

# Tamoghna Ojha, PhD

## CONTACT INFORMATION

Department of Mathematics and Computing  
Indian Institute of Technology (ISM) Dhanbad  
Jharkhand, 826004, India  
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## RESEARCH INTEREST

AI/ML for Internet of Things, 6G, Non-terrestrial Networks, Wirelessly Powered Networks, Sensor-cloud, Resource Management.

## WORK EXPERIENCE

|                       |   |
|-----------------------|---|
| SEPT 2024 – TILL DATE | Assistant Professor, IIT (ISM) Dhanbad, India<br><i>Department of Mathematics and Computing</i>                     |
| APR 2024 – SEPT 2024  | Assistant Professor, BITS Pilani, Hyderabad, India<br><i>Department of Computer Science and Information Systems</i> |
| FEB 2023 – APR 2024   | Assistant Professor, SRM University-AP, India<br><i>Department of Computer Science and Engineering</i>              |

## RESEARCH EXPERIENCE

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| SEPT 2022 – JAN 2023<br>OCT 2021 – JUL 2022 | ERCIM Post-Doctoral Research Fellow<br><i>Institute for Informatics and Telematics (IIT)</i><br><i>National Research Council (CNR), Pisa 56124, Italy</i>      |
| OCT 2022 – JAN 2023<br>(3 MONTHS)           | Research Consultant<br><i>Department of Information Engineering</i><br><i>University of Pisa, Pisa 56122, Italy</i>  |
| JAN 2021 – SEPT 2021                        | Post-Doctoral Research Fellow<br><i>Institute for Informatics and Telematics (IIT)</i><br><i>National Research Council (CNR), Pisa 56124, Italy</i>            |
| NOV 2013 – JUL 2017                         | Senior Research Fellow<br><i>Sponsored Research and Industrial Consultancy</i><br><i>Indian Institute of Technology Kharagpur, West Bengal 721302, India</i>   |
| NOV 2010 – MAR 2013                         | Junior Project Assistant<br><i>Sponsored Research and Industrial Consultancy</i><br><i>Indian Institute of Technology Kharagpur, West Bengal 721302, India</i> |

## TEACHING EXPERIENCE

- *Faculty Instructor:*
  - Database Management Systems (Lab); for UG/PG, IIT (ISM) Dhanbad, Spring 2025
  - Advanced DBMS (Lab); for PG, IIT (ISM) Dhanbad, Spring 2025
  - Software Engineering (Lab); for UG, IIT (ISM) Dhanbad, Spring 2025
  - Advanced Operating Systems (Theory and Lab); for UG, BITS Pilani, Hyderabad, Autumn 2024
  - Operating Systems (Theory); for UG, BITS Pilani, Hyderabad, Summer 2024
  - Data Structures (Theory and Lab); for UG, SRM University-AP, Spring 2024

- IoT Design Protocols (Theory); for UG, SRM University-AP, Spring 2024
- Computer Networks (Theory and Lab); for UG, SRM University-AP, Autumn 2023
- Service Oriented Computing (Theory and Lab); for UG, SRM University-AP, Autumn 2023
- Data Structures (Theory and Lab); for UG, SRM University-AP, Spring 2023
- *Teaching Assistant:*
  - Programming and Data Structures (Theory); for UG, IIT Kharagpur, Autumn 2018
  - Programming and Data Structures (Lab); for UG, IIT Kharagpur, Autumn 2016 - Spring 2018
  - Short-term course on “Underwater Sensor Networks: Theory and Simulations” for NPOL (DRDO) scientists, April 2016

## EDUCATION

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- JUL 2014 – FEB 2021    **Doctor of Philosophy in COMPUTER SCIENCE AND ENGINEERING**  
**Indian Institute of Technology Kharagpur, India**  
 Thesis Title: *Provisioning Sensors-as-a-Service in Sensor-cloud-based Internet of Things*  
 Advisors: Prof. Sudip Misra (FIEEE, FACM, FNAE, FNASc) and Prof. Narendra Singh Raghuwanshi (FNAE, FNAAS)  
 CGPA: 8.05/10 | Thesis defended: 13-Nov-2020
- DEC 2010 – JUL 2014    **Master of Science by Research in INFORMATION TECHNOLOGY**  
**Indian Institute of Technology Kharagpur, India**  
 Thesis Title: *Architecture and Localization for Underwater Sensor Networks*  
 Advisor: Prof. Sudip Misra (FIEEE, FACM, FNAE, FNASc)  
 CGPA: 9.6/10
- SEPT 2008 – FEB 2009    **Post Graduate Diploma in EMBEDDED SYSTEMS DESIGN**  
**Center for Development of Advanced Computing, Mohali, India**  
 Project Topic: *A Real-time application for peripheral controlling and monitoring*  
 Advisor: Ms. Sonia Dosanjh  
 Marks: 80.50%
- AUG 2004 – AUG 2008    **Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING**  
**West Bengal University of Technology, Kolkata, India**  
 Institute: Haldia Institute of Technology, Haldia  
 Thesis Title: *Microcontroller based Infra-Red Tracking Robot*  
 Advisor: Dr. Mousiki Kar  
 DGPA: 7.89/10
- JUL 2004    **Higher Secondary (Board: WBCHSE)**  
 Institute: Vidyasagar Vidyapith, Midnapore, West Bengal, India  
 Subjects: Physics, Chemistry, Mathematics, Biology, Bengali, English  
 Marks: 71.60%
- MAY 2002    **Secondary (Board: WBBSE)**  
 Institute: Pirakata High School, Paschim Medinipur, West Bengal, India  
 Subjects: Bengali, English, Mathematics, Physical Science, Life Science, History, Geography  
 Marks: 71.60%

## AWARDS AND SCHOLARSHIPS

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- Dec 2024: **Best Paper Award** in IEEE Proceeding on 22nd OITS International Conference on Information Technology.
- Jun 2023: Elevated to **IEEE Senior Member** grade.
- Oct 2022 - Jan 2023: *Research Consultancy* at the Department of Information Engineering, University of Pisa, Italy.

- Oct 2021 - Jul 2022, Sept 2022 - Jan 2023: **“Alain Bensoussan” Post-Doctoral Research Fellowship** from European Research Consortium for Informatics and Mathematics (ERCIM).
- Jan 2021 - Sept 2021: **Post-Doctoral Research Fellowship** from National Research Council (CNR) Italy.
- Aug 2019 - May 2020: **Research Assistantship** from Indian Institute of Technology Kharagpur.
- Aug 2017 - Jul 2019: **Senior Research Fellowship** from MHRD, Govt. of India.
- Dec 2016: **Richard E Merwin Student Scholarship** from IEEE Computer Society. (Award: USD 1,000)
- Nov 2013 - Jul 2017: **Senior Research Fellowship** from ITRA, Govt. of India.
- Dec 2013: **Winner of GE Edison Challenge 2013**, GE John F. Welch Technology Center, Bangalore. (Award INR 10.00 Lakhs)
- Oct 2002: **“Ardhendu Sekhar Sarkar Memorial Prize”** for securing 1<sup>st</sup> position at Block (Salboni, Paschim Medinipur) level in Secondary (Madhyamik) exam 2002.
- 2000–2004: **Scholarship** from Foundation for Excellence Inc., USA.

## SPONSORED RESEARCH PROJECTS

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- **Title:** Energy-Efficient Federated Deep Reinforcement Learning for Multi-UAV Edge Intelligence Using Tiny Models  
**Sponsoring Agency:** IIT (ISM) Dhanbad (FRS Grant)  
**Amount:** INR 19.998 Lakhs  
**PI:** Tamoghna Ojha
- **Title:** AI-Powered Vision Systems for Low-light and Low-visibility Underground Mining Environments  
**Sponsoring Agency:** TEXMiN Foundation (DST TIH)  
**Amount:** INR 17.35 Lakhs  
**Duration:** March 2025 - September 2026 (18 months)  
**PI:** Sudhakar Kumawat  
**Co-PIs:** Manisha Verma, **Tamoghna Ojha**, Ankush Galav
- **Title:** Special Lab Setup Grant: Computing for Secure and Intelligent Networks (COSINE)  
**Sponsoring Agency:** IIT (ISM) Dhanbad (Special grant)  
**Amount:** INR 29.97 Lakhs  
**PI:** Tamoghna Ojha
- **Title:** Using Edge Intelligence for Resource Allocation in Wirelessly Powered UAV-IoT Network  
**Sponsoring Agency:** SRM University-AP (Seed grant)  
**Amount:** INR 15.24 Lakhs  
**Duration:** Oct 2023 - Sept 2025 (24 months)  
**PI:** Tamoghna Ojha  
**Co-PIs:** Md Muzakkir Hussain, Priyanka Singh
- **Title:** Breaking the Barriers of Skin Disease Diagnosis with Computational Imaging and Artificial Intelligence  
**Sponsoring Agency:** SINE, IIT Bombay and Intel Inc. (Plugin 2 Startup Cohort)  
**Amount:** INR 10.00 Lakhs  
**Duration:** Oct 2018 - Jun 2019 (9 months)  
**PI:** Debdoot Sheet  
**Co-PIs:** Kausik Basak, **Tamoghna Ojha**, Sri Phani Krishna Karri
- **Title:** Multispectral Optical Imaging and Computing Technologies for Realtime in-situ Functional Characterization and Monitoring of Cutaneous Wound Healing Progression  
**Sponsoring Agency:** BIRAC, DBT, Govt. of India (BIG grant)  
**Amount:** INR 41.79 Lakhs  
**Duration:** Aug 2015 - Jan 2017 (18 months)  
**PI:** Debdoot Sheet  
**Co-PIs:** Kausik Basak, **Tamoghna Ojha**, Sri Phani Krishna Karri

## TRAVEL GRANTS

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- December 2018: **Best Conference Travel Grant** support from IIT Kharagpur for presenting my paper at IEEE GLOBECOM 2018 in Abu Dhabi, UAE.
- December 2014: **International Travel Grant** from DST (SERB), Govt. of India for attending IEEE CloudCom, Singapore.
- December 2014: **Conference Travel Grant** from IEEE CloudCom 2014. (Award: SGD 1,000)

## OTHER AWARDS

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- October 2017: *IEEE TechSym 2016* (I served as Organizing Chair) was selected for **2017 Darrel Chong student activity award** in *GOLD* category.

## STUDENT GUIDANCE

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- PhD Student:  

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| JUN 2023– | C. Amala (2023 – ), Dept. of ECE, SRM University-AP, India (jointly with Dr. Saswat Kumar Ram) |
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- Masters:  

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| 2025–26 | Kimsie Phan, <i>M.Sc. thesis</i> , Dept. of M&C, IIT (ISM) Dhanbad, India<br>Scaria P Anil, <i>M.Sc. thesis</i> , Dept. of M&C, IIT (ISM) Dhanbad, India<br>Shubham Kumar, <i>M.Sc. thesis</i> , Dept. of M&C, IIT (ISM) Dhanbad, India<br>Shrish Jadhav, <i>M.Tech. thesis</i> , Dept. of M&C, IIT (ISM) Dhanbad, India |
|---------|--|
- Other: 30+ B. Tech and M. Tech Students

## PATENTS

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- 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*, File No. 425/KOL/2015, **Granted: 12 December 2023**, Published: 1 December 2017, Applicant: Indian Institute of Technology Kharagpur, Filed: 17 April 2015.

## BOOKS

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- **T. Ojha**, M. M. Hussain, S. Bera, N. Ahmed, S. Misra (eds.), “Edge-enabled 6G Networking - Foundations, Technologies, and Applications”, Springer Nature, 2025. [In final preparation]

## JOURNAL PUBLICATIONS

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- **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. [DOI: [10.1016/j.pmcj.2023.101820](https://doi.org/10.1016/j.pmcj.2023.101820)] (SCI – Q1, Impact Factor – 3.848)
- **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. [DOI: [10.1016/j.comnet.2022.108989](https://doi.org/10.1016/j.comnet.2022.108989)] (Invited Submission) (SCI – Q1, Impact factor – 5.493)
- 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. [DOI: [10.1109/JYST.2021.3086150](https://doi.org/10.1109/JYST.2021.3086150)] (SCI – Q1, Impact factor – 4.802)
- **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. [DOI: [10.1109/JIOT.2021.3051418](https://doi.org/10.1109/JIOT.2021.3051418)] (SCI – Q1, Impact factor – 10.238)

- 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. [DOI: [10.1145/3431390](https://doi.org/10.1145/3431390)] (SCI – Q2, Impact factor – 1.913)
- **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. [DOI: [10.1016/j.comcom.2020.02.050](https://doi.org/10.1016/j.comcom.2020.02.050)] (SCI – Q1, Impact factor – 5.047)
- **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, Impact factor – 10.238)
- **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. [DOI: [10.1016/j.compag.2017.01.026](https://doi.org/10.1016/j.compag.2017.01.026)] (SCI – Q1, Impact factor – 6.757)
- 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. [DOI: [10.1002/dac.2882](https://doi.org/10.1002/dac.2882)] (SCI – Q2, Impact factor – 1.882)
- 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. [DOI: [10.1016/j.comnet.2016.09.021](https://doi.org/10.1016/j.comnet.2016.09.021)] (SCI – Q1, Impact factor – 5.493)
- 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. [DOI: [10.1002/dac.2843](https://doi.org/10.1002/dac.2843)] (SCI – Q2, Impact factor – 1.882)
- **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. (Was listed as the **most cited** and among **most downloaded** papers of this journal during 2016–19.) [DOI: [10.1016/j.compag.2015.08.011](https://doi.org/10.1016/j.compag.2015.08.011)] (SCI – Q1, Impact factor – 6.757)
- 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. [DOI: [10.1109/JSEN.2015.2443012](https://doi.org/10.1109/JSEN.2015.2443012)] (SCI – Q1, Impact factor – 4.325)
- 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. [DOI: [10.1016/j.jnca.2015.05.008](https://doi.org/10.1016/j.jnca.2015.05.008)] (SCI – Q1, Impact factor – 7.574)
- 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. [DOI: [10.1109/TMC.2014.2338293](https://doi.org/10.1109/TMC.2014.2338293)] (SCI – Q1, Impact factor – 6.075)
- 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. [DOI: [10.1109/TPDS.2014.2315195](https://doi.org/10.1109/TPDS.2014.2315195)] (SCI – Q1, Impact factor – 3.757)
- **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. [DOI: [10.1049/iet-wss.2012.0139](https://doi.org/10.1049/iet-wss.2012.0139)] (SCI – Q2, Impact factor – 2.51)

## CONFERENCE PUBLICATIONS

- 
- S. Ravikanti, J. Dave, H. Dong, I. Gondal, N. Choudhury, **T. Ojha**, 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.
  - 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.
  - 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.

- 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**)
- **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.
- **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.
- **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)
- **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.
- 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.
- **T. Ojha**, S. Bera, S. Misra and N. S. Raghuwanshi, "Dynamic Duty Scheduling for Green Sensor-Cloud Applications," in *Proceedings of 6<sup>th</sup> IEEE International Conference on Cloud Computing Technologies and Science(CloudCom) Workshops*, pp. 841 - 846, Singapore, Dec. 2014.
- **T. Ojha** and S. Misra, "MobiL: A 3-Dimensional Localization Scheme for Mobile Underwater Sensor Networks," in *Proceedings of 19<sup>th</sup> National Conference on Communications (NCC)*, pp. 1 - 5, New Delhi, India, IEEE, Feb. 2013.
- **T. Ojha** and S. Misra, "HASL: High-Speed AUV-Based Silent Localization for Underwater Sensor Networks," in *Proceedings of the 9<sup>th</sup> International Conference on Heterogeneous Networking for Quality, Reliability, Security and Robustness (QShine)*, LNICST 115, pp. 128 - 140, Greater Noida, India, Springer, Jan. 2013.

## DETAILS OF START-UP

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**Name:** SkinCurate Research Pvt. Ltd.

**Role:** Co-founder and Director

**Associated Duration:** 2014–2021

**Location:** Kharagpur, India

**Other Co-founders:** Dr. Debdoot Sheet, Dr. Kausik Basak, Dr. Sri Phani Krishna Karri

**Grants Received:**

- BIRAC, DBT, Govt. of India (BIG grant): 41.79 Lakhs INR (Aug. 2015 - Jan. 2017)
- SINE, IIT Bombay and Intel Inc. (Plugin 2 Startup Cohort): 10.00 Lakhs INR (Oct. 2018 - Jun 2019)

**Employment Generated:** 4 (technical), 3 (non-technical)

**Awards/Recognitions:**

- 2018: 1st Runner-Up, CII Healthcare Innovation Summit
- 2018: Among Top 10 teams, Western Digital Innovation Bootcamp (along with Start-up India)
- 2018: Nominated for Economic Times Start-up Awards
- 2019: Indian Patent Published
- 2014: Selected for CAMTech Final round

## PRODUCTS DEVELOPED

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- "A mobile app-powered portable multi-spectral imaging prototype for skin disease detection", at Indian Institute of Technology Kharagpur and SkinCurate Research Pvt. Ltd., 2013-16.
- "Jaltarang: A NS-3 based Underwater Sensor Network Simulator", at Indian Institute of Technology Kharagpur, 2011-13. [URL: <https://cse.iitkgp.ac.in/smisra/swan/tre/doc/Jaltarang.zip>]
- "MAcoSim: Matlab-based Acoustic Underwater Simulator", at Indian Institute of Technology Kharagpur, 2011-13. [URL: <https://cse.iitkgp.ac.in/smisra/swan/tre/doc/MAcoSim.zip>]

## INVITED TALKS

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- June 2025: *Expert Lecture* at short-term course “Artificial Intelligence & Internet of Things: The 4th Industrial Revolution” organized by Malaviya Mission Teacher Training Centre (MMTTC), IIT Patna.
- May 2025: *Invited talk* on “Resource Management in Future IoT Networks” organized by IEEE CS Student Branch Chapter IIT Kharagpur and IEEE India Council.
- May 2025: *Resource person* at FDP on “IoT: Recent Advances, Challenges, and Opportunities (IoT: RACO)” organized by E&ICT academy, IIT Roorkee and Brainware University, Kolkata.
- April 2025: *Resource person* at FDP on “Integrating AI and Emerging Technologies in Next-Generation Network Systems” organized by E&ICT academy, IIITDM Jabalpur and SRM University-AP.
- April 2025: *Expert Lecture* at short-term course “Artificial Intelligence & Internet of Things: From Theory to Practice” organized by Malaviya Mission Teacher Training Centre (MMTTC), IIT Patna at the K. K. Group of Institutes, Govindpur, Dhanbad.
- November 2024: *Guest Lecture* at “Recent Trends and Future Directions in Internet of Things” at the IoT Course (UG), Dept. of EEE, BITS Pilani, Hyderabad campus.
- December 2023: *Resource Person* at Webinar on “IoT and Edge Computing for Smart Agriculture” organized by Centurion University of Technology and Management, Odisha.
- December 2023: *Resource Person* at ATAL FDP on “Integrated IoT and Machine Learning Methods for Smart Sustainable Cities” organized by Vignan’s University, Guntur.
- June 2023: *Resource Person* at FDP on “Applications of Machine Learning and the Internet of Things in Smart Cities” organized by EICT, NIT Warangal and Techno College of Engineering, Agartala.
- Dec. 2022: *Keynote Speaker* at ICACIE 2022 conference, Cuttack, India.

## PROFESSIONAL MEMBERSHIPS

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- *IEEE*: Senior member (2023–present), Member (2021–2023), Graduate student member (2013–2020)
- *ACM*: Professional member (2021–present), Student member (2013–2020)
- *IEEE Communication Society*: Member (2014–present)
- *IEEE Computer Society*: Member (2014–2021)

## ADMINISTRATIVE RESPONSIBILITY

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- *Faculty In-Charge* for ‘Branding of Departments’ at IIT (ISM) Dhanbad (May 2025–).
- *Coordinator* for department website maintenance at IIT (ISM) Dhanbad (February 2025–).
- *Editor* for the department newsletter, GANANAM, at IIT (ISM) Dhanbad (October 2025–).
- *Faculty Member* at Center for Drone Technology (CoE), at SRM University-AP (October 2023–January 2024).
- *Faculty Adviser* for Smart Tech Club, SEAS, SRM University-AP (August 2023–March 2024).
- *Member* of International Relations Committee of SRM University-AP (July 2023–present).
- *Faculty representative*, Cisco Internship Program, SRM University-AP (June–July 2023).
- *Faculty Coordinator*, AI-ML Club, SRM University-AP, India (Spring 2023).

## VOLUNTEERING EXPERIENCE

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- *Mentor*, ACM Anveshan Setu Fellowship program (2024–)
- *Member*, ACM India Research Facilitation Committee (RFC), (2024–)
- *Member*, IEEE India Council Awards Committee (2024)
- *Student Representative*, IEEE Computer Society India Council SAC (2017)
- *IEEE UPP Liaison*, IEEE Student Branch, IIT Kharagpur (2016–2017)

- *Chair* of Executive Committee, IEEE Student Branch, IIT Kharagpur (2015–2016)
- *Member*, Conference/Workshop Committee, IEEE Computer Society India Council (2015–2016)
- *Member*, Student Activity Committee, IEEE Student Branch, IIT Kharagpur (2014–2015)
- *Graduate Student Volunteer*, IEEE Student Branch IIT Kharagpur (2013–2014)

## REFeree SERVICE

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- *Journal Editorial Board:*
  - Scientific Reports (Springer Nature)
- *Examiner / Reviewer:*
  - IEEE India Council Awards, 2023; 2024
- *Conference Organizing Committee member:*
  - *Chair*, 6DCIoT 2024 workshop (with IEEE ANTS 2024)
  - *Publicity Co-Chair*, IEEE DCOSS 2022, California, USA
  - *General Chair*, WPSN 2021 (in conjunction with IEEE DCOSS), Pafos, Cyprus
  - *Publicity Co-Chair*, IEEE DCOSS 2021, Pafos, Cyprus
  - *Organizing Chair*, IEEE TechSym 2016, IIT Kharagpur, India
  - *Organizing Committee member*, IEEE TechSym 2014, IIT Kharagpur, India
- *Technical Program Committee member* (Selected only):
  - *IEEE PIMRC*: 2025 (Istanbul, Turkey); 2024 (Valencia, Spain); 2023 (Toronto, Canada); 2022 (Virtual Conference); 2021 (Helsinki, Finland); 2020 (London, UK); 2019 (Istanbul, Turkey); 2018 (Bologna, Italy)
  - *IEEE GLOBECOM*: 2025 (Taipei, Taiwan), 2023 (Kuala Lumpur, Malaysia)
  - *IEEE VTC*: Spring 2025 (Oslo, Norway);
  - *IEEE ISCC*: 2024 (Paris, France); 2023 (Tunisia); 2022 (Rhodes Island, Greece); 2021 (Athens, Greece);
  - *COMSYS*: 2023 (Mandi, India); 2022 (Ropar, India); 2021 (Shillong, India)
  - *IEEE ATC*: 2021 (Ho Chi Minh city, Vietnam); 2019 (Hanoi, Vietnam); 2018 (Ho Chi Minh City, Vietnam)
  - *ACM FICN*: 2018 (in conjunction with ACM MobiCom), New Delhi, India
- *Conference Session Chair:*
  - IEEE ISCC 2021, Athens, Greece
  - IEEE DCOSS 2021, Pafos, Cyprus
- *Journal reviewer:*
  - IEEE Transactions (TNSM, TMC, TSC, TVT)
  - IEEE Journals/Letters (IoT J., Systems J., Sensors J., Embedded System L., Access)
  - ACM Transactions (TOSN)
  - Elsevier (Ad Hoc Net., ComNet, ComCom, PMC, CompAg)
  - Springer Nature (Telecomm. Sys., J. Supercomputing, Cluster Comp)
  - Others (Wiley IJCS, IET Netw.)
- *Conference reviewer* (Selected only):
  - IEEE PIMRC (2017–2024); IEEE ISCC (2021–2024); IEEE GLOBECOM (2023); IEEE CCNC (2021, 2023)
  - Others: IEEE LCN, IEEE DCOSS, IEEE ATC, COVI-COM (IEEE ICC), IEEE ICCCS, IEEE ANTS, IEEE NCC, ACM FICN



## LANGUAGES

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|          |        |          |                      |
|----------|--------|----------|----------------------|
| ENGLISH: | Fluent | BENGALI: | Mothertongue         |
| HINDI:   | Fluent | ITALIAN: | Basic Knowledge (A1) |

## REFERENCE

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Tamoghna Ojha