Applied Finance Letters*, 9, 112-131. (ABDC B)
6. Sandhu, H., & Guhathakurta, K. (2020). Effects of IPO Offer Price Ranges on Initial Subscription, Initial Turnover and Ownership Structure—Evidence from Indian IPO Market. *Journal of Risk and Financial Management*, 13(11), 279. (ABDC B)

7. Banerjee, S., & Guhathakurta, K. (2020). Change-point analysis in financial networks. *Stat*, 9(1), e269. (ABDC A equivalent)
8. Guhathakurta, K., Dash, S. R., & Maitra, D. (2020). Period specific volatility spill over based connectedness between oil and other commodity prices and their portfolio implications. *Energy Economics*, 104566. (ABDC A*)
9. Pandey, A., & Guhathakurta, K. (2019). Nonperforming loan auction: Prudent policy response or earnings management? *Journal of Public Affairs*, 19(4) (ABDC B)
10. Chakrabarti, P., & Guhathakurta, K. (2019). Which is the right option for Indian market: Gaussian, normal inverse Gaussian, or Tsallis? *IIMB Management Review*, *31*(3), 238-249. (ABDC B)
11. Guhathakurta, K. (2016). The Stock and Commodity Market Relation: is it the Same for Emerging and Developed Markets? *The Empirical Economics Letters, Vol 15, 543-553* (ABDC C)
12. Guhathakurta, K., Bhattacharya, B., & Chowdhury, A. R. (2016).Comparative analysis of asset pricing models based on log-normal distribution and Tsallis distribution using recurrence plot in an emerging market*. Research in Finance, Vol. 32, 35-74* (ABDC C)
13. Guhathakurta, K. (2015). Investigating the nonlinear dynamics of emerging and developed stock markets. *Journal of Engineering Science and Technology Review*, *8*(1), 65-71
14. Guhathakurta, K., Bhattacharya, B., & Chowdhury, A. R. (2010). Using recurrence plot analysis to distinguish between endogenous and exogenous stock market crashes. *Physica A: Statistical Mechanics and its Applications*, 389(9), 1874-1882. (AMS A)
15. Guhathakurta, K., Bhattacharya, B., & Chowdhury, A. R. (2010). Using Empirical Mode Decomposition to compare Gaussian and Non-Gaussian model of stock price distribution. *Decision Special Issue on Finance*, 37(1), 101-122
16. Guhathakurta, K., Mukherjee, I., & Chowdhury, A. R. (2008). Empirical mode decomposition analysis of two different financial time series and their comparison. *Chaos, Solitons & Fractals*, 37(4), 1214-1227. (ABDC A equivalent)

Edited Chapters

1. Guhathakurta, K. (2015). Nonlinear Dynamics of Stock Markets During Critical Periods. In *Econophysics and Data Driven Modelling of Market Dynamics* (pp. 143-165). Springer International Publishing.
2. Guhathakurta, K., Marwan, N., Bhattacharya, B., & Chowdhury, A. R. (2014). Understanding the Interrelationship Between Commodity and Stock Indices Daily Movement Using ACE and Recurrence Analysis. In *Translational Recurrences* (pp. 211-230). Springer International Publishing.
3. Gangopadhyay, K., & Guhathakurta, K. (2014). Agent-Based Modeling of Housing Asset Bubble: A Simple Utility Function Based Investigation. In *Econophysics of Agent-Based Models* (pp. 27-44). Springer International Publishing.

Working Papers

1. Mukhoti, S., & Guhathakurta, K. (2015). Product market performance and capital structure: A Hierarchical Bayesian semi-parametric panel regression model. Available at SSRN 2566832
2. Guhathakurta, K. (2013). Investigating the nonlinear dynamics of emerging and developed stock markets. IIMK Working Paper
3. Gangopadhyay, K., & Guhathakurta, K. (2013). Agent-Based Modeling of Housing Asset Bubble: A Simple Utility Function Based Investigation. IIMK Working Paper.
4. Guhathakurta, K., Bhattacharya, S. N., & Bhattacharya, M. (2012). Exploring Presence of Long Memory in Emerging and Developed Stock Markets. IIMK Working Paper
5. Guhathakurta, K., Bhattacharya, S. N., Banerjee, S., & Bhattacharya, B. (2011). Comparative Analysis of Commodity & Stock Indices Daily Movement using Techniques of Nonlinear Dynamics. *Available at SSRN 1972822*.

Book Review

1. A Colossal Failure of Common Sense: The Incredible Inside Story of the Collapse of Lehman Brothers, Lawrence McDonald & Patrick Robinson, In *IIMB Management Review* 24(3), Sep 2012.
2. Econophysics and Companies, Hideaki Aoyama Yoshi Fujiwara Yuichi Ikeda Hiroshi Iyetomi Wataru Souma, Cambiridge University Press In *IIM Kozhikode Society & Management Review 2(2) 2012*

Publications (related areas)

Articles in Journals, Books and edited Chapters

1. Nonlinear dynamics of voltage fluctuation in power plants for strategic decisions (Co authored by, S.Banerjee and P K Dan) , edited By Santo Banerjee, **Chaos and Complexity Theory for Management: Nonlinear Dynamics (IGI Global), USA, 2012**
2. “Modelling for Industrial Land Acquisition for SEZ “,(co-authored by P.K. Dan and Satadru Gupta) **Nordicum-Mediterraneum, March 2009 Volume 4, Number 1(2 citations)**

3. “Modelling for Land Acquisition for SEZ”, (co-authored by P.K. Dan and Satadru Gupta) **e-Journal of Science & Technology (e-JST), issue 8, 2008**

Conferences

1. “A comparative analysis of the complexity of emerging and developed stock markets using recurrence quantification analysis”, K Guhathakurta and Pritam Ranjan, International Conference on Strategic Management, Decision Theory and Data Science (SMDTDS-2020)in Kolkata, India during January 4-6, 2020 organized by Indian Association for Productivity, Quality & Reliability (IAPQR).
2. ‘'Does targeting a Nominal price range in equity markets increase Liquidity?', India Finance Conference 2018 , 20 - 22 December 2018 in IIM Calcutta, India
3. “Dancing in solitude or going with the mob? Checking the interconnectedness of Indian and Islamic banking system with Global banks, K Guhathakurta and Debasish Maitra”, International Conference on New Paradigms in Statistics for Scientific and Industrial Research in Kolkata, India during January 4-6, 2018 organized by Indian Association for Productivity, Quality & Reliability (IAPQR).
4. “Behavioural Biases of Individual Shareholders for low Nominal Price-An evidence from Indian Equity Market”, K Guhathkurta and Harsimran Sandhu, The India Finance Conference, 20 - 22 December 2017 in IIM Bangalore, India, jointly organized by **IIMC, IIMB & IIMA.**
5. “How closely are the Asia Pacific market related to the developed market: a network analysis”, K Guhathakurta, International conference on "Econophys-2017 and APEC-2017", November 15-18, 2017,jointly organized by Jawaharlal Nehru University and Delhi University, New Delhi, India
6. “Which is the right option for the Indian market: Gaussian, Normal Inverse Gaussian or Tsallis?” K. Guhathakurta and Prasenjit Chakrabarti, India Finance conference at **IIM Calcutta**, from December 17-19,2015, jointly organized by **IIMC, IIMB & IIMA.**
7. “Comparing the complexity of emerging and developed stock markets using recurrence network analysis” at Econophys-2015 Conference at Jawaharlal Nehru University, New Delhi and University of Delhi, New Delhi during November 27-December 1, 2015, organized jointly by the École Centrale Paris, Kyoto University, Saha Institute of Nuclear Physics, Jawaharlal Nehru University, University of Delhi and Boston University.

8. "Investigating chaos in emerging and developed stock markets using recurrence network analysis at the 4th India Finance Conference 2014, jointly organised by IIMC, IIMB and IIMA during December 17-19, 2014 at IIMB.
9. "Delineated momentum returns & firm specific risk" at the 4th India Finance Conference 2014, jointly organised by IIMC, IIMB and IIMA during December 17-19 at IIMB.
10. "Nonlinear dynamics of stock markets during critical periods" at Econophysics-Kolkata VIII, Saha Institute of nuclear Physics Kolkata, 14-17 March, 2014
11. "Using Recurrence Analysis to identify bubbles and endogenous crashes" , The 3rd India Finance Conference, jointly organised by IIMC, IIMB and IIMA during December 18-20, 2013 at IIMA
12. "Investigating the nonlinear dynamics of emerging and developed stock markets", The 2nd International Conference on Econophysics held at Lucy Hotel, Kavala, Greece during 13--14 September 2013
13. "Comparing nonlinear dynamics of emerging and developed stock markets using Empirical Mode Decomposition", 3rd IIMA Conference on Advanced Data Analysis, Business Analytics and Intelligence, IIM Ahmedabad 13-14 April 2013
14. "Agent Based Modelling of Housing Asset Bubble", Econophys-Kolkata VII, Saha Institute of nuclear Physics Kolkata, 8-12 November, 2012
15. "Using Recurrence Analysis to compare Gaussian and Non-Gaussian Models of Stock Price movement in an emerging market" , 4th International Symposium on Recurrence Plots at The Hong Kong Polytechnic University, China during 5-7 December, 2011
16. "Investigating presence of Nonlinearity in Indian Stock Markets", the International Finance Conference 2011 at Indian Institute of Management, Calcutta during January 10-12, 2011
17. "Investigating presence of Nonlinearity in Indian Commodity Markets, the 2nd IIMA International Conference on Advanced Data Analysis, Business Analytics and Intelligence at Indian Institute of Management Ahmedabad during 8-9 January, 2011
18. "Using Techniques of Nonlinear Dynamics to compare stock price return distribution based on Gaussian and Tsallis Distribution", Shanghai International Symposium on Nonlinear Science and Applications - 2010 (Shanghai NSA 2010), held on June 29 – July 4, 2010, at Xuzhou Normal University, Xuzhou, and Fudan University, Shanghai, China.
19. "Using Empirical Mode Decomposition to compare Stock and Commodity Return Distribution", International Conference on Infrastructure Finance (ICIF 2010) during June 03-05, 2010 at the Indian Institute of Technology, Kharagpur

20. “An Empirical Investigation of Beta Stability in the Indian Stock Market, International Conference on Infrastructure Finance (ICIF 2010) during June 03-05, 2010 at the Indian Institute of Technology, Kharagpur
21. “Using Empirical Mode Decomposition to compare Gaussian and Non-Gaussian model of stock price distribution” presented at International Finance Conference during December 3-5, 2009 at Indian Institute of Management, Calcutta. The same article has been selected for a special edition of Decision, April 2010. (Only 5 out of 80 have been selected)
22. “Stock Price Return distribution: Non-Gaussian vs. Gaussian- an empirical examination” presented at 1st IIMA International Conference on Advanced Data Analysis, Business Analytics and Intelligence on June 6-7, 2009 held at Indian Institute of Management, Ahmedabad
23. Comparative Analysis of Commodity & Stock Indices Daily Movement using Techniques of Nonlinear Dynamics”, at the 11th Annual Conference on Money and Finance in the Indian Economy presented at Indira Gandhi Institute of Development Research, Mumbai, during 23-24 January 2009
24. Analysing Financial Crashes Using Recurrence Plot- A Comparative Study on Selected Financial Markets at National Conference on “Forecasting Financial Markets in India (FFMI 2008)”, held during December 29-31, 2008 presented at the Indian Institute of Technology, Kharagpur.
25. “An Examination of Critical Periods of Stock Price Movements Using Recurrence Plot”, International conference ‘Issues in Finance: Theory and Empirics’ organized by the Centre for advanced Studies**,** Department of Economics, Jadavpur University**,** January 2006

Newspaper publication

“Save thy neighbour: A survival strategy”, Free Press, June 7 2020

Work in Progress

1. Maitra, D. and Guhathakurta K. Macroeconomic Variables and commodity prices
2. Pandey, A., & Guhathakurta, K. Value Relevance of Loan Loss Provision Components and the Choice of Model Specification.
3. Pandey, A., & Guhathakurta, K. Nonperforming Loan Auctions Using Contingent Payment Mechanism.
4. Pandey, A., & Guhathakurta, K. Ownership Structure, Earnings Management and Valuation Relevance of Loan Loss Provision Components.
5. Guhathakurta, K., Ranjan, P. & Marwan, N. Comparing the complexity of emerging and developed stock markets Teaching

Courses Offered

Course

Fixed income securities (PG Programme)
Corporate finance(FM 2) (PG Programme)
Econophysics of Businesses (PhD)
Advanced Empirical Finance (PhD)
Corporate Finance Theories (PhD)
Political Economy of Finance (PhD)
Fixed income securities (Executive PGP)
Corporate finance (FM 1& 2) (Executive PGP)

PhD Supervision

Two students have graduated under my supervision. Currently one student is working under my supervision. I had been a part of the Thesis advisory committee of two more students who have graduated. Currently I am on the thesis advisory committee of another student.

Academic administration

At IIMI

As chair, International Relations and Student Exchange, one was responsible for maintaining and extending the international institutional collaborations. As Chair, Finance & Accounting area, one was responsible for managing the academic activities of the area. Has been the member of the workload compensation committee and chaired the 5-year Integrated Programme of Management Review committee.

At IIMK

Has been a member of the Placement committee as well as the Student affairs committee.
One was also the joint Managing Editor of the peer reviewed journal IIMK Society and Management.

At AIMK

As the Academic Coordinator, was responsible for running the two-year full time MBA programme offered by the Institute. Was also member of the Governing body of the institute. Previously as Faculty coordinator, Placements one was involved in planning and supervising the placement process with the Placement Officer reporting directly to him. During one's tenure the average salary increased by over 70% and highest salary jumped by 90% in a single year.

At HIT

As Teacher-in-Charge, one was responsible for running the entire department. Additional responsibilities included setting up the library and information systems of the department

Corporate training

- Developed and coordinated a programme on “Strategic Financial Management for executives” at Dubai
- Developed and offered a course on “Risk Management” for executives of SJVN ltd.
- Organised and implemented Management Development Programmes on “Finance for No-Finance Executives” and “Financial Management of Projects”.
- Designed and conducted an eighteen-hour module for Reliance Industries senior managers on Business & Project Finance.
- Designed and conducted an eighteen-hour module for incumbent officers of Indian Railways Accounting Services on Project Finance.
- Conducted sessions on Project finance in Open Management Development Programmes.
- Conducted sessions on Fixed Income securities in satellite-based Management Development Programmes.
- Conducted training on finance basics for GMR executives.

Industrial Experience

At MBEIL

Job involved interface between Chief Financial Officer and Projects and Proposals team. Was the main estimation engineer of a ₹ 1475 crore worth project- the largest handled by the firm.

At METCO

Job profile involved project management and project finance. Was responsible for starting a new business division for the company. Improved productivity of a plant by 25%

Significant achievement in academics other than publication and teaching

- Was a guest editor, along with one my collaborators and colleagues, of a special issue of IIMK Society & Management (http://ksm.sagepub.com/content/current) which had contributions on econophysics from eminent scientists from places like Harvard University, University of California, Santa Cruz, Université de Liège, International Christian University, Japan, Cornell University and Nanyang Technological University.
- Organised a special talk by an eminent Chaos scientist **Prof Ralph Abraham of University of California, Santa Cruz** (Formerly associated with Universities of Princeton, Columbia and Barley)

LINKAGE WITH OTHER INSTITUTES:

- External Examiner of PhD thesis at **IIM Bangalore**
- Chaired a session at **the 2nd International Conference on Econophysics held at Lucy Hotel, Kavala, Greece** during 13--14 September 2013
- Chaired a session at The India Finance Conference, jointly organised by **IIM-A, IIM-B and IIM-C during December 18-20, 2013 at IIMA**
- Referee for **1st, 2nd and 3rd IIMA International Conference on Advanced Data Analysis, Business Analytics and Intelligence**

- Organised a session at **3rd IIMA International Conference on Advanced Data Analysis, Business Analytics and Intelligence**
- Chaired a session each at **1st and 3rd IIMA International Conference on Advanced Data Analysis, Business Analytics and Intelligence**
- Chaired a session at **Econophys-Kolkata VII, Saha Institute of nuclear Physics Kolkata**
- Chaired a session at **International Conference on Infrastructure Finance at IIT Kharagpur**
- Delivered an invited talk on "Non-linear dynamics in Financial Time series through Recurrence Plot" at **Saha Institute of Nuclear Physics (SINP), Kolkata.**
- **CII** invited Faculty at Rajiv Gandhi University, Arunachal Pradesh
- Formerly Visiting faculty at West Bengal University of Technology M Tech Programme
- Formerly Visiting Faculty at Icfai Business School, Kolkata
- Formerly Visiting Faculty at Eastern Institute of Management, Kolkata
- Formerly Visiting Faculty at IMT Ghaziabad Kolkata Centre
- Research collaboration with faculty at Economics and Physics department, Jadavpur University

RESEARCH COLLABORATORS/ADVISORS OTHER THAN PhD SUPERVISORS AND STUDENTS:

- **Sang Hoon Kang**, Department of Business Administration, **Pusan National University, Busan, South Korea**
- **Norbert Marwan**, Sr. Research Scientist, **Potsdam Institute for Climate Impact Research**
- **Santo Banerjee**, Laboratory of Cryptography, Analysis & Structure, Institute for Mathematical Research, **University Putra Malaysia, Malaysia** and **International Scientific Research Institute, ISCASS, Ankara, Turkey**
- **Lykourgos Magafas**, Professor of Electronics and Signal Processing in Electrical Engineering, **TEI of Kavala**.
- **Kausik Gangpopadhyay**, Associate Professor, Economics, **Indian Institute of Management Kozhikode**
- **Debasish Maitra**, Professor, Finance & Accounting, **Indian Institute of Management Indore**
- **Saumya Ranjan Dash**, Professor, Finance & Accounting, **Indian Institute of Management Indore**
- **Sayantan Banerjee**, Associate Professor, Operations Management and Quantitative Techniques, **Indian Institute of Management Indore**
- **Saurabh Chandra**, Professor, Operations Management and Quantitative Techniques, **Indian Institute of Management Indore**
- **Pritam Ranjan,** Professor, Operations Management and Quantitative Techniques, **Indian Institute of Management Indore**

- MISCELLANEOUS ACTIVITIES:
- Reviewer**, International Review of Finance and Accounting**, **Physica A**, **Chaos, Solitons & Fractals, Journal of Computation and Statistics, Electronic Journal of Mathematical Analysis and**

Applications , Journal of quantitative Economics, Vikalpa, IIMB Management review, IIMK Society & Management and Global Business Review,

- Former Member, organising committee, **PRMIA** Kolkata chapter, for seminar on global event series on operational risk management in collaboration with CII
- Member, Organizing Committee, "Complex System 2008", an **international workshop on complex systems**, jointly organized by West Bengal University of Technology and Indian Statistical Institute, Kolkata during March 2008
- Joint Coordinator, **International Winter School on Chaos, Nonlinear Dynamics and Complexity**, held at West Bengal University of Technology during December 2005.
- Invited Author, **SciTopics-Researc**h summaries by experts (www.scitopics.com), a scientific community maintained by Elsevier. (Editorial Policy mentions: A SciTopics page can be started by invitation only. An author is invited based on the merit of his/her published research and will always be a scholar who is known and respected in the field)
- Member**, Steering Committee, Professional Risk Mangers International Association (PRMIA),** Kolkata Chapter
- Member, **Apex Committee**, Finance, syllabus review committee, West Bengal University of Technology
- Moderator and **Head Examiner**, Finance Elective papers, End semester examination, West Bengal University of Technology
- **Advisor**, Cerulean Consulting Private Ltd

PERSONAL INFORMATION

- **Date of Birth**: 18.10.1969
- **Marital Status**: Married
- **Children**: One Daughter

OTHER ACITIVIES

Published several short stories and poems in Bengali magazines.
Delivered talks on world cinema at film clubs of IIMK and IIMI among others.