Dr. Subrata Dutta

Dept of CSE, NIT Jamshedpur, India Email Id : subrataduttaa@gmail.com/sdutta.cse@nitjsr.ac.in

Mob: 09477501086, 09123004865



Present Status: I am working as an Assistant Professor in the department of Computer Science and Engineering, National Institute of Technology, Jamshedpur.

Work Experiences:

| Name of | From | To | Organization | Position held |
|---|--------------|--------------|---|-----------------------------|
| Organization | (dd/mm/yyyy) | (dd/mm/yyyy) | address | _ |
| National Institute of Technology Jamshedpur | 14/06/2018 | Till Date | Adityapur, District Seraikela Kharsawan, Jamshedpur, Jharkhand 831014 | Assistant Professor |
| University of the West of Scotland, UK | 01/09/2016 | 02/07/2017 | Paisley Campus, Scotland, UK, High St, Paisley PA1 2BE | Post Doctoral Researcher |
| Haldia Institute of Technology, West Bengal, India | 02/04/2018 | 12/06/2018 | Purba Medinipur, West Bengal 721631 | Associate Professor |
| Haldia Institute of Technology, West Bengal, India | 09/07/2015 | 01/04/2018 | Purba Medinipur, Westbengal | Assistant Professor |
| Aliah University, Kolkata, India | 19-01-2015 | 30-06-2015 | Rajar Hat City, West Bengal, 700156 | Guest Lecturer |
| Jadavpur University, Kolkata, India | 01-07-2013 | 28-02-2015 | Jadavpur, Kol-32, West Bengal | Senior Research Fellow |
| Jadavpur University, Kolkata, India | 14-03-2008 | 14-03-2013 | Jadavpur, Kol-32, West Bengal | Research Fellow |
| Guru Nanak Inst of Tech, West Bengal, India | 11-09-2007 | 31-12-2007 | 197F Nilgunj road , Panihati, Kolkata -114, West Bengal | Lecturer |
| Institute of Genetic Engg, West Bengal, India | 08-08-2006 | 02-09-2007 | 30-Thakurhat road, Badu, Kolkata- 700128, West Bengal | Teaching Faculty. |

Field of research interest: Wireless Sensor Network, Mobile Computing.

Core Subjects: Design Analysis and Algorithm, Wireless Sensor Network, Computer Networking,
Cryptography, Operating System, Digital Electronics, Computer Graphics, Data

Computer Languages: C, Matlab.

Educational Qualifications:

| Examination | Board | Subject | Institution Name | Year | % or Grade |
|---------------------|---|----------------------------------|---|------|-------------------------|
| Madhyamik | WBBSE | General | Dum Dum Baidyanath Institution | 1998 | 84.75 % |
| Higher Secondary | WBCHSE | Science | Dum Dum Baidyanath Institution | 2000 | 81.4 % |
| B.Tech | WBUT | Computer Science and Engg. | B.P.Poddar Institute of Management And Technology | 2005 | 7.53 (CGPA) |
| M.Tech | Jadavpur University | Computer Technology | Jadavpur University | 2009 | 68.77% |
| PhD | Jadavpur University | Wireless Sensor Network | Jadavpur University | 2015 | 73.5% Course Work |
| Post Doc | University of the West of Scotland, UK | Wireless Sensor Network | University of the West of Scotland, UK | 2017 | NA |

PhD Guidance

| Sl No. | Name of the student | Date of registration | Status | |
|--------|---|-------------------------------------|---|--|
| 1. | Mr. Arindam Giri | | Registered, Thesis will be submitted within 6 month. I am his second guide. | |
| 2. | Mr. Kailash Mishra | | Registered and I am the sole guide. | |
| 3. | Ms. Madhvi Saxena Registered and I am the sole guide. | | | |
| 4. | Mr. Sandeep Mahato | Registered and I am the sole guide. | | |

M. Tech Guidance

| Sl | Name of the student | Thesis Title | Passing years |
|----|---------------------|--|---------------|
| No | | | |
| 1. | Ms Tanushree Mandal | TRACE ANALYSIS AUTOMATION | 2019 |
| 2. | Mr Manish Kumar | Mr Manish Kumar Automatic Orthogonal Defect Classification | |
| 3. | Mr. Suman Kumar | CHME-LEACH, CHP-LEACH: An | 2020 |
| | | Approach to increase the Lifetime of Leach | |
| | | based protocol | |
| 4. | Ms. Aneesha Das | NA | 2021 |
| 5. | Ms. Zeenat Fathima | NA | 2021 |

Received Award:

- 1. Erasmas Mundus Fellowship given by Europian Eunion in the year 2016.
- 2. UGC fellowship for meritorious students in Science and Technology in the year 2007.

Course Attended:

- 1. Attended UGC refreshers course on 'Theoretical Aspects of Computer Science' in Jadavpur University, Kolkata (11/Jan/2007 to 2/Feb/2007).
- 2. Faculty Development Program(FDP) on Research Challenges of Modern Computer Technologies (01/Aug/2016 05/Aug/2016) organised by Dept of Computer Science and Engineering, Haldia Institute of Technology.

Course Organised

1. Faculty Development Program(FDP) on Research Challenges of Modern Computer Technologies (01/Aug/2016 – 05/Aug/2016) organised by Dept of Computer Science and Engineering, Haldia Institute of Technology. I was acted as a **Jt Secretary**.

Conference Organized

1. International Conference on IoT and its Application (ICIA-2020) (26-27th December). I was acted as a organizing secretary.

Invited Lecture:

- 1. Lecture on "Localization on Sensor Network" on 2nd Aug, 2016 in a Faculty Development Program at depth of CSE, Haldia Inst of Tech, India.
- 2. Lecture on "IoT Application and Security", on 10th November, 2020 in a Faculty Development Program at depth of CSE, Maulana Abul Kalam Azad University of Technology, West Bengal, India.

Membership in professional bodies

1. Member of IEEE, Membership number: 94408672

List of Research Publication

Journal Publication

1. **Subrata Dutta**, Mohammad S. Obaidat , KeshavDahal, Debasis Giri, Sarmistha Neogy , "Comparative Study of Different Cost Function Between Neighbors for Optimizing Energy Dissipation in WSN", IEEE System Journal, pp 1-12, DOI 10.1109/JSYST.2018.2800292,.

- 2. **Subrata Dutta**, Mohammad S. Obaidat , KeshavDahal, Debasis Giri, Sarmistha Neogy, "M-MEMHS: Modified Minimization of Error in Multihop System for Localization of Unknown Sensor Nodes", IEEE System Journal, 13 (1), pp. 215-225, **DOI:** 10.1109/JSYST.2018.2868231
- 3. **Subrata Dutta**, Nandini Mukherjee, Monideepa Roy, Sarmistha Neogy, "A Study on efficient path selection algorithms for propagating data messages with a goal of optimizing energy dissipation in WSN", International Journal of Sensor Network, pp. 199-213, Vol. 15, No. 4, August, 2014, ISSN print: 1748-1279.
- 4. T Maitra, MS Obaidat, D Giri, **S Dutta**, K Dahal, "ElGamal cryptosystem-based secure authentication system for cloud-based IoT applications", IET Networks, pp. 289-298, Vol. 8, Issue 5.
- 5. Arindam Giri, **Subrata Dutta**, Sarmistha Neogy, "Information-theoretic approach for secure localization against sybil attack in wireless sensor network", Journal of Ambient Intelligence and Humanized Computing, https://doi.org/10.1007/s12652-020-02690-9

Conference Publication

- Subrata Dutta, Nandini Mukherjee, Sarmistha Neogy, Sarbani Roy, "A Comparison of the Efficiencies of Different Wireless Sensor Network Algorithms with respect to Time", The Second International conference on Networks & Communications (NeCoM-2010), Chennai, India July 23-25, 2010, pp.602-618, published by: Springer, ISBN:978-3-642-14492-9, Name of proceeding: Recent Trends in Networks and Communications.
- 2. **Subrata Dutta**, Nandini Mukherjee, Monideepa Roy and Sarmistha Neogy, "Efficient Path Selection to Propagate Data Message for Optimizing the Energy Dissipation in WSN" in The Fourth International Conference on Wireless & Mobile Networks (WiMoN-2012), Jul 13-15, 2012 in Chennai, India, pp. 671-683, Springer ISBN: 978-3-642-31513-8.
- 3. **Subrata Dutta**, Nandini Mukherjee and Sarmistha Neogy, "Location Estimation of Wireless Sensor Nodes using a few Beacon Nodes in a 2-D Geographical Area" in Applications and Innovations in Mobile Computing (AIMoC 2015). 12-14 Feb. 2015, Kolkata, India, pp. pp. 81-88, IEEE explorer, **INSPEC Accession Number:** 15072642
- 4. Arindam Giri, **Subrata Dutta**, Sarmistha Neogy, "Enabling Agricultural Automation to Optimize Utilization of Water, Fertilizer and Insecticides by implementing Internet of Things (IoT) ", in InCITe 2016, Oct 6-7, 2016 in Noida,India pp. 125-131. IEEE explorer. **INSPEC Accession Number:** 16674057.
- 5. Jagannath Samanta, Jaydeb Bhaumik, Soma Barman, Sk. G. S. Hossain, Mandira Sahu and **Subrata Dutta**, "RS (255, 249) Codec Based on All Primitive Polynomials Over GF(2⁸)", in the International conference on Communication, Devices, and Computing, Haldia, Lecture Notes in Electrical Engineering book series (LNEE, volume 470), pp. 60-81
- Arindam Giri, Subrata Dutta, Sarmistha Neogy, Keshav Dahal, Zeeshan Pervez, "Internet of Things (IoT): A Survey on Architecture, Enabling Technologies, Applications and Challenges", International Conference on Internet of Things and Machine Learning, SCI,DBLP indexed, January 2017, DOI: 10.1145/3109761.3109768.
- 7. Saxena, Madhvi, and **Subrata Dutta**. "Improved the efficiency of IoT in agriculture by introduction optimum energy harvesting in WSN." 2020 International Conference on Innovative Trends in Information Technology (ICITIIT). IEEE, 2020.
- 8. Giri, Arindam, **Subrata Dutta**, and Sarmistha Neogy. "Fuzzy Logic-Based Range-Free Localization for Wireless Sensor Networks in Agriculture." Advanced Computing and Systems for Security. Springer, Singapore, 2020. 3-12.

- 9. Shaw, A. K., Chakraborty, A., Mohapatra, D., & **Dutta, S**. (2020, October). Scalable IoT Solution using Cloud Services—An Automobile Industry Use Case. In 2020 Fourth International Conference on I-SMAC (IoT in Social, Mobile, Analytics and Cloud)(I-SMAC) (pp. 326-331). IEEE.
- 10. Basu, Archita, Sujoy Mistry, Satanu Maity, and **Subrata Dutta**. "A Novel Energy Aware Resource Allocation Algorithm into a P2P Based Fog Computing Environment." In International Conference on Information, Communication and Computing Technology, pp. 88-97. Springer, Singapore, 2020.

Book Chapter

- 1. Arindam Giri, **Subrata Dutta**, Sarmistha Neogy, "Fuzzy Logic-Based Range-Free Localization for Wireless Sensor Networks in Agriculture", Advanced Computing and Systems for Security, **pp 3-12, DOI** https://doi.org/10.1007/978-981-13-8962-7
- 2. MS Obaidat, SP Rana, T Maitra, D Giri, **S Dutta**, "Biometric Security and Internet of Things (IoT)", Biometric-Based Physical and Cybersecurity Systems", SpringerLink,pp-477-509.
- 3. Saxena, Madhvi, and **Subrata Dutta**. "An Overview of Internet of Things in Healthcare." Interoperability in IoT for Smart Systems (2020): 15-44.
- 4. Mahato, Sandeep, Kailash Chandra Mishra, **Subrata Dutta**, and Sujoy Mistry. "Security Issues and Challenges in IoT." In Interoperability in IoT for Smart Systems, pp. 115-136. CRC Press, 2020.
- 5. Giri, Arindam, **Subrata Dutta**, Kailash Chandra Mishra, and Sarmistha Neogy. "IoT Middleware Technology: Review and Challenges." Interoperability in IoT for Smart Systems (2020): 71-90.

Personal Data:

Father's Name : Shree Juran Chandra Dutta

Mothers Name : Smt. Shelly Duta

Date of Birth : 6th March, 1981.

Nationality : Indian Sex : Male

Hobby: Gardening, Painting, Listening Song.

Declaration: I hereby declare the information furnished above is true to the best of knowledge.

Sworata Dutta

(Subrata Dutta)