

## Publications

### **Journal Papers(Accepted/Published)**

1. "A Historical Data based Ensemble System for Efficient Stock Price Prediction" with Vijay Kumar Dwivedi in "Recent Patents in Computer Science", (In Press), Bentham Science Publishers.
2. "The choice is yours: The effects of optional questions in engineering examinations", with Abdul Aleem in "Computer Applications in Engineering Education", July 2019, DOI: 10.1002/cae.22138, Wiley Publications.
3. "C-BEAM: A confidence-based evaluation of MCQs for providing feedback to instructors", with Abdul Aleem in "Computer Applications in Engineering Education", Sept.2018, DOI:10.1002/cae.22061, Wiley Publications.
4. "Green Energy Generation from Moving Vehicles", with Brijendra Pratap Singhin "International Journal of Engineering Science and Technology (IJEST)", 9(09S), Sept.2017, Engg Journals Publication.
5. "Balancing Energy Consumption Across Network for Maximizing Lifetime in Cluster-based Wireless Sensor Network" with Sansar Singh Chauhan in "CSI Transactions on ICT", January 2016, DOI:10.1007/s40012-015-0074-8, CSI Publications.
6. "Structured P2P Overlay of Mobile Brokers for Realizing Publish/Subscribe Communication in VANET" with Tulika Pandey and Deepak Garg, in "The Scientific World Journal", Article ID 136365, January 2014, DOI:10.1155/2014/136365, Hindawi Publishing Corporation.
7. "Publish/subscribe based information dissemination over VANET utilizing DHT" with Tulika Pandey and Deepak Garg in "International Journal of Frontiers of Computer Science" Volume 6, Issue 6, pp 713-724, December 2012, DOI: 10.1007/s11704-012-1154-7, Springer Publications.
8. "BiRange: An Efficient Framework for Biclustering of Gene Expression Data Using Range Bipartite Graph" with Suvendu Kanungo and Gadadhar Sahoo in "American Journal of Bioinformatics Research", 2(4):40-46, February 2012, DOI: 10.5923/j.bioinformatics.20120204.02, Scientific & Academic Publishing.
9. "BiCross: A Biclustering Technique for Gene Expression Data using One Layer Fixed Weighted Bipartite Graph Crossing Minimization" with Suvendu Kanungo and Gadadhar Sahoo in "International Journal of Computer Applications" 29(4):28-34, September 2011, DOI 10.5120/3553-4880, Published by Foundation of Science, New York, USA.
10. "A Semantic Preserving Distance Measure: Dset" with Reena Srivastava in "International Journal of Information Processing", 4(1):36-45, 2010, I K International Publishing House Pvt. Ltd., New Delhi, India. This paper is an extended version of the paper Dset: A Semantic Distance Measure published in ICIP 2009.
11. "Localization Scheme for Three Dimensional Wireless Sensor Networks Using GPS Enabled Mobile Sensor Nodes" with Vibha Yadav, Manas Kumar Mishra and Anil Kumar Singh. Presented in the First International Conference on Networks and Communication (NetCom-09), Chennai, India, 27-29 December 2009. AND Published in "International Journal of Next-Generation Networks (IJNGN)", 1(1):60-72, December 2009, AIRCC Publishing Corporation.
12. "An Experimental Study to Compare ER/EER and OO models" with S K Jain and Gulab Singh in "International Journal of Computing Science and Communication Technologies (TECHNIA)", 2(1):221-228, July 2009.
13. "Database for Moving Vehicles in Context of Indian Environment" with S. K. Jain and B. D. Chaudhary, in "Journal of the CSI", 30(3):38-47, September 2000.
14. "Testable PLA Designs with Reduced Test Set" with M.R. Mukerjee, in "Journal Institute of Engineers", Malaysia, 57(2):7-15, 1996.

## Conference Papers

1. “Boomerang: Blockchain-based Freelance Paradigm on Hyperledger” with Babu Pallam in “Proceedings of The 10th International Conference on Computing, Communication And Networking Technologies (ICCCNT)” held
2. “FAST: Freelancing Avenues State of Technologies” with Babu Pallam in “Proceedings of the 5th International Conference on E-Business and Applications (ICEBA 2019)” held at Bangkok, Thailand (25-28 February 2019), pp. 43-47, DOI: <https://doi.org/10.1145/3317614.3317629>.
3. “A Fibonacci Heap Based Ensemble Model for Stock Price Prediction” with Vijay Kumar Dwivedi in “Proceeding of 2nd International Conference on Advanced Computing and Software Engineering (ICACSE-2019)” held at KNIT Sultanpur (8-9 February 2019).
4. “A Study of Manuscripts Evolution to Perfection” with Abdul Aleem and Akhilesh Kumar in “Proceeding of 2nd International Conference on Advanced Computing and Software Engineering (ICACSE-2019)” held at KNIT Sultanpur (8-9 February 2019).
5. “Demand Side Management of a University Load in Smart Grid Environment” with Jwngsar Basumatary and Brijendra Pratap Singh in Workshops ICDCN 2018, held at IIT (BHU) Varanasi (4-7 January 2018).
6. “Information Security using Visual Cryptographic Technique for Resource Constrained Devices”, with Rahul Kumar Singh and Brijendra Pratap Singh in “Conference on Information and Communication Technology (CICT 2017)”, held at ABV-IIITM Gwalior (November 3-5, 2017).
7. “Adhoc Infra Toggle: Opportunistic Auto-configuration of Wireless Interface for Maintaining Data Sessions in WiFi Networks” with Anurag Sewak, Prakhar Mehrotra, Bhaskar Jha, and Mayank Pandey in “ADHOC-NOW 2017”, held at Messina, Italy (September 20-22, 2017).
8. “An Efficient System for Stock Price Direction Prediction” with Vishwajeet Rana and Vijay Kumar Dwivedi in “Fourth International Conference on Business Analytics and Intelligence (ICBAI-2016)”, held at IISc Bangalore (19-21 December 2016).
9. “Green Energy Generation from Moving Vehicles” with Brijendra Pratap Singh in “International Conference on Design and Manufacturing (IConDM-2016)” held at IIITDM Kancheepuram, Chennai (16-17 December 2016).
10. “Byzantine Fault Tolerance for Real Time Price in Hierarchical Smart Grid Communication Infrastructure” with Deepika Durgvanshi and Brijendra Pratap Singh in “7th Power India International Conference” held at Govt. Engineering College Bikaner, Rajasthan (November 25-27, 2016).
11. “Forming Structured P2P Overlays over Disjoint MANET Clusters”, with Anurag Sewak and Mayank Pandey in “10th IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS 2016)” held at Bangalore (6-9 November 2016).
12. “Implementation of MapReduce over structured Peer-to-Peer overlay of underutilized resources” with Shashwati Banerjea, Mayank Pandey, Ashish Kumar and Rishabh Dugar in “10th IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS 2016)” held at Bangalore (6-9 November 2016).
13. “Performance Evaluation of Peer-to-Peer Structured Overlays over Mobile Ad hoc Networks having Low Dynamism” with Anurag Sewak and Mayank Pandey in “International Conference on Mobile, Secure and Programmable Networking (MSPN-2016)” held at Paris, France (June 2016), LNCS 10026, Springer Berlin Heidelberg.
14. “Towards Peer-to-Peer Solution for Utilization of Volunteer Resources to Provide Computation-as-a-Service” with Shashwati Banerjea and Mayank Pandey in “The 30th IEEE International Conference on Advanced Information Networking and Applications (AINA)”, held at Crans-Montana, Switzerland, (23-25 March, 2016), pp 1146-1153.

15. "LDC-MAC: Low latency DC-MAC protocol for wireless sensor network" with Sansar Singh Chauhan in "Proceedings of the CUBE International Information Technology Conference (CUBE'12)" held at Pune (September 3-5, 2012), pp 133-137, DOI: <http://doi.acm.org/10.1145/2381716.2381743>.
16. "DC-MAC: Dual Channel Energy Efficient MAC Protocol for Mobile Wireless Sensor Nodes" with Sandeep Singh and Sansar Singh Chauhan in "Proceedings of 8th IEEE Asia Pacific Wireless Communications Symposium (IEEE APWCS 2011)" held at Singapore (22-23 August, 2011).
17. "An Accurate and Self-correcting Localization Algorithm for UWSN Using Anchor Nodes of Varying Communication Range" with Manas Kumar Mishra and Neha Ojha in "Proceedings of the 6th International Conference on Grid and Pervasive Computing (GPC 2011)" held at Oulu, Finland (May 11-13, 2011), pp 285-294, LNCS 6646 Springer 2011.
18. Trustworthy Path Discovery in MANET -A Message Oriented Cross-Correlation Approach with Girish Kumar Patnaik. In the proceedings of the Seventh International Symposium on Frontiers of Information Systems and Network Applications (FINA 2011) ( 25th IEEE International Conference on Advanced Information Networking and Applications Workshops, WAINA 2011), IEEE 2011, ISBN 978-1-61284-829-7 , pp 170-177, Biopolis, Singapore, March 22-25, 2011.
19. An improved forwarder selection approach for energy aware geographic routing in three dimensional wireless sensor networks with Manas Kumar Mishra. In the proceedings of the 2011 International Conference on Communication, Computing & Security (ICCCS 2011), ACM 2011, ISBN 978-1-4503-0464-1, pp 166-171, Odisha, India, February 12-14, 2011.
20. Robust and Distributed Range-Free Localization Using Anchor Nodes with Varying Communication Range for Three Dimensional Wireless Sensor Networks with Manas Kumar Mishra. In the proceedings of the 7th International Conference on Distributed Computing and Internet Technology (ICDCIT 2011), LNCS 6536 Springer 2011, ISBN 978-3-642-19055-1, pp 209-220, Bhubaneswar, India, February 9-12, 2011.
21. On Optimal Space Tessellation with Deterministic Deployment for Coverage in Three Dimensional Wireless Sensor Networks with Manas Kumar Mishra. In the proceedings of the Sixth International Conference on Distributed Computing and Internet Technology (ICDCIT-2010), ISSN 0302-9743, ISBN-10 3-642-11658-2, ISBN-13 978-3-642-11658-2, LNCS 5966, pp 72-83, Bhubaneswar, India, 15-17 February 2010.
22. Tree-Like Peer-to-Peer Symmetric Key Management in Mobile Ad-hoc Network with Girish Kumar Patnaik. In the proceedings of the First International Conference on Networks and Communication (NetCom-09), ISBN 978-0-7695-3924-9, pp 196-201, Chennai, India, 27-29 December 2009.
23. Mindex: A relevance measure for interval scaled attributes with Reena Srivastava. In the proceedings of Fourth Indian International Conference on Artificial Intelligence, ISBN 978-0-9727412-7-9, pp 2140-2157, Tumkur, Bangalore, India, 16-18 December 2009.
24. Energy Aware Beacon-less Geographical Routing in Three Dimensional Wireless Sensor Networks with Megha Jain and Manas Kumar Mishra. In the proceedings of the First International Conference on Advance Computing (ICAC-09), ISBN 978-1-4244-4787-9, pp 122-128, Chennai, India, 13-15 December 2009.
25. Dset: A Semantic Distance Measure with Reena Srivastava. In the proceedings of the Third International Conference on Information Processing (ICIP 2009) ISBN 978-93-80026-72-5, pp 419-428, Bangalore, India, 7-9 August 2009.
26. Advanced Information Networking and Applications (AINA)", held at Crans-Montana, Switzerland, (23-25 March, 2016), pp 1146-1153.
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32. Robust and Distributed Range-Free Localization Using Anchor Nodes with Varying Communication Range for Three Dimensional Wireless Sensor Networks with Manas Kumar Mishra. In the proceedings of the 7th International Conference on Distributed Computing and Internet Technology (ICDCIT 2011), LNCS 6536 Springer 2011, ISBN 978-3-642-19055-1, pp 209-220, Bhubaneswar, India, February 9-12, 2011.
33. On Optimal Space Tessellation with Deterministic Deployment for Coverage in Three Dimensional Wireless Sensor Networks with Manas Kumar Mishra. In the proceedings of the Sixth International Conference on Distributed Computing and Internet Technology (ICDCIT-2010), ISSN 0302-9743, ISBN-10 3-642-11658-2, ISBN-13 978-3-642-11658-2, LNCS 5966, pp 72-83, Bhubaneswar, India, 15-17 February 2010.
34. Tree-Like Peer-to-Peer Symmetric Key Management in Mobile Ad-hoc Network with Girish Kumar Patnaik. In the proceedings of the First International Conference on Networks and Communication (NetCom-09), ISBN 978-0-7695-3924-9, pp 196-201, Chennai, India, 27-29 December 2009.
35. Mindex: A relevance measure for interval scaled attributes with Reena Srivastava. In the proceedings of Fourth Indian International Conference on Artificial Intelligence, ISBN 978-0-9727412-7-9, pp 2140-2157, Tumkur, Bangalore, India, 16-18 December 2009.
36. Energy Aware Beacon-less Geographical Routing in Three Dimensional Wireless Sensor Networks with Megha Jain and Manas Kumar Mishra. In the proceedings of the First International Conference on Advance Computing (ICAC-09), ISBN 978-1-4244-4787-9, pp 122-128, Chennai, India, 13-15 December 2009.
37. Dset: A Semantic Distance Measure with Reena Srivastava. In the proceedings of the Third International Conference on Information Processing (ICIP 2009) ISBN 978-93-80026-72-5, pp 419-428, Bangalore, India, 7-9 August 2009.
38. A Solution to Sensor Network Coverage Problem with M. P. Singh, in Proceedings of 7th IEEE International Conference on Personal Wireless Communication (ICPWC-2005) New Delhi, INDIA, January 2005 pp 77-80.
39. Something is Better than Nothing' Curbing and Curing Distributed Denial of Service of Attack with Lokesh Krishan Gupta, in the Proceedings (ISBN: 81-7764-717-2) of 12th International Conference on Advances in Computing and Communication (ADCOM-2004) held at Ahmedabad, INDIA, December 2004. pp 247-252.
40. BUSTRAP-An Efficient Travel Planner for Metropolitans with Sandeep Gupta, In the Proceedings (Lecture Notes in Computer Science Series numbered 3326 published by

- Springer Verlag) of Sixth International Workshop on Distributed Computing (IWDC 2004) at Kolkata, INDIA, December 2004 pp 537.
41. Path Stability based Adaptation of MANET Routing Protocols with Sandeep Chaudhary and O P Vyas, In the Proceedings (Lecture Notes in Computer Science Series numbered 3326 published by Springer Verlag) of Sixth International Workshop on Distributed Computing (IWDC 2004) held at Kolkata, INDIA, December 2004 pp 198-203.
  42. Team Transaction: A New Transaction Model for Mobile Ad Hoc Networks with Ankur Gupta, Nitin Gupta, and R K Ghosh In the Proceedings (Lecture Notes in Computer Science Series numbered 3347 published by Springer Verlag) of International Conference on Distributed Computing and Internet Technology (ICDCIT-04) at Bhubaneswar INDIA, December 2004 pp 127-134.
  43. An Extension to ER Model for Top-Down semantic modelling of databases of applications with S.K. Jain and Gulab Singh In the Proceedings (Lecture Notes in Computer Science Series numbered 3356 published by Springer Verlag) of Seventh Annual International Conference on Information Technology (CIT04), Hyderabad, INDIA, December 2004 pp 253-262
  44. Mitigating distributed denial of service attack with Lokesh Krishan Gupta in proceedings of International Conference on Distributed Processing and Networking DPN04, IIT Kharagpur, Kharagpur, India, June 2004, pp 72-76.
  45. An Extensible Framework for Language Message Server with M P Singh in proceedings of Sixth Annual International Conference Information Technology (CIT03), Bhubaneswar, Orissa, INDIA, December 2003. pp 588-589
  46. Entity Relationship Schema Compression Technique Based on Use of Tables with S.K. Jain and Gulab Singh in proceedings of Sixth Annual International Conference on Information Technology (CIT03), Bhubaneswar, Orissa, INDIA, December 2003. pp 455-460
  47. Database Design for Nationwide Information System to Govern Country Effectively with S.K Jain and Gulab Singh in proceedings of the International Conference on E-Governance ,New Delhi,December 2003.
  48. Design and Implementation of LRS -A Case Study with S. K. Jain and Gulab Singh, in proceedings of Sixth Annual International Conference Map India 2003, New Delhi January 2003.
  49. Design of Compiler for Mobile Environment and Its Formalization using Evolving Algebra with G. K. Patnaik, in proceedings of the Third International Conference on Mobile Data Management (MDM02), Singapore, January 2002. pp 159-160.
  50. Design and Implementation of Extended Transaction Support System with R. K. Ghosh, in proceedings of the Fourth International Conference on Information Technology(CIT01), Gopalpur on Sea, Orissa, INDIA, December 2001 pp 138-143
  51. Contention-free Team Transaction Management and Recovery on Mobile Networks with Ad Hoc Groupings with R. K. Ghosh, in proceedings of the Fourth International Conference on Information Technology(CIT01), Gopalpur on Sea, Orissa, INDIA, December 2001 pp 31-36
  52. Team Transaction: A New Transaction Processing Model for Mobile Ad Hoc Networks , with Ankur Gupta, Nitin Gupta and R. K. Ghosh Technical Report, Dept of CSE, IIT-Kanpur, November 2001
  53. Recovery of Mobile Transactions with R. K. Ghosh in proceedings of the 11th International Workshop on Database and Expert Systems Applications (DEXA), September 2000, London UK, pp 23-27
  54. Design of a Storage Manager Extendible in Transaction Support with R. K. Ghosh in Proceedings of Computer and Communication Engineering Technical Conference of the World Engineering Congress at Kuala Lumpur Malaysia July 1999
  55. Recovery in Distributed Extended Long-lived Transaction Models with R.K.Ghosh in Proceedings of VI International Conference on Database Systems for Advanced Applications DASFAA '99' at Hsinchu, Taiwan, R.O.C, April 1999.

56. Testable PLA Designs with Reduced Test Set with M.R.Mukerjee, in Journal Institute of Engineers, Malaysia, Vol 57, No.2 pp 7-15, 1996.
57. Two New Cost-effective BIST PLA Designs with M.R.Mukerjee and S.S.Basak, In Proceedings of XVI National Systems Conference, Madras (Chennai), India, pp 211-215, February 1993.
58. A Combinatorial method of Grouping Product-Terms for PLA Design with M.R.Mukerjee, In Proceedings of International AMSE Conference " Signals and Data Systems " Calcutta, India, AMSE press, Vol. 3, pp 75-90, December 1992.
59. Function Dependent Testable PLA Design with reduced Test-Set with M. R. Mukerjee, In Proceedings of XV National Systems Conference, Roorkee, India, pp 248-252 March 1992.

**Book Chapters:**

1. "Smart DC Microgrid: A Cyber-Physical System Perspective" with Brijendra Pratap Singh, Book Chapter in book entitled "Technological Developments in Industry 4.0 for Business Applications", ISBN13: 9781522549369, IGI Global (September 2018).