

Profile

Prof. Ram Babu Roy, RMSoEE, IIT Kharagpur

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Educational qualifications

- Fellow Program in Management (FPM) from Indian Institute of Management Calcutta, India
Major: Management Information Systems: Minor: Operations Management
(Thesis Topic: Network approach to mining patterns in financial markets)
- Master of Technology in VLSI Design Tools and Technology from Indian Institute of Technology Delhi, India (Thesis Topic: Digital design and implementation of the i-slip scheduling algorithm done at Cypress Semiconductors India Pvt. Ltd., Bangalore)
- Master of Science in Physics from Indian Institute of Technology Kanpur, India (Project Topic: Measurement of Low Temperature AC Susceptibility)

Work Experience:

- Assistant Professor in the Rajendra Mishra School of Engineering Entrepreneurship, IIT Kharagpur
- Scientist in the Aeronautical Development Establishment, Defence Research and Development Organization (DRDO), Bangalore.

Teaching & Research

- **PhD Thesis Supervision:** Knowledge Management System for maternity care, Decision modelling in emergency care, Modeling and simulation of healthcare ecosystem, Patient classification
- **Collaborations:** Prof. I J Chiang, TMU & NTU, Taiwan; Prof. Paul Lillrank, Aalto University, Finland, Dr. Sujoy Kar, Apollo Hospitals, Prof. Uttam K Sarkar, IIM Calcutta
- **Courses taught:** Engineering B-Plan development, Manufacturing Management, Healthcare Analytics, Information Technology for Business Intelligence, Big data analytics, Information Technology for Business Applications Lab
- **Reviewer :** European Journal of Operations Research, International Conference on Information Systems, European Conference on Information Systems
- **Associate Member :** The Institution of Electronics and Telecommunication Engineers (IETE)

Scholarship, Honors & Awards

- All India Rank 4 in GATE-2001 (PHYSICS)
- CSIR-UGC Junior Research Fellowship (JRF), Physical Sciences, 2001

Selected Publications

- Kumar, S., Roy, R. B. (2016)., “Modeling the Impact of Increasing Tobacco Taxes on Public Health in India”, 2nd International Conference on Contemporary Debates in Public Policy and Management, IIM Calcutta, 15-17 January, 2016
- Sreekanth V K, Ram Babu Roy, “Modeling Demand Patterns of Emergency Medical Services in Rajasthan”, IEEE International Conference on Systems in Medicine and Biology 2016, January 04 – 07 , 2016 at Indian Institute of Technology Kharagpur, Kharagpur
- Sreekanth V K, Ram Babu Roy, “Predicting Emergency Medical Service Demand Using Time Series Modeling”, 9th Indian Subcontinent Decision Sciences Institute (ISDSI) International Conference, 02-04 January 2016, Goa, India
- Amrita ., Banerjee I., Roy R.B. (2016). “Redesigning Knowledge Flow Network for Maternity Care”, 9th ISDSI International Conference, January 02 - 04, 2016, Goa, India
- Amrita ., Roy R.B. (2015), Integrating Knowledge, Attitude and Practice in Decision Model for Maternity Care in Emerging Economy, IEEE GHTC, October 5 – 11, Seattle, Washington, USA.
- Sreekanth V K, Ram Babu Roy, “Equity-Constrained Dispatching Models for Emergency Medical Services”, The Society for the Study of Artificial Intelligence and Simulation of Behaviour (AISB) Workshop on 'Agent-Based Models of Bounded Rationality' May 07-08, 2015 at the University of Southern Denmark, Slagelse, Denmark.
- Amrita ., Roy R.B. (2014), Knowledge management system for improving Indian healthcare: a research proposal, 2nd International conference on business analytics and intelligence (ICBAI), Dec 18th - 20th, IISC Bangalore, India.
- Sreekanth V K, Ram Babu Roy, “Modelling Accident Blackspots in Rajasthan for Designing Ambulatory Care Network” , International Conference on Business Analytics and Intelligence (ICBAI), December 18-20, 2014 at IISc, Bangalore, India
- Ram Babu Roy and Uttam K Sarkar, Identifying dominant economic sectors and stock markets: A social network mining approach, PAKDD 2013 DMAApps, Gold Coast, Australia, Springer, LNCS 7867, pp 59-70., (2013)
- Ram Babu Roy and Uttam K Sarkar, A Social Network Approach to Change Detection in the Interdependence Structure of Global Stock Markets, Social Network Analysis and Mining, Springer, Vol. 3, Number 3, (2013)
- Ram Babu Roy and Uttam K Sarkar, Identifying influential stock indices from global stock markets: A social network analysis approach, Int. conf. on Ambient Systems, Networks and Technologies, Canada, Procedia Computer Science, 5, Elsevier (2011)
- Ram Babu Roy and Uttam K Sarkar, A social network approach to examine the role of influential stocks in shaping interdependence structure in global stock markets, International Conference on Advances in Social Network Analysis and Mining (ASONAM), Taiwan, IEEE Computer Society (2011)
- Ram Babu Roy and Uttam K Sarkar, Capturing Early Warning Signal for a Financial Crisis from the Dynamics of Stock Market Networks: Evidence from North American and Asian Stock Markets, International Conference on Computing in Economics and Finance, London, UK, (2010)
- Ram Babu Roy, Uttam K Sarkar, Sensitivity of Centrality and Centralization Measures to the Level of Decentralization in the Network Structure, IIM Calcutta Working Paper Series, WPS-693 (2012)