Dr. Joy Chandra Mukherjee

Assistant Professor (Computer Science & Engineering)

School of Electrical Sciences, IIT Bhubaneswar

☎ +91-674-713-5724

✉ joy@iitbbs.ac.in

🌐 http://www.iitbbs.ac.in/profile.php/joy/

RESEARCH
INTERESTS

Optimization Techniques, Distributed Algorithms, Intelligent Transportation Systems, Smart Grid, Software Defined Networks, Wireless Sensor Networks.

PUBLICATIONS

JOURNALS

J1 Rohit Kumar, and Joy Chandra Mukherjee, *On-demand vehicle-assisted charging in wireless rechargeable sensor networks*, Ad Hoc Networks, Elsevier, vol. 112:102389, 2021.

J2 Madhukrishna Priyadarsini, Joy Chandra Mukherjee, Padmalochan Bera, Shailesh Kumar, AHM Jakaria, and M Ashiqur Rahman, *An Adaptive Load Balancing Scheme for-Software-defined Network Controllers*, Computer Networks, Elsevier, vol. 164, 2019.

J3 Joy Chandra Mukherjee and Arobinda Gupta, *Distributed Charge Scheduling of Plug-IN Electric Vehicles Using Inter-Aggregator Collaboration*, IEEE Transactions on Smart Grid, vol. 8, no. 1, pp. 331–341, 2017.

J4 Joy Chandra Mukherjee, Arobinda Gupta, and Ravella Chaitanya Sreenivas, *Event Notification in VANET with Capacitated Roadside Units*, IEEE Transactions on Intelligent Transportation Systems, vol. 17, no. 7, pp. 1867–1879, 2016.

J5 Joy Chandra Mukherjee, Saurabh Shukla, and Arobinda Gupta, *Mobility Aware Scheduling for Imbalance Reduction through Charging Coordination of Electric Vehicles in Smart Grid*, Pervasive and Mobile Computing, Elsevier, vol. 21, pp. 104–118, 2015.

J6 Joy Chandra Mukherjee and Arobinda Gupta, *A Review of Charge Scheduling of Electric Vehicles in Smart Grid*, IEEE Systems Journal, vol. 9, no. 4, pp. 1541–1553, 2015.

CONFERENCES

C1 Madhukrishna Priyadarsini, Pooja Mittal, Joy Chandra Mukherjee, and Padmalochan Bera, *Budget Constrained Controller Placement in Software-defined Network*, 24th International Conference on Distributed Computing and Networks (ICDCN), Kharagpur, India, pp. 217–226, 2023.

C2 Rohit Kumar and Joy Chandra Mukherjee, *An Approximation Algorithm for Path Planning of Vehicles for Data Collection in Wireless Rechargeable Sensor Networks*, 24th International Conference on Distributed Computing and Networks (ICDCN), Kharagpur, India, pp. 207–216, 2023.

C3 Anoop Kumar Yadav and Joy Chandra Mukherjee, *MILP-Based Charging and Route Selection of Electric Vehicles in Smart Grid*, 22nd International Conference on Distributed Computing and Networks (ICDCN), Nara, Japan, pp. 225–234, 2021.

C4 Rohit Kumar and Joy Chandra Mukherjee, *A Vehicle-Aided Data Collection Scheme for Wireless Rechargeable Sensor Networks*, 13th International Conference on Communication Systems and Networks (COMSNETS), Bangalore, India, pp. 216–219, 2021.

C5 Rohit Kumar and Joy Chandra Mukherjee, *Charge Scheduling in Wireless Rechargeable Sensor Networks Using Mobile Charging Vehicles*, 12th International Conference on Communication Systems and Networks (COMSNETS), Bangalore, India, pp. 375–382, 2020.

C6 Joy Chandra Mukherjee and Arobinda Gupta, *Mobility Aware Event Dissemination in VANET*, 16th International Conference on Distributed Computing and Networks (ICDCN), Goa, India, pp. 22:1–22:9, 2015.

C7 Joy Chandra Mukherjee, Saurabh Agarwal, and Arobinda Gupta, *Distributed Event Notification in VANET with Multiple Service Providers*, 8th ACM International Conference on Distributed Event-Based Systems (DEBS), Mumbai, India, pp. 334–337, 2014.

C8 Joy Chandra Mukherjee and Arobinda Gupta, *A Mobility Aware Scheduler for Low Cost Charging of Electric Vehicles in Smart Grid*, 6th International Conference on Communication Systems and Networks (COMSNETS), Bangalore, India, pp. 1–8, 2014.

C9 Joy Chandra Mukherjee and Arobinda Gupta, *Mobility Aware Charge Scheduling of Electric Vehicles for Imbalance Reduction in Smart Grid*, 15th International Conference on Distributed Computing and Networks (ICDCN), Coimbatore, India, pp. 378–392, 2014.

C10 Joy Chandra Mukherjee and Arobinda Gupta, *A Publish-Subscribe Based Framework for Event Notification in Vehicular Environments*, 5th International Conference on Communication Systems and Networks (COMSNETS), Bangalore, India, pp. 1–10, 2013.

EDUCATION

Ph.D. in Computer Science & Engineering (2011 - 2015)
Institute: Indian Institute of Technology Kharagpur, West Bengal, India
Thesis: Scheduling in Large Scale Mobile Systems
Supervisor: Prof. Arobinda Gupta

M.Tech. in Computer Science & Engineering (2009 - 2011)
Institute: Indian Institute of Technology Kharagpur, West Bengal, India
Thesis: Self-Diagnosis and Collaboration in Vehicular Ad-hoc Network with Misbehaving Nodes
Supervisor: Prof. Arobinda Gupta
CGPA: 9.77/10 **(Rank 2nd)**
GATE All India Rank (CS 2009): 125 (99.7 percentile, Score 753)

B.Tech. in Computer Science & Engineering (2000 - 2004)
Institute: Bengal Institute of Technology, University of Kalyani, West Bengal, India
Marks: 86.26%

Higher Secondary (Class XII Board Examination) (2000)
Board: West Bengal Council of Higher Secondary Education
Institute: Ramakrishna Mission, Rahara, West Bengal, India
Marks: 86.80%

Secondary (Class X Board Examination) (1998)
Board: West Bengal Board of Secondary Education
Institute: Ramakrishna Mission, Rahara, West Bengal, India
Marks: 85.37%

PROFESSIONAL EXPERIENCE	**Assistant Professor**: School of Electrical Sciences in the discipline of Computer Science & Engineering at IIT Bhubaneswar (June 2016 – Till date)
	Research Associate: Department of Computer Science & Engineering at IIT Kharagpur (November 2015 – May 2016)
	Assistant Systems Engineer: Tata Consultancy Services (September 2007 – October 2008)
	Associate: Cognizant Technology Solutions (September 2006 – September 2007)
	Programmer Analyst: Cognizant Technology Solutions (November 2004 – September 2006)

TEACHING

Undergraduate Theory Courses: Programming and Data Structures (Autumn-2016, Spring-2017, Autumn-2017, Spring-2018), Natural Language Processing (Autumn 2016), Data Structures (Autumn-2017, Autumn-2018, Autumn-2019, Autumn-2020, Autumn-2021, Autumn-2022), Design and Analysis of Algorithms (Spring-2019, Spring-2020, Spring-2021, Spring-2022), Formal Languages and Automata Theory (Autumn-2020, Autumn-2021, Autumn-2022), Applied Graph Theory (Spring-2017, Spring-2018, Spring-2019, Spring-2020, Spring-2021, Spring-2022).

Undergraduate Laboratory Courses: Programming and Data Structures Lab (Autumn-2016, Spring-2017, Autumn-2017, Spring-2018), Data Structures Lab (Autumn-2017, Autumn-2018, Autumn-2019, Autumn-2020, Autumn-2021, Autumn-2022), Design and Analysis of Algorithms Lab (Spring-2019, Spring-2020, Spring-2021, Spring-2022).

Postgraduate Theory Courses: Advanced Algorithms (Autumn-2018, Autumn-2019).

Postgraduate Laboratory Courses: Computer Systems Lab (Autumn-2018, Autumn-2019, Autumn-2020, Autumn-2020, Autumn-2021, Autumn-2022).

TECHNICAL SKILLS

Programming Languages: C, C++, C#.NET, Java, Python, ASP.NET
Databases: Oracle 9i(SQL & PL/SQL), SQL Server 2005
Middle Tier Tools: IBM Websphere MQ 5.x

CERTIFICATIONS

1. Microsoft .NET Framework 2.0 - Application Development Foundation

2. Microsoft .NET Framework 2.0 - Web Based Client Development

3. Microsoft Windows SharePoint Services 3.0 - Application Development

4. Microsoft Office SharePoint Server 2007, Application Development

ADDITIONAL ACTIVITIES

1. As a member in the organizing committee of **ACM International Collegiate Programming Contest** in 2012, 2013 and 2014 for IIT Kharagpur, I have participated in setting up question papers and have written codes for some of the problems given in the contest.

2. As a mentor of the team *Champions-Sam*, IIT Bhubaneswar (Aman Pratap Singh, Aditya Pal, Meghna Saha, Saksham Arneja, Madhav Tummala, Ankur Jaiswal), we have secured the **first prize in Smart India Hackathon, 2019** for a problem statement, given by CISCO under Smart Communication theme.

COMMUNICATION ADDRESS

Room No-309

School of Electrical Sciences

IIT Bhubaneswar (Argul Campus)

Argul - 752050, Orissa, India