# Anandarup Mukherjee


**Contact Information**

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**Present Designation**

- Research Assistant, University of Cambridge.
- Ex-Ph.D. scholar & Ex-Senior Research Fellow, IIT Kharagpur.
- Founder & Director, Sensordrops Networks Pvt. Ltd., STEP, IIT Kharagpur.
- Grad. Student Member, IEEE & ACM ( in over 10 Technical committees and councils).

**Key Expertise**

Internet of Things, Unmanned Aerial Vehicular Networks, Machine Learning & AI for IoT.

**Highest Degree**

Master of Technology (M.Tech) in Micro-Electronics & VLSI Design (First Division), Institute of Engineering and Management, Kolkata, $10^{th}$ May 2012

**Publications**

- Total of >**32** referred scientific publications.
- More than 110 citations with an h-index of 7 (Google Scholar).
- Published in high-impact journals such as IEEE Communications Magazine (IF-2019=10.35), IEEE IoT Journal (IF-2019=9.51), IEEE Transactions on Vehicular Technology (IF-2019=5.339), IEEE Transactions on Sustainable Computing (IF-2019=2.456), IEEE Transactions on Parallel and Distributed Systems (IF-2019-2.6), and others.
- Published in top communications and networking conferences such as IEEE INFOCOM 2020, IEEE ICC 2020, IEEE WCNC 2019, 2018, and others.
- Authored 2 textbooks : **Introduction to IoT** - Cambridge University Press, UK (in press) and **Introduction to Industrial IoT and Industry 4.0** - CRC Press, USA (in press).

**Reviewing**

Regular referee for numerous journals and Transactions, including IEEE, Elseiver, Wiley, and Springer, and conferences. Approximately 70 refereed articles reviewed in 2019/2020 (Publons).

**Talks/ Presentations/ Hands-on Sessions**

Gave 8 keynotes/talks/hands-on sessions on UAVs, UAV Networks, IoT in Agriculture, and my related topics of research in India and UK. Some of the key talks are :

- **Phantom Networks : Next-Generation Communication using Intangible Infrastructures**, *Invited Talk*, $5^{th}$ International Conference on Advanced Computing and Intelligent Engineering, Université des Mascareignes (UdM), Mauritius, June 2020.
- **Phantom Networks : The Intangible Shoot-and-Scoot Communication Paradigm**, *Keynote Lecture*, Loughborough University, UK, Feb. 2020.
- **IoT Hands-on Session**, IIT Kharagpur, India, March 2019.
- **Networked UAV Controls and Collaborative UAV Network Formation**, Loughborough University, UK, Oct. 2017.

**Awards & Recognition**

- **Top Downloaded Article 2017-2018**, awarded by Wiley Interdisciplinary Reviews - Data Mining and Knowledge Discovery for the paper "Knowledge discovery for enabling smart Internet of Things : A survey."
- **InSc Young Achiever Award**, awarded by the Institute of Scholars, Bangalore for the paper "Blind Entity Identification for Agricultural IoT Deployments" in 2019.
- **Dr. Amulya K. N. Reddy Award**, awarded by the **Hari-om Ashram Prerit Society** for commercialization of prototype (INR 50,000) in 2018.
- **The Internet of Things Quiz Contest Gold Medal**, awarded by the **Dept. of IT & Electronics, Govt. of West Bengal** at Biswa Bangla Convention Center, Kolkata in 2018.
- Awarded the **2018 Gandhian Young Technological Innovation Award** (GYTI) for "societally relevant innovation" by the President of India at the Rashtrapati Bhawan. (Media Coverage Prototype)
- Awarded with more than INR 532,000 worth of travel grants for attending international conferences, workshops and panels from multiple agencies (**IIT Kharagpur**, **Microsoft Research - ACM**, **UGC-UKIERI**, **DEITY**).
- Media Coverage for being part of the development and operational team of AMBUSENS - An ambulatory patient healthcare, remote monitoring system in 2017. (Economic Times, Hindustan Times, Indian Express, Times of India, Firstpost)

- Media Coverage for developing BHIM - Autonomous Drone in 2017.( The Hindu, LinkedIn, Times of India, India Today)
- $2^{nd}$ position awarded in the 2016 IBM day prototype demo at IIT Kharagpur, India for "Batteryless Sensing in IoT".
- $3^{rd}$ position awarded in the 2015 Johnson Controls Innovation Challenge at IIT Kharagpur, India for "Smart Home Automation System".
- Special mention for organizing 2015 Hardware Hackathon at IEEE Local Student Branch, IEEE PULSE, EMBS PULSE

**Sponsored Projects**

Internal coordinator and participant of 1 international (**UGC-UKIERI** Indo-UK) project and 4 national projects of various funding agencies (**INAE-DST Abdul Kalam National Innovation Fellowship**, **ITRA-Media Lab Asia**, **ICAR**, and **MEITY**).

**Teaching**

- Helped in design, upkeep, and management of NPTEL's popular "Introduction to IoT" course since 2017.
- Took various lectures and labs on Computing and Programming as a Teaching Assistant at the Department of Computer Science & Engineering, IIT Khargapur since 2016.
- Took lectures on various basic and advanced electronics and communication engineering courses as an Assistant Professor at University of Engineering and Management, Jaipur from 2012-2014.

**Management**

- Presently, managing and designing sensor & communication solutions for Calcutta Electric Supply Company's (CESC) collaborative project (**INR 900,000**) on IoT-based monitoring of Partial Discharge in Heavy Electrical installations.
- Designed and sold a mesh networked remote temperature monitoring setup and Android app-based visualizer to TCS Research & Innovation in April 2019.
- Managing a team of 10 research scholars at the SWAN lab as a Research group leader since 2016. Assisted Masters' and Bachelors' thesis of more than 8 students of SWAN Lab in IIT Kharagpur since 2015. Managed and guided >35 UG and PG research interns at SWAN lab, since 2015.
- Head (Membership Development), IEEE Student Branch, IIT Kharagpur for A.Y. 2015-2016 (IEEE)