

# Mohamed Rehan M S

Center of Excellence in Systems Science  
IIT Jodhpur  
Rajasthan, India

Phone: +91 89 468 222 55

email: rehan@iitj.ac.in

LinkedIn: <http://linkedin.com/in/mohamedrehan>

## Educational Qualifications

SN	Course Name	Board / University	Year of Passing	Grade /Mark
1	Bachelor of Technology in Systems Science	Indian Institute of Technology, Jodhpur	2011 – present	8.34 (till Semester VI)
2	All India Senior Secondary Certificate Examination	Central Board of Secondary Education, New Delhi	2011	94.2%
3	All India Secondary School Examination (AISSE – 10th)	Central Board of Secondary Education, New Delhi	2009	93%

## Internships:

- Summer Intern at Emirates NBD Securities & Asset Management, Dubai, UAE (May 2014 – Jul 2014)

## Publications:

- Visualizing the Indian Stock Market: A Complex Networks Approach, International Journal of Advances in Engineering & Technology, Volume 6 Issue 3, (2013)

## Selected Projects:

- Combinatorial Optimization and Risk Management for better Crop Insurance in India (Jul 2014 – Present)
  - Aims to analyze the crop insurance schemes in India, and improve them from a technical & policy perspective.
  - Employs risk measures including VaR and expected shortfall, and to develop an actuarially sound model
  - Employing combinatorial optimization techniques, so as to arrive at optimal pools and thresholds
- Evolution of Network Structures of Global Stock Markets over the Financial Crisis of 2007 (Oct 2013 – Dec 2013)
  - Gauges the effect of the great recession on the stock markets, and their network structures
  - Identified typical market structures, during three periods, before, at the height of, and after the recession.
  - Studied clustering and modularity parameters to find a correlation to market volatility and trends
- Dynamics of inflation and unemployment (Sep 2013 – Nov 2013)
  - Developed a mathematical model by combining principles from Phillips' curves and NAIRU models
  - Tested the model against empirical data, and was found to have a 95% confidence level on Indian data
  - Studied the dynamic behavior of the model, and employed results to formulate policy recommendations
- Visualization of dependencies in the Bombay Stock Exchange BSE (Mar 2013 – Jun 2013)
  - Arrived at a complex network map for the inter-dependencies of various stocks listed in BSE
  - Calculated network parameters for the network and studied stocks comprising modular communities
  - Studied stability of the system with regard to targeted as well as random attacks

**Industry Relevant Skills :** Proficient with industry platforms including *Bloomberg Terminal, FactSet, Moxy*  
Advanced *MS Excel* Skills

**Programming Skills :** C++, Matlab, R, SAS

**Relevant Coursework :** Business Dynamics & Socio-Economic Networks, Financial Risk Management, Econometrics, Stochastic Finance, Financial Engineering

## Positions of Responsibility:

- Chaired the Constitution Drafting and Revisions Committee, for the Students' Gymkhana, IIT Jodhpur (2013 - 2014)
- Proactive member of AIESEC, responsible for Outgoing Exchange – Global Internships (2012 - 2013)
- Co – organized, in capacity of Marketing Head, the Taj IITJ Conclave 2012 for IIT Jodhpur, an entrepreneurship event which garnered national media attention. Raised sponsorship of *INR 600k* for organizing the event, and negotiated *INR 10 million* in seed funds for participants. (2011 - 2012)
- Actively involved in marketing of the inter-college festival of IIT Jodhpur – Ignus 2012 as Marketing Coordinator
- Established the Entrepreneurship Cell- IIT Jodhpur, help position of first Student Executive (2011 - 2012)