HAROON RASHID LONE

Link Lab, University of Virginia,
Charlottesville, VA-22904, USA
Website: http://loneharoon.github.io

Email: haroon.it@gmail.com
Alt.: hl7ck@virginia.edu

RESEARCH INTERESTS

Internet of Things (IoT), Energy sustainability, Smart healthcare, Data science, Machine learning

EDUCATION

Indraprastha Institute of Information Technology Delhi (IIIT-D) — Delhi, India
Ph.D. in Computer Science — *2014 – 2018*

National Institute of Technology Rourkela — Odisha, India
Master's in Computer Science — *2011 – 2013*

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

PhD THESIS

Title: Detecting Anomalous Energy Consumption in Buildings Using Smart Meter Data
Advisor: Prof. Pushpendra Singh
The focus of the thesis was to build automatic approaches which can detect electrical energy wastage instances in buildings first and then identify the appliances causing energy wastage.

MASTER'S THESIS

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

Postdoctoral Researcher, University of Virginia — Virginia, USA
Advisor: Prof. Laura Barnes — *May, 2019 - Present*

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

Journals

- **H. Rashid**, P. Singh, A. Singh. "I-BLEND, a Campus Scale Commercial and Residential Buildings Electrical Energy Dataset," *Scientific Data, Nature*, 2019.[Impact factor = 6.7]
- **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]
- **H. Rashid**, A. K. Turuk."Dead Reckoning Localization Technique for Mobile Wireless Sensor Networks," *IET - Wireless Sensor Systems*, 5(2), 2014. [CiteScore = 2.2]
- **H. Rashid**, A. K. Turuk. "Localization of Wireless Sensor Networks Using a Single Anchor Node," *Wireless Personal communications - Springer*, 72(2), 2013. [Impact factor = 0.9]

Conferences

- **H. Rashid**, V. Stankovic, L. Stankovic, P. Singh. "Evaluation of Non-Intrusive Load Monitoring Algorithms for Appliance-level Anomaly Detection," *IEEE ICASSP, 2019*
- **H. Rashid**, N. Batra, P. Singh. "Rimor: Towards Identifying Anomalous Appliances in Buildings," *ACM BuildSys'18*, Shenzen, China, 2018. [Acceptance rate = 37%]
- **H. Rashid**, P. Singh. "Monitor: An Abnormality Detection Approach in Buildings Energy Consumption," *IEEE CIC'18*, Philadelphia, USA, 2018. [Acceptance rate = 26%]
- 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%]
- **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%]
- **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%]

Posters

- **H. Rashid**, P. Singh. "Energy Disaggregation for Identifying Anomalous Appliance," *ACM BuildSys'17, poster session*, Delft, The Netherlands, 2017.
- **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.

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.

REFERENCES

Pushpendra Singh
Professor
Dept. of CSE
IIIT-Delhi
New Delhi-110020, India
psingh@iiitd.ac.in

Krithi Ramamritham
Professor
Dept. of CSE
IIT Bombay
Bombay-400076, India
krithi@cse.iitb.ac.in

Vladimir Stankovic
Reader
Dept. of EE
University of Strathclyde
Glasgow - G1 1XW, UK
vladimir.stankovic@strath.ac.uk

Lina Stankovic
Lecturer
Dept. of EE
University of Strathclyde
Glasgow - G1 1XW, UK
lina.stankovic@strath.ac.uk

Laura Barnes
Associate professor
Dept. of Engineering Sytems
University of Virginia
Charlottesville - VA, USA
lb3dp@virginia.edu