

Research Publications of Dr. J Sathish Kumar

• International Journal

1. Sai Dheeraj Peketi, Pranav Sanand Puligandla, SSR Sri Harsha Kedarisetty, Praveen Raj Kanickairaj and J Sathish Kumar, "A Federated Blockchain Framework for Secure and Scalable Remote Patient Monitoring Using IoT Devices", **International Journal of Ad Hoc and Ubiquitous Computing, (SCIE), Inderscience Publications**. 2026 (Accepted under publication).
2. Shuvadip Roy and J Sathish Kumar, "Toward Patient-Centric Healthcare Systems: A Systematic Review of Blockchain-Based Solutions", **WIREs Data Mining and Knowledge Discovery Journal (SCIE) (Impact Factor:15), Wiley Publications**, Vol. 16, no. 3, p:e70124, 2026. <https://doi.org/10.1002/widm.70124>
3. Abhijeet Pandey, Bhavi Khator and J Sathish Kumar, "Path Planning of Multi Drone System for Disaster Analysis and Management", **International Journal of Ad Hoc and Ubiquitous Computing, (SCIE), Inderscience Publications**, Vol. 52 No. 4, pp.212–228, 2026, DOI: 10.1504/IJAHUC.2026.10078440
4. Shailjakant Gond, Shubhrant, J Sathish Kumar, "Enhancing Healthcare Data Protection with Blockchain Technology", **Procedia Computer Science (SCOPUS), Elsevier Publication**, Vol 283, pp: 1551-1561, 2026. DOI:<https://doi.org/10.1016/j.procs.2026.06.232>. (Also will be published in proceedings of 4th International Conference on Machine Learning and Data Engineering (ICMLDE'25), Science Direct, Dehradun).
5. Saheb Sarkar, J Sathish Kumar and Abhinav Kumar, "Deep Multimodal Networks for Detecting Disaster-Related Informative Content on Social Media", **Knowledge and Information Systems (SCIE) (Impact Factor:3.6), Springer Publication**, Vol 68, p. 127, 2026, <https://doi.org/10.1007/s10115-026-02742-0>.
6. Aman Alam, Abhishek Yadav, Anubhav Kumar, Aman Chaudhari and J Sathish Kumar, "Organ Transplantation using Federated Blockchain based Healthcare System", **International Journal of Ad Hoc and Ubiquitous Computing, (SCIE), Inderscience Publications**, Vol. 50, No. 3, pp.154-169, 2025, <https://doi.org/10.1504/IJAHUC.2025.149578>
7. Pranil Tripathi, Prajwal Moon, Prakhar Mishra, Mohan Singh and J Sathish Kumar, "Health Insurance System Using Federated Blockchain Technology", **International Journal of Ad Hoc and Ubiquitous Computing, (SCIE), Inderscience Publications**, Vol. 50, No. 4, pp.223-239, 2025, <https://doi.org/10.1504/IJAHUC.2025.10071458>
8. Satish Kumar and J Sathish Kumar, "Federated Blockchain and IPFS based Secure Interoperable Healthcare System", **Cluster Computing: the Journal of Networks, Software Tools and Applications (SCIE) (Impact Factor:5.5), Springer Publication**, Vol. 28, No. 794, pp. 1-18, 2025, <https://doi.org/10.1007/s10586-025-05511-w>
9. Samta Gaur and J. Sathish Kumar, "LightDD: A lightweight model for disaster detection from aerial imagery", **Multimedia Tools and Applications (Scopus), Springer**, pp:1-25, 2025, <https://doi.org/10.1007/s11042-025-20926-8>.
10. J Sathish Kumar, Saurabh K Pandey, Meghavi Choksi and Mukesh A Zaveri, "Collaborative data acquisition and processing for post disaster management and surveillance related tasks using UAV-based IoT cloud", **International Journal of Ad Hoc and Ubiquitous Computing (SCIE), Inderscience Publication**, vol. 34, no. 4, pp. 216-232, 2020.
11. J. Sathish Kumar and Mukesh A. Zaveri, "Resource Scheduling for Post Disaster Management in IoT Environment", **Wireless Communications and Mobile Computing (Scopus), Hindawi and Wiley Publication**, vol. 2019 pp. 1-19, 2019. doi:<https://doi.org/10.1155/2019/7802843>
12. J. Sathish Kumar and Mukesh A. Zaveri, "Clustering Approaches for Pragmatic Two-Layer IoT Architecture," **Wireless Communications and Mobile Computing (Scopus), Hindawi and Wiley Publication**, vol. 2018(Article ID 8739203), pp. 1-17, 2018. doi:10.1155/2018/8739203.
13. Saurabh K Pandey , Mukesh A Zaveri, Meghavi Choksi and J Sathish Kumar, "UAV-based Localization for Layered Framework of the IoT", **Procedia Computer Science (SCOPUS), Elsevier**, Vol 143, 2018, pp:728-735, September 2018, Cochin, India.(Also published in proceedings of 8th International Conference On Advances In Computing & Communications (ICACC'18), Science Direct).
14. J. Sathish Kumar, and Mukesh A. Zaveri. " Task based Resource Scheduling in IoT Environment for Disaster Management", **Procedia Computer Science (SCOPUS), Elsevier**, Vol 115, pp. 846-852, August 2017, Cochin, India. (Also published in proceedings of 7th International Conference On Advances In Computing & Communications (ICACC'17), Science Direct).

15. J. Sathish Kumar and Mukesh A. Zaveri, "Hierarchical Clustering for Dynamic and Heterogeneous Internet of Things," *Procedia Computer Science (SCOPUS), Elsevier*, Vol 93, pp-276–282, September 2016, Cochin, India. (Also published in proceedings of 6th International Conference On Advances In Computing & Communications (ICACC'16), Science Direct).
16. J. Sathish Kumar, and Dhiren R Patel. " A Survey on Internet of Things: Security and Privacy Issues." *International Journal of Computer Applications*, vol 90, No 11, March 2014, pp: 20-26.

• **International Conference**

1. KM Manisha and J Sathish Kumar, "A Secure Hybrid Access Control Framework for Privacy-Preserving Patient Records Using Hyperledger Fabric", in the proceedings of 3rd International Conference on Emerging Technologies and Applications in Electrical Engineering (ETAEE 2026) at NIT RAIPUR, India, pp:1-8, 2026. (Accepted but yet to present and publish online).
2. Bhavesh Kumar, Ashutosh Shukla, Tanisha Gupta and J. Sathish Kumar, "Enhancing Cardiovascular Care Using IoT Data and CatBoost Machine Learning Model", in the proceedings of **7th International Conference on Machine Learning, Image Processing, Network Security and Data Sciences (MIND 2025)**, Springer, MNIT Jaipur, India, pp:1-12, 2025. (Accepted but yet to present and publish online).
3. B. Kumar, A. Shukla, T. Gupta and J. S. Kumar, "IoT-Enabled Heart Disease Prediction Using CatBoost and Hyperledger Fabric," in Proceedings of **IEEE 12th Uttar Pradesh Section International Conference on Electrical, Electronics and Computer Engineering (UPCON)**, IIT BHU Varanasi, India, 2025, pp. 1-6, doi: 10.1109/UPCON66414.2025.11453895
4. Sanand M V and J Sathish Kumar, "Enhancing Privacy in Healthcare System Using Blockchain and Zero-Knowledge Proofs", in Proceedings of **3rd International Conference on Advances in Data-driven Computing and Intelligent Systems (ADCIS)**, Springer, BITS and NFSU Goa, Lecture Notes in Networks and Systems, Singapore vol 1377, 2025, pp:149–161, https://doi.org/10.1007/978-981-96-5370-6_11.
5. Satish Kumar and J Sathish Kumar, "A Privacy-Preserving Federated Blockchain Framework for Secure Electronic Health Records" in the Proceedings of **7th International Conference on Information Systems and Management Science (ISMS 2024)**, Springer, NIT Kurukshetra, 2025, pp:669–679, https://doi.org/10.1007/978-3-031-95017-9_58
6. Prakarsh Srivastava and J. Sathish Kumar, "Scale Aware Dynamic Crowd Monitoring in Disaster Management", in Proceedings of **IEEE 8th Students Conference on Engineering and System,, MNIT Allahabad**, pp:1-6, 2024, pp. 1-6, <https://doi.org/10.1109/SCES61914.2024.10652338>.
7. Satish Kumar and J Sathish Kumar, "Federated Blockchain Based Highly-Available Healthcare System to Protect the Privacy and Security of Users", in Proceedings of **15th International IEEE Conference on Computing, Communication and Networking Technologies**, IIT Mandi, pp. 1-6, 2024, doi: 10.1109/ICCCNT61001.2024.10725386.
8. Nupur Goyal and J. Sathish Kumar, "Flood Prediction and Warning System Using Machine Learning Algorithms", in the Proceedings of 1st **International Conference on "Natural Disaster: Risk Analysis, Management and Mitigation (NDRAMM - 2024)**, NIT Silchar, In: Basu, B., Deb, K., Sahu, A., Das, A.K., Ghosh, S. (eds) Natural Disasters: Risk Analysis, Management and Mitigation - Vol. 2. NDRAMM, Lecture Notes in Civil Engineering, Springer, Singapore, vol 759. pp:325-338, 2026 https://doi.org/10.1007/978-981-95-2359-7_23
9. Yatharth Dhingra, Siddhant Gangwar, Yagyesh Ranjan Shukla, Ravi Sharma and J Sathish Kumar, "Survivor Detection in Flood Situations Using YOLO Algorithm" in the Proceedings of 1st **International Conference on "Natural Disaster: Risk Analysis, Management and Mitigation (NDRAMM - 2024)**, NIT Silchar, In: Basu, B., Deb, K., Sahu, A., Das, A.K., Ghosh, S. (eds) Natural Disasters: Risk Analysis, Management and Mitigation - Vol. 2, Lecture Notes in Civil Engineering, Springer, Singapore, vol 759. pp:339-354, https://doi.org/10.1007/978-981-95-2359-7_24
10. Samta Gaur, J. Sathish Kumar and Shailendra Shukla, "A Comparative Assessment of CNN-Sigmoid and CNN-SVM model for Forest Fire Detection", in Proceedings of **IEEE 9th International Conference for Convergence in Technology (I2CT)**, Pune, pp. 1-6, 2024, doi: 10.1109/I2CT61223.2024.10543925
11. Gojja Sree Mourya, Abhinav Jami, Abhinav Ajith, Ayan Habib Seikh and J. Sathish Kumar, "Multi-Trajectory Drone Surveillance: Amplifying Monitoring Capabilities in Disaster Management", in Proceedings of **9th IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS 2024)**, MANIT BHOPAL, pp. 1-6, 2024, doi: 10.1109/SCEECS61402.2024.10482271.

12. Rishi Garg, Ritik Srivastava, Vishakha Rathore, Sanjay Kumar Gautam, Amit Gupta, Prasannam Kumar Saha and J Sathish Kumar, "Utilization of UAVs to Detect and Locate Safe Sites in Disaster Affected Area Using Geo-Referencing", in Proceedings of **IEEE Second International Conference on Emerging Trends in Information Technology and Engineering (ICETITE)**, VIT Vellore, pp. 1-8, 2024, doi: 10.1109/ic-ETITE58242.2024.10493617
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16. Abhijeet Pandey, Bhavi Khator, Dhruvi Agrawal, Danish Halim, and J Sathish Kumar, "Segregation of Solid Municipal Waste Using Machine Learning", in Proceedings of **8th IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS 2023)**, MANIT BHOPAL, pp. 1-6, 2023, doi: 10.1109/SCEECS57921.2023.10063126.
17. Rishi Garg, Ritik Srivastava, Vishakha Rathore, Sanjay Kumar Gautam and J. Sathish Kumar⁵, "Machine learning based approach to predict cardiovascular diseases", in Proceedings of **8th IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS 2023)**, MANIT BHOPAL, pp. 1-6, 2023, doi: 10.1109/SCEECS57921.2023.10063059.
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20. Kundan Nayak, Keval Kushwaha, Kapil Kumar and J Sathish Kumar, "Android based advanced bus reservation system in the pandemic of Covid-19", in Proceedings of **7th IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS 2022)**, MANIT BHOPAL, Feb 2022, pp. 1-6, doi: 10.1109/SCEECS54111.2022.9740872.
21. J Sathish Kumar, Mukesh A Zaveri, Saurabh Kumar, and MeghaviChoksi, "Situation Aware Conditional Sensing in Disaster Prone Areas using Unmanned Aerial Vehicles in IoT Environment", in proceedings of **International Conference on Data Communication and Network, "Advances in Intelligent Systems and Computing"**, Springer, Vol. 847, pp: 135-146, January 2019, Galgotias University, New Delhi, https://doi.org/10.1007/978-981-13-2254-9_12
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- **Book/Book Chapter**

1. Verma, Ayush, and J. Sathish Kumar. "AI-Based Multimedia Classification of Flood Image Multimedia Classification for Social Development during Disaster Management." In *Multimedia and Multimodal Intelligence for Sustainable Development*, **CRC Press Taylor and Francis**, pp. 93-118, 2026. doi: <https://doi.org/10.1201/9781003634522>
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4. Prakarsh Srivastava and J. Sathish Kumar, "Search and Rescue Using UAV SWARM in Disaster Management: A Survey" in *Swarm Intelligence: Theory and Applications in Fog Computing, beyond 5G network and Information Security*, **CRC Press Taylor and Francis**, pp:96-118, 2024, doi: 10.1201/9781032693217-5.