

# HAROON RASHID LONE

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## PARTICULARS

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### EDUCATION

Indraprastha Institute of Information Technology Delhi (IIIT-D)	Delhi, India
Ph.D. in Computer Science	2014 – present
<i>Thesis Topic:</i> “Detecting Anomalous Energy Consumption in Buildings Using Smart Meter Data”	

National Institute of Technology Rourkela	Odisha, India
Master’s in Computer Science	2011 – 2013
<i>Thesis Topic:</i> “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 either due to the faulty appliances or abnormal user behavior. The goal of the thesis was to use smart meter data and propose automated approaches which can detect energy wastage instances timely and hence reduce energy wastage.

### MASTER’S DISSERTATION

*Title:* “Localization in Wireless Sensor Networks”, *Advisor:* Prof. A. K. Turuk  
This thesis presents techniques for localizing mobile wireless sensor nodes. The main focus was to reduce the number of beacon nodes required for localizing sensor network.

## WORK EXPERIENCE

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Visiting Researcher, University of Strathclyde	Scotland, UK
<i>Advisors:</i> Prof. Vladimir Stankovic, Prof. Lina Stankovic	Nov., 2017 - April, 2018

Visiting Researcher, IIT Bombay	Mumbai, India
<i>Advisor:</i> Prof. Krithi Ramamritham	Oct. - Dec., 2016

Research Associate, IIIT Delhi	Delhi, India
<i>Advisor:</i> Prof. Pushpendra Singh	Aug. - Dec., 2013

## PUBLICATIONS

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1. **H. Rashid**, P. Singh, V. Stankovic, L. Stankovic. "Can non-intrusive load monitoring be used for identifying an appliance's anomalous behaviour?" *Applied Energy, Elsevier*, 2019. [[Impact factor = 7.9](#)]
2. **H. Rashid**, P. Singh, A. Singh. "I-BLEND, a Campus Scale Commercial and Residential Buildings Electrical Energy Dataset," *Scientific Reports, Nature*, 2019.[[Impact factor = 4.6](#)] [**Accepted, in press**]
3. **H. Rashid**, N. Batra, P. Singh. "Rimor: Towards identifying anomalous appliances in buildings," *ACM BuildSys'18*, Shenzhen, China, 2018. [[Acceptance rate = 37%](#)]
4. **H. Rashid**, P. Singh. "Monitor: An abnormality detection approach in buildings energy consumption," *IEEE CIC'18*, Philadelphia, USA, 2018. [[Acceptance rate = 26%](#)]
5. P. M. Mammen, H. Kumar, K. Ramamritham, **H. Rashid**. "Want to Reduce Energy Consumption, Whom should we call," *ACM e-Energy'18*, Karlsruhe, Germany, 2018. [[Acceptance rate = 22%](#)]
6. **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*, Delft, The Netherlands, 2017. [[Acceptance rate = 31%](#)]
7. **H. Rashid**, P. Singh, K. Ramamritham. "Revisiting selection of residential consumers for demand response programs," *ACM BuildSys'17*, Delft, The Netherlands, 2017. [[Acceptance rate = 31%](#)]
8. **H. Rashid**, P. Singh. "Energy disaggregation for Identifying Anomalous Appliance," *ACM BuildSys'17, poster session*, Delft, The Netherlands, 2017.
9. **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*, Waterloo, Canada, 2016.
10. **H. Rashid**, A. K. Turuk. "Dead Reckoning Localization Technique for Mobile Wireless Sensor Networks," *IET - Wireless Sensor Systems*, 5(2), 2014. [[CiteScore = 2.4](#)]
11. **H. Rashid**, A. K. Turuk. "Localization of Wireless Sensor Networks Using a Single Anchor Node," *Wireless Personal communications - Springer*, 72(2), 2013. [[Impact factor = 1.2](#)]

## SKILLS

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- 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

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- 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

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- **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.

## REFERENCES

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### **Pushpendra Singh**

Associate Professor  
Dept. of CSE  
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New Delhi-110020, India  
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### **Krithi Ramamritham**

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### **Vladimir Stankovic**

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