

Research Publications of Dr. J Sathish Kumar

• International Journal

1. 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>.
2. 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)*, vol. 34, no. 4, pp. 216-232, 2020.
3. J. Sathish Kumar and Mukesh A. Zaveri, "Resource Scheduling for Post Disaster Management in IoT Environment", *Wireless Communications and Mobile Computing (SCIE), Hindawi and Wiley Publications*, vol. 2019 pp. 1-19, 2019. doi:<https://doi.org/10.1155/2019/7802843>
4. J. Sathish Kumar and Mukesh A. Zaveri, "Clustering Approaches for Pragmatic Two-Layer IoT Architecture," *Wireless Communications and Mobile Computing (SCI), Hindawi and Wiley Publications*, vol. 2018(Article ID 8739203), pp. 1-17, 2018. doi:[10.1155/2018/8739203](https://doi.org/10.1155/2018/8739203).
5. 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).
6. 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).
7. 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).
8. 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. 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), BITS and NFSU Goa, pp:1-12, 2024. (Accepted and Yet to present and publish).
2. Prakarsh Srivastava and J. Sathish Kumar, "Scale Aware Dynamic Crowd Monitoring in Disaster Management", in Proceedings of 8th Students Conference on Engineering and System, IEEE, MNNIT Allahabad, pp:1-6, 2024.
3. 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.
4. 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, pp. 1-10, 2024.
5. 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, pp. 1-12, 2024.
6. 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.

7. 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 IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS 2024), MANIT BHOPAL, pp. 1-6, 2024. doi: 10.1109/SCEECS61402.2024.10482271.
8. 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.
9. Satish Kumar and J Sathish Kumar, "Blockchain based Enhanced Healthcare Framework for Secure Interoperability", in Proceedings of Third International Conference on Power, Control and Computing Technologies (ICPC2T), NIT Raipur, pp. 1-6, 2024.
10. Dhingra, Yatharth, Siddhant Gangwar, Yagyesh Ranjan Shukla, Ravi Sharma, and J. Sathish Kumar. "Electronic Patient Records Management Using Federated Blockchain." In the proceedings of International Conference on Communication, Devices and Networking, Springer Nature Singapore, vol 1243, pp. 289-300, 2024.
11. Samta Gaur and J. Sathish Kumar, "UAV based human detection for search and rescue operations in flood", in Proceedings of 10th IEEE UP Section International Conference on Electrical, Electronics and Computer Engineering (UPCON 2024), pp. 1-6, 2024.
12. Abhijeet Pandey, Bhavi Khator, Dhruvi Agrawal, Danish Halim, and J Sathish Kumar, "Segregation of Solid Municipal Waste Using Machine Learning", in Proceedings of IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS 2023), MANIT BHOPAL, pp. 1-6, 2023, doi: 10.1109/SCEECS57921.2023.10063126.
13. Rishi Garg, Ritik Srivastava, Vishakha Rathore, Sanjay Kumar Gautam and J. Sathish Kumar⁵, "Machine learning based approach to predict cardiovascular diseases", in Proceedings of IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS 2023), MANIT BHOPAL, pp. 1-6, 2023, doi: 10.1109/SCEECS57921.2023.10063059.
14. Ajendra Saxena, Dileep Kumar, Bhanu Pratap Singh, Bhairu Lal Jatt, and J. Sathish Kumar. "Investigating the Charity Funding System using Blockchain Technology." In the proceedings of IEEE World Conference on Applied Intelligence and Computing (AIC), 2022, pp. 877-882, doi: 10.1109/AIC55036.2022.9848986.
15. Jayesh Kumar, Suneeta Agarwal, J Sathish Kumar, "YOLO Based Model for Garbage Detection", in Proceedings of IEEE International Students' Conference on Electrical, Electronics and Computer Science (SCEECS 2022), MANIT BHOPAL, Feb 2022, pp. 1-5, doi: 10.1109/SCEECS54111.2022.9740921.
16. 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 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.
17. 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.
18. J. Sathish Kumar, and Mukesh A. Zaveri. " Activity based Resource Allocation in IoT for Disaster Management" in the proceedings of *in Future Internet Technologies and Trends. ICFITT, Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering*, **Springer**, vol 220, pp 215-224, January 2018, Surat, India.
19. J Sathish Kumar, Mukesh A Zaveri, Saurabh Kumar, and MeghaviChoksi, " Geo-fencing Technique in Unmanned Aerial Vehicles for Post Disaster Management in the Internet of Things ", in Proceedings of IEEE Second International Conference on Advanced Computational and Communication Paradigms (ICACCP-2019), Sikkim, 2019, pp. 1-6, doi: 10.1109/ICACCP.2019.8882934.
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21. Hiteswari Gamit, J Sathish Kumar and Mukesh A Zaveri, "Resource monitoring and scheduling for post disaster management using Internet of Things", in *Proceedings of IEEE 3rd International Conference for Convergence in Technology*, 2018, Pune, India. pp 1-5.
22. J Sathish Kumar, Mukesh A.Zaveri, "Graph based Resource Allocation for Disaster Management in IoT Environment", in *Proceedings of Second International Conference on Advanced Wireless Information, Data, and Communication Technologies*, ACM, November 2017, Paris, France, pp 1-6.
23. J. Sathish Kumar and Mukesh A. Zaveri, "Graph based clustering for two-tier architecture in Internet of things," in the *Proceedings of 9th IEEE International Conference on Internet of Things (iThings) and IEEE Green Computing and Communications (GreenCom) and IEEE Cyber, Physical and Social Computing (CPSCom) and IEEE Smart Data (SmartData)*, December 2016, pp-229–233.
24. J. Sathish Kumar and Mukesh A. Zaveri, "Clustering for collaborative processing in IoT network," in the *Proceedings of ACM International Conference on Urban IoT*, May 2016, pp-95–97.
25. Mukesh. A Zaveri, Saurabh K Pandey and J Sathish Kumar "Collaborative Service Oriented Smart Grid using the Internet of Things," in the *Proceedings of IEEE International Conference on Communication and Signal Processing (ICCSP'16)*, March, 2016, pp-1412–1418.
26. J. Sathish Kumar and Dhiren R. Patel. "Enhanced location privacy algorithm for wireless sensor network in internet of things." In *Proceedings of International Conference on Internet of Things and Applications (IoTA)*, IEEE, pp. 208-212, 2016.

- **Book/Book Chapter**

1. Kumar, J. Sathish, and M. V. Sanand. "Applications of Blockchain in Healthcare: State-of-the-Art Survey." *Blockchain-Enabled Internet of Things Applications in Healthcare: Current Practices and Future Directions*, Bentham Science Publishers, pp:148-169, 2025, doi:10.2174/97898153052101250101.
2. 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.