

PUSHPENDRA SINGH

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EDUCATION

Degree	Discipline	Place	Year
Ph.D.	Computer Science & Engineering	Inria-Rennes, France	2004
M.Tech.	Computer Science & Engineering	IIT-Delhi, India	2000
B.Tech.	Computer Science & Engineering	IET, MJP Rohilkhand University, India	1999

WORK EXPERIENCE - POSITIONS HELD

Designation	Place	Duration
Professor	Computer Science & Engineering, IIIT-Delhi	January, 2019 - Present
Founding Head	Center for Design and New Media, IIIT-Delhi	August, 2018 - Present
Founding Head	Dept. of Human-Centered Design, IIIT-Delhi	March, 2018 - Present
Associate Professor	Computer Science & Engineering, IIIT-Delhi	April, 2014 - Dec. 2018
Associate Dean (IRD)	IIIT-Delhi	April, 2014 - March 2017
Assistant Professor	Computer Science & Engineering, IIIT-Delhi	Oct. 2009 - April, 2014
Ingénieur Expert	Inria-Rocquencourt, France	Jan. 2008 - Oct. 2009
Research Associate	Newcastle University, UK	Dec. 2005 - Sep. 2007
Research Fellow	Portsmouth University, UK	Sep. 2004 - Aug. 2005

AWARDS & HONORS

1. Visvesvaraya Young Faculty Fellow, 2016 - 2021.
2. Institute-wide Outstanding Educator Award by the graduating batch of 2019 (UG+PG).
3. Institute-wide Outstanding Educator Award by the graduating batch of 2018 (UG+PG).
4. Institute-wide Outstanding Educator Award by the graduating batch of 2015 (UG+PG).
5. Teaching Excellence Letter for the course of Programming Cloud Services for Mobile Applications, 2016.
6. Teaching Excellence Letter for the course of Operating Systems, 2015.

7. Teaching Excellence Letter for the course of Programming Cloud Services for Mobile Applications, 2015.
8. Teaching Excellence Letter for the course of Operating Systems, 2013.
9. Teaching Excellence Letter for the course of Operating Systems, 2012.
10. Teaching Excellence Letter for the course of Computer Networks, 2012.

GRANTS RECEIVED [4,92,00,000 INR or \$0.70 million in last 10 years as Principal Investigator]

Ongoing

1. *“Design and Innovation Capacity Building in India/ DESINNO”*, I wrote the project and I am the PI and LEAR from IIIT-Delhi. The grant for IIIT Delhi is 148,1000 euros or 1.18 crore INR. The total grant (for 6 institutes) is 830,795 euros. It is one of the best opportunity to develop the design program and capacity building for IIIT-Delhi.
2. *“A Mobile-Based Training Platform for ASHA workers”*, Phase 1 : \$ 100,000, Bill & Melinda Gates Foundation, GCE Round 20, May 2018 - Dec. 2019. The Phase 2 award is \$ 1 million for three years (subject to successful completion of phase 1). *Only 35 awards were given to recipients from 17 countries out of 1500+ applications.* I am the sole investigator for the project.
3. *“NIHR Global Health Research Group on Psychosis Outcomes : the Warwick-India-Canada WIC Network”*, 43,20,000 INR, NIHR, UK Feb. 2018 - Feb. 2021. It is a multi-institutional project between UK, Canada, and India - The Warwick University is the lead team overall and AIIMS leads the Indian side ; I am the PI from IIITD.

Completed

1. *“HumanSense : Mobile Sensing and Data Analytics for Sustainability and Healthcare”*, 1,84,00,000 INR, ITRA, India, Feb. 2014 - Dec. 2018. The total outlay is above 2,61,00,000 INR allocated for three institutes. I lead the multi-institute team as the overall PI of the project.
2. *“Personalized Mobility Services for Urban Travelers”*, 10,02,421 INR, CEFIPRA-DST, India, Sep. 2014 - Aug. 2017.
3. *“A Mobile Device-centric Environment for Healthcare Delivery”*, 46,80,000 INR, DEiTY, India, April 2013 - March 2016. (total outlay was 69,22,000 INR for IIITD and PGIMER, Chandigarh. I led the multi-institute team).
4. *“Security Analysis of Networks”*, 1,98,000 INR, DRDO, India, Oct. 2012. The grant was to organize a week-long workshop on the mentioned topic.
5. *“Analysis of Ad-hoc Network”*, 15,00,000 INR, DRDO, India, August 2012 - Nov. 2013.
6. *“Development and Evaluation of Mobile Learning Techniques for Indian Masses”*, 5,11,000 INR, DST, India, March 2012 - Feb. 2015.

Approved yet to start - as co-Principal Investigator

1. A proposal under SPARC scheme entitled *“Framework for Developing Training Model to Strengthen Diabetic Retinopathy Screening and Research in North India”*.

Total approved funding : 63,42,060 INR

Start date and duration : 20th March 2019, 2 years

PI (Indian) : Dr. Mona Duggal, PGIMER, Chandigarh

Co-PI (Indian) : Dr. Vishali Gupta, Dr. Sanjay Bhadada PGIMER-Chandigarh, Pushpendra Singh, IIIT-Delhi

PI (UK) : Marcia Zondervan, London School of Hygiene Tropical Medicine, UK

Co-PI (UK) : Professor Geeta Menon, Frimley Health NHS Foundation Trust, UK and Dr Covadonga Bascaran, London School of Hygiene Tropical Medicine, UK

2. A proposal under SPARC scheme entitled “*Expanding Innovation in MHealth for Maternal and Child Health : Training in MHealth Design and Evaluation*”.

PI (Indian) : Dr. Rashmi Bagga, PGIMER, Chandigarh

Co-PI (Indian) : Dr. Mona Duggal, PGIMER-Chandigarh, Dr. Praveen Kumar, PGIMER-Chandigarh, Dr. Ankita Kankaria, PGIMER-Chandigarh, Pushpendra Singh, IIIT-Delhi

PI (US) : Dr. Nadia Griffin Diamond Smith, UCSF, USA

Co-PI (US) : Dr. Alison El Ayadi, UCSF, USA

Consultancy

1. *Central Board for Excise and Customs (CBEC), 2015-2017* : I am currently serving as a Technical Advisor to CBEC since 2015. My duties are to advise on technical matters specifically related to development of computing infrastructure and services. The consultancy started in the context of GST implementation and continues for upgradation of various services and applications offered by CBEC.
2. *181 helpline for Delhi Women in Distress, 2013 -2015* : I was appointed the nodal officer for the mentioned helpline which was to be available 24x7 for women from all over Delhi. We developed the entire software stack from scratch and maintained it for two years before handing over the entire system to Delhi Govt. The helpline received more than one million calls in its two years time. The system is still used by the Delhi govt.
3. *IFFCO Kisan Sanchar Ltd. (IKSL), 2010-2010* : IKSL serves a large number of farmers across India. This particular project was targeted towards serving more than 700,000 farmers and fishermen across 18 states of India through their voice based value added services. The services were accessed by farmers and fishermen on their mobile phones. I consulted IKSL for scaling up and launching new voice-based services. The project successfully completed in 2010.

PATENTS

1. Title : Escort Bot System and Method
 - Inventors : Pushpendra Singh, Shubham Singh, Kartik Maji, Taruvar Aggarwal
 - Applicant : Indraprastha Institute of Information Technology, Delhi
 - Indian Patent Application No. 201711013219
 - Filing Date : 13 April 2017
 - Status : Published and awaiting examination

ENERGY DATASETS RELEASED to PUBLIC

- We release I-BLEND, 52 months of electrical energy dataset at a one-minute sampling rate from commercial and residential buildings of IIT-Delhi - an academic institute campus in an emerging economy, India. We also provide occupancy datasets at a 10-minute sampling rate for each of the campus buildings. The dataset is first such large dataset from India in the energy domain and public availability of such fine-granular data will allow users to perform different research tasks such as analyzing the impact of weather or occupancy schedule on energy consumption, detecting anomalies, and developing algorithms for predictive maintenance.

The permanent dataset link : <https://doi.org/10.6084/m9.figshare.c.3893581.v1>

- This dataset was created by inserting anomalies, following the methodology described in H. Rashid, P. Singh, V. Stankovic and L. Stankovic, "Can Non-Intrusive Load Monitoring be used for Identifying an Appliance's Anomalous Behaviour", Applied Energy, Jan 2018, in the measured power traces of seven household electrical load measurements, taken from the following publicly available datasets :
 1. Houses 115, 439, 490, 1463, and 3538 from the Dataport dataset (<https://www.pecanstreet.org/>)
 2. house iawe_home from iAWE dataset (<http://iawe.github.io/>)
 3. house 6 from the REDD dataset (<http://redd.csail.mit.edu/>).

This dataset is useful in understanding the effect on anomalous appliance behaviour on energy consumption, especially for compressor-based appliances with a significant energy footprint.

The permanent dataset link : <https://doi.org/10.15129/d712ccac-21a1-40d2-8456-41217b62a6d5>

- This dataset was created by sifting through the REFIT dataset to detect load anomalies ; the rules for labelling anomalies are described in the accompanying ICASSP'19 paper, which should be referenced if the dataset is used. Five of the 20 houses of the REFIT dataset were included in this dataset, as they contained the largest number of detected anomalies. These are Houses 1, 10, 16, 18 and 20. At the time of release, this is the first detailed annotated dataset of anomalies within publicly available electrical load measurements. These are real anomalies, not simulated ones and are extremely useful in understanding anomalous behaviour of electrical appliances, as measured by smart meters. Anomalous behaviour of the following appliances is included in this dataset : Refrigerator, freezer, fridge-freezer, dishwasher, washing machine, tumble dryer, electrical heater and microwave. When using this dataset, please cite the following paper : H. Rashid, V. Stankovic, L. Stankovic and P. Singh, "Evaluation of Non-Intrusive Load Monitoring Algorithms for Appliance-level Anomaly Detection," Proc. IEEE 44th Int. Conf. on Acoustics, Speech and Signal Processing (ICASSP), Brighton, UK, May 2019.

The permanent dataset link : <https://doi.org/10.15129/9729a2a0-11ce-4cce-b0d0-144c483fcb33>

PhD STUDENTS

PhD - awarded

1. *Garvita Bajaj*
 - Thesis : PickMe : Task Allocation in Mobile Crowdsensing
 - Date : 13th May, 2019.
 - Now with AQR Capital Management.
2. *Haroon Rashid*
 - Thesis : Detecting Anomalous Energy Consumption in Buildings using Smart Meter
 - Date : 18th March, 2019.
 - Recipient of TCS Research PhD Fellowship.
 - Now Post-doc researcher at University of Virginia, USA.
3. *Pandarasamy Arjunan*
 - Thesis : Middleware systems and analytics for energy management in buildings
 - Date : 23rd February, 2018.
 - Recipient of IBM Research PhD Fellowship. Jointly with Dr. Amarjeet Singh.
 - Now Post-doc researcher at Berkeley Education Alliance for Research in Singapore Limited (BEARS), Singapore.
4. *Siddhartha Asthana*
 - Thesis : Building efficient mobile systems and applications for supporting information exchange in resource limited settings
 - Date : 20th September, 2017.
 - Recipient of TCS PhD Fellowship.
 - Now Senior Analytics Manager at UHG, India.
5. *Kuldeep Yadav*
 - Thesis : Geo-localization and Location-aware Opportunistic Communication for Mobile Phones.
 - Date : 20th January, 2014.
 - Recipient of Microsoft Research PhD Fellowship. Jointly with Dr. Amarjeet Singh & Dr. Vinayak Naik.
 - Now co-founder of VideoKen, previously Research Scientist at Xerox, Research, India.

PhD - ongoing

1. *Deepika Yadav*, Aug. 2014 - Present
 - Thesis area : Mobile Learning Systems for Community Health Workers.
 - To submit by December 2019.
2. *Anupriya Tuli*, Jan. 2016 - Present
 - Thesis area : Mobile based Intervention for Menstrual Health.
 - Recipient of Visvesvaraya PhD student fellowship.
 - Co-advised with Dr. Neha Kumar, Georgia Institute of Technology, USA
3. *Jasmeet Kaur*, July 2018 - Present
 - Thesis area : Mobile-based Technology Intervention for Maternal and Child Health.
4. *Asra Sakeen Wani*, Jan. 2019 - Present
 - Thesis area : Mobile-based Technology Intervention for Maternal and Child Health.
5. *Ashwini B.*, Jan. 2019 - Present
 - Thesis area : Mobile Crowdsensing.

TEACHING EXPERIENCE

<i>Year</i>	<i>Course</i>	<i>Class Strength</i>	<i>Feedback (out of 5)</i>
Monsoon, 2019-20	Mobile Computing (UG + PG)	186	ongoing
Winter, 2018-19	Human-Computer Interaction (UG)	40	3.85
Monsoon, 2018-19	Computer Networks (UG)	147	3.85
Monsoon, 2017-18	Computer Networks (UG)	143	3.63
Winter, 2017-18	Mobile Computing (UG + PG)	154	3.87
Monsoon, 2016-17	Operating Systems (UG)	127	3.79
Winter, 2016-17	Mobile Computing (UG + PG)	180	3.97
Summer, 2016	NPTEL Course on Mobile Computing	13000+	
Monsoon, 2015-16	Operating Systems (UG)	139	4.0
Winter, 2015-16	Programming Cloud Services for Mobile Applications (UG + PG)	39	4.2
Monsoon, 2014-15	Operating Systems (UG)	117	3.62
Winter, 2014-15	Programming Cloud Services for Mobile Applications (UG + PG)	33	4.3
Monsoon, 2013-14	Operating Systems (UG)	117	3.73
Winter, 2013-14	Advanced Topics in Mobile Computing (UG + PG)	20	3.85
Monsoon, 2012-13	Operating Systems (UG)	117	4.19
Winter, 2012-13	Advanced Topics in Mobile Computing (UG + PG)	20	4.84
Monsoon, 2011-12	Advanced Programming (UG)	86	3.45
Winter, 2011-12	Computer Networks (UG)	86	4.37
Monsoon 2010-11	Operating Systems (UG)	60	3.35
Winter, 2010-11	Computer Networks (UG)	60	3.46
Winter, 2009-10	Computer Networks (UG, taught jointly)	60	3.61
Winter, 2009-10	Mobile Computing (PG, taught jointly)	3	5

MASTER'S THESIS - AWARDED

1. *Ashutosh Gupta*, "Evaluating Interaction of a Lecture using Sound Data", 2018.
2. *Nagasuri Venkata Apurupa*, "A critical study of power consumption patterns in Indian Apartments", 2018.
3. *Joy Aneja*, "Analysing Space Utilization using Indoor Localization", 2016.
4. *Devika Sondhi*, "Optimizing smartphone energy consumption in sensor data collection and data transmission", 2015.
5. *Digvijay Singh*, "Enabling Ubiquitous Computing Applications using Existing Infrastructure", 2015.
6. *Kumar Abhinav*, "Trustworthiness in Crowdsourcing", 2015 (jointly advised with Anurag Dwarakath).
7. *Nitinder Mohan*, "Enabling Sender-Initiated Distributed Applications and Checkpointing in Content Centric Networks", 2015.
8. *Parul Gupta*, "Exploring Design Opportunities and challenges for technology in Women Distress Caller Helpline in India", 2015.
9. *Shruti Bansal*, "Can Technology mix with traditional classrooms", 2015.
10. *Anurag Rana*, "Autonomic agent for voice based data collection", 2015.
11. *Priyanka Singhal*, "Who wrote what ? : Authorship attribution for content specific long text and noisy short text", 2015.
12. *Shilpa Garg*, "Automated classification of vehicles using mobile based sensors", 2014.
13. *Amir Seyedi*, "Peer-to-peer Recommendation System", University of Paris-sud XI, 2009.

MASTER'S SCHOLARLY PAPER/CAPSTONE

1. *Neha Rani*, Emergency Evacuation System, 2017.
2. *Prabhat Misra*, A Survey on Interactive Voice Response System (IVRs) in Developing Regions, 2017.
3. *Loveleen Girdhar*, Faculty Workspace, 2017.
4. *Nancy Agarwal*, Analysis of Mobility Data to Deduce Space Utilization Patterns, 2017.
5. *Deepak Sood*, Building a Distributed System for Collecting Health Data using Mobile Devices, 2017.
6. *Avantika Srivastava*, Institute Attendance System, 2017.
7. *Amandeep Singh*, A Web-based System to Collect Annual Report Data, 2016.
8. *Kirti Jain*, A Survey on MOOC and Mobile Learning, 2015.
9. *Priyanka Singh*, A Taxonomy Driven Survey of Collaborative Mobile Applications, 2014.
10. *Stuti Jain*, Mobile Intervention in the Field of Healthcare, 2014.
11. *Tarun Gupta*, Mobile Virtualization, 2014.
12. *Karisma Chug*, OpenFlow for Network Virtualization, 2014.
13. *Akshi*, Software Defined Networks, 2014.
14. *Prateek Sharma*, Various Interprocess Communication Checkpointing Algorithms and Security Aspects In Distributed Systems, 2014.
15. *Nishtha Ahuja*, A Literature Review of Mobile Learning, 2014.

B.TECH THESIS

1. *Ayushi Srivastava*, Measuring Digital Literacy ; ongoing.
2. *Kanika Saini*, Analyzing Mass Behavior using Indoor Localization ; ongoing.
3. *Anushka Bhandari*, Developing Web-based Systems for Supporting Mobile-based Peer Learning ; 2019.
4. *Ashutosh Batabyal and Shreya Sharma*, Mobile Applications for Supporting People with Schizophrenia, 2019.
5. *Gursimran Singh*, Education Mobile App ; co-advised with Prof. Pankaj Jalote, 2018.
6. *Sarthak Madan and Shivam Rastogi*, Mobile Learning Platform, 2018.
7. *Parikshit Diwan*, Energy consumption prediction of residential building, 2018.
8. *Varun Jain*, Sangoshthi Mobile App, 2018.
9. *Kartik Maji, Shubham Sinha, and Taruvar Agarwal*, Escort Bot for Visually Challenged, *received Best BTP Award*, 2017.
10. *Abhishek Jain and Siddharth Jain*, Harmony Middleware, 2017.
11. *Kartik Gupta*, Information Capsule - Psychosocial Education Application, 2017.
12. *Saloni Gupta and Simran Saxena*, IIIT-Delhi Mobile App, 2017.
13. *Shubham Singh*, NMS Occupancy Web Application, 2016.
14. *Umang Arora*, Occupancy Mapping using SNMP Traps and Related Applications, 2016.
15. *Prateek Mehra*, Virtual Trial Room ; industrial BTP with Myntra.com ; nominated for Best BTP, 2015.
16. *Magus Verma*, Customer Return Notification Module ; industrial BTP with Amazon ; nominated for Best BTP, 2015.
17. *Utkarsh Gupta*, Sales Platform, industrial BTP with Myntra ; nominated for Best BTP, 2015
18. *Ayush Goel*, Webstore Themes and Widget Development, industrial BTP with Amazon ; nominated for Best BTP, 2015.
19. *Kshitiz Bakshi & Nishant Jain*, A Tool to Monitor OS Scheduler, Nominated for Best BTP award, 2014.
20. *Jyotika Dora and Devika Sondhi*, Analysis of Ad-hoc Networks, 2014.
21. *Digvijay Singh*, SNMP trap Service for Occupancy Detection ; Nominated for Best BTP award, 2014.
22. *Karan Kalra*, A Mobile Data Collection Framework for Mess Feedback, 2014.
23. *Abhishek Gupta*, Effective Content Distribution in Opportunistic Networks, 2014.

SELECTED PROFESSIONAL SERVICES

- Co-organiser for SIGCHI summer school on Human-Centered AI 2019 at New Delhi, India.
- General co-chair for ICTD 2019
- Reviewer for CSCW 2019
- Reviewer for ACM ToCHI 2019
- Reviewer for SERB, DBT, 2018
- Technical Program Committee Member, ACM IUI, 2019, 2020
- Technical Program Committee Member, IEEE CIC, 2018
- Technical Program Committee member for BuildSys 2018
- Technical Program Committee Member, ICDCN, 2018, 2017, 2016
- Technical Program Committee Member, LCN, 2018, 2017, 2016, 2015

- Reviewer for DIS 2018, CHI 2017
- Reviewer for IEEE Transactions on Mobile Computing
- Reviewer for Pervasive and Mobile Computing (Elsevier)
- General co-Chair for NetHealth 2016
- Reviewer for grant proposals for CEFIPRA, India, 2013.
- Reviewer for grant proposals for Department of Science and Technology, India, 2013.
- External M.Tech. Thesis Examiner, IIT-Delhi, 2013.
- Organizer of a week-long Workshop on Network Security, IIT-Delhi, Oct. 2012.
- Co-publicity Chair IEEE PerCom, 2012.
- Publicity Chair IEEE AOC, 2012.
- Technical Program Committee Member, IBM I-Care, India, 2012.
- Technical Program Committee Member, ICDCIT, India, 2012.
- Technical Program Committee Member, NetHealth, India, 2012.
- Technical Program Committee Member, 3rd International Conference on Mobile Communication Technology for Development (M4D2012), India, 2012.
- External M.Tech. Thesis Examiner, IIT-Delhi, 2011.
- Technical Program Committee Member, 4th International Conference on Contemporary Computing, 2011.
- Technical Program Committee Member, International workshop on Mobile P2P Data Management, Security and Trust, 2011.
- Co-publicity Chair ACM/IFIP/USENIX Middleware Conference, 2010.
- Technical Program Committee Member, 3rd International Conference on Contemporary Computing, 2010.

SELECTED SERVICES TO THE INSTITUTE

- *Head, Center for Design and New Media, 2018 - Present* : It is a TCS supported Center which is focussed for design and new media research. I am founding head of the Center. I played a vital role in bringing the funding of 28 Crore INR (USD 4 million) to IIT and I handle day-to-day working of the Center.
- *Head, Dept. of Human-Centered Design, 2018 - Present* : I handle day-to-day working of the dept. which includes conducting department Faculty meetings and preparing the minutes, preparing and managing the departmental budget, representing the dept. at the institute meetings, preparation of documents and guidelines for the smooth functioning of the dept, conducting sessions with students, and recruiting new faculty members to the department among other routine work.
- *Curriculum design for B.Tech. in CS and Design program* : Conducted workshops with experts, industry and academia, to decide the course curriculum for B.Tech, in CS and Design (CSD) program ; prepared course templates and course syllabus for design related courses.
- *Faculty search for design candidates* : I prepared the database of potential faculty members - taking possible candidates from top tier conferences. I contact potential candidates periodically on pro-active basis and we have been able to hire three very good candidates (all PhDs from reputed places from abroad) in a very short span of time. The target is to hire 3-4 more faculty this year.
- *Associate Dean (Innovation, Research, and Development), 2014-2017* : I was the first faculty at IIT-Delhi to be appointed as Associate Dean (IRD) with the charge of Dean (IRD). As ADIRD, I brought several changes and improvements in the ways IRD department could support the innovation, research, and development activities in the institute. I set up the system of Intellectual Property (IP) reporting and filing patents and supporting the faculty and students throughout the process to make it easier for them to file patents. I also brought fundamental changes in existing rules of professional development account (PDA) of faculty to make it more flexible. As ADIRD, I played a major role in obtaining FIST grants for CSE (1 Crore INR or about 150,000 USD) and ECE (1.1 Crore or about

164,000 USD); and, I played the principal role in obtaining grants for 23 PhD fellowships for 5 years and 4 Young Faculty Fellowships for 5 years (about 7 Crore INR or 1.05 million USD) under the Visvesvaraya Fellowship scheme of the government.

- Member of PG Committee, 2017- 2018.
- Coordinator of M.Tech. (Mobile Computing), 2017-2018
- Nodal Officer for Visvesvaraya Fellowships, 2014 - 2017.
- Continuing Education Program Coordinator, 2014-2016.
- Member of PGC, 2014-2015
- Coordinator of PhD Admissions Committee 2014.
- Coordinator of M.Tech program in CSE at IIIT-Delhi, 2013 - 2014
- Organizer of IIIT-Delhi Research Showcase 2013 & 2014.
- Organized visit of Mr. Craig Mundie (Senior Advisor to Steve Ballmer) to IIIT-Delhi, 2013
- Member of Institute Automation Committee, 2013 - Present.
- Coordinator of IIIT-Delhi Rolling PhD Admissions, 2013.
- Member of Regular PhD Admissions Interview Committee, 2013.
- Member of PG Committee, 2013 - Present.
- Member of the Senate, IIIT-Delhi, 2011-2013.
- Coordinator of IIIT-Delhi committee on Technologies for Education.
- Organizer of IIIT-Delhi Research Showcase 2013.
- Member of PhD Admissions Interview Committee, 2012.
- Member of Institute Automation Committee at IIIT-Delhi, 2012-Present.
- Member of PhD Admissions Interview Committee, 2011.
- Member of PhD Admissions Interview Committee, 2010.
- Member of Institute Technical Committee at IIIT-Delhi, 2010-2012.

INVITED TALKS

1. “*Automatic Annotation of Voice Forum Content*”, Empower 2018, held at IIT-Delhi, India.
2. “*Mobile for Healthcare*”, ACM Expert Lecture at Shiv Nadar University, 2017, India.
3. “*A Mobile-device Centric Environment for Healthcare Delivery*”, NetHealth 2012, held with IEEE ComsNets, Bengaluru, India.
4. “*Research in the Wild : Experience and Challenges*”, Peer Mentorship Workshop, held with IEEE ICTD 2012, Georgia, USA.

PUBLICATIONS [dblp] [scholar]

Under Submission

1. Garvita Bajaj and Pushpendra Singh. “I prefer less crowded route” : Understanding Preferences of Delhi Metro Users. (submitted to *IEEE Intelligent Transportation Systems Transactions (T-ITS)* - received minor revision).

2019

80. Deepika Yadav, Prerna Malik, Kirti Dabas, and Pushpendra Singh. (2019). Feedpal : Understanding opportunities for Chatbots in Breastfeeding Education of Women in India. 26 pages, , **Accepted at CSCW’ 2019**. (Core A, ranked number 2 by Google Scholar in HCI area with h-median 79).
79. Deepika Yadav, Anushka Bhandari, and Pushpendra Singh. (2019). LEAP : Scaffolding Collaborative Learning of Community Health Workers in India. 26 pages, , **Accepted at CSCW’ 2019**. (Core A, ranked number 2 by Google Scholar in HCI area with h-median 79).
78. Garvita Bajaj and Pushpendra Singh. (2019). Evaluating the Impact of Battery Usage Patterns on Performance of Task Allocation Algorithms in Sparse Mobile Crowdsensing. 10 pages, *The 22nd ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems, ACM MSWIM*.
77. Anupriya Tuli, Shruti Dalvi, Neha Kumar, Pushpendra Singh. (2019). “It’s a girl thing”: Examining Challenges with Menstrual Health Education in India. 24 pages, *ACM Transactions on Computer-Human Interaction* 26, 5, Article 29 (July 2019), **ACM ToCHI**. (Scimagojr h-index : 78).
76. Haroon Rashid, Vladimir Stankovic, Lina Stankovic, Pushpendra Singh. (2019). Evaluation of the Suitability of Non-Intrusive Load Monitoring for Appliance-level Anomaly Detection. 8325-8329, *2019 IEEE International Conference on Acoustics, Speech and Signal Processing, ICASSP*. (Oral presentation).
75. Haroon Rashid, Pushpendra Singh, Amarjeet Singh. (2019). I-BLEND: A Campus Scale Commercial and Residential Buildings Electrical Energy Dataset. 12 pages, *Sci.Data*. 6 :190015, **Nature Scientific Data**. (Impact Factor : 5.862).
74. Sandeep Grover, Limalemla Jamir, Mona Duggal, Pushpendra Singh, Ritu Nehra. (2019). Epidemiology of behavioral (mobile) addiction among school students in rural India. 30-38, volume 40, **Asian Journal of Psychiatry**. (Impact Factor : 1.06).
73. Haroon Rashid, Pushpendra Singh, Vladimir Stankovic, Lina Stankovic. (2019). Can Non-intrusive Load Monitoring be used for Identifying Appliance’s Anomalous Behavior?. 796-805, volume 238, **Applied Energy**. (Impact Factor : 7.90).

2018

72. Garvita Bajaj, Rachit Agarwal, Pushpendra Singh, Nikolaos Georgantas, Valerie Issarny. (2018). 4W1H for IoT Semantics. 65488 - 65506, , **IEEE Access**. (Impact Factor : 3.557).
71. Koushik Sinha Deb, Anupriya Tuli, Mamta Sood, Rakesh Chadda, Rohit Verma, Saurabh Kumar, Ragul Ganesh, Pushpendra Singh. (2018). Is India ready for mental health apps (MHapps)? A quantitative-qualitative exploration of stakeholder perspective of Smartphone based solutions for managing severe mental illnesses in low resource settings. 19 pages, *PLOS ONE* 13(9) : e0203353, **PLOS ONE**. (Impact factor : 2.806, h-index : 241 from scimagojr).
70. Haroon Rashid, Nipun Batra, Pushpendra Singh. (2018). Rimor: Towards Identifying Anomalous Appliances in Buildings. 10 pages, In *Proceedings of the 5th ACM International Conference on Systems for Energy-Efficient Built Environments, BuildSys ’18*. (Core A).

69. Anupriya Tuli, Shaan Chopra, Neha Kumar, Pushpendra Singh. (2018). [Learning from and with Menstrupedia: Towards Menstrual Health Education in India](#). 10 pages, *In Proceedings of the 21st ACM Conference on Computer Supported Cooperative Work & Social Computing, CSCW'2018*. (Core A, ranked number 2 by Google Scholar in HCI area with h-median 79).
68. Deepika Yadav, Mayank Gupta, Malolan Chetlur, and Pushpendra Singh. (2018). [Automatic Annotation of Voice Forum Content for Rural Users and Evaluation of Relevance](#). 11 pages, *In Proceedings of the 1st ACM SIGCAS Conference on Computing and Sustainable Societies, COMPASS '18*.
67. Bhanu Duggal, Jyothi Subramanyam, Mona Duggal, Pushpendra Singh, Meeta Rajiv Lochan, Archana Avhad, Usha Ram, Sayan Sen, Anurag Agrawal, Sujata Saunik, Koundinya Desiraju. (2018). [Survival outcomes post percutaneous coronary intervention: Why the hype about stent type? Lessons from a healthcare system in India](#). 14 pages, *PLOS ONE*, **PLOS ONE 13(5)** : e0196830. (Impact factor : 2.806, h-index : 241 from scimagojr).
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