

# SONIA SOUBAM

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B307 MUC PhD Lab  
Academic Block  
IIIT Delhi  
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## EDUCATION

- PhD Scholar IIIT Delhi, Mobile and Ubiquitous Computing (Since July, 2013 to present)
- MTech Computer Science with Specialization Information Security, IIIT Delhi, May 2013.
- BE Computer Science and Engineering, Anna University, Coimbatore, May 2011.
- XIIth, Herbert School, Imphal, Manipur, 2007.
- Xth, Little Flower School, Imphal, Manipur, 2005.

## RESEARCH INTERESTS

- Human activity detection using smartphone and wearable sensors
- Participatory sensing using mobile phone sensors

## PUBLICATIONS

- S. Soubam, M. Agarawal, V. Naik. Using an Arduino and a Smartwatch to Measure Liquid Consumed From Any Container. (WACI 2017 co-located with IEEE Comsnets 2016)
- **S. Soubam**, N. Goyal, N. Adhikari, V. Naik . Understanding the Routine Activities of Students in Campus using Smartphone Sensors. Proceedings of the 14th Annual International Conference on Mobile Systems, Applications, and Services Companion, June 26-30, 2016, Singapore [Poster]
- **S. Soubam**, D. Banerjee, V. Naik, and D. Chakraborty. *BluePark: Tracking Parking and Unparking Events in Indoor Parking Lots*, Accepted at International Conference on Distributed Computing and Networking (ICDCN 2016), Jan 4-7, 2016, Singapore.
- **S. Soubam**, *Detection of Day-to-Day Complex Human Activities using Smartphones*, [PhD Forum, COMSNET 2015]
- **S. Soubam**, V. Naik, and D. Chakraborty. *Detection of Day-to-Day Human Activities using Smart phones*. Accepted at 1st Xerox Research Centre India (XRCI) Open, Mar 14, 2014, Bangalore, India [Poster]
- K. Yadav, D. Chakraborty, **S. Soubam**, N. Prathapaneni, V. Nandakumar, N. Rajamani, L. V. Subramaniam, S. Mehta, and P. De. *Human Sensors: Case-study of Open-ended Community Sensing in Developing Regions*. Accepted at the The IEEE Pervasive Computing and Communication (PerCom) Conference Work in Progress, March 18-22, 2013, San Diego, USA
- **S. Soubam**, N. Prathapaneni, V. Nandakumar, K. Yadav, N. Rajamani, D. Chakraborty, L. V. Subramaniam, S. Mehta, and P. De. *Open-Ended Community-Sensing: Data Collection and Processing*. Accepted at the Sixth Workshop on Analytics for Noisy Unstructured Text Data (AND'12), IIT Bombay, Mumbai, India

## PATENTS

- *Automatic indoor parking system using collaborative smartphone sensing*
  - **Inventors:** Dipyaman Banerjee, Sonia Soubam
  - Filed for US Patent in August 2015
  - Based on work done during IBM Research Summer Internship 2014
- *Handwritten homework monitoring using wearable device*

- **Inventors:** Ruhi Sharma, Vijay E, Nitendra Rajput, Prasenjit Dey, Dipyaman Banerjee, Sonia Soubam
- Filed for US Patent in November 2016
- Based on work done during IBM Research Summer Internship 2016

## **MTECH THESIS**

- **Location Privacy in MobiShare**

- Designed a Privacy Preserving protocol for exchanging and comparing proximity of users in a location based file exchange service.

## **Internship/Teaching Assistantship**

- Research Intern, IBM India Research Labs, New Delhi, India (June - August, 2016)
- Research Intern, IBM India Research Labs, New Delhi, India (May - July, 2014)
- Teaching Assistant, Mobile Computing (Monsoon Semester, 2013) Instructor: Dr. Vinayak Naik

## **PROJECTS**

- Implemented Auto-completion feature for Galago Search Engine
- Android Application : Phone as a Wireless Microphone
- Digital Forensics: Changing MAC DTS of call and SMS in Android
- Platform for Privacy Preferences Project (P3P ) implementation of Website

## **COMPUTER SKILLS**

- **Languages:** Java, Python, Matlab, R, MySQL
- **Others:** Android, Django, WEKA

## **ACHIEVEMENTS**

- Third prize at the Innovation Challenge in Research Showcase'17, IIIT-Delhi.
- Best paper award for paper at Workshop on Wild and Crazy Ideas on the interplay between IoT and Big Data (WACI'17) in conjunction with the 9th International Conference
- Best Poster Award in IBM Summer Internship, 2016.
- Awarded IBM Ph.D. fellowship for the year 2016-2018
- Secured 24th State Rank on High School Leaving Certificate Examination, 2005.

## **OTHERS**

- Volunteer at Workshop on Ubiquitous Sensing for Effective Living held at IIIT-D.
- Received full travel grant from UNESCO to attend Workshop on Scientific Applications for the Internet of Things (IoT) at the Abdus Salam International Centre for Theoretical Physics (ICTP) of UNESCO, Trieste, Italy
- Attended Big Data & Analytics School, IBM-iCARE 2013, New Delhi, India.

## **EXTRACURRICULAR ACTIVITIES**

- Represented Anna University Coimbatore at Inter-University Table Tennis Tournament.
- Won first price in Technical Quiz Competition in XRCI, 2014.

## REFERENCES

- Vinayak Naik, Associate Professor, IIIT-Delhi, [naik@iiitd.ac.in](mailto:naik@iiitd.ac.in)
- Dipanjan Chakraborty, Director, Mosix Technologies, [dipanjan.chakraborty@gmail.com](mailto:dipanjan.chakraborty@gmail.com)