Dr. SURAJ SHARMA

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Google Scholar ID – https://scholar.google.co.in/citations?user=pN-1OK0AAAAJ&hl=en

Google Scholar – Citations - 2825, h-index - 24, i10-index - 45 (As on Today)

OBJECTIVE

Dedicated researcher and educator with over 13 years of experience in cutting-edge technologies, including IoT, Wireless Sensor Networks, Object Localization, Edge Computing, IoT Security, Blockchain, Cybersecurity, AI/ML and Cloud Computing. Passionate about advancing knowledge through research and teaching, with strong analytical and problem-solving skills. A committed team player, fostering innovation and excellence in both academia and industry.

WORK EXPERIENCE

• Designation : Associate Professor

Department: Computer Science and Engineering, SoS(E&T)

Organization: Guru Ghasidas Vishwavidyalaya, Central University Bilaspur, India

Duration: 15^{th} Sept. 2022 to till date Responsibility: Teaching and Research

• Designation : Assistant Professor

Department: Computer Science and Engineering

Organization: International Institute of Information Technology (IIIT), Bhubaneswar,

India

Duration: 22^{nd} Aug. 2012 to 14^{th} Sept. 2022

Responsibility: Teaching and Research

• Designation: Project Associate (ISEA)

Organization: National Institute of Technology Rourkela, India

Duration: 23^{rd} Sept. 2009 to 20^{th} Aug. 2012

Responsibility: Conducting security awareness training and workshops

• Designation : Assistant Professor

Organization: Sreenidhi Institute of Science and Technology, Hyderabad, India

Duration: 18^{th} Oct. 2006 to 20^{th} July 2007

RESEARCH INTEREST

My research interests includes:

- Internet of Things (IoT)
- Wireless Sensor Networks
- Object Localization
- Edge Computing
- Cyber Security
- Cloud Computing
- Machine Learning and AI

EDUCATION

- Doctor of Philosophy, Computer Science and Engineering
 Dissertation: "On Energy Efficient Routing Protocols for Wireless Sensor Networks" National Institute of Technology Rourkela, India

 January 2016
- Master of Technology, Computer Science and Engineering Dissertation: "ACPC:Design of Access Control Policy Checker" National Institute of Technology Rourkela, India 8.85(CGPA) April 2009
- Bachelor of Engineering, Computer Science and Engineering Pt. Ravishankar Shukla University, Raipur, India 74(%) April 2006

SUBJECTS TAUGHT

- B.Tech: OOP with C++, Python, Database Management System, Cryptography & Network Security, Artificial Intelligence and Machine Learning, Wireless Sensor Networks, Compiler Design, Theory of Computation, IoT and Cloud Computing, Blockchain Technology.
- M.Tech: AI, Advance Information Security, IoT and Cloud Computing.

GUEST FACULTY

- Guest Faculty for Blockchain Technology and its application in the Department of Computer Science and Engineering, Acropolis Institute Of Technology and Research Indore, Madhya Pradesh India.
- Guest Faculty for B.Tech course in School of Computer Science and Engineering, Xavier University Bhubaneswar, Odisha India.
- Guest Faculty for MCA course in Department of Integrated MCA, Utkal University Bhubaneswar, Odisha India.
- Guest Faculty for M.tech course in Information Technology, Utkal University Bhubaneswar, Odisha India.

- Guest Faculty for the B.Tech. course in Computer Science and Engineering, IIIT Naya Raipur, Chhattisgarh, India.
- Guest Faculty for the B.Tech. course in Computer Science and Engineering, CSIT Durg, Chhattisgarh, India.
- Guest resource person for the Basic Computer Course at Biju Patnaik State Police Academy (BPSPA) Bhubaneswar, Odisha, India.

GUEST/MANAGING EDITOR

- Editor for the Book on Cloud Computing Infrastructure for Enabling Future Technology Advancement, Nova Science Publishers, New York, USA, 2021.
- Guest Editor for the Special Issue on Blockchain and Edge Computing Techniques or Emerging IoT Applications, International Journal of Information System Modelling and Design (IGI Global), 2021.
- Guest Editor for the Special Issue on IoT and Cloud in Industry 4.0: Issues, Challenges and Applications, Recent Advances in Computer Science and Communication (Bentham Science), 2021.
- Guest Editor for the Special Section on AI-Driven Security Solutions for the Internet of Everything & IEEE Consumer Electronics Magazine, 2020.
- Managing Editor for the Special Issue on Privacy and Security in Evolving Internet of Multimedia Things, ACM Transactions on Multimedia Computing, Communications and Application, 2019.
- Guest Editor for the Special Issue on Towards Secure and Scalable Fog/Edge Computing, Computers & Electrical Engineering Journal, Elsevier, 2017.

PROFESIONAL ACTIVITIES

- Guest Speaker for the One Day Webinar on "Blockchain and Cryptocurrency" on 3 October, 2021, at the XPLORE and The Computer Society XIM University Bhubaneswar, India.
- Resource person for the AICTE sponsored One Week Online STTP on "IOT & Machine Learning" (Phase -II) during 26 August to 1 September, 2021, at Department of ECE, G. Pulla Reddy Engineering College(Autonomous), Kurnool, Andhra Pradesh, India
- Guest Speaker for the AICTE (ATAL) sponsored Five Days FDP on "Emerging Techniques and Applications for IoT" during 9-13 August, 2021, at the Department of IT, VSSUT Burla, Odisha, India.
- Resource person for the AICTE (ATAL) sponsored Five Days FDP on "Application of IoT in Agriculture" during 6-10 July 2021 at Gandhi Institute for Technology (GIFT), Bhubaneswar, India.
- Invited Speaker for Five Days Workshop on "Cyber Security and Cyber Forensics" during 9-13 June, 2021 at the School of Computer Science and Engineering (SCOPE), VIT Andhra Pradesh, India.
- **Keynote Speaker** for the 1st National Conference on "Home-Based IoT Lab Experiment Kit" on 25 April, 2021 at RISING AI Labs Raipur, India.

- Expert Speaker for the AICTE Training and Learning (ATAL) sponsored Five Days online FDP on "Artificial Intelligence, Machine Learning and Deep Learning" during 22–26 February, 2021 at Department of Information Technology, GIET University, Gunupur, Odisha, India.
- Expert Speaker for the TEQIP-III sponsored Workshop on "Role of localization in IoT, 5G and e-healthcare" during 15-19 February, 2021 at Department of ECE, Visvesvaraya National Institute of Technology (VNIT), Nagpur, India.
- Session Speaker for the AICTE Sponsored Online STTP on "Challenges and Applications of Cyber Physical System" during 21-28 December, 2020 at Gandhi Institute of Engineering and Technology University, Gunupur, Odisha, India.
- Resource person for the AICTE sponsored online STTP on "Data Science" during 7-12 December, 2020 at Acropolis Institute of Technology & Research Indore, Madhya Pradesh, India.
- Resource person for the TEQIP-III sponsored ONLINE One Week National Workshop on "Offensive and Defensive Aspects of Cyber Security" during 15-19 December, 2020 at Parala Maharaja Engineering College (Govt.), Berhampur, Odisha, India.
- Resource person for the TEQIP-III sponsored ONLINE Short Term Training Program on "Blockchain Technology and Its Applications in Internet of Things" during 7-11 December, 2020 at Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat, India.
- Resource person for the AICTE sponsored Short Term Training Programme (STTP) in Online Mode on "Smart Perspectives of IoT in Green Technologies" during 30th November to 5th December, 2020 at Gandhi Institute For Technology (GIFT), Bhubaneswar, Odisha, India.
- Resource person for the RGPV/TEQIP-III sponsored one day online workshop on "Blockchain Technology and Applications" on 19th September, 2020 at Acropolis Institute of Technology & Research Indore, Madhya Pradesh, India.
- Resource person for the TEQIP III sponsored one week online Faculty Development Program (FDP) on "IoT: Recent Advancements and Applications (IRAA-2020)" during September 15-19, 2020 at Veer Surendra Sai University of Technology, Burla, Odisha, India.
- Guest Editor for the Special Section on AI-Driven Security Solutions for the Internet of Everything & IEEE Consumer Electronics Magazine, 2020.
- Resource person for the Faculty Development Program (Online) on "Recent Trends in Computing" during 5-10 June, 2020 Organised by Nalla Malla Reddy Engineering College Hyderabad, India
- Resource person for the Faculty Development Program (Online) on "Security in IoT: Challenges and Countermeasures" on MAY 29, 2020 Organised by Department of Information Technology RCOEM Nagpur.
- Resource person for the Webinar on "Re-Inventing Application of IoT Post COVID-19", on MAY 28, 2020, Organised by Department of Electrical Engineering OP Jindal University Raigarh".

- Resource person for the TEQIP III sponsored Short Term Training Program (Online) on "Effective Research Plaining and Technical Writing" during May 19-20, 2010 at Indore Institute of Science and Technology (IIST) RGPV, Organised by IIST ACM student chapter, Technical supported by ACM Indore Chapter.
- Chief Adviser for the Startup QualkiAcademy [https://academy.qualki.com/]
- **Program Coordinator** for two days workshop on IoT, Blockchain, Quantum Computing & App Development Organised by IEEE Student Branch IIIT Bhubaneswar Technically supported by IEEE Bhubaneswar Subsection during 1-2 February 2020.
- Program Coordinator for two days workshop on "IoT: App Development & Cloud Computing" Organised by IEEE Student Branch IIIT Bhubaneswar Technically supported by IEEE Bhubaneswar Subsection during 18-19 January 2020.
- Resource person for the TEQIP III sponsored Short Term Training Program on "Blockchain Technology and Decentralized Governance" during September 20-21, 2019 at Indore Institute of Science and Technology (IIST) RGPV.
- Chief Adviser for the Startup techbootcamps [https://techbootcamps.co.in/]
- Managing Editor for the Special Issue on Privacy and Security in Evolving Internet of Multimedia Things, ACM Transactions on Multimedia Computing, Communications, and Application, 2019.
- Guest Editor for the Special Issue on Towards Secure and Scalable Fog/Edge Computing, Computers & Electrical Engineering Journal, Elsevier, 2017.
- Track Chair for Power, Smart Grid and Internet of Thing in 17th International Conference on Information Technology (ICIT), 2018.
- Publicity Chair & Track Chair in 18th International Conference on Information Technology (ICIT), 2018.
- Resource person for the TEQIP III sponsored Short Term Training Program on "Ethical Hacking and Network Security" at SSEC Bhilai India, 2019.
- Resource person for the TEQIP III sponsored Short Term Training Program on "Blockchain Technology and Decentralized Governance" during September 20-21, 2019 at Indore Institute of Science and Technology (IIST) RGPV
- Resource person for the National Level workshop on "Real Time Applications using Internet of Things (IoT)" during September 3-5, 2019 at VNRVJIET Hyderabad.
- Resource person for the DST sponsored FDP on "Data Science & Big Data Analytics" during July 8-18, 2019 at Poornima University, Jaipur.
- Resource person for the AICTE sponsored FDP on "Smart Cities & IoT Transform Cities with Future Solution" during June 17-29, 2019 at Gandhi Institute For Technology Bhubaneswar.
- Resource person for the International Conference "NEXT GENERATION MANAGEMENT-ISSUES & CHALLENGES" during March 15-16, 2019 at Regional College of Management (RCM), Bhubaneswar.
- Resource person for the 6th National Level Seminar on Internet of Things on March 1, 2019 at Department of BCA, Bhadrak Autonomous College.

- Resource person for the TEQIP III sponsored Short Term Training Program on "Ethical Hacking and Network Security" during February 12-16, 2019 at Shri Shankaracharya Engineering College Bhilai India.
- Resource person for the TEQIP III sponsored Short Term Training Program on "IoT and Cloud Computing Hands-on" during December 03-07, 2018 at CSIT Durg India, 2018.
- Member of Organising committee in the Workshop on Image and Video Processing held during June 23-27, 2014 at IIIT Bhubaneswar, India.
- Member of Organising committee in the Short Term Course on Security Auditing and Cyber Forensics held during April 18-20, 2016 at IIIT Bhubaneswar, India.
- Member of Organising committee in the International Conference on Communication, Computing & Security(ICCCS'11) held during Feb 12-14, 2011 at NIT Rourkela, India.

SHORT-TERM COURSE AND WORKSHOPS ATTENDED

- Short Term Course on Cyber Security during April 9-13 2018. Organised by Department of Computer Science and Information Technology, C V Raman College of Engineering Bhubaneswar, India.
- Faculty Development Programme on Embedded Systems in IoT during November 27 December 9, 2017. Organised by Department of Electronics and Telecommunication Engineering Trident Academy of Technology (TAT), Bhubaneswar, India.
- Workshop on Security Auditing and Cyber Forensic during April 18-20, 2016. Organised by IIIT Bhubaneswar, India.
- National Workshop on Software Quality Assurance (NWSQA-15) during July 25-26, 2015. Organised by Computer Science and Engineering Department, NIT Rourkela, India.
- Short Term Course on Ethical Hacking and Network Security during March 8-12, 2016. Organised by Computer Science and Engineering Department, NIT Rourkela, India.
- Workshop and Tutorial on Information Security Education and Awareness (ISEA) during February 17-21, 2012. Organised by Department of Computer Science and Engineering, Indian Institute of Technology Guwahati, Assam, India.
- 32rd Asia Pacific Advanced Network (APAN) Meeting during August 22-26, 2011. Organised by ERNET India, New Delhi, India.
- Attended a Training programme on Enterprise Solutions for Web Application during November 16-27, 2009. Organised by C-DAC Hyderabad, India.
- Workshop on Environment & Pollution during June 21-23, 2007. Organised by JNTU College of Engineering, Hyderabad, India.

ADMINISTRATIVE RESPONSIBILITIES

GGV Central University Bilaspur

- In-charge Workshop and Training in the Department of CSE for the session 2022 2023.
- MOOC Coordinator in the Department of CSE for the session 2022 2023.
- Convener, Online Reporting (JOSAA-CSAB-2022), SoS(E&T) for the session 2022 2023.

IIIT Bhubaneswar

- Prof. in charge IT-Services from the June 2021 14 Sept 2022
- Ph.D. Course co-coordinator for the session 2017 2021
- Prof. in charge IT-Services committee for the session 2017 2021
- Prof. in charge IT-Services committee for the session 2016 2017

CODE RELEASED

- I am the owner of the **Smart City IIIT Bhubaneswar** organisation in Github under which I have released the code with name Smart-City and Homepage (for IoT and Cloud Computing Lab) in Python and HTML.
- My PhD simulation code developed with NS2 and Castalia simulator with C++ are released in Github under the name Fault-Diagnosis and Routing-Protocol.
- To ease the process of Amazon EWS, I have created a tool in GO under the name **EasyDeploy** in Github.
- Smart Irrigation system developed using Python, firebase cloud and HTML. The code is also resealed under Github.

PROJECTS DEVELOPED

• SRICCE Management System

Description:SRICCE(Sponsored Research, Industrial Consultancy and Continuing Education) is a cell in NIT Rourkela, India where different sponsored project, industry collaboration and sponsored educational activity takes place. To manage all these activity effectively a management system has been developed.

 $\pmb{Technology/Platform~used}$: Java Spring Suite
(Java Script), Java Server Pages, JDBC, MySQL

• Alumni Management System

Description: In NIT Rourkela for the Alumni cell manages the data about its alumni, registration, association, related events and invited talks. To manage these activity Alumni Management System has been developed.

Technology/Platform used: Java Spring Suite(Java Script), Ajax, Java Server Pages, JDBC, MySQL.

• Placement System

Description: In IIIT Bhubaneswar, India, to automate the placement cell activity a system has been developed. The functionality of the system are to manage the students details, company details, historical data management etc.

 $\pmb{Technology/Platform~used}\colon$ Java Spring Suite(Java Script), Java Server Pages, JDBC, MySQL

STATEMENT OF INTEREST

My PhD thesis work combined mathematical models and simulation of different routing protocols in Wireless Sensor Networks. The main focus is on efficient and secure data routing between the sensor nodes and between the sensor node and base station. For the validation of the research, open source simulators like NS-2 and Castalia have been used along with the mathematical proof and theorems. All my PhD desertion works are done in the department of Computer Science and Engineering while PhD is awarded by National Institute of Technology (NIT) Rourkela. I have been awarded Best Research Scholar in Computer Science & Engineering Department, NIT Rourkela in March 2015. To validate the research contributions, we have published several international journals including IEEE, ACM, Springer and several International Conference papers. Finally, my Ph.D. thesis is published by LAP LAMBERT Academic Publishing, Germany.

Currently, I am doing research with my PhD scholars in Localization in IoT, Efficient Routing Protocol in WSN enabled IoT infrastructure, Security in Edge/Fog computing in IoT infrastructure. So, my research interest mainly focused on Internet of Things (IoT), WSN and Cyber Security, to design and development energy efficient routing protocol for WSN, to design and development security and privacy model for IoT, distributed computing (Edge/Fog Computing) and Localization.

In credit to my research, I have published several peer reviewed journals and Transactions (including IEEE, ACM, Wiley, Springer and Elsevier), conference proceedings, book and IEEE magazines. I have experience in funding proposal writing, where I have also submitted number of project proposals and they are under evaluation in various funding agencies like Defence Research and Development Organisation(DRDO) India, Science and Engineering Research Board (SERB) Government of India, Planning and convergence department Government of Odisha India.

I also involved in several research communities including IEEE, IEEE Computer Society, ACM, CSI, IEI, ISRD etc. I have served on the editorial boards and guest editor of top-quality international journals, including Computers & Electrical Engineering (Elsevier), ACM Transactions on Multimedia Computing, Communications & Application, IEEE Consumer Electronic Magazine and so on. I also served as the Track Chair, Publicity Chair and Program Chair for many International Conferences and Symposiums. I am actively involved in several international journals for reviewing the research papers including IEEE, Elsevier, Springer, ACM, Wiley etc. Based on my contributions towards research I was invited for talks, and guest lecture on Wireless Sensor Networks, Cyber security, IoT and other subjects of Computer Science at different places like, SVNIT Surat, VNIT Nagpur, GIET Gunupur, NIT Patna, JNTU Hyderabad, DOON University Dehradun, BITS Mesra, Utkal University Bhubaneswar, IIST Indore, IIIT Kurnool, Silicon Institute of Technology Bhubaneswar, VNRVJIET Hyderabad, NMREC Hyderabad, Poornima University Jaipur-NIT Rourkela, SIT Bhubaneswar, KIIT Bhubaneswar, GITA Bhubaneswar, CSIT Durg, SSEC Bhilai, BITS Mesra, Bhubaneswar Police Academy and different institutions for government sponsored workshops and short term courses.

I am also associated with the startups such as: TechBootCamps, QualkiAcademy & AUUM Technologies and Government funded projects on Digitization of Land Road using Blockchain

funded by Department of Technology Odisha Government. I am the director of the IoT and Cloud Computing Lab in IIIT Bhubaneswar India. In the lab I have been involved in various IoT related project with BTech and MTech Students. In cloud computing lab, a private cloud has been established using the OpenStack packages.

RESEARCH PUBLISHED

Patents

- Rohit Raja, Suraj Sharma, Sharad Chandra Srivastava, Sumit Srivastava et al., "A System and Methods for Object Detection and Object Tracking for Traffic Surveillance", Patent number: 389902, Application number: 202121026466, Government of India, 14th June 2021.
- Suraj Sharma, Sumit Srivastava, Jaspal Bagga, Naresh Kumar Nagwani, Amit Kumar Dewangan, Kallepalli Rohit Kumar, Jharna Chopra, Amrita Verma, "A System for Identification of Personality Traits and A Method Thereof", Patent number: 2021104218, Commonwealth of Australia, Australian Patent, 25th August 2021.
- Suraj Sharma, Amit Kumar Dewangan, Ajay Kushwaha, Manoj Kumar Chande, Neelabh Sao, Komati Sathish, Rohit Raja, Sumit Srivastava, "An Internet of Things based Smart Parking System and Its Method Thereof", Patent number: 2021102314, Commonwealth of Australia, Australian Patent, 2nd June 2021.
- 4. Sharad Chandra Srivastava, Sumit Srivastava, Aakanksha Sharaff, Suraj Sharma, Akhilesh Kumar Shrivas, S K Saritha, S. R Tandan, Swati Jain, Upasana Sinha, Anand Nayyar, Abhishek Sharma, "Home Automation based on User Detection Using Internet of Things", Patent number: 2021100439, Commonwealth of Australia, Australian Patent, 7th April 2021.
- 5. Ramesh Chandra Panda, Rohit Raja, Somnath B. Thigale, Dinesh Kumar, Bijendra Kumar, Krishna Mohan Agarwal, Aditya Sinha, Apoorva Parashar; Monalisa Pattanayak, Sharad Chandra Srivastava, Aakanksha Sharaff, S. K. Saritha, D. Kishan, **Suraj Sharma**, "Novel 3D Printed Bionic Prosthetic Leg", *Patent number:* 2021100285, Commonwealth of Australia, Australian Patent, 7th April 2021.

Journals

- 1. Nishi Yadav, Pabitra Mohan Khilar, **Suraj Sharma**. "An Ameliorated Localization Algorithm for Compensating Stratification Effect Based on Improved Underwater Salp Swarm Optimization Technique", *International Journal of Communication Systems*, Volume 37, Issue 11, Pages 157-183, April 2023.
- 2. Soubhagya Ranjan Mallick, Rakesh K. Lenka, Veena Goswami, **Suraj Sharma**, Asish Kumar Dalai, Himansu Das, Rabindra K. Barik. "BCGeo: Blockchain-Assisted Geospatial Web Service for Smart Healthcare System", *IEEE Access*, June 2023.
- 3. Soubhagya Ranjan Mallick, Rakesh Kumar Lenka, Pradyumna Kumar Tripathy, D Chandrasekhar Rao, **Suraj Sharma**, Niranjan Kumar Ray. "BCGeo: Blockchain-Assisted Geospatial Web Service for Smart Healthcare System", *IEEE Access*, June 2023.
- 4. Rathin Chandra Shit, **Suraj Sharma**. "Ray-tracing assisted fingerprinting for localization in IoT Health 4.0", *Transactions on Emerging Telecommunications Technologies*, Wiley, Pages 1-14, June 2022.

- 5. Amiya Kumar Sahu, **Suraj Sharma**, M Tanveer, Rohit Raja. "Deep Learning-based Continuous Authentication for an IoT-enabled Healthcare Service", *Computers and Electrical Engineering*, *Elsevier*, Volume 99, Pages 1-14, April 2022.
- Amiya Kumar Sahu, Suraj Sharma, M Tanveer, Rohit Raja. "Internet of Things Attack Detection using Hybrid Deep learning Model", Computer Communications, Elsevier, Volume 176, Pages 146-154, August 2021.
- Rathin Chandra Shit, Suraj Sharma, K Yelamarthi, Deepak Puthal. "AI-Enabled Fingerprinting and Crowdsource-Based Vehicle Localization for Resilient and Safe Transportation Systems", *IEEE Transactions on Intelligent Transportation Systems*, Volume 22, Issue 7, Pages 4660-4669, July 2021.
- 8. Amiya Kumar Sahu, **Suraj Sharma**, Deepak Puthal, "Lightweight Multi-party Authentication and Key Agreement Protocol in IoT-based E-Healthcare Service", *ACM Transactions on Computing Communication and Applications*, Volume 17, Issue 2S, Pages 1 20, June 2021.
- Liang Zhao, Kaiqi Yang, Zhiyuan Tan, Xianwei Li, Suraj Sharma, Zhi Liu. "A Novel Cost Optimization Strategy for SDN-Enabled UAV-Assisted Vehicular Computation Offloading", IEEE Transactions on Intelligent Transportation Systems, Volume 22, Issue 6, Pages 3664 - 3674, June 2021.
- 10. Jian Xu, Qingyu Meng, Jun Wu, Xuyun Zhang, Suraj Sharma. "Efficient and Lightweight Data Streaming Authentication in Industrial Automation and Control Systems", *IEEE Transactions on Industrial Informatics*, Volume 17, Issue 6, Pages 4279-4287, January 2021.
- 11. Lianyong Qi, Chunhua Hu, Xuyun Zhang, Mohammad R Khosravi, Suraj Sharma, Shaoning Pang, Tian Wang. "Privacy-aware Data Fusion and Prediction with Spatial-temporal Context for Smart City Industrial Environment", IEEE Transactions on Industrial Informatics, Volume 17, Issue 6, Pages 4159-4167, January 2021.
- 12. X Xu, Q Huang, H Zhu, **Suraj Sharma**, X Zhang, L Qi, MZA Bhuiyan. "Secure Service Offloading for Internet of Vehicles in SDN-Enabled Mobile Edge Computing", *IEEE Transactions on Intelligent Transportation Systems*, Volume 22, Issue 6, Pages 3720 3729, June 2021.
- 13. Suyel Namasudra, **Suraj Sharma**, Ganesh Chandra Deka, Pascal Lorenz. "DNA computing and Table based Data accessing in Cloud Environment", *Journal of Network and Computer Applications*, Volume 172, Pages 1 13, September 2020.
- 14. Rathin Chandra Shit, **Suraj Sharma**, Paul Watters, Kumar Yelamarthi, Biswajeet Pradhan, Richard Davison, Graham Morgans, Deepak Puthal, "Privacy-Preserving Cooperative localization in Vehicular Edge Computing Infrastructure", *Concurrency and Computation Practice and Experience, John Wiley & Sons*, Pages 1 18, June 2020.
- 15. Rathin Chandra Shit, **Suraj Sharma**, Deepak Puthal, Rajiv Ranjan and Aad Van Moorsel, Albert Y. Zomaya, "Ubiquitous Localization (UbiLoc): A Survey and Taxonomy on Device Free Localization for Smart World", *IEEE Communications Surveys & Tutorials*, Volume 21, No. 4, Pages 3532-3564, November 2019.

- R. K. Lenka, A. K. Rath, Suraj Sharma, "Building Reliable Routing Infrastructure for Green IoT Network", *IEEE Access*, Volume 07, Issue 01, Pages 129892-129909, September 2019.
- 17. Rathin Chandra Shit, **Suraj Sharma**, Deepak Puthal, Albert Y. Zomaya. "Location of Things (LoT): A Review and Taxonomy of Sensors Localization in IoT Infrastructure", *IEEE Communications Surveys & Tutorials*, Volume 20, No. 3, Pages 2028-2061, August 2018.
- 18. Ratijit Mitra, **Suraj Sharma**, "Proactive data routing using controlled mobility of a mobile sink in Wireless Sensor Networks", *Computers & Electrical Engineering*, *Elsevier*, Volume 70, Pages 21–36, 2018.
- 19. R. K. Lenka, A. K. Rath, Z Tan, **Suraj Sharma**, Deepak Puthal, "Building Scalable Cyber-Physical-Social Networking Infrastructure Using IoT and Low Power Sensors", *IEEE Access*, Volume 06, Issue 01, Pages 30162-30173, June 2018.
- 20. Swati Sucharita Roy, Deepak Puthal, Suraj Sharma, Saraju P. Mohanty, Albert Y.Zomaya. "Building a Sustainable Internet of Things Energy-efficient routing using low-power sensor will meet the need", *IEEE Consumer Electronics Magazine*, Volume 07, Issue 02, Pages 42-49, March 2018.
- 21. Sambit Kumar Mishra, Deepak Puthal, Bibhudatta Sahoo, Suraj Sharma, Zhi Xue, Albert Y Zomaya, "Energy-Efficient Deployment of Edge Dataenters for Mobile Clouds in Sustainable IoT", *IEEE Access*, Volume 06, Issue 01, Pages 56587 56597, September 2018.
- 22. **Suraj Sharma**, Deepak Puthal, Sabah Tazeen, Mukesh Prasad, Albert Y Zomaya. "MSGR: A Mode-Switched Grid-Based Sustainable Routing Protocol for Wireless Sensor Networks", *IEEE Access*, Volume 5, Pages 19864-19875, August 2017.
- 23. Suraj Sharma, Deepak Puthal, Sanjay Kumar Jena, Albert Y. Zomaya, Rajiv Ranjan. "Rendezvous based routing protocol for wireless sensor networks with mobile sink", The Journal of Supercomputing, Springer, Volume 72, Issue 235, Pages 1-21, July 2016.
- 24. **Suraj Sharma**, Pratik Agarwal, Sanjay Kumar Jena. "EAMRP: Energy Aware Multipath Routing Protocol for Wireless Sensor Networks", *Special Issue on: Advances in Wireless Sensor Networks and their Applications, International Journal of Information and Communication Technology, Inderscience Publisher, Volume 8, Number 2-3, Pages 235-248, January 2016.*
- 25. **Suraj Sharma**, Sanjay Kumar Jena. "Cluster based Multipath Routing Protocol for Wireless Sensor Networks", *ACM SIGCOMM Computer Communications Review* (*CCR*), Volume 45, Number 2, April 2015.
- 26. Suraj Sharma and Sanjay Kumar Jena. "Data Dissemination Protocol for Mobile Sink in Wireless Sensor Networks", Journal of Computational Engineering Hindawi Publication, Volume 2014, Article ID 560675, 10 pages, 2014.
- 27. Suraj Sharma, Deepak Puthal and Bibhudatta Sahoo. "Dynamic Model for Efficient Data Collection in Wireless Sensor Networks with Mobile Sink", *International Journal of Computer Science and Technology [IJCST]*, Volume 3, Issue 1, pages 623-628 March 2012.

- 28. **Suraj Sharma**, Rahul Ramteke, Sunil Kumar Panda and Sanjay Kumar Jena. "Analysis of GPSR and its Relevant Attacks in Wireless Sensor Networks", *ACEEE International Journal on Network Security*, Volume 3, Issue 1, pages 20-23, 2012.
- 29. Suraj Sharma, Taran Deep Singh Pawa, Sanjay Kumar Jena. "Security Analysis of LEACH Protocol in Wireless Sensor Networks", *International Journal on Recent Trends in Engineering and Technology [IJRTET]*, Volume 6, Issue 1, pages 71-74 2011.

Conferences

- 1. A. K. Srinivas, D. Vikram, **Suraj Sharma** and R. K. lenka"Deployment Automation for Blockchain Enabled IoMT", *OITS International Conference on Information Technology (OCIT)*, Pages 1-4, Bhubaneswar India, 14-16 December 2022.
- 2. S. R. Mallick, V. Goswami, R. K. Lenka, **Suraj Sharma** and R. K. Barik. "Performance evaluation of Queueing assisted IoMT-Fog-Blockchain framework for healthcare organizations", *IEEE 9th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON)*, Pages 1-6, Prayagraj, India, 02-04 December 2022.
- S. R. Mallick, V. Goswami, R. N. Dash, R. K. Lenka, Suraj Sharma and R. K. Barik. "A priority-reservation queueing-based approach for Blockchain-assisted smart-grid system", International Conference on Power Electronics and Energy (ICPEE), Pages 1-6, 03-05 January 2023.
- Soubhagya Ranjan Mallick, Suraj Sharma. "EMRI: A scalable and secure Blockchain-based IoMT framework for healthcare data transaction", 19th OITS International Conference on Information Technology (OCIT) 2021, Pages 261-266, Bhubaneswar, India, 16-18 December 2021.
- 5. **Suraj Sharma**, D.Chandrasekhar Rao. "Biogeography-Based Optimization", 6th International Conference on Frontiers in IntelligentComputing: Theory and Applications(FICTA 2021), Pages 471-479, NIT Arunachal Pradesh, India, 25-26 June 2021.
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RESEARCH PROJECT

- 1. Principal Investigator in the Research and Development project titled "Machine Learning Disease Models" funded by Rekwardih Co. Ltd. Taiwan approved on 01-August-2022 at IIIT Bhubaneswar.
- CO-Principal Investigator in the Research and Development project titled "Secure Digitization of Land Record using Blockchain Technology" funded by the Department of Science and Technology (DST) Government of Odisha approved on 06-March-2020 at IIIT Bhubaneswar.
- 3. Co-coordinator in the project titled "DST Technology Enabling Centre GGV Bilaspur" funded by the Department of Science and Technology (DST) Government of India 2023.
- 4. Co-coordinator in the project titled "DST i-TBI GGV Bilaspur" funded by the Department of Science and Technology (DST) Government of India NIDHI program 2024.

5.

Ph.D. SUPERVISED

S.No.	Student Name	Topic	Year of Joining (Status)
1.	Rathin Chandra Shit	Object Localisation in Wireless Sensor	2016 (Awarded)
2.	Amiya Kumar Sahu	Networks Security in Edge/Fog computing in Internet of Things (IoT)	2017 (Awarded)
3.	Rakesh Kumar Lenka	Energy Efficient Routing in Internet of Things (IoT)	2017 (Awarded)

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