

## Education

### Indraprastha Institute of Information Technology Delhi

PH.D. SCHOLAR, COMPUTER SCIENCE (GPA 9.3/10)

Delhi, India

Jan 2012-Present

### Delhi College of Engineering

BACHELORS OF ENGINEERING (HONS.), COMPUTER SCIENCE (GPA 9/10)

Delhi, India

Jul 2007 -April 2011

## Honors & Awards

2015	<b>Best presentation award</b> , Sensys 2015 Doctoral Colloquium	Seoul, South Korea
2015	<b>ACM Travel Grant</b> , Sensys 2015	Seoul, South Korea
2014	<b>Best demo award</b> , Buildsys 2014	Memphis, USA
2014	<b>ACM Travel Grant</b> , eEnergy 2014	Cambridge, UK
2012	<b>PhD Fellowship</b> , TCS Research and Development	
2012	<b>Travel and Lodging grant</b> , Microsoft Research Summer School	Bangalore, India
2010	<b>Systems engineering prize barrel</b> , AUVSI's student UAS competition	Maryland, USA
2009	<b>Young scientist travel grant</b> , Department of Science and Technology (Govt. of India)	Delhi, India
2009	<b>Director's award for best effort</b> , AUVSI's student UAS competition	Maryland, USA

## Research Experience

### IIIT Delhi

GRADUATE RESEARCH ASSISTANT

Delhi, India

Jan. 2012 - Present

### University of Virginia (under Prof. Kamin Whitehouse)

VISITING RESEARCHER

Charlottesville, Virginia, USA

Jul. 2014 - Apr. 2015

### Linux Android Network Systems Lab., DCE

UNDERGRADUATE RESEARCH INTERN

Delhi, India

Dec. 2010 - Jun. 2011

### Unmanned Aircraft Systems Lab., DCE

UNDERGRADUATE RESEARCH ENGINEERING INTERN

Delhi, India

Dec. 2008 - Jul. 2010

## Industrial Experience

### Royal Bank of Scotland

SOFTWARE ANALYST

Gurgaon, India

Jun. 2011 - Nov. 2011

### Goldman Sachs

ENGINEERING INTERN

Bangalore, India

Jun. 2010 - Aug. 2010

## Invited Talks

2015	<b>University of Pennsylvania</b> , If you can measure it, can you improve it?	Philadelphia, USA
2015	<b>Carnegie Mellon University</b> , If you can measure it, can you improve it?	Pittsburgh, USA

## Professional Service

2016	<b>Steering committee</b> , 3rd International NILM workshop	Canada
2014	<b>Program committee</b> , 2nd International NILM workshop	Austin, Texas, USA

## Publications

### Articles

- [A8] Nipun Batra, Rishi Baijal, Amarjeet Singh, and Kamin Whitehouse. "How good is good enough? Re-evaluating the bar for energy disaggregation". In: *arXiv preprint arXiv:1510.08713* (2015).
- [A7] Nipun Batra, Amarjeet Singh, and Kamin Whitehouse. "Neighbourhood NILM: A Big-data Approach to Household Energy Disaggregation". In: *arXiv preprint arXiv:1511.02900* (2015).
- [A6] Nipun Batra, Jack Kelly, Oliver Parson, Haimonti Dutta, William Knottenbelt, Alex Rogers, Amarjeet Singh, and Mani Srivastava. "NILMTK: an open source toolkit for non-intrusive load monitoring". In: (2014), pp. 265–276.

- [A5] Jack Kelly, Nipun Batra, Oliver Parson, Haimonti Dutta, William Knottenbelt, Alex Rogers, Amarjeet Singh, and Mani Srivastava. “Demo abstract: NILMTK v0. 2: A Non-intrusive Load Monitoring Toolkit for Large Scale Data Sets”. In: *arXiv preprint arXiv:1409.5908* (2014).
- [A4] Pandarasamy Arjunan, Manaswi Saha, Manoj Gulati, Nipun Batra, Amarjeet Singh, and Pushpendra Singh. “SensorAct: Design and Implementation of Fine-grained Sensing and Control Sharing in Buildings”. In: *the poster track of 10th USENIX Symposium on Networked Systems Design and Implementation (NSDI’13)* (2013).
- [A3] Nipun Batra, Pandarasamy Arjunan, Amarjeet Singh, and Pushpendra Singh. “Experiences with Occupancy Based Building Management Systems”. In: *Intelligent Sensors, Sensor Networks and Information Processing, 2013 IEEE Eighth International Conference on* (2013), pp. 153–158.
- [A2] Nipun Batra, Haimonti Dutta, and Amarjeet Singh. “INDiC: Improved Non-Intrusive load monitoring using load Division and Calibration”. In: *12th International Conference on Machine Learning and Applications (ICMLA’13)* (2013).
- [A1] Nipun Batra, Manoj Gulati, Amarjeet Singh, and Mani B Srivastava. “It’s Different: Insights into home energy consumption in India”. In: (2013), pp. 1–8.

## Presentations

- [P2] Nipun Batra. “Non Intrusive Load Monitoring: Systems, Metrics and Use Cases”. In: *Proceedings of the 13th ACM Conference on Embedded Networked Sensor Systems*. ACM. 2015, pp. 501–502.
- [P1] Nipun Batra, Manoj Gulati, Puneet Jain, Kamin Whitehouse, and Amarjeet Singh. “Bits and watts: improving energy disaggregation performance using power line communication modems: poster abstract”. In: *Proceedings of the 1st ACM Conference on Embedded Systems for Energy-Efficient Buildings*. ACM. 2014, pp. 210–211.