HAROON RASHID LONE

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PARTICULARS

EDUCATION

Indraprastha Institute of Information Technology Delhi (IIIT-D) — Delhi, India
Ph.D. in Computer Science — *2014 – present*
Thesis Topic: "Anomaly Detection in Buildings Energy Consumption"

National Institute of Technology Rourkela — Odisha, India
Master's in Computer Science — *2011 – 2013*
Thesis Topic: "Localization in Wireless Sensor Networks"

University of Jammu — Jammu, India
Bachelor's in Information Technology — *2006 – 2010*

RESEARCH INTERESTS

Data Mining, Applied Machine Learning, Energy Sustainability

PhD THESIS WORK

A significant portion of electrical energy gets wasted inside buildings due to abnormal user behavior and faults in electrical appliances. The goal of my thesis is to propose automated approaches which can reduce this energy wastage.

MASTER'S DISSERTATION

Title: "Localization in Wireless Sensor Networks", *Advisor:* Prof. A. K. Turuk
This thesis presents three different techniques for localizing both static as well as mobile wireless sensor nodes. The main focus of the work was to reduce the number of beacon nodes required for localizing sensor network.

WORK EXPERIENCE

Visiting Researcher, University of Strathclyde — Scotland, UK
Advisors: Prof. Vladimir Stankovic, Prof. Lina Stankovic — *Nov., 2017 - April, 2018*

Visiting Researcher, IIT Bombay — Mumbai, India
Advisor: Prof. Krithi Ramamritham — *Oct. - Dec., 2016*

Research Associate, IIIT Delhi — Delhi, India
Advisor: Prof. Pushpendra Singh — *Aug. - Dec., 2013*

PUBLICATIONS

1. **H. Rashid**, N. Batra, P. Singh. "Rimor: Towards real-time anomalous appliance localization in buildings", *ACM BuildSys'18*, 2018.
2. **H. Rashid**, P. Singh. "Monitor: An abnormality detection approach in buildings energy consumption", *IEEE CIC'18*, 2018.
3. P. M. Mammen, H. Kumar, K. Ramamritham, **H. Rashid**. "Want to Reduce Energy Consumption, Whom should we call", *ACM e-Energy'18*, 2018.
4. **H. Rashid**, P. M. Mammen, S. Singh, K. Ramamritham, P. Singh, P. Shenoy. "Want to reduce Energy Consumption? Don't depend on the Consumers!", *ACM BuildSys'17*, 2017.
5. **H. Rashid**, P. Singh, K. Ramamritham. "Revisiting selection of residential consumers for demand response programs", *ACM BuildSys'17*, 2017.
6. **H. Rashid**, P. Singh. "Energy disaggregation for Identifying Anomalous Appliance", *ACM BuildSys'17, poster session*, 2017.
7. **H. Rashid**, P. Arjuna, P. Singh, A. Singh. "Collect, Compare, and Score: A Generic Data-driven Anomaly Detection Method for Buildings", *ACM e-Energy'16, poster session*, 2016.
8. **H. Rashid**, A. K. Turuk. "Dead Reckoning Localization Technique for Mobile Wireless Sensor Networks", *IET - Wireless Sensor Systems*, 5(2), 2014.
9. **H. Rashid**, A. K. Turuk. "Localization of Wireless Sensor Networks Using a Single Anchor Node", *Wireless Personal communications - Springer*, 72(2), 2013.

UNDER REVIEW PAPERS

- Does Non-intrusive Load Monitoring have potential for identifying anomalous appliances with sufficient accuracy?, *Applied Energy, Elsevier*
- I-BLEND: A Campus Scale Commercial and Residential Buildings Electrical Energy Dataset, *Scientific Reports, Nature*

SKILLS

- Topics - Anomaly detection, NILM, Forecasting, Time series data analysis
- Languages - Python, R, C, C++, Java (core), Javascript, RDF, SPARQL
- Tools - MATLAB, Protoge 5.0.0, Castalia (OMNeT++), EXata/Cyber, NS - 2, Wireshark

HONOURS & AWARDS

- Received Microsoft travel grant for BuildSys 2018
- Received SIGMOBILE travel grant for BuildSys 2017
- Received TCS Research Fellowship for a duration of 5 years
- Qualified GATE 2011 in Computer Science and Engineering with 96.14 percentile

TEACHING EXPERIENCE

- **Teaching Assistant.** Computer Networks, with Prof. Pushpendra Singh, Fall 2018, IIIT-Delhi.
- **Teaching Assistant.** Advanced Programming, with Prof. Manish Sharotiya, Fall 2014, IIIT-Delhi.
- **Lab Assistant.** C++, with Prof. A. K. Turuk, Spring 2013, NIT Rourkela.
- **Lab Assistant.** Data Structure, with Prof. Ramesh Mohapatra, Fall 2012, NIT Rourkela.
- **Lab Assistant.** System Analysis and Design Lab, with Prof. Sujata Mohanty, Spring 2012, NIT Rourkela.