

# Prof. Dr. Mrinal Kanti Naskar

## Curriculum Vitae

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### Academic Qualifications

1987	B.Tech(Hons)	Electronics & Electrical Communication Engineering	I.I.T, Kharagpur
1989	M.Tech	Electronics & Electrical Communication Engineering	I.I.T, Kharagpur
2006	PhD	Electronics & Telecommunication Engineering	Jadavpur University

### Academic Experience

1991-1996	Lecturer	Electronics Engineering	R.I.T, Jamshedpur
1996-1999	Asst. Professor	Electronics & Communication Engineering	R.E.C, Durgapur
1999-2006	Reader	Electronics & Telecommunication Engineering	Jadavpur University
2006-Till Date	Professor	Electronics & Telecommunication Engineering	Jadavpur University

### Industrial Experience

1989 Software Engineer Data Corp (India) Pvt. Ltd, Jamshedpur

### Research Experience

1989-1991 Junior Scientific Officer I.I.T Kharagpur

### Teaching Experience

#### Under Graduate

- Digital Logic Circuits (Theory & Sessional)
- Digital Circuits & Systems (Theory & Sessional)
- Microprocessors (Theory & Sessional)
- System Software (Theory & Sessional)
- Operating System (Theory)

## Post Graduate

- Operating System (Theory)
- Distributed Processing & Networking (Theory)
- Embedded & Real Time Systems (Theory & Sessional)

## Visiting Assignments

- Guest faculty for Computer Organisation and Architecture at West Bengal University of Technology
- Guest faculty for i) Compiler Design and ii) Advanced Computer Architecture at Tripura University
- Guest faculty for Analog Circuits at Bengal Engineering and Science University
- Guest faculty for Embedded Systems at National Institute of Technology, Silchar
- Resource Person in a Refresher Course for College Teachers at Burdwan University

## Continuing Education

- Guest teacher in Non-formal B.Sc. Engg. Course for TELCO employees at RIT, Jamshedpur.
- Guest teacher in PTPG (Electrical) evening course at RIT, Jamshedpur.
- Guest teacher in various short-term courses organized by IC Center, Jadavpur University.
- Guest teacher in a short-term course organized by Project IMPACT, Jadavpur University and CMC, Kolkata
- Invited as a guest faculty in a Refresher Course organized by CSE Dept., Jadavpur University

## Research Guidance

### Doctoral (completed)

Name	Thesis Title	Year
Utpal Biswas	Some studies on wavelength establishment algorithms for all optical networks	2008
Dalu Surendrakumar Shrikrushnarao	Design and Implementation of Topology Management Algorithms for Mobile Ad-Hoc Networks	2010
Jishan Mehedi	Some Studies on Fuzzy Based Algorithms for Connectivity Maintenance in Mobile Ad-Hoc Networks	2011
Swarup Kumar Mitra	Studies on Data Gathering Schemes in Wireless Sensor Networks	2012

## Doctoral (ongoing)

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Name	Thesis Title	Onset
Rohankar Atul Wamanrao	Studies on Generic Architectural Framework for Reusable Micro Sensor Network	2007
Shaik Sahil Babu	Design and Implementation of Trust Management Algorithms for Wireless Sensor Networks	2011
Rajarshi Middyia	Compressive Sensing in Wireless Sensor Networks	2013

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## Project Supervision

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Profile	Title	Grant Authority	Year
Co-Principal Investigator	Development of Advanced Digital Electronics Laboratory	Ministry of Human Resource Development Govt. of India	1994
Co-Principal Investigator	Development of Robotics Laboratory	Ministry of Human Resource Development Govt. of India	1993
Principal Investigator	Development of Artificial Intelligence & Neural Network Laboratory	Ministry of Human Resource Development Govt. of India	1993

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## Other Academic Contributions

- Member, Tutorial Sub-committee, International Conference on Communications, Devices and Intelligent Systems (CODIS), Kolkata, 2004.
- Took active role in organizing a one-day tutorial on Embedded Systems and their Applications in Mobile Communication organized by EDS chapter, IEEE Calcutta Section and others in Oct, 2004.
- Coordinator, M.E.Tele (computer specialization), ETCE Department, Jadavpur University.
- Reviewer of Indian Conference on Pattern Recognition, Image Processing & Computer Vision held during 13-15 Dec 1995 at IIT, Kharagpur.

- Member of the National Organizing Committee of XXXIII Optical Society of India (OSI) Symposium on Optics and Optoelectronics held during 18-20 Dec 2007 at Tezpur University.
- External Member of the BOS (UG) of REC, Durgapur.
- Member of the administrative committee of the part time evening PG course ‘VLSI Design & Microelectronics Technology, Department of Electronics and Telecommunication Engineering, Jadavpur University.
- Member of the visiting team constituted by the West Bengal University of Technology for Semester Examinations, 2003.

## Membership of Academic Organizations

- Life Member, The Indian Society for Technical Education (ISTE), India, Membership No. LM 18578
- Associate Member, The Institution of Engineers, (IE), India, Membership No. AM80607/5

## Selected Publications

### Books

1. Mehedi, J. and M. K. Naskar (2012). *Fuzzy Based Algorithms for Connectivity Maintenance in MANET*, Lambert Academic Publishing (LAP), Germany, 2012.

### Refereed research papers

1. Bhattacharyya, A., A. Seetharam, and M. K. Naskar (2008). A Centralized Algorithm for Topology Management in Mobile Ad-Hoc Networks through Multiple Coordinators. In: *ICDCN*. Ed. by S. Rao, M. Chatterjee, P. Jayanti, C. S. R. Murthy, and S. K. Saha. Vol. 4904. Lecture Notes in Computer Science. Springer, pp.581–586. ISBN: 978-3-540-77443-3.
2. Seetharam, A., A. Bhattacharyya, M. K. Naskar, and A. Mukherjee (2008). Estimation of node density for an energy efficient deployment scheme in wireless sensor network. In: *COMSWARE*. IEEE, pp.95–98.
3. Acharya, A., A. Seetharam, A. Bhattacharyya, and M. K. Naskar (2009). Balancing Energy Dissipation in Data Gathering Wireless Sensor Networks Using Ant Colony Optimization. In: *ICDCN*. Ed. by V. K. Garg, R. Wattenhofer, and K. Kothapalli. Vol. 5408. Lecture Notes in Computer Science. Springer, pp.437–443. ISBN: 978-3-540-92294-0.
4. Chakraborty, A., K. Chakraborty, S. K. Mitra, and M. K. Naskar (2010). An Energy Efficient Scheme for Data Gathering in Wireless Sensor Networks Using Particle Swarm Optimization. *CoRR* **abs/1004.3408**.
5. Chakraborty, A., K. Chakraborty, S. K. Mitra, and M. K. Naskar (2010). An Optimized Lifetime Enhancement Scheme for Data Gathering in Wireless Sensor Networks. *CoRR* **abs/1004.3407**.
6. Chakraborty, A., K. Lahiri, S. Mandal, D. Patra, M. K. Naskar, and A. Mukherjee (2010). Optimization of Service Discovery in Wireless Sensor Networks. In: *WWIC*. Ed. by E. Osipov, A. Kassler, T. M. Bohnert, and X. Masip-Bruin. Vol. 6074. Lecture Notes in Computer Science. Springer, pp.351–362. ISBN: 978-3-642-13314-5.
7. Chakraborty, A., S. K. Mitra, and M. K. Naskar (2010). An Efficient Hybrid Data Gathering Scheme in Wireless Sensor Networks. *CoRR* **abs/1004.3327**.
8. Chakraborty, A., S. K. Mitra, and M. K. Naskar (2010). An Efficient Hybrid Data-Gathering Scheme in Wireless Sensor Networks. In: *ICDCIT*. Ed. by T. Janowski and H. Mohanty. Vol. 5966. Lecture Notes in Computer Science. Springer, pp.98–103. ISBN: 978-3-642-11658-2.
9. Dey, P., A. Kundu, M. K. Naskar, A. Mukherjee, and M. Nasipuri (2010). Dynamic Multipath Bandwidth Provisioning with Jitter, Throughput, SLA Constraints in MPLS over WDM Network. In: *ICDCN*. Ed. by K. Kant, S. V. Pemmaraju, K. M. Sivalingam, and J. Wu. Vol. 5935. Lecture Notes in Computer Science. Springer, pp.376–391. ISBN: 978-3-642-11321-5.

10. Mitra, S. K., A. Chakraborty, S. Mandal, and M. K. Naskar (2010). Simulation of Wireless Sensor Networks Using TinyOS- A case Study. *CoRR abs/1004.4154*.
11. Babu, S. S., A. Raha, and M. K. Naskar (2011). A Direct Trust dependent Link State Routing Protocol Using Route Trusts for WSNs (DTLSRP). *Wireless Sensor Network* **3**(4), 125–134.
12. Banerjee, J., S. K. Mitra, P. Ghosh, and M. K. Naskar (2011). Memory based message efficient clustering (MMEC) for enhancement of lifetime in wireless sensor networks using a node deployment protocol. In: *ICCCS*. Ed. by S. K. Jena, R. Kumar, A. K. Turuk, and M. Dash. ACM, pp.71–76. ISBN: 978-1-4503-0464-1.
13. Banerjee, J., S. K. Mitra, P. Ghosh, and M. K. Naskar (2011). An Optimized Reduced Energy Consumption (OREC) Algorithm for Routing in Wireless Sensor Networks. In: *ACC (3)*. Ed. by A. Abraham, J. L. Mauri, J. F. Buford, J. Suzuki, and S. M. Thampi. Vol. 192. Communications in Computer and Information Science. Springer, pp.82–92. ISBN: 978-3-642-22719-6.
14. Chakraborty, A., S. K. Mitra, and M. K. Naskar (2011). Energy Efficient Routing in Wireless Sensor Networks: A Genetic Approach. *CoRR abs/1105.2090*.
15. Chakraborty, K., A. Chakraborty, S. K. Mitra, and M. K. Naskar (2011). ROOT: Energy Efficient Routing through Optimized Tree in Sensor Networks. *CoRR abs/1105.2091*.
16. Mitra, S. K., J. Banerjee, A. Chakraborty, and M. K. Naskar (2011). Data gathering in wireless sensor network using realistic power control. In: *ICCCS*. Ed. by S. K. Jena, R. Kumar, A. K. Turuk, and M. Dash. ACM, pp.124–127. ISBN: 978-1-4503-0464-1.
17. Babu, S. S., A. Raha, M. K. Naskar, O. Alfandi, and D. Hogrefe (2012). Fuzzy Logic Election of Node for Routing in WSNs. In: *TrustCom*. Ed. by G. Min, Y. Wu, L. (Liu, X. Jin, S. A. Jarvis, and A. Y. Al-Dubai. IEEE Computer Society, pp.1279–1284. ISBN: 978-1-4673-2172-3.
18. Chakraborty, A., A. Raha, S. Maity, M. K. Naskar, and A. Karmakar (2012). A fuzzy based trustworthy route selection method using LSRP in wireless sensor networks (FTRSP). In: *CCSEIT*. Ed. by N. Meghanathan and M. Wozniak. ACM, pp.413–419. ISBN: 978-1-4503-1310-0.
19. Maity, S., A. Raha, S. K. Mitra, V. Seal, M. K. Naskar, and A. Mukherjee (2012). An efficient sleep protocol for lifetime enhancement in multi covered and multi connected WSNs. In: *ICACCI*. Ed. by K. Gopalan and S. M. Thampi. ACM, pp.343–347. ISBN: 978-1-4503-1196-0.
20. Mehedi, J. and M. K. Naskar (2012). A Fuzzy Based Distributed Algorithm for Maintaining Connected Network Topology in Mobile Ad-Hoc Networks Considering Freeway Mobility Model. *CIT* **20**(2), 69–84.
21. Mukherjee, S., M. K. Naskar, and A. Mukherjee (2012). Adaptive Framework for Data Distribution in Wireless Sensor Networks. *CoRR abs/1204.2879*.
22. Mukherjee, S., A. Saha, M. K. Naskar, and A. Mukherjee (2012). Multisource Adaptive Data Distribution and Routing in Wireless Sensor Networks. *CoRR abs/1204.2880*.
23. Mukherjee, S., A. Seetharam, A. Bhattacharyya, M. K. Naskar, and A. Mukherjee (2012). Designing an Energy Efficient Framework for Data Gathering in Wireless Sensor Network. *CoRR abs/1204.2882*.
24. Raha, A., S. Maity, M. K. Naskar, O. Alfandi, and D. Hogrefe (2012). An optimal sensor deployment scheme to ensure multi level coverage and connectivity in wireless sensor networks. In: *IWCMC*. IEEE, pp.299–304. ISBN: 978-1-4577-1378-1.
25. Raha, A., M. K. Naskar, A. Chakraborty, O. Alfandi, and D. Hogrefe (2012). A Novel Indirect Trust Based Link State Routing Scheme Using a Robust Route Trust Method for Wireless Sensor Networks. In: *NTMS*. Ed. by A. Levi, M. Badra, M. Cesana, M. Ghassemian, Ö. Gürbüz, N. Jabeur, M. Klonowski, A. Maña, S. Sargento, and S. Zeadally. IEEE, pp.1–5. ISBN: 978-1-4673-0229-6.
26. Seal, V., A. Raha, S. Maity, S. K. Mitra, A. Mukherjee, and M. K. Naskar (2012). A Simple Flood Forecasting Scheme Using Wireless Sensor Networks. *CoRR abs/1203.2511*.