

Tamoghna Ojha, *PhD*

PATENTS

- D. Sheet, K. Basak, **T. Ojha**, S. P. K. Karri, “Multispectral Optical Imaging Device and Computational Techniques for Contactless Functional Imaging of Skin”, *Indian Patent Published*, Application No. 201731022695, Published: 4 January 2019, Applicant: SkinCurate Research Private Limited, Filed: 28 June 2017.
- S. Misra, A. Roy, P. Kar, S. Goswami, **T. Ojha**, “An Adverse Environmental Effect Resistant Seamless Wireless Sensor Network System”, *Indian Patent No. 480946*, **Granted: 12 December 2023**.

BOOKS / CHAPTERS

- **T. Ojha**, M. M. Hussain, S. Bera, N. Ahmed, S. Misra (eds.), “Edge-enabled 6G Networking - Foundations, Technologies, and Applications”, Springer Nature, May 2026. (ISBN: 978-3032190413)
- A. Ghosh and **T. Ojha**, “mm-Wave Technology for 6G Communication”, In “Edge-enabled 6G Networking - Foundations, Technologies, and Applications”, **T. Ojha**, M. M. Hussain, S. Bera, N. Ahmed, S. Misra (eds.), Springer Nature, May 2026.
- N. Ahmed, **T. Ojha**, M. M. Hussain, S. Bera, “Edge-Enabled 6G Networking: Transforming IoT for a Hyperconnected Future”, **T. Ojha**, M. M. Hussain, S. Bera, N. Ahmed, S. Misra (eds.), Springer Nature, May 2026.
- N. Choudhury, J. Dave, **T. Ojha**, “LoRaWAN Based IoT to Satellite Communication for Integrated Terrestrial and Non-terrestrial Networks”, In “Edge-enabled 6G Networking - Foundations, Technologies, and Applications”, **T. Ojha**, M. M. Hussain, S. Bera, N. Ahmed, S. Misra (eds.), Springer Nature, May 2026.

JOURNAL PUBLICATIONS

1. C. Amala, B. Subbarao, M. Sivaji, **T. Ojha**, B. B. Das, S. P. Mohanty, S. K. Ram, “Everything You Wanted to Know about Secure Energy Harvesting Techniques for IoT Devices-A Review”, *IEEE Sensors Journal*, vol. 25, no. 22, pp. 41027 - 41039, 2025. (SCI: Q1, I.F.: 4.5)
2. **T. Ojha**, T.P. Raptis, A. Passarella, M. Conti, “Wireless Power Transfer with Unmanned Aerial Vehicles: State of the Art and Open Challenges”, *Pervasive and Mobile Computing (Elsevier)*, vol. 93, pp. 101820, 2023. (SCI: Q1, I.F.: 3.848)
3. **T. Ojha**, T. P. Raptis, M. Conti, A. Passarella, “Balanced Wireless Crowd Charging with Mobility Prediction and Social Awareness”, *Computer Networks (Elsevier)*, vol. 211, pages 108989, 2022. (Invited Submission) (SCI: Q1, I.F.: 5.493)
4. S. Misra, M. Tiwari, **T. Ojha**, Y. Raj, “PANDA: Preference-based Bandwidth Allocation in Fog-enabled Internet of Underground-Mine Things”, *IEEE Systems Journal*, vol. 15, no. 4, pp. 5144 - 5151, 2021. (SCI: Q1, I.F.: 4.802)
5. **T. Ojha**, S. Misra, N. S. Raghuwanshi, “Internet of Things for Agricultural Applications: The State of the Art”, *IEEE Internet of Things Journal*, vol. 8, no. 14, pp. 10973 - 10997, 2021. (SCI: Q1, I.F.: 10.238)
6. S. Misra, **T. Ojha**, P. Madhusoodhanan, “SecRET: Secure Range-Based Localization with Evidence Theory for Underwater Sensor Networks”, *ACM Transactions on Autonomous and Adaptive Systems*, vol. 15, no. 1, pp. 1 - 26, 2021. (SCI: Q2, I.F.: 1.913)
7. **T. Ojha**, S. Misra, M. S. Obaidat, “SEAL: Self-adaptive AUV-based Localization for Sparsely Deployed Underwater Sensor Networks”, *Computer Communications (Elsevier)*, vol. 154, pp. 204 - 215, 2020. (SCI: Q1, I.F.: 5.047)
8. **T. Ojha**, S. Misra, N. S. Raghuwanshi, H. Poddar, “DVSP: Dynamic Virtual Sensor Provisioning in Sensor-Cloud based Internet of Things”, *IEEE Internet of Things Journal*, vol. 6, no. 3, pp. 5265 - 5272, 2019. [DOI: [10.1109/JIOT.2019.28999498](https://doi.org/10.1109/JIOT.2019.28999498)] (SCI: Q1, I.F.: 10.238)
9. **T. Ojha**, S. Misra, N. S. Raghuwanshi, “Sensing-cloud: Leveraging the Benefits for Agricultural Applications”, *Computers and Electronics in Agriculture*, vol. 135, pp. 97 - 106, 2017. (SCI: Q1, I.F.: 6.757)
10. A. K. Mandal, S. Misra, **T. Ojha**, M. K. Dash, and M. S. Obaidat, “Oceanic Forces and their Impact on the Performance of Mobile Underwater Acoustic Sensor Networks,” *International Journal of Communication Systems (Wiley)*, vol. 30, no. 1, pp. e2882, 2017. (SCI: Q2, I.F.: 1.882)

11. S. Misra, S. Bera, **T. Ojha**, H. Mouftah, A. Anpalagan, "ENTRUST: Energy Trading Under Uncertainty in Smart Grid Systems", *Computer Networks (Elsevier)*, vol. 110, pp. 232 - 242, 2016. (SCI: Q1, I.F.: 5.493)
12. A. K. Mandal, S. Misra, M. K. Dash, and **T. Ojha**, "Performance Analysis of Distributed Underwater Wireless Acoustic Sensor Networks in the Presence of Internal Solitons," *International Journal of Communication Systems (Wiley)*, vol. 29, no. 13, pp 1940 - 1955, 2016. (SCI: Q2, I.F.: 1.882)
13. **T. Ojha**, S. Misra, N. S. Raghuwanshi, "Wireless Sensor Networks for Agriculture: The State-of-the-Art in Practice and Future Challenges", *Computers and Electronics in Agriculture*, vol. 118, pp. 66 - 84, 2015. (**Most cited and most downloaded** paper of this journal during 2016-19.) (SCI: Q1, I.F.: 6.757)
14. A. K. Mandal, S. Misra, **T. Ojha**, M. K. Dash, and M. S. Obaidat, "Effects of Wind-induced Near-surface Bubble Plumes on the Performance of Underwater Wireless Acoustic Sensor Networks", *IEEE Sensors Journal*, vol. 16, no. 11, pp. 4092 - 4099, 2015. (SCI: Q1, I.F.: 4.325)
15. S. Misra, S. Bera, **T. Ojha**, L. Zhou, "ENTICE: Agent-Based Energy Trading with Incomplete Information in the Smart Grid", *Journal of Network and Computer Applications*, vol. 55, pp. 202 - 212, 2015. (SCI: Q1, I.F.: 7.574)
16. S. Misra, **T. Ojha**, and A. Mondal, "Game-theoretic Topology Control for Opportunistic Localization in Sparse Underwater Sensor Networks," *IEEE Transactions on Mobile Computing*, vol. 14, no. 5, pp. 990 - 1003, 2015. (SCI: Q1, I.F.: 6.075)
17. S. Misra, S. Bera, and **T. Ojha**, "D2P: Distributed Dynamic Pricing Policy in Smart Grid for PHEVs Management," *IEEE Transactions on Parallel and Distributed Systems*, vol. 26, no. 3, pp. 702 - 712, 2014. (SCI: Q1, I.F.: 3.757)
18. **T. Ojha**, M. Khatua, and S. Misra, "Tic-Tac-Toe-Arch: A Self-organizing Virtual Architecture for Underwater Sensor Networks," *IET Wireless Sensor Systems*, vol. 3, no. 4, pp. 307 - 316 , 2013. (SCI: Q2, I.F.: 2.51)

CONFERENCE PUBLICATIONS

1. Afa, A. Kalita, **T. Ojha**, "Traffic Prediction and Load-Aware Adaptive RAW Slot Allocation for IEEE 802.11ah IoT Networks", *TENCON 2026 - 2026 IEEE Region 10 Conference*, Bali, Indonesia, 2026.
2. A. Gupta, S. Kumawat, M. Verma, **T. Ojha**, A. Galav, "FADER: Frequency ADaptive implicit nEuRal representations", *11th National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG)*, July 2026, Jaipur, India.
3. T. P. Raptis and **T. Ojha**, "Gait-Diverse Avatar Selection for Realistic Synthetic Crowds in the Metaverse", in *IEEE Computers, Software, and Applications Conference (COMPSAC)*, Madrid, Spain, July 2026.
4. T. K. Das and **T. Ojha**, S. Bhosale, S. Karmakar, S. Halder, S. Barik, "A Quantum Reinforcement Learning Framework for Sustainable Internet of Vehicles toward Future Electric Mobility", in *IEEE International Conference on Sustainable Energy and Future Electric Transportation (SEFET)*, VNIT Nagpur, July 2026.
5. T. K. Das, **T. Ojha**, N. Choudhury, A. Kaushik, "A Hybrid FL-MARL Framework for Optimal Trajectory Control and Resource Allocation in Integrated Terrestrial and Non-Terrestrial Networks", in *IEEE ICC Workshops*, Glasgow, Scotland, May 2026.
6. A. Gorrela, S. V. Gudipudi, N. Choudhury, A. Hazarika, **T. Ojha**, A. Jindal, "Frame-Aware Resilient ADR for Relay-Connected LoRaWAN IoT Networks", in *IEEE ICC Workshops*, Glasgow, Scotland, May 2026.
7. T. Das, **T. Ojha**, N. Choudhury, A. Kaushik and K. Gupta, "QoS-aware Joint Optimization of Task Offloading and Resource Allocation in Integrated Terrestrial Non-Terrestrial Network", in *Proceedings of IEEE ANTS*, December 2025.
8. S. Anand, A. Gorrela, R. Rahman, N. Choudhury, A. Hazarika, D. Choudhury, **T. Ojha**, "Delay-Bounded Adaptive MAC for IEEE 802.15.4e DSME Networks: Enhancing Resilience under Bursty and Dynamic IoT Traffic", in *Proceedings of IEEE ANTS*, December 2025.
9. M. Vaiyata, **T. Ojha**, N. Choudhury, J. Dave and P. Lorenz, "Distributed RL-Based UAV Selection for Reliable Task Execution in Aerial IoT Edge Networks", in *Proceedings of IEEE GLOBECOM Workshops*, December 2025.
10. R. Rahman, N. Choudhury, W. Xiang and **T. Ojha**, "FlexiFrame: Adaptive Slotframe Scheduling for 6TiSCH-Based Smart City IoT Networks", in *Proceedings of IEEE GLOBECOM Workshops*, December 2025.

11. N. Roshni, S. Prabhugari, R. Soni, A. S. Manish Reddy, A. Soni, J. Dave and **T. Ojha**, "SDN Security Enhancement through Machine Learning based Packet Detection and Rate-Limiting", in *IEEE INDISCON*, Rourkela, India, August 2025.
12. S. Ravikanti, J. Dave, H. Dong, I. Gondal, N. Choudhury, **T. Ojha** and T. P. Raptis, "Avatar-Centric Gait Authentication Framework for Secure Metaverse", in *15th Workshop on Management of Cloud and Smart City Systems (with IEEE ISCC 2025)*, Bologna, Italy, July 2025.
13. S. Reddy, N. Choudhury, A. Hazarika and **T. Ojha**, "DyHSARW: A Dynamic GTS Scheduling Mechanism for Large IEEE 802.15.4 DSME-Based IoT Networks", in *Proceedings of IEEE WCNC*, Milan, Italy, March 2025.
14. S. Anand, N. Choudhury, **T. Ojha**, A. Hazarika, J. Dave, "Improving Network Efficiency in Clustered Tree Topology through PSO Optimization in IEEE 802.15.4-DSME based IoT Networks", in *Proceedings of IEEE ANTS*, Guwahati, India, December 2024.
15. C. Amala, B. Subbarao, **T. Ojha**, B. B. Das, S. K. Ram, and S. P. Mohanty, "An Off-chip Based PUF for Robust Security in FPGA Based IoT Systems", in *IEEE Proceeding on 22nd OITS International Conference on Information Technology*, Guntur, India, Dated: 12-14 December, 2024. (**Best Paper Award**)
16. **T. Ojha**, T. P. Raptis, M. Conti, A. Passarella, "Heterogeneity-aware P2P Wireless Energy Transfer for Balanced Energy Distribution", in *Proceedings of IEEE GLOBECOM*, pp. 4123-4128, Rio de Janeiro, Brazil, 2022.
17. **T. Ojha**, T. P. Raptis, M. Conti, A. Passarella, "Wireless Crowd Charging with Battery Aging Mitigation", in *Proceedings of IEEE SmartComp*, pp. 142 - 149, Helsinki, Finland, 2022.
18. **T. Ojha**, T. P. Raptis, M. Conti, A. Passarella, "MobiWEB: Mobility-Aware Energy Balancing for P2P Wireless Power Transfer", in *Proceedings of IEEE ISCC*, pp. 1 - 6, Athens, Greece, 2021. (Among **best papers** & Invited for extended version)
19. **T. Ojha**, S. Misra, N. S. Raghuwanshi, M. S. Obaidat, "iDVSP: Intelligent Dynamic Virtual Sensor Provisioning in Sensor-Cloud Infrastructure", in *Proceedings of IEEE GLOBECOM*, pp. 1 - 6, Abu Dhabi, UAE, 2018.
20. S. Bera, **T. Ojha**, S. Misra, M. S. Obaidat, "Cloud-based Optimal Energy Forecasting for Enabling Green Smart Grid Communication", in *Proceedings of IEEE GLOBECOM*, pp. 1 - 6, San Diego, CA, USA, 2015.
21. **T. Ojha**, S. Bera, S. Misra and N. S. Raghuwanshi, "Dynamic Duty Scheduling for Green Sensor-Cloud Applications," in *Proceedings of 6th IEEE International Conference on Cloud Computing Technologies and Science(CloudCom) Workshops*, pp. 841 - 846, Singapore, Dec. 2014.
22. **T. Ojha** and S. Misra, "MobiL: A 3-Dimensional Localization Scheme for Mobile Underwater Sensor Networks," in *Proceedings of 19th National Conference on Communications (NCC)*, pp. 1 - 5, New Delhi, India, IEEE, Feb. 2013.
23. **T. Ojha** and S. Misra, "HASL: High-Speed AUV-Based Silent Localization for Underwater Sensor Networks," in *Proceedings of the 9th International Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness (QShine)*, LNICST 115, pp. 128 - 140, Greater Noida, India, Springer, Jan. 2013.