



Sachin Tripathi

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AFFILIATION AND CONTACTS

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Institution	Indian Institute of Technology (Indian School of Mines)
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Google Scholar ID	FC o4RYAAAAJ
Google Scholar Metrics	Citations: 2723 (Since 2021: 1897) h-index: 28 (Since 2021: 24) i10-index: 75 (Since 2021: 55)

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

- DPGC Convener, Computer Science and Engineering (Jan. 2024 to till date)
- DRGC Member (Feb. 2024 to till date)
- Head of the Department (HoD), 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 2nd 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)
- Faculty Advisor – Cyber and Coding, AI & Robotics Student Club

TEACHING EXPERIENCES

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

AWARDS, ACHIEVEMENTS & INTERNATIONAL COLLABORATIONS

- Erasmus Mundus **AREAS+** – International Project Team Member (2013–2017)
- Collaborative Ph.D. supervision and research publications with international researchers including **Prof. Keshav Dahal**, University of the West of Scotland, UK.
- **Principal Investigator (PI)** and **Chief Investigator** for multiple sponsored R&D projects funded by UGC, DST-SERB, DSCI, and MeitY, Government of India, with cumulative project funding exceeding ₹3.5 Crores.
- Recipient of the **Author Award** from Springer Nature, in India Research Tour 2025 under the collaboration of the Ministry of Education, Government of India, and the Indian Council of Social Science Research (ICSSR) for academic and research engagement activities.
- International collaborative interaction with **Dr.-Ing. habil. Josef Spillner**, ZHAW School of Engineering, Forschungsschwerpunkt Distributed Systems, University of Zurich, focusing on research and academic exchange activities.
- International academic collaboration with **Dr. Piyush Harsh**, entrepreneur and technology leader associated with Aerial Tech AG, in advanced Cyber Security, distributed systems, and intelligent computing applications.
- Research collaboration with **Prof. Alamgir Hossain**, academic entrepreneur and technology leader associated with Digital Readiness & Intelligent Systems (D-Ready) Ltd., UK, in the field of secure communication systems, Artificial Intelligence, and emerging network technologies.
- Research collaboration with **Prof. Mohammad S. Obaidat**, University of Jordan and former Professor at the University of Texas Permian Basin, USA, in the areas of Cyber Security, Wireless Networks, Artificial Intelligence, and Communication Systems.

ABROAD VISIT (RESEARCH AND ACADEMIC PURPOSES)

2008	Las Vegas, USA
2012	Imperial College London, UK
2019	University of the West of Scotland, Glasgow, UK
2024	ZHAW School of Engineering, Zurich, Switzerland

SUBJECTS TAUGHT (2005 – PRESENT)

- | | |
|---|---|
| • Cryptography and Network Security (PG) | • Principles of Artificial Intelligence (PG) |
| • Machine Learning (PG) | • Advanced Algorithms (UG) |
| • Wireless Networks (PG) | • Computer Networks (UG) |
| • Programming Language Concepts (UG) | • Switching & Finite State Machines (UG) |
| • Artificial Intelligence (UG & PG) | • Data Structures (PG) |
| • Assembly Programming (PG) | • Digital Circuits and Computer Organization (PG) |
| • Computer Organization (UG) | • Logic Programming (UG) |
| • Advanced Data Structure and Algorithms (PG) | |
| • Wireless and Mobile Communication (UG) | |

RESEARCH INTEREST

- Cyber Security • Artificial Intelligence & Machine Learning • Blockchain • IOT Applications

M.TECH. DISSERTATION SUPERVISED (Recent)

• M.Tech, – 40 (Thesis)

Title	Year
Design of Few-Shot Learning for Plant Disease Detection	May 2021
Comparing Unsupervised Learning Techniques in Intrusion Detection System	May 2022
Blockchain-based Online Voting System	May 2022
Design of Intrusion Detection System using Prototype-Based Neural Networks with Few-Shot Learning Strategy	May 2022
Design of Blockchain-Based Cross-Domain Authentication Scheme in a Multi-Domain Internet of Drones Environment	May 2023
Network Intrusion Detection Systems by Zero Shot Classifiers using Image Encoder and Word Embeddings	May 2023
Network Intrusion Detection Systems using One-Shot Classifier (Based on Convolutional Siamese Neural Networks)	May 2023
Blockchain-Based Authentication and Key Agreement Scheme for Securing IoMT Device Network	May 2024
A Clustered Federated Learning Approach for Heart Failure Prediction	May 2024
Clustered Federated Learning Approach for Weather Forecasting	May 2025
Blockchain Assisted Heart Disease Prediction using Clustered Federated Learning	May 2025
Interpretable Graph Neural Networks for Financial Fraud Detection	May 2026
Design of Adaptive Systems for Haphazard Inputs Using ML	May 2026
Improving the Fidelity of Explanations Generated by Chatbot	May 2026
A Structural NLP-Guided Text Steganography Scheme with Self-Keying Forward Secrecy	May 2026

Externally Funded R&D Projects

Completed

Title: Design of Group Key Generation Protocol and its Applications for Secure Multi-cast

Sponsor: UGC | **Role:** PI (Outlay: 10.78 Lakhs)

Title: Design of Reliable and Energy Efficient Transport Layer Protocols for Ad-hoc and Sensor Networks

Sponsor: DST (SERB) | **Role:** PI (Outlay: 23.13 Lakhs)

Title: AI/ML Driven Intrusion Detection Framework for IoT Enabled Cold Storage Monitoring

Sponsor: NCoE Noida, DSCI | **Role:** PI (Outlay: 6.13 Lakhs)

Title: Information Security Education and Awareness (ISEA) Project Phase-II

Sponsor: MeitY, Government of India | **Role:** Chief Investigator (Institute Level) (Outlay: 1.48 Crore)

Ongoing

Title: Information Security Education and Awareness (ISEA) Project Phase-III

Sponsor: MeitY | **Role:** Chief Investigator (Institute Level) (Outlay: 2.01 Crore)

CONSULTANCY / OUTREACH

Completed

- **CMPFO** – Enterprise solution construction for CMPF Portal. *Role: CI*
- A **TCS IHC (Industry Honor Course)** on "Artificial Intelligence for Real World Applications" (Offered during August 2023 to December 2025, five semesters in continuation) *Role: CI*
- **Hands-on Session** on MONOSEK – Real Time Network Packet Processing & Network Session Analysis, IIT(ISM) Dhanbad, 14–18 September 2016. *Role: CI*
- **Advanced Data Structures with their Applications**, IIT(ISM) Dhanbad, 01–05 October 2015. *Role: CI*
- **GIAN Course** – Security of e-Systems and Networks, 10–14 February 2018, Sponsored by GIAN, MHRD, Govt. of India. *Role: CI*
- **Coding Theory and Cryptography: Fundamentals and Applications**, IIT(ISM) Dhanbad, 13–17 December 2017. Sponsored by ISEA Phase-II, MeitY. *Role: CI*
- **Bootcamp on Cryptography and Network Security**: During 12th-18th February 2025, sponsored by MeitY, Government of India *Information Security Education and Awareness (ISEA) Project Phase-II Role: Convenor*
- **Bootcamp on Foundations of Secure Communications using Cryptography**: During 10th-18th February 2026, sponsored by MeitY, Government of India *Information Security Education and Awareness (ISEA) Project Phase-III Role: Convenor*
- **Six Months Cyber Commandos Training Program**: EDP Duration of Six Months starting from November 24th, 2025, funded by Ministry of Home Affairs, Indian Cyber Crime Co-Ordination Centre (I4C)

PROFESSIONAL ACTIVITIES

Associate Editor

- International Journal of Communication Systems – Wiley (2018-2025)

Organized International Conferences / Workshops

Organizing Chair	6th IEEE International Conference on Recent Advances in Information Technology (RAIT 2025), 6–8 March 2025
General Chair	5th IEEE International Conference on Recent Advances in Information Technology (RAIT 2023), 3–5 March 2023
Program Chair	4th IEEE International Conference on Recent Advances in Information Technology (RAIT 2018), 15–17 March 2018
Program Chair	4th ISEA Virtual International Conference on Security and Privacy (ISEA-ISAP 2021), 27–30 October 2021 (IEEE)
Co-Convenor	Industry Institute Interaction (III-2019) – Institute Annual Event, 2 February 2019
Finance Chair	3rd IEEE RAIT-2016, IIT(ISM) Dhanbad, 03–05 March 2016
Finance Chair	2nd IEEE RAIT-2014, IIT(ISM) Dhanbad, 13–14 March 2014
Finance Chair	1st IEEE RAIT-2012, IIT(ISM) Dhanbad, 15–17 March 2012
Finance Chair	National Seminar RAIT-2009, IIT(ISM) Dhanbad, 6–7 February 2009
Finance Chair	National Seminar RAIT-2007, IIT(ISM) Dhanbad, 26–27 February 2007

Workshops (as Co-Coordinator)

- Online Workshop on "Building Sensor Nodes (BSN-2023)", 21 October 2023
- Communications and Multimedia Security, IIT(ISM) Dhanbad, 09–10 February 2017. Sponsored by ISEA Phase-II MeitY, Govt. of India
- Information and Cyber Security, IIT(ISM) Dhanbad & C-DAC Kolkata, 28–30 January 2016. Sponsored by ISEA Phase-II, DeitY, Govt. of India

INVITED TALKS AND GUEST LECTURES (Recent)

Title of Talk	Event Type	Organising Institute	Year
Cybersecurity Technologies	Invited Talk	Guru Nanak Institute of Technical campus, Hyderabad	2026 March
Blockchain assisted authentication and key agreement schemes for IOT based application	FDP	MNIT Bhopal	2026 March

Title of Talk	Event Type	Organising Institute	Year
Machine Learning for Ad Hoc Sensor Network	Invited Talk	NIT, GoA	2026 Jan
Blockchain assisted cryptographic mechanisms	FDP	ISI, Kolkata	2026 Jan
Digital Signatures and applications	Invited Talk	ISI, Kolkata	2025 Nov
AI/ML driven Intrusion Detection Systems	FDP	NIT, Patna	2025 Aug
AI/ML based Intrusion Detection Framework	FDP	NIT, Uttarakhand	2022 Mar
Cyber Security: Intrusion Detection Systems	Training Programme	IIT Kharagpur	2020 Feb
Introduction to Blockchain Technologies	FDP	NIT Uttarakhand	2021 Mar
AI/ML in Cyber Security	FDP	NIT, Patna	2023 Feb
AI/ML in Cyber Physical System Security	FUP	IIIT, Bhubaneshwar	2025 Jan

BOARD MEMBERSHIP AND ADVISORY ROLES

- Doctoral Scrutiny Committee (DSC) Member (External) – National Institute of Technology Patna (NIT Patna)
- Doctoral Scrutiny Committee (DSC) Member (External) – Indian Institute of Information Technology Allahabad (IIIT Allahabad)
- Doctoral Scrutiny Committee (DSC) Member (External) – Indian Institute of Information Technology Raipur (IIIT Raipur)
- Doctoral Scrutiny Committee (DSC) Member (External) – KLE Technological University (KLE University) Hubballi, Karnataka
- External Expert for R&D Cell – Ranchi University, Ranchi (Ongoing)
- Academic External Experts Member of BoS, Jharkhand University of Technology (JUT, Ranchi)
- Departmental Advisory Board, Chaitanya Bharathi Institute of Technology, Hyderabad (Affiliated to Osmania University)
- SRC External Member (Head of the Institution's Nominee) – BIT Sindri, Jharkhand
- Board of Studies (BoS) Member – Jharkhand University of Technology, Ranchi
- Board of Studies (BoS) Member – Koyalanchal University, Dhanbad

PATENTS FILED

- A Structural NLP-Guided Text Steganography Method and System with Self-Keying Forward Secrecy – Ref. No.- PSD/PAT/1945

PhD SUPERVISION

Title	Year
Ph.D. Supervision – Awarded	
Some Group Key Agreement Protocols using Elliptic Curve Cryptography (Abhimanyu Kumar)	2016
Study and Development of Multicasting Routing Protocols for Wireless Ad-Hoc Networks (Ajay Kumar Yadav)	2017
Design of Reliable and Energy-Efficient Protocols for Ad-Hoc Networks (Tapas Kumar Mishra)	2017
Development of Energy Efficient Routing Protocols for Ad-Hoc Network using AI Techniques (Santosh Kumar Das)	2018
Study and Development of Intelligent Routing Protocols (Rajesh Purkait)	2020
Study and Design of Group Key Establishment Protocols (Priyanka Jaiswal)	2019
Design and Deployment of Sensor Nodes in IOWSN Monitoring Infrastructure for Precision Agriculture (Pankaj Pal)	2022

Title	Year
Design and Analysis of Intrusion Detection Framework using Machine Learning Techniques (Mahendra Prasad)	2022
Design of Blockchain-Assisted Cryptographic Security Schemes for IoT-Based Applications (Ashish Tomar)	2023
Evaluation of Binding Mechanisms of Triclosan Against Cancer Pathway Proteins (Prashant Bharadwaj)	2023
Decentralised & Transparent Authentication Schemes for Distributed IoT Application (Divya Rani)	2025

RESEARCH SCHOLARS SUPERVISED

Ph.D. Scholars – Awarded

1. **Abhimanyu Kumar** – *Some Group Key Agreement Protocols using Elliptic Curve Cryptography*
2. **Ajay Kumar Yadav** – *Study and Development of Multicasting Routing Protocols for Wireless Ad-Hoc Networks*
3. **Tapas Kumar Mishra** – *Design of Reliable and Energy-Efficient Protocols for Ad-Hoc Networks*
4. **Santosh Kumar Das** – *Development of Energy Efficient Routing Protocols for Ad-Hoc Network using Artificial Intelligence Techniques*
5. **Rajesh Purkait** – *Study and Development of Intelligent Routing Protocols*
6. **Priyanka Jaiswal** – *Study and Design of Group Key Establishment Protocols*
7. **Pankaj Pal** – *Design and Deployment of Sensor Nodes in IOWSN Monitoring Infrastructure for Precision Agriculture (Co-Guide: Prof. Chiranjeev Kumar, IIT(ISM))*
8. **Mahendra Prasad** – *Design and Analysis of Intrusion Detection Framework using Machine Learning Techniques (Co-Guide: Prof. Keshav Dahal, University of the West of Scotland, UK)*
9. **Ashish Tomar** – *Design of Blockchain-Assisted Cryptographic Security Schemes for IoT-Based Applications*
10. **Divya Rani** – *Decentralised & Transparent Authentication Schemes for Distributed IoT Application*
11. **Surendra Singh** – *Design of Security Aware Packet Scheduling Techniques*
12. **Kamlesh Kumar Rana** – *Study and Development of Routing Protocols in Vehicular Ad-hoc Networks (Co-Guide: Dr. Ram Shringar Raw, NSUT, Delhi)*
13. **Soumen Nayak** – *Techniques to Enhance the Fault Detection Rate using Regression Test Prioritization (Co-Guide: Prof. Sachin Tripathi)*
14. **Preeti Gupta** – *Design of Energy Efficient Protocol in Wireless Sensor Network (Co-Guide: Dr. Samayveer Singh, NIT Jalandhar)*
15. **Prashant Bharadwaj** - *Evaluation of Binding Mechanisms of Triclosan Against Cancer Pathway Proteins*

Full-Time Ph.D. Scholars – Ongoing

1. **Avinash Singh**
2. **Abhishek Rao**
3. **Kumar Harshdeep**

Part-Time Ph.D. Scholars – Ongoing

1. **Sandeep Tigga**
2. **Smriti Priyadarshini**

BOOK / PROCEEDINGS

- 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.
- Proceedings of Fourth Virtual ISEA International Conference on Security and Privacy (ISEA-ISAP 2021)

INTERNATIONAL JOURNAL PUBLICATIONS

2025

(1) Chaudhuri A., Tripathi S., and Sur D. Blockchain-based Authentication and Key Agreement Scheme for Securing IoMT Device Network. *Blockchain: Research and Applications*, 100349 [Q1]

2024

(2) Rani D., Tripathi S., and Tomar A. BSAS: blockchain-based shareable authentication scheme for smart healthcare. *Cluster Computing* (2024): 1–25. [Q1]

(3) Tomar A. and Tripathi S. A Chebyshev Polynomial-Based Authentication Scheme Using Blockchain Technology for Fog-Based Vehicular Network. *IEEE Transactions on Mobile Computing* (2024). [Q1]

(4) Rani D. and Tripathi S. 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 A. and Tripathi S. BCSom: Blockchain-based certificateless aggregate signcryption scheme for Internet of Medical Things. *Computer Communications* 212 (2023): 48–62. [Q1]
- (2) Tomar A., Gupta N., Rani D., and Tripathi S. Blockchain-assisted authenticated key agreement scheme for IoT-based healthcare system. *Internet of Things* (2023): 100849. [Q1]
- (3) Tomar A., Tripathi S., and Arivarasan K. A Blockchain-Based Certificateless Aggregate Signature Scheme for Fog-Enabled Smart Grid Environment. *IEEE Transactions on Green Communications and Networking* (2023). [Q2]
- (4) Prasad M., Tripathi S., and Dahal K. 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 M., Tripathi S., and Dahal K. A probability estimation-based feature reduction and Bayesian rough set approach for intrusion detection in mobile ad-hoc network. *Applied Intelligence* 53.6 (2023): 7169–7185. [Q2]
- (6) Gupta P., Tripathi S., Singh S., and Gupta V.S. MPPT-EPO optimized solar energy harvesting for maximizing the WSN lifetime. *Peer-to-Peer Networking and Applications* 16.1 (2023): 347–357. [Q2]
- (7) Rana K.K., Tripathi S., and Raw R.S. Directional antenna-enabled multi-hop directional location routing in vehicular ad-hoc networks. *Journal of Ambient Intelligence and Humanized Computing* (2023): 1–15. [Q2]

2022

- (1) Pal P., Sharma R.P., Tripathi S., Kumar C., and Ramesh D. Machine Learning Regression for RF Path Loss Estimation Over Grass Vegetation in IoWSN Monitoring Infrastructure. *IEEE Transactions on Industrial Informatics* (2022). [Q1]
- (2) Kumar R., Tripathi S., and Agrawal R. Handling dynamic network behavior and unbalanced datasets for WSN anomaly detection. *Journal of Ambient Intelligence and Humanized Computing* (2022): 1–14. [Q2]
- (3) Pal P., Tripathi S., and Kumar C. 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 M., Gupta R.K., and Tripathi S. A Multi-level Correlation-Based Feature Selection for Intrusion Detection. *Arabian Journal for Science and Engineering* (2022): 1–11. [Q2]
- (5) Prasad M., Tripathi S., and Dahal K. An enhanced detection system against routing attacks in mobile ad-hoc network. *Wireless Networks* 28.4 (2022): 1411–1428. [Q2]
- (6) Tomar A. and Tripathi S. BCAV: Blockchain-based certificateless authentication system for vehicular network. *Peer-to-Peer Networking and Applications* 15.3 (2022): 1733–1756. [Q2]
- (7) Prasad M., Tripathi S., and Dahal K. 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 S., Kumar C., and Tripathi S. Analytic hierarchy process-based regression test case prioritization technique enhancing the fault detection rate. *Soft Computing* (2022): 1–16. [Q2]
- (9) Kumar R., Tripathi S., and Agrawal R. Trust-based energy-aware routing using GEOSR protocol for Ad-Hoc sensor networks. *Wireless Networks* (2022): 1–24. [Q2]
- (10) Pal P., Tripathi S., and Kumar C. Bandwidth estimation in high mobility scenarios of MANET using NSGA-II optimized fuzzy inference system. *Applied Soft Computing* 123 (2022): 108936. [Q1]
- Tomar A. and Tripathi S. Blockchain-assisted authentication and key agreement scheme for fog-based smart grid. *Cluster Computing* (2021): 1–18. [Q1]

2021

- (1) Gupta P., Tripathi S., and Singh S. RDA-BWO: Hybrid energy efficient data transfer and mobile sink location prediction in heterogeneous WSN. *Wireless Networks* 27.7 (2021): 4421–4440. [Q2]
- (2) Rana K.K., Tripathi S., and Raw R.S. Directional antenna-enabled multi-hop directional location routing in vehicular ad-hoc networks. *Journal of Ambient Intelligence and Humanized Computing* (2021): 1–15. [Q2]
- (3) Gupta P., Tripathi S., and Singh S. Energy efficient rendezvous points based routing technique using multiple mobile sink in heterogeneous wireless sensor networks. *Wireless Networks* 27.6 (2021): 3733–3746. [Q2]
- (4) Nayak S., Kumar C., Tripathi S., Mohanty N., and Baral V. Regression test optimization and prioritization using Honey Bee optimization algorithm with fuzzy rule base. *Soft Computing* 25 (2021): 9925–9942. [Q2]
- (5) Sharma R.P., Ramesh D., Pal P., Tripathi S., and Kumar C. IoT-enabled IEEE 802.15.4 WSN monitoring infrastructure-driven fuzzy-logic-based crop pest prediction. *IEEE Internet of Things Journal* 9.4 (2021): 3037–3045. [Q1]
- (6) Pal P., Sharma R.P., Tripathi S., Kumar C., and Ramesh D. 2.4 GHz RF received signal strength based node separation in WSN monitoring infrastructure for millet and rice vegetation. *IEEE Sensors Journal* 21.16 (2021): 18298–18306. [Q2]
- (7) Pal P., Sharma R.P., Tripathi S., Kumar C., and Ramesh D. Genetic algorithm optimized node deployment in IEEE 802.15.4 potato and wheat crop monitoring infrastructure. *Scientific Reports* 11.1 (2021): 8231. [Q1]

- (8) Salim A., Tiwari R.K., and Tripathi S. 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. [Q3]
- (9) Rana K.K., Tripathi S., and Raw R.S. Fuzzy logic-based directional location routing in vehicular ad hoc network. *Proceedings of the National Academy of Sciences, India Section A* 91.1 (2021): 135–146. [Q3]

2018

- (1) Singh S., Tripathi S., and Kumar N. 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]
- (2) Singh S. and Tripathi S. SLOPE: Secure and load optimized packet scheduling model in a grid environment. *Journal of Systems Architecture* 91 (2018): 41–52. [Q1]
- (3) Das S.K. and Tripathi S. Adaptive 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]
- (4) Das S.K. and Tripathi S. Intelligent energy-aware efficient routing for MANET. *Wireless Networks* 24.4 (2018): 1139–1159. [Q2]
- (5) Mishra T.K. and Tripathi S. 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]
- (6) Rana K.K., Tripathi S., and Raw R.S. Analytical analysis of improved directional location added routing protocol for VANETS. *Wireless Personal Communications* 98.2 (2018): 2403–2426. [Q3]

2017

- (1) Das S.K. and Tripathi S. 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]
- (2) Yadav A.K., Das S.K., and Tripathi S. 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

- (1) Das S.K., Yadav A.K., and Tripathi S. IE2M: Design of Intellectual Energy Efficient Multicast Routing Protocol for Ad-hoc network. *Peer-to-Peer Networking and Applications*, Springer. [Q2]
- (2) Purkait R. and Tripathi S. Energy Aware Fuzzy Based Multi-Hop Routing Protocol Using Unequal Clustering. *Wireless Personal Communications* (2016). [Q3]
- (3) Mishra T.K. and Tripathi S. Buffer Aware Medium Access Control: A Cross Layer Approach. *Wireless Personal Communications* (2016). [Q3]
- (4) Yadav A.K. and Tripathi S. QMRPRNS: Design of QoS multicast routing protocol using reliable node selection scheme for MANETs. *Peer-to-Peer Networking and Applications* (2016): 1–13. [Q2]
- (5) Jaiswal P. and Tripathi S. An authenticated group key transfer protocol using elliptic curve cryptography. *Peer-to-Peer Networking and Applications* (2016): 1–8. [Q2]

2015

- (1) Yadav A.K. and Tripathi S. DLBMRP: Design of Load Balanced Multicast Routing Protocol for Wireless Mobile Ad-hoc Network. *Wireless Personal Communications*, Springer, Vol. 85, No. 4 (Jul 2015): 1815–1829. [Q3]

2014

- (1) Kumar A. and Tripathi S. A Pairing Free Anonymous Certificateless Group Key Agreement Protocol for Dynamic Group. *Wireless Personal Communications*, Springer, Vol. 82, No. 2 (Dec 2014): 1027–1045. [Q3]

INTERNATIONAL CONFERENCE PUBLICATIONS

2020

- (1) Kumar R., Tripathi S., and Agrawal R. A Review On Security in Wireless Sensor Network. *2020 International Conference on Emerging Smart Computing and Informatics (ESCI)*, IEEE.

2019

- (1) Prasad M., Tripathi S., and Dahal K. Intrusion Detection in Ad Hoc Network Using Machine Learning Technique. *International Conference on Big Data, Machine Learning, and Applications*, Springer, Cham.
- (2) Prasad M., Tripathi S., and Dahal K. Wormhole attack detection in ad hoc network using machine learning technique. *10th International Conference on Computing, Communication and Networking Technologies (ICCCNT)*, IEEE.

2018

- (1) Kumar Rana K., Tripathi S., and Raw R.S. LBDR: Location-Based Directional Routing in Vehicular Ad-hoc Networks using Directional Antenna. *International Conference on Advances in Computing, Communication Control and Networking (ICACCCN)*, IEEE.
- (2) Saini T. and Tripathi S. Predicting tags for stack overflow questions using different classifiers. *4th International Conference on Recent Advances in Information Technology (RAIT)*, IEEE.
- (3) Kumar R., Tripathi S., and Agrawal R. A secure handshaking aodv routing protocol (SHS-AODV). *4th International Conference on RAIT*, IEEE.
- (4) Kumar P., Tripathi S., and Pal P. Neural network based reliable transport layer protocol for MANET. *4th International Conference on RAIT*, IEEE.

2016

- (1) Kumar J., Tripathi S., and Tiwari R.K. Routing Protocol for WSN Using Swarm intelligence – ACO with ECPSOA. *International Conference on Information Technology*, IEEE.
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