# Rathindra Nath Dutta

*Senior Research Fellow*

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## Education

2017–current **Ph.D.** (thesis submitted) in Computer Science, under supervision of Prof. Sasthi C. Ghosh, *Advanced Computing & Microelectronics Unit of Indian Statistical Institute*, Kolkata
Thesis work: On Resource Efficient and Obstacle Aware Link Selection in D2D Communications

2015–2017 **M.Tech.** in Computer Science and Engineering, *University of Calcutta*, Kolkata, ranked $2^{nd}$ with *86.05%*
Thesis work: Improving Job Response Time in Hadoop Framework, under supervision of Sanjit Kr. Setua

2013–2015 **M.Sc.** in Computer and Information Science, *University of Calcutta*, Kolkata, ranked $2^{nd}$ with *80.25%*
Thesis work: Large Graph Algorithms for CUDA, under supervision of Prof. Sanjit Kr. Setua

2010–2013 **B.Sc.** in Computer Science, *Vivekananda Mahavidyalaya* affiliated under *University of Burdwan* , *76.37%*

2010 **Higher Secondary**, *Baidyabati Banamali Mukherjee Institution (W.B.C.H.S.E.)*, *77.28%*

2008 **Madhyamik (Secondary)**, *Baidyabati Banamali Mukherjee Institution (W.B.B.S.E.)*, *80.88%*

## Experience

2018 **Teaching Assistant**, *Data & File Structures Laboratory*, MTech (CS) $1^{st}$ semester, Indian Statistical Institute
course webpage: `https://www.isical.ac.in/~dfslab/2018/`

2019 **Teaching Assistant**, *Data & File Structures Laboratory*, MTech (CS) $1^{st}$ semester, Indian Statistical Institute
course webpage: `https://www.isical.ac.in/~dfslab/2019/`

2022 **Teaching Assistant**, *Computer Organization*, MTech (CS) $1^{st}$ semester, Indian Statistical Institute
course resources: `https://ratcoinc.github.io/MIPS/`

2022 **Teaching Assistant**, *Computer Networks (Lab)*, MTech (CS) $1^{st}$ semester, Indian Statistical Institute
course resources: `https://ratcoinc.github.io/Networks/`

## Qualifications

**Graduate Aptitude Test in Engineering (GATE)** in Computer Science and Engineering
**National Eligibility Test (NET)** , *University Grants Commission (UGC)*

## Areas of Interest

- Computer Networks
- Parallel Computing
- Programming & Data Structure
- Algorithm Design
- Distributed Systems
- Theory of Computation

## Computer Proficiency

- C
- Java
- LaTeX
- CUDA
- Web Development
- C++
- Python
- TikZ
- SQL
- MS Office

## Hobbies

- Programming
- Teaching

## Languages Known

Bengali English Hindi

## Publications

M. Sultana, R. N. Dutta, and S. K. Setua. Complete solution of eight puzzle problem using BFS in CUDA environment. In *IEEE International WIE Conference on Electrical and Computer Engineering (WIECON-ECE)*, pages 333–337, Dec 2015.

Rathindra Nath Dutta and Sasthi C. Ghosh. Resource allocation for millimeter wave D2D communications in presence of static obstacles. In *Proceedings of the* **35th International Conference on Advanced Information Networking and Applications (AINA-2021)**, *Toronto, ON, Canada, 12-14 May, 2021*, volume 225 of *Lecture Notes in Networks and Systems (LNNS)*, pages 667–680. Springer, 2021.

Rathindra Nath Dutta and Sasthi C. Ghosh. Joint relay selection and frequency allocation for D2D communications. In *Proceedings of the* **17th EAI International Conference on Quality, Reliability, Security and Robustness in Heterogeneous Systems (QShine 2021)**, *November 29-30, 2021*, volume 402 of *Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering (LNICST)*, pages 159–173. Springer, 2021.

Rathindra Nath Dutta and Sasthi C. Ghosh. Mobility aware resource allocation for millimeter-wave D2D communications in presence of obstacles. **Computer Communications** *(Elsevier),*, Vol. 200:54–65, feb 2023, doi:10.1016/j.comcom.2022.12.025.

Rathindra Nath Dutta and Sasthi C. Ghosh. Obstacle aware link selection for stable multicast D2D communications. In *Proceedings of the* **International Conference on Computer and Communication Engineering (CCCE 2023)**, *Stockholm, Sweden, 10-12 March, 2023*, volume 1823 of *Communications in Computer and Information Science (CCIS)*, pages 54–66. Springer, 2023.

Rathindra Nath Dutta, Subhojit Sarkar, and Sasthi C. Ghosh. Joint base station and reflector placement in an urban mmWave network. (accepted) IEEE **International Mediterranean Conference on Communications and Networking (MeditCom)**, Dubrovnik, Croatia, September 4-7, 2023, 2023.

Subhojit Sarkar, Rathindra Nath Dutta, and Sasthi C. Ghosh. LazyUAV: a minimal displacement coverage strategy for Multi-UAV mmWave networks. (accepted) IEEE **International Mediterranean Conference on Communications and Networking (MeditCom)**, Dubrovnik, Croatia, September 4-7, 2023, 2023.

Rathindra Nath Dutta and Sasthi C. Ghosh. Energy efficient resource allocation for D2D communications using reinforcement learning. (accepted) In IEEE **48th Conference on Local Computer Networks (LCN)**, Daytona Beach, Florida, USA, October 2-5, 2023.

Rathindra Nath Dutta and Sasthi C. Ghosh. Non-optimal is good! resource allocation in presence of dynamic obstacles in D2D networks. (accepted) In IEEE **48th Conference on Local Computer Networks (LCN)**, Daytona Beach, Florida, USA, October 2-5, 2023.