

Riya Samanta

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Research Interest

Algorithm design, task or resource assignment problems, data analytics, and crowdsourcing
Currently, I am working on a “skill-oriented task assignment problem in crowdsourcing”.

Education

January 2020 - Present

Indian Institute of Technology, Kharagpur, India- *PhD in Computer Science and Engineering*

- Supervisor:

Dr. Soumya Kanti ghosh, IIT Kharagpur, India

- Joint Supervisor:

Dr. Sajal K. Das, Missouri University of Science and Technology, Missouri, USA

July 2017 - July 2019

University of Calcutta, Kolkata, India - *Master of Technology (CSE)*

- **CGPA: 9.6 out of 10**
- **Acquired First Position in the batch (Gold Medal)**

July 2014 - June 2017

University of Calcutta, Kolkata, India - *Bachelor of Technology(CSE)*

- **CGPA: 8.5 out of 10**
- **Acquired Second Position in the batch (Silver Medal)**

I attended 3- years Post-Graduation B.Tech in Computer Science and Engineering.

July 2011 - June 2014

St. Xavier's College, Kolkata, India- *B.Sc in Computer Science*

- **Percentage: 76% with Honours**

Academic Achievements

- Junior Research Fellowship as a Research Scholar at IIT Kharagpur
- **Senior Research Fellowship as a Research Scholar at IIT Kharagpur**
- Awarded DST Inspire Fellowship 2020 for JRF
- Qualified UGC NET JRF 2018 with 99.88 percentile
- Acquired First Position in the M.Tech batch (**Gold Medalist**)
- Acquired Second Position in the B.Tech batch (**Silver Medalist**)
- 2nd Runners-up Project Award in ACM B.Tech Project Contest 2017
- Participation and Clearing of Level 1 as Team CoderAssassin in Codevita-2016
- Qualified GATE ENTRANCE for MTech-2017
- Qualified JECA-2014
- Secured 91% in Council for the Indian School Certificate Examination(ISC), 2011
- Secured 89 % in Indian Certificate of Secondary Examination(ICSE), 2009.

Academic Projects

- **Enhanced PROPHET+ routing: an efficient reliable routing protocol for Opportunistic Network, M.Tech Thesis**
Duration-1 year
Calcutta University
- **Node Localization for Indoor Tracking using Artificial Neural Network for Wireless Sensor Network, B.tech Project**
Duration-1 year
Calcutta University
Publication DOI: <https://doi.org/10.1109/FMEC.2018.8364071>
- **GeoSpatial Chair Awards**
Duration- 6 months
IIT Kharagpur
- **Skill-oriented Task Assignment in Crowdsourcing (PhD Thesis Title)**
IIT Kharagpur

Research Publication

From PhD thesis work

1. B. Sethi, **R. Samanta**, S. K. Ghosh, and S. K. Das, "Scalable Skill-oriented Task Allocation in Crowdsourcing within a Serverless Ecosystem", 2023 ACM 24th International Conference On Distributed Computing And Networking (ICDCN'2023), DOI: <https://doi.org/10.1145/3571306.3571399>

2. **R. Samanta**, S. K. Ghosh, and S. K. Das, "Volunteer Selection in Collaborative Crowdsourcing with Adaptive Common Working Time Slots," 2022 IEEE Global Communications Conference (GLOBECOM), DOI: <https://doi.org/10.1109/GLOBECOM48099.2022.10001191>
3. **R. Samanta** and S.K. Ghosh, "FogiRecruiter: A fog-enabled selection mechanism of crowdsourcing for disaster management". *Concurrency Computat Pract Exper.* 2022;e7207. DOI: <https://doi.org/10.1002/cpe.7207>
4. **R. Samanta**, S. K. Ghosh and S. K. Das, "SWill-TAC: Skill-oriented Dynamic Task Allocation with Willingness for Complex Job in Crowdsourcing," 2021 IEEE Global Communications Conference (GLOBECOM), 2021, pp. 1-6, DOI: <https://doi.org/10.1109/GLOBECOM46510.2021.9685885>

Others

5. S.Bose, **R. Samanta**, B.Saha, C.Ghorai and I.Banerjee, "A novel Internet of Healthcare (IoH) Aware Data Transmission Mechanism Intermittently Connected Wireless Network", European Chemical Bulletin, 2023. Link: <https://www.eurchembull.com/uploads/paper/5a72ee889627afbf537061c20f47e2fa.pdf>
6. S.Bose, **R. Samanta**, and I. Banerjee, "Efficient, Cooperative and Network attributes Enhanced PROPHET+ Protocol (EPP) over IoT-enabled Opportunistic Network", European Chemical Bulletin, 2023. Link: <https://www.eurchembull.com/uploads/paper/d5208fa0ebfc4a6d8ee911429ef7437a.pdf>
7. B. Saha, **R. Samanta**, S. K. Ghosh, and R.B. Roy, "BandX: An Intelligent IoT-band for Human Activity Recognition based on TinyML", 2023 ACM 24th International Conference On Distributed Computing And Networking (ICDCN'2023), DOI: <https://doi.org/10.1145/3571306.3571415>
8. **R. Samanta**, C. Kumari, N. Deb, S. Bose, A. Cortesi and N. Chaki, "Node localization for indoor tracking using artificial neural network," 2018 Third International Conference on Fog and Mobile Edge Computing (FMEC), 2018, pp. 229-233, Doi: [10.1109/FMEC.2018.8364071](https://doi.org/10.1109/FMEC.2018.8364071).

Peer Review

- IEEE Systems Journal
- IEEE Transactions on Mobile Computing
- Peer-to-Peer Networking and Applications
- ACM ACSS, ICDCN Conf.

Workshops/Conferences Attended

- ACM ICDCN 2023 conference for presenting paper "Scalable Skill-oriented Task Allocation in Crowdsourcing within a Serverless Ecosystem" and "BandX : An Intelligent IoT-band for Human Activity Recognition based on TinyML"
- IEEE GlobeCom 2022 for presenting paper "Volunteer Selection in Collaborative Crowdsourcing with Adaptive Common Working Time Slots".
- IEEE GlobeCom 2021 for presenting paper "SWill-TAC: Skill-oriented Dynamic Task Allocation with Willingness for Complex Job in Crowdsourcing"
- Volunteered in ACSS 2019,2022.
- Participated in CODS-COMAD 2018.
- Workshop on Ethical Hacking, Robothon-2016 at IIT-Delhi

Teaching Experiences in

TA-ship during Ph.D

- Cloud Computing (Spring 2023)
- Geographical Information System (Autumn 2022)
- Database Management System (Spring 2022)
- Geographical Information System (Autumn 2021)
- Database Management System (Spring 2020)

TA-ship for NPTEL

- Cloud computing (Spring 2023)
- Cloud Computing (Autumn 2022)
- Computer Networks and Internet Protocol (Spring 2022)

TA-ship during M.Tech

- Compiler Design (to BTech candidates)
- Operating System (to MSc candidates)
- Object-Oriented Programming with Java (to B.Tech candidates)

Student mentored

- MTech: 2 (supervised their MTPs)
- Internships: 4

Research Skills

- Literature review and analysis
- Research design and methodology
- Data collection and analysis
- Statistical analysis
- Qualitative research methods
- Experimental design
- Project management

Technical Skills

- Programming Languages: Python, C, Java
- Databases: MySQL
- Web Technologies: HTML, JavaScript
- Tools or platforms: Python MIP, OpenStack, Amazon AWS, One Simulator

Positions Of Responsibility

- Class Representative for 3 years in B.Tech
- Assistant General Secretary of Student Union of Calcutta University, India (Tech Campus) during entire BTech and MTech (5 years)
- Volunteered in teaching rural and mentally disabled children under NSS, St.Xavier's college.

Hobbies

- Dancing, both classical and Western. Trained in Bharatnatyam
- Taking care and spending time with nature.
- Travelling and journaling
- Listening to music and mantras

Personal Information

- Nationality: Indian
- Ethnicity: Bengali
- Gender: Female