



Sachin Tripathi

Associate Professor

Curriculum Vitae

Goal:

"Gain fundamental experience in my area of interest and expertise."

Affiliation and Contacts

Department of Computer Science & Engineering
Indian Institute of Technology (Indian School of Mines)
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Permanent Address

Divya Nagar, Near MMMEC, Gorakhpur, U.P., 9934560573(M)

Education

- January, 2011 **Ph.D.(Computer Science and Engineering)**, *Department of Computer Science and Engineering, Indian Institute of Technology (Indian School of Mines), Dhanbad, Jharkhand-826 004, India.*
- 2003-2005 **M.Tech. (Computer Application)**, *Department of Computer Science and Engineering, Indian Institute of Technology (Indian School of Mines), Dhanbad, Jharkhand-826 004, India.*
- 1999-2003 **B.Tech. (Computer Science and Engineering)**, *Department of Computer Science and Engineering, University Institute of Engineering and Technology (UIET), Kanpur, Uttar Pradesh-208024, India.*

Administrative Experiences

- Head of the Department, Computer Science and Engineering (15th Jun. 2020 to 15th Jan. 2024)
- Institute TEQIP- III Coordinator (3rd Dec. 2018 to 3rd Dec. 2021)
- Institute TEQIP- III Co-Coordinator-I (5th Jul. 2018 to 2th Dec. 2018)

- Institute TEQIP- III MIS Coordinator (3rd Jul. 2017 to 5th Jul. 2018)
- Coordinator, NBA (3rd Jan. 2014 to 06th Feb. 2017)
- Warden, Topaz and Amber hostel, IIT(ISM), Dhanbad (1st Apr. 2010 to 31st Dec. 2014)
- Erasmus Mundus AREAS+ (International project team member) (2013 to 2017)
- M.Tech. (CSE), Coordinator (24th Feb. 2012 to 28th Sept. 2018)
- Departmental FIC (Training & Placements) (4th Dec. 2006 to 10th Dec. 2013)
- Departmental FIC (Time Table) (20th Apr. 2007 to 30th Nov. 2009)
- Convener, DUGC (5th Sept. 2019 to 19th Jun. 2020)
- Member, DFSC (8th Aug. 2018 to 26th Jul. 2019)
- Member, Academic Review Committee (ARC) (2018 to 2019).

Teaching Experiences

- 27-July-2005 **Lecturer**, *Haldia Institute Of Technology, Haldia, West Bengal, India..*
to
20-Nov-2005
- 21-Nov-2005 **Lecturer**, *Department of Computer Science and Engineering, Indian Institute of Technology (Indian School of Mines), Dhanbad, Jharkhand-826 004, India.*
to
31-Dec-2005
- 01-Jan-2006 **Assistant Professor**, *Department of Computer Science and Engineering, Indian Institute of Technology (Indian School of Mines), Dhanbad, Jharkhand-826 004, India..*
to
18-May-2017
- 19-May-2017 **Associate Professor**, *Department of Computer Science and Engineering, Indian Institute of Technology (Indian School of Mines), Dhanbad, Jharkhand-826 004, India..*
to
Present

Abroad Visit (Research and Academic Purposes)

- 2008 Las Vegas, USA
- 2012 Imperial college London, UK
- 2019 University of the West of Scotland, Glasgow, UK

Subjects Taught

2005
to
Present

1. Computer Organization (UG).
2. Programming Language Concepts (UG).
3. Switching & Finite State Machines (UG).
4. Logic Programming (UG)
5. Advanced Algorithms (UG).
6. Computer Networks (UG).
7. Artificial Intelligence (UG & PG).
8. Data Structures (PG).
9. Assembly Programming (PG).
10. Digital Circuits and Computer Organization (PG).
11. Cryptography and Network Security (PG).
12. Advanced Data Structure and Algorithms (PG).
13. Advanced Computer Networks (PG).
14. Advanced Artificial Intelligence (PG).
15. Machine Learning (PG).
16. Wireless and Mobile Computing (PG).
17. Wireless and Mobile Communication (UG).
18. Wireless Networks (PG)
19. Principles of Artificial Intelligence (PG)

Research Interest

- Ad-hoc & Sensor Network
- Artificial Intelligence
- Network Security
- Group-ware Communication Security

M.Tech. Dissertation Supervised

- M.Tech.- 40

Sponsored Research Projects

- Completed
- Name of the Sponsor Agency: UGC
Title: Design of Group Key Generation Protocol and its Applications for Secure Multi-cast.
Role: PI
 - Name of the Sponsor Agency: DST(SERB)
Title: Design of Reliable and energy Efficient Transport Layer Protocols for Ad-hoc and Sensor Networks.
Role: PI
 - Name of the Sponsor Agency: NCoE Noida, DSCI
Title: AI/ML driven Intrusion Detection Framework for IoT enabled Cloud Storage Monitoring.
Role: PI
- Ongoing
- Name of the Sponsor Agency: MeitY
Title: Information Security Education and Awareness (ISEA) Project Phase-II.
Role: Chief Investigator (Institute Level)

Consultancy

- Completed
- Name of the Sponsor Agency: CMPFO
Title: Enterprise solution construction for CMPF portal.
Role: CI

Professional Activities

- Associate Editor
- International Journal of Communication Systems - Wiley

Organized International Conferences/ Short-Term Courses/ Workshops

- General Chair
- 5th International Conference on Recent Advances in Information Technology (RAIT 2023) (3rd - 5th March, 2023) (IEEE).
- Program Chair
- 4th International Conference on Recent Advances in Information Technology (RAIT 2018) (15th - 17th March, 2018) (IEEE).
- Program Chair
- 4th ISEA Virtual International Conference on Security and Privacy (ISEA-ISAP 2021) (27th - 30th October, 2021)(IEEE).
- Co-Convener
- Industry Institute Interaction (III-2019) (Institute Annual Event)(2nd February, 2019).

- Finance Chair
- 3rd IEEE International Conference on “Recent Advances in Information Technology (RAIT-2016)” at Indian Institute of Technology (Indian School of Mines), Dhanbad during 03-05 March 2016.
 - 2nd IEEE International Conference on “Recent Advances in Information Technology (RAIT-2014)” at Indian Institute of Technology (Indian School of Mines), Dhanbad during 13-14 March 2014.
 - 1st IEEE International Conference on “Recent Advances on Information Technology (RAIT-2012)”, at Indian Institute of Technology (Indian School of Mines), Dhanbad during 15-17 March, 2012.
 - National Seminar on “Recent Advances on Information Technology (RAIT2009)” at Indian Institute of Technology (Indian School of Mines), Dhanbad during 6- 7 February 2009.
 - National Seminar on “Recent Advances on Information Technology (RAIT2007)” at Indian Institute of Technology (Indian School of Mines), Dhanbad during 26-27 February, 2007
- GIAN Course (Coordinator)
- Security of e-Systems and Networks, February 10-14, 2018, Sponsored by GIAN, MHRD, Govt. of India.
- Short-Term Course
- Coding Theory and Cryptography: Fundamentals and Applications at Indian Institute of Technology (Indian School of Mines), Dhanbad during 13-17 December, 2017. Sponsored by Information Security Education and Awareness (ISEA) Project Phase-II MeitY, Government of India.
 - Hands-on Session on MONOSEK-Real Time Network Packet Processing & Network Session Analysis at Indian Institute of Technology (Indian School of Mines), Dhanbad during 14-18 September, 2016.
 - Advanced Data Structures with their Applications Indian Institute of Technology (Indian School of Mines), Dhanbad during 01-05 October, 2015.
- Workshop
- Communications and Multimedia Security, organized by Department of Computer Science and Engineering, Indian Institute of Technology (Indian School of Mines) Dhanbad-826004, Jharkhand, India, Sponsored by Information Security Education and Awareness (ISEA) Project Phase-II MeitY, Government of India, 09-10 February, 2017.
 - Information and Cyber Security, Jointly Organized by Indian Institute of Technology (Indian School of Mines), Dhanbad and C-DAC, Kolkata Sponsored by Information Security Education and Awareness (ISEA) Project Phase-II, DeitY, Government of India, 28-30 January, 2016.

Full-Time Research Scholars

Awarded

1. **Abhimanyu Kumar**, Thesis title: Some Group Key Agreement Protocols using Elliptic Curve Cryptography.
2. **Ajay Kumar Yadav**, Thesis title: Study and Development of Multicasting Routing Protocols for Wireless Ad-Hoc Networks.
3. **Tapas Kumar Mishra**, Thesis title: Design of Reliable and Energy-Efficient Protocols for Ad-Hoc Networks.
4. **Santosh Kumar Das**, Thesis title: Development of Energy Efficient Routing Protocols for Ad-Hoc Network using Artificial Intelligence Techniques.
5. **Rajesh Purkait**, Thesis title: Study and Development of Intelligent Routing Protocols.
6. **Priyanka Jaiswal**, Thesis title: Study and Design of Group Key Establishment Protocols.
7. **Pankaj Pal**, Thesis title: Design and Deployment of Sensor Nodes in IOWSN Monitoring Infrastructure for Precision Agriculture, (Co-Guide, Prof. Chiranjeev Kumar, IIT(ISM), Dhanbad).
8. **Mahendra Prasad**, Thesis title: Design and Analysis of Intrusion Detection Framework using Machine Learning Techniques, (Co-Guide, Prof. Keshav Dahal, University of the West of Scotland (UWS), UK).
9. **Ashish Tomar**, Thesis title: Design of Blockchain-Assisted Cryptographic Security Schemes For IoT-Based Applications.

Ongoing

1. **Divya Rani**, Thesis title: Decentralised & Transparent Authentication Schemes for Distributed IoT Application.

Part-Time Research Scholars

Awarded

1. **Surendra Singh**, Thesis title: Design of Security Aware Packet Scheduling Techniques.
2. **Kamlesh Kumar Rana**, Thesis title: Study and Development of Routing Protocols in Vehicular Ad-hoc Networks (Co-Guide, Dr. Ram Shringar Raw, NSUT, Delhi)
3. **Soumen Nayak**, Thesis title: Techniques to Enhance the Fault Detection Rate using Regression Test Prioritization (Co-Guide, Prof. Sachin Tripathi).
4. **Preeti Gupta**, Thesis title: Design of Energy Efficient protocol in Wireless Sensor Network, (Co-Guide, Dr. Samayveer Singh, National Institute of Technology, Jalandhar, India).

Book/Proceeding

- Proceedings of 4th IEEE International Conference on Recent Advances In Information Technology.
- Sachin Tripathi and G.P.Biswas, "Enhancements on Internet Applications: Multicast, Secure E-mail Messaging and E-Business", LAP Lambert Academic Publishing (2011-08-26).

International Journal

- 2024 (1) Tomar, Ashish, and Sachin Tripathi. "A Chebyshev Polynomial-Based Authentication Scheme Using Blockchain Technology for Fog-Based Vehicular Network." *IEEE Transactions on Mobile Computing* (2024). (Q1).
- (2) Rani, Divya, and Sachin Tripathi. "Design of blockchain-based authentication and key agreement protocol for health data sharing in cooperative hospital network." *The Journal of Supercomputing* 80.2 (2024): 2681-2717. (Q2).
- 2023 (1) Tomar, Ashish, and Sachin Tripathi. "BCSoM: Blockchain-based certificateless aggregate signcryption scheme for Internet of Medical Things." *Computer Communications* 212 (2023): 48-62.
- (2) Tomar, Ashish, Niraj Gupta, Divya Rani, and Sachin Tripathi. "Blockchain-assisted authenticated key agreement scheme for IoT-based healthcare system." *Internet of Things* (2023): 100849 (Q1).
- (3) Tomar, Ashish, Sachin Tripathi, and K. Arivarasan. "A Blockchain-Based Certificateless Aggregate Signature Scheme for Fog-Enabled Smart Grid Environment." *IEEE Transactions on Green Communications and Networking* (2023) (Q2).
- (4) Prasad, Mahendra, Sachin Tripathi, and Keshav Dahal. "An intelligent intrusion detection and performance reliability evaluation mechanism in mobile ad-hoc networks." *Engineering Applications of Artificial Intelligence* 119 (2023): 105760 (Q1).
- (5) Prasad, Mahendra, Sachin Tripathi, and Keshav Dahal. "A probability estimation-based feature reduction and Bayesian rough set approach for intrusion detection in mobile ad-hoc network." *Applied Intelligence* 53, no. 6 (2023): 7169-7185 (Q2).
- (6) Gupta, Preeti, Sachin Tripathi, Samayveer Singh, and V. S. Gupta. "MPPT-EPO optimized solar energy harvesting for maximizing the WSN lifetime." *Peer-to-Peer Networking and Applications* 16, no. 1 (2023): 347-357 (Q2).
- (7) Rana, Kamlesh Kumar, Sachin Tripathi, and Ram Shringar Raw. "Directional antenna-enabled multi-hop directional location routing in vehicular ad-hoc networks." *Journal of Ambient Intelligence and Humanized Computing* (2023): 1-15.

- 2022 (1) Pal, Pankaj, Rashmi Priya Sharma, Sachin Tripathi, Chiranjeew Kumar, and Dharavath Ramesh. "Machine Learning Regression for RF Path Loss Estimation Over Grass Vegetation in IoWSN Monitoring Infrastructure." *IEEE Transactions on Industrial Informatics* (2022)(Q1).
- (2) Kumar, Ranjit, Sachin Tripathi, and Rajeev Agrawal. "Handling dynamic network behavior and unbalanced datasets for WSN anomaly detection." *Journal of Ambient Intelligence and Humanized Computing* (2022): 1-14.(Q2)
- (3) Pal, Pankaj, Sachin Tripathi, and Chiranjeew Kumar. "Single Probe Imitation of Multi-Depth Capacitive Soil Moisture Sensor Using Bidirectional Recurrent Neural Network." *IEEE Transactions on Instrumentation and Measurement* 71 (2022): 1-11.(Q1)
- (4) Prasad, Mahendra, Rahul Kumar Gupta, and Sachin Tripathi. "A Multi-level Correlation-Based Feature Selection for Intrusion Detection." *Arabian Journal for Science and Engineering* (2022): 1-11.(Q2)
- (5) Prasad, Mahendra, Sachin Tripathi, and Keshav Dahal. "An enhanced detection system against routing attacks in mobile ad-hoc network." *Wireless Networks* 28.4 (2022): 1411-1428.(Q2)
- (6) Tomar, Ashish, and Sachin Tripathi. "BCAV: Blockchain-based certificateless authentication system for vehicular network." *Peer-to-Peer Networking and Applications* 15.3 (2022): 1733-1756.(Q2)
- (7) Prasad, Mahendra, Sachin Tripathi, and Keshav Dahal. "A probability estimation-based feature reduction and Bayesian rough set approach for intrusion detection in mobile ad-hoc network." *Applied Intelligence (APIN)* (2022).(Q2)
- (8) Nayak, Soumen, Chiranjeew Kumar, and Sachin Tripathi. "Analytic hierarchy process-based regression test case prioritization technique enhancing the fault detection rate." *Soft Computing* (2022): 1-16.(Q2)
- (9) Kumar, Ranjit, Sachin Tripathi, and Rajeev Agrawal. "Trust-based energy-aware routing using GEOSR protocol for Ad-Hoc sensor networks." *Wireless Networks* (2022): 1-24.(Q2)
- (10) Pal, Pankaj, Sachin Tripathi, and Chiranjeew Kumar. "Bandwidth estimation in high mobility scenarios of MANET using NSGA-II optimized fuzzy inference system." *Applied Soft Computing* 123 (2022): 108936.(Q1)

- 2021 (1) Gupta, Preeti, Sachin Tripathi, and Samayveer Singh. "RDA-BWO: Hybrid energy efficient data transfer and mobile sink location prediction in heterogeneous WSN." *Wireless Networks* 27.7 (2021): 4421-4440. (Q2)
- (2) Tomar, Ashish, and Sachin Tripathi. "Blockchain-assisted authentication and key agreement scheme for fog-based smart grid." *Cluster Computing* (2021): 1-18. (Q2)
- (3) Rana, Kamlesh Kumar, Sachin Tripathi, and Ram Shringar Raw. "Directional antenna-enabled multi-hop directional location routing in vehicular ad-hoc networks." *Journal of Ambient Intelligence and Humanized Computing* (2021): 1-15. (Q1)
- (4) Gupta, Preeti, Sachin Tripathi, and Samayveer Singh. "Energy efficient rendezvous points based routing technique using multiple mobile sink in heterogeneous wireless sensor networks." *Wireless Networks* 27.6 (2021): 3733-3746. (Q2)
- (5) Nayak, Soumen, et al. "Regression test optimization and prioritization using Honey Bee optimization algorithm with fuzzy rule base." *Soft Computing* 25.15 (2021): 9925-9942. (Q2)
- (6) Sharma, Rashmi Priya, et al. "IoT enabled IEEE 802.15. 4 WSN monitoring infrastructure driven Fuzzy-logic based Crop pest prediction." *IEEE Internet of Things Journal* (2021). (Q1)
- (7) Pal, Pankaj, et al. "2.4 GHz RF Received Signal Strength Based Node Separation in WSN Monitoring Infrastructure for Millet and Rice Vegetation." *IEEE Sensors Journal* (2021). (Q2)
- (8) Pal, Pankaj, et al. "Genetic algorithm optimized node deployment in IEEE 802.15. 4 potato and wheat crop monitoring infrastructure." *Scientific Reports* 11.1 (2021): 1-12. (Q1)
- (9) Salim, Abu, Rajesh Kumar Tiwari, and Sachin Tripathi. "An Efficient Public Auditing Scheme for Cloud Storage with Secure Access Control and Resistance Against DOS Attack by Iniquitous TPA." *Wireless Personal Communications* 117.4 (2021): 2929-2954. (Q4)
- (10) Rana, Kamlesh Kumar, Sachin Tripathi, and Ram Shringar Raw. "Fuzzy logic-based directional location routing in vehicular ad hoc network." *Proceedings of the National Academy of Sciences, India Section A: Physical Sciences* 91.1 (2021): 135-146. (Q3)

- 2020 (11) Gupta, Preeti, Sachin Tripathi, and Samayveer Singh. "Energy efficient hotspot problem mitigation techniques using multiple mobile sink in heterogeneous wireless sensor network." *International Journal of Communication Systems* 33.18 (2020): e4641. (Q3)
- (12) Prasad, Mahendra, Sachin Tripathi, and Keshav Dahal. "Unsupervised feature selection and cluster center initialization based arbitrary shaped clusters for intrusion detection." *Computers & Security* 99 (2020): 102062. (Q1)
- (13) Rana, Kamlesh Kumar, Sachin Tripathi, and Ram Shringar Raw. "Inter-vehicle distance-based location aware multi-hop routing in vehicular ad-hoc network." *Journal of Ambient Intelligence and Humanized Computing* 11.11 (2020): 5721-5733. (Q1)
- (14) Rana, Kamlesh Kumar, Sachin Tripathi, and Ram Shringar Raw. "Link reliability-based multi-hop directional location routing in vehicular ad hoc network." *Peer-to-Peer Networking and Applications* 13 (2020): 1656-1671. (Q2)
- (15) Purkait, Rajesh, and Sachin Tripathi. "Fuzzy logic based multi-criteria intelligent forward routing in VANET." *Wireless Personal Communications* 111.3 (2020): 1871-1897. (Q4)
- (16) Srivastava, Vikas, Sachin Tripathi, and Karan Singh. "Energy efficient optimized rate based congestion control routing in wireless sensor network." *Journal of Ambient Intelligence and Humanized Computing* 11.3 (2020): 1325-1338. (Q1)
- (17) Prasad, Mahendra, Sachin Tripathi, and Keshav Dahal. "An efficient feature selection based Bayesian and Rough set approach for intrusion detection." *Applied Soft Computing* 87 (2020): 105980. (Q1)
- (18) Rana, Kamlesh Kumar, Sachin Tripathi, and Ram Shringar Raw. "Opportunistic directional location aided routing protocol for vehicular ad-hoc network." *Wireless Personal Communications* 110.3 (2020): 1217-1235. (Q4)

- 2019 (19) Pal, Pankaj, Sachin Tripathi, and Chiranjeev Kumar. "Bandwidth estimation in high mobility scenarios of IEEE 802.11 infrastructure-less mobile ad hoc networks." *International Journal of Communication Systems* 32.15 (2019): e4080. (Q3)
- (20) Singh, Surendra, Suvadip Batabyal, and Sachin Tripathi. "Security aware dynamic scheduling algorithm (SADSA) for real-time applications on grid." *Cluster Computing* (2019): 1-17. (Q2)
- (21) Mishra, Tapas Kumar, and Sachin Tripathi. "Minimizing End-to-End Delay on Real-Time Applications." *Wireless Personal Communications* 107.1 (2019): 41-55. (Q4)
- (22) Nayak, Soumen, Chiranjeev Kumar, and Sachin Tripathi. "Erratum to: Enhancing Efficiency of the Test Case Prioritization Technique by Improving the Rate of Fault Detection." *Arabian Journal for Science Engineering (Springer Science Business Media BV)* 44.3 (2019). (Q3)
- (23) Pal, Pankaj, Sachin Tripathi, and Chiranjeev Kumar. "Clustered heterogeneous wireless sensor network infrastructure for reliable and efficient path planning of mobile nodes in remote area." *International Journal of Sensor Networks* 31.4 (2019): 199-215. (Q4)
- (24) Das, Santosh Kumar, and Sachin Tripathi. "Energy efficient routing formation algorithm for hybrid ad-hoc network: A geometric programming approach." *Peer-to-Peer Networking and Applications* 12.1 (2019): 102-128. (Q2)

- 2018 (25) Singh, Surendra, Sachin Tripathi, and Nitin Kumar. "An enhanced security-aware dynamic packet scheduling scheme for wireless networks using intelligent time slice-based krill herd algorithm." *Journal of Electromagnetic Waves and Applications* 32.16 (2018): 2135-2156. (Q4)
- (26) Singh, Surendra, and Sachin Tripathi. "SLOPE: Secure and load optimized packet scheduling model in a grid environment." *Journal of Systems Architecture* 91 (2018): 41-52. (Q1)
- (27) Jaiswal, Priyanka, and Sachin Tripathi. "Cryptanalysis of olimid's group key transfer protocol based on secret sharing." *Journal of Information and Optimization Sciences* 39.5 (2018): 1129-1137.
- (28) Das, Santosh Kumar, and Sachin Tripathi. "Aaptive and intelligent energy efficient routing for transparent heterogeneous ad-hoc network by fusion of game theory and linear programming." *Applied Intelligence* 48.7 (2018): 1825-1845. (Q2)
- (29) Das, Santosh Kumar, and Sachin Tripathi. "Intelligent energy-aware efficient routing for MANET." *Wireless Networks* 24.4 (2018): 1139-1159. (Q2)
- (30) Rana, Kamlesh Kumar, et al. "Feasibility Analysis of Directional-Location Aided Routing Protocol for Vehicular Ad-hoc Networks." *International Journal of Computer Science and Information Security (IJCSIS)* 16.4 (2018).
- (31) Das, Santosh Kumar, and Sachin Tripathi. "Intelligent energy-aware efficient routing for MANET." *Wireless Networks* 24.4 (2018): 1139-1159. (Q2)
- (32) Mishra, Tapas Kumar, and Sachin Tripathi. "Congestion control and fairness with dynamic priority for ad hoc networks." *International Journal of Ad Hoc and Ubiquitous Computing* 29.3 (2018): 208-220. (Q4)
- (35) Rana, Kamlesh Kumar, Sachin Tripathi, and Ram Shringar Raw. "Analytical analysis of improved directional location added routing protocol for VANETS." *Wireless Personal Communications* 98.2 (2018): 2403-2426. (Q4)
- 2017 (36) Santosh Kumar Das and Sachin Tripathi, "Energy Efficient Routing Formation Technique for Hybrid Ad-Hoc Network using Fusion of Artificial Intelligence Techniques", *International Journal of Communication Systems*, Wiley, DOI:10.1002/dac.3340, May 2017. (Q3)
- (37) Ajay Kumar Yadav, Santosh Kumar Das and Sachin Tripathi, "EFMMRP: Design of Efficient Fuzzy based Multi-Constraint Multicast Routing Protocol for Wireless Ad-hoc Network", *Computer Networks*, Elsevier, Vol. 118, pp. 15-23. (Q1)

- 2016 (38) Santosh Kumar Das, Ajay Kumar Yadav and Sachin Tripathi, "IE2M: Design of Intellectual Energy Efficient Multicast Routing Protocol for Ad-hoc network", Peer-to-Peer Networking and Applications, Springer. (Q2)
- (39) Rajesh Purkait and Sachin Tripathi, "Energy Aware Fuzzy Based Multi-Hop Routing Protocol Using Unequal Clustering", 02-Sep-2016, Wireless Personal Communications. (Q4)
- (40) Tapas Kumar Mishra and Sachin Tripathi, "Buffer Aware Medium Access Control: A Cross Layer Approach", 06-July-2016, Wireless Personal Communications. (Q4)
- (41) Jeevan Kumar, Sachin Tripathi and Rajesh Kumar Tiwari, "A Survey on Routing Protocols for Wireless Sensor Networks using Swarm Intelligence", 2016, International Journal of Internet Technology and Secured Transactions, Vol-6, No-2, pp. 79-102, Inderscience Publishers.
- (42) Ajay Kumar Yadav and Sachin Tripathi, "QMRPRNS: Design of QoS multicast routing protocol using reliable node selection scheme for MANETs", 27-Feb-2016, Peer-to-Peer Networking and Applications, pp. 1-13. (Q2)
- (43) Priyanka Jaiswal and Sachin Tripathi, "An authenticated group key transfer protocol using elliptic curve cryptography", 10-Feb-2016, Peer-to-Peer Networking and Applications, pp. 1-8. (Q2)
- (44) Abhimanyu Kumar and Sachin Tripathi, "Anonymous ID-based group key agreement protocol without pairing", Mar-2016, International Journal of Network Security", Vol-18, No-2, pp. 263-273.
- 2015 (45) Ajay Kumar Yadav and Sachin Tripathi, "DLBMRP: Design of Load Balanced Multicast Routing Protocol for Wireless Mobile Ad-hoc Network", July 2015, Wireless Personal Communications, Vol-85, No-4, pp. 1815-1829, Springer.(Q4)
- 2014 (46) Abhimanyu Kumar and Sachin Tripathi, "A Pairing Free Anonymous Certificate less Group Key Agreement Protocol for Dynamic Group", Dec-2014, Wireless Personal Communications, Vol-82, No-2, pp. 1027-1045, Springer. (Q4)
- (47) Abu Salim , Sachin Tripathi and Rajesh Kumar Tiwari, "Secure and Timestamp Based Communication Scheme in Cloud Environment", International Journal of Electronics Security and Digital Forensics, Vol-6, No-4, pp. 319-332.
- (48) Arpita Sarkar and Sachin Tripathi, "Design of Dual Signature Scheme using ECDSA in SET Protocol", Feb-2014, International Journal of Computer Applications, Vol-88, No-11, Foundation of Computer Science.
- (49) Abhimanyu Kumar and Sachin Tripathi, "Ternary Tree based Group Key Agreement Protocol Over Elliptic Curve for Dynamic Group", Jan-2014, International Journal of Computer Applications, Vol-86, No-7, Foundation of Computer Science.
- 2013 (50) Abu Salim, Rajesh Kumar Tiwari and Sachin Tripathi, "Addressing Security Challenges in Cloud Computing", Apr-2013, International Journal of Computer Engineering and Applications, Vol-2, No-2, pp. 1-13.

- 2012 (51) Arpita Sarkar and Sachin Tripathi, "Removal of certificates from SET protocol using certificate less public key cryptography", Nov-2012, International Journal of Network Security Its Applications, Vol-4, No-6, pp. 157-172.
- 2010 (52) Sachin Tripathi, Rajat Goyal and Amit Kumar Pathak, "Modified Scheme To Prevent NACK Implosion in MTP/SO: Self Organizing Multicast Transport Protocol", June-2010, International Journal of Advance Computer Engineering, Vol-3, No-1, pp. 7-11.
- (53) Sachin Tripathi and G.P.Biswas, "Secure E-Mail Messaging to Selected Group-Members Using PGP Technique", Feb-2010, International Journal of Computer Application, Vol-1, No-10, pp. 76-80, Foundation of Computer Science, Impact Factor-0.79.

International conference

- 2020 (1) Kumar, Ranjit, Sachin Tripathi, and Rajeev Agrawal. "A Review On Security in Wireless Sensor Network." 2020 International Conference on Emerging Smart Computing and Informatics (ESCI). IEEE, 2020.
- 2019 (2) Prasad, Mahendra, Sachin Tripathi, and Keshav Dahal. "Intrusion Detection in Ad Hoc Network Using Machine Learning Technique." International Conference on Big Data, Machine Learning, and Applications. Springer, Cham, 2019.
- (3) Prasad, Mahendra, Sachin Tripathi, and Keshav Dahal. "Wormhole attack detection in ad hoc network using machine learning technique." 2019 10th International Conference on Computing, Communication and Networking Technologies (ICCCNT). IEEE, 2019.
- 2018 (4) KumarRana, Kamlesh, Sachin Tripathi, and Ram Shringar Raw. "LBDR: Location-Based Directional Routing in Vehicular Ad-hoc Networksusing Directional Antenna." 2018 International Conference on Advances in Computing, Communication Control and Networking (ICACCCN). IEEE, 2018.
- (5) Saini, Taniya, and Sachin Tripathi. "Predicting tags for stack overflow questions using different classifiers." 2018 4th International Conference on Recent Advances in Information Technology (RAIT). IEEE, 2018.
- (6) Kumar, Ranjit, Sachin Tripathi, and Rajeev Agrawal. "A secure handshaking aodv routing protocol (SHS-AODV)." 2018 4th International Conference on Recent Advances in Information Technology (RAIT). IEEE, 2018.
- (7) Kumar, Pravin, Sachin Tripathi, and Pankaj Pal. "Neural network based reliable transport layer protocol for MANET." 2018 4th International Conference on Recent Advances in Information Technology (RAIT). IEEE, 2018.

- 2016 (8) Jeevan Kumar, Sachin Tripathi and Rajesh Kumar Tiwari, "Routing Protocol for Wireless sensor networks Using Swarm intelligence- ACO with ECP SOA", 2016, International Conference on Information Technology, IEEE.
- (9) Kamlesh Rana, Sachin Tripathi and Ram Shringar Raw, "Analysis of expected delay of LAR protocol for VANETs", Proceedings of 3rd International Conference on Computing for Sustainable Global Development (INDIACom), IEEE, 2016.
- (10) Rajesh Purkait and Sachin Tripathi, "Network condition and application based vehicular ad-hoc network", Proceedings of Fifth International Conference on Computing, Communications and Informatics (ICACCI-2016), IEEE, 2016, Jaipur, Rajasthan-302031, India.
- (11) Santosh Kumar Das and Sachin Tripathi, "Energy Efficient Routing Protocol for MANET Using Vague Set", Proceedings of Fifth International Conference on Soft Computing for Problem Solving, Springer, 2016, pp. 235-245, IIT Roorkee, SAHARANPUR-247001, U.P.
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