

MOHIT JAIN

My PhD research work is at the intersection of HCI and AI, focusing on extending interactivity, accessibility and security of conversational systems. My research primarily explores the introduction of emerging technologies to new populations, by developing ubiquitous computing systems, designing interaction techniques, and collecting and analyzing data. I have broadly developed technological solutions in the domain of Health, Sustainability, Education and Agriculture. My research is inherently interdisciplinary. I possess a diverse set of skills, including mobile computing, data analysis, game design, signal processing, software engineering, and designing and conducting user studies.

PhD Student
Paul G. Allen School of Computer Science
and Engineering
University of Washington
Seattle, WA, USA

<https://homes.cs.washington.edu/~mohiti>

mohitj@cs.washington.edu

EDUCATION

- 2015-2019 Ph.D., Computer Science & Engineering, University of Washington, USA
GPA: 3.94/4.0
Advisor: Dr. Shwetak Patel (Area: Ubiquitous Computing)
Thesis: Making Chatbots More Transparent and Applicable to New Demographics
- 2009-2011 Master of Science, Computer Science, University of Toronto, Canada
GPA: 4.0/4.0
Advisor: Dr. Ravin Balakrishnan (Area: Human-Computer Interaction)
Thesis: User Learning and Performance with Bezel Menus
- 2005-2009 Bachelor of Technology, Information & Communication Technology, Dhirubhai Ambani Institute of ICT (DA-IICT), India
GPA: 9.61/10 (Bronze Medalist)

HONORS, AWARDS & GRANTS

- 2019 IBM Fourth Patent Plateau.
- 2018 IBM **Outstanding Equity Award** (awarded to <0.1% of IBMers).
Honorable Mention Award (Top 5%) at ACM CHI for Seismo [C22].
Aegis Graham Bell Award (Category: Innovation in IoT) for my team's work in Agribusiness.
IBM 'A-level Accomplishment' Award (Category: Customer Offering) for Utility Innovations to Embrace Sustainability and Climate Change.
IBM Third Patent Plateau.
- 2017 Winner of **DFS Tech Chatbots Challenge 2017**, award of US\$20,000 [J2].
Young Researcher attendee at the **Heidelberg Laureate Forum**.
IBM 'A Level Accomplishment' Award for Efficient Integration of non-conventional Energy Sources in Electric and Thermal Grids [C18].
IBM Volunteer Award for being part of the IBM Research India Internship team.
IBM Second Patent Plateau.
- 2016 IBM '**Outstanding Technical Achievement Award**' for UrJar [C11, W7].
IBM '**Outstanding Technical Achievement Award**' for contributions to User Centric Demand Management [W6, C12, C14].
IBM First Patent Plateau.
- 2015 IBM '**O Level Accomplishment**' Award (Category: Customer Offering) for Smarter Energy Offering.
IBM '**Research Division Award**' for Energy Efficiency in Brunei [C12].

IBM 'A Level Accomplishment' Award (Category: Image) for UrJar [C11, W7].
IBM 'A Level Accomplishment' Award (Category: Science) for User-Centric Demand Management [W6, C12, C14].
IBM 'A Level Accomplishment' Award (Category: Accelerated Market Introduction) for Analytics and Applications for Energy and Utility.
Runner-up at Smarter Energy Research Institute (SERI) conference organized by IBM.
University of Washington graduate scholarship.

- 2014 **Best Paper Award** at BuildSys for Collaborative Energy Conservation [C12].
Runner-up Best Presentation Award at BuildSys for Collaborative Energy Conservation [C12].
IBM 'A Level Accomplishment' Award (Category: Client Success) for Efficient Energy Generation and Consumption in Brunei [C12].
IBM 'A Level Accomplishment' Award (Category: Science) for Technology for Education (IDEAL) Project [C10].
- 2009 **Wolfond Fellowship**.
Won MultiPoint Education Award in **Microsoft Imagine Cup** World Finals, Egypt.
Second runner-up in Microsoft Imagine Cup National Finals (Software Design), India.
Travel scholarship to attend ACM/IEEE ICTD conference.
University of Toronto graduate scholarship (2009-2011).
Bronze medal for securing 3rd rank in a class of 240 students at DA-IICT.
- 2008 Won TechMarket, a white paper presentation competition, at DA-IICT.
- 2007 Won **IBM INVITE**, a software design competition.

PROFESSIONAL EXPERIENCE

INDUSTRY EXPERIENCE

- 2012-Present IBM Research, India
Senior Research Engineer, Cognitive IoT Team
- 2011-2012 Amazon, USA
Software Development Engineer, Digital Videogames Team

ACADEMIC EXPERIENCE

- 2015-Present University of Washington, USA
Graduate Research Assistant, UbiComp Lab
- 2009-2011 University of Toronto, Canada
Graduate Research Assistant, Digital Graphics Project Lab

INTERNSHIP EXPERIENCE


- Summer 2011 HP Labs, India
Research Intern, Mobile and Immersive Experience Lab
Advisor: Dr. Sriganesh Madhvanath
- Spring 2011 Microsoft Research, India
Research Intern, Technology for Emerging Markets Team
Advisor: Dr. Indrani Medhi, Aishwarya Ratan, Dr. Edward Cutrell
- Summer 2010 Microsoft Research, India
Visiting Researcher, Technology for Emerging Markets Team
Advisor: Dr. Edward Cutrell
- Fall 2009 Greenbelt Foundation, Canada
Interface Designer

Summer 2007 University of California, Berkeley and Microsoft Research, India
Software Developer Intern, Technology for Emerging Markets Team
Advisor: Dr. Joyojeet Pal, Udai Pawar, Sukumar Anikar, Dr. Kentaro Toyama

PEER-REVIEWED JOURNAL PUBLICATIONS

- 2019 J2 *FarmChat: A Conversational Agent to Answer Farmer Queries.*
Mohit Jain, Pratyush Kumar, Ishita Bhansali, Q. Vera Liao, Khai Truong, Shwetak Patel.
IMWUT (*PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*) 2, 4, article 170.
- 2017 J1 *DigiTouch: Reconfigurable Thumb-to-Finger Interaction for Input and Text Entry for Head-mounted Displays.*
Eric Whitmire, **Mohit Jain**, Divye Jain, Greg Nelson, Ravi Karkar, Shwetak Patel, Mayank Goel.
IMWUT (*PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*) 1, 3, article 113.

PEER-REVIEWED CONFERENCE PUBLICATIONS

- 2019 C26 *Adversarial Adaptation of Scene Graph Models for Understanding Civic Issues.*
Shanu Kumar, Shubham Atreja, Anjali Singh, **Mohit Jain**.
WWW (*International World Wide Web Conference*).
- C25 *Resilient Chatbots: Repair Strategy Preferences for Conversational Breakdowns.*
Zahra Ashktorab*, **Mohit Jain***, Q. Vera Liao*, Justin D. Weisz. [* equal contributors]
CHI (*ACM Conference on Human Factors in Computing Systems*).
- C24 *BigBlueBot: Teaching Strategies for Successful Human-Agent Interactions.*
Justin D. Weisz, **Mohit Jain**, Narendra Nath Joshi, James Johnson, Ingrid Lange.
IUI (*ACM International Conference on Intelligent User Interfaces*).
- C23 *Automatic Generation of Leveled Visual Assessments for Young Learners.*
Anjali Singh, Ruhi S. Mittal, Shubham Atreja, Mourvi Sharma, Seema Nagar, Prasenjit Dey, **Mohit Jain**.
EAAI (*Educational Advances in Artificial Intelligence*).
- 2018 C22 *Seismo: Blood Pressure Monitoring using Built-in Smartphone Accelerometer and Camera.*
 Edward Jay Wang, Junyi Zhu, **Mohit Jain**, Tien-Jui Lee, Elliot Saba, Lama Nachman, Shwetak Patel.
CHI (*ACM Conference on Human Factors in Computing Systems*).
Honorable Mention Award (Top 5%)
- C21 *Convey: Exploring the Use of a Context View for Chatbots.*
Mohit Jain, Ramachandra Kota, Pratyush Kumar, Shwetak Patel.
CHI (*ACM Conference on Human Factors in Computing Systems*).
- C20 *End-To-End Audio Replay Attack Detection Using Deep Convolutional Networks with Attention.*
Francis Tom, **Mohit Jain**, Prasenjit Dey.
INTERSPEECH (*Annual Conference of the International Speech Communication Association*).
- C19 *MobiCeil: Cost-Free Indoor Localizer for Office Buildings.*
Mohit Jain, Megha Nawhal, Saicharan Duppati, Sampath Dechu.
MobileHCI (*ACM Conference on Human-Computer Interaction with Mobile Devices and Services*).
- C18 *Reducing Energy Consumption for Space Heating by Changing Zone Temperature: Pilot Trial in Luleå, Sweden.*
Kumar Saurav, **Mohit Jain**, Sambaran Bandhyopahyay.
eEnergy (*ACM International Conference on Future Energy Systems*).
- C17 *Opportunistic Sensing with Mic Arrays on Smart Speakers for Distal Interaction and Exercise Tracking.*
Anup Agarwal, **Mohit Jain**, Pratyush Kumar, Shwetak Patel.

ICASSP (*IEEE International Conference on Acoustics, Speech and Signal Processing*).

- C16 *Evaluating and Informing the Design of Chatbots.*
Mohit Jain, Pratyush Kumar, Ramachandra Kota, Shwetak Patel.
DIS (*ACM Conference on Designing Interactive Systems*).
- 2016 C15 *Software-only Occupancy Inference in a Workplace.*
Mohit Jain, Vikas Chandan, Ashok Pon Kumar, Vijay Arya, Sridhar R, Babitha Ramesh.
ISGT NA (*IEEE Conference on Innovative Smart Grid Technologies NA*).
- 2015 C14 *Methodologies for Effective Demand Response Messaging.*
Mohit Jain, Vikas Chandan, Marilena Minou, George Thanos, Tri K Wijaya, Achim Lindt, Arne Gylling.
SmartGridComm (*IEEE International Conference on Communications, Control, and Computing Technologies for Smart Grid*).
- C13 *Comparing Energy Feedback Techniques for Dormitory Students in India.*
Mohit Jain, Deepika Chhabra, Amarjeet Singh.
BuildSys (*ACM International Conference on Systems for Energy-Efficient Built Environments*).
- 2014 C12 *Collaborative Energy Conservation in a Microgrid.*
 **Mohit Jain**, Harshad Khadilkar, Neha Sengupta, Zainul Charbiwala, Kushan U Tennakoon, Rodzay bin H.A. Wahab, Liyanage C.D. Silva, Deva P. Seetharam.
BuildSys (*ACM International Conference on Systems for Energy-Efficient Built Environments*).
Best Paper Award
Runner-Up Best Presentation Award
- C11 *UrJar: A Lighting Solution using Discarded Laptop Batteries.*
Vikas Chandan, **Mohit Jain**, Harshad Khadilkar, Zainul Charbiwala, Anupam Jain, Sunil Ghai, Rajesh Kunnath, Deva P. Seetharam.
DEV (*ACM Symposium on Computing for Development*).
- C10 *EduPaL: Enabling Blended Learning in Resource Constrained Environments.*
Malolan Chetlur, Ashay Tamhane, Vinay Kumar Reddy, Bikram Sengupta, **Mohit Jain**, Pongsakorn Sukjunnimit, Ramrao Wagh.
DEV (*ACM Symposium on Computing for Development*).
- C9 *Energy Usage Attitudes of Urban India.*
Mohit Jain, Deepika Chhabra, Jen Mankoff, Amarjeet Singh.
ICT4S (*International Conference on ICT for Sustainability*).
- 2013 C8 *"We are not in the loop": Resource Wastage and Conservation Attitude of Employees in Indian Workplace.*
Mohit Jain, Ankit Agrawal, Sunil K. Ghai, Khai Truong, Deva P. Seetharam.
UbiComp (*ACM International Joint Conference on Pervasive and Ubiquitous Computing*).
- C7 *Comparison of Phone-based Distal Pointing Techniques for Point-Select Tasks.*
Mohit Jain, Andy Cockburn, Sriganesh Madhvanath.
INTERACT (*IFIP TC13 International Conference on Human-Computer Interaction*).
- C6 *Evaluating the Effect of Phrase Set in Hindi Text Entry.*
Mohit Jain, Khushboo Tekchandani, Khai Truong.
INTERACT (*IFIP TC13 International Conference on Human-Computer Interaction*).
- C5 *Deep Conservation in Urban India and its Implications for the Design of Conservation Technologies.*
Yedendra Shrinivasan, **Mohit Jain**, Deva P. Seetharam, Abhishek Choudhary, Elaine M. Huang, Tawanna Dillahunt, Jennifer Mankoff.
CHI (*ACM Conference on Human Factors in Computing Systems*).

- 2012 C4 *Combating Rural Child Malnutrition through Inexpensive Mobile Phones.*
Indrani Medhi, **Mohit Jain**, Anuj Tewari, Mohini Bhavsar, Michael Matheke-Fischer, Edward Cutrell.
NordiCHI (*ACM Nordic Conference on Human-Computer Interaction*).
- C3 *User Learning and Performance with Bezel Menus.*
Mohit Jain, Ravin Balakrishnan.
CHI (*ACM Conference on Human Factors in Computing Systems*).
- 2011 C2 *Exploring Display Techniques for Mobile Collaborative Learning in Developing Regions.*
Mohit Jain, Jeremy Birnholtz, Edward Cutrell, Ravin Balakrishnan.
MobileHCI (*ACM Conference on Human-Computer Interaction with Mobile Devices and Services*).
- 2010 C1 *DISHA: Multiple Mice in Narrative Content-based Computer Aided Learning for Children.*
Aakar Gupta, Praveen Shekhar, Navkar Samdaria, **Mohit Jain**, Joyojeet Pal.
IDID (*IFIP TC13 SIG on Interaction Design for International Development*).

UNDER SUBMISSION

- 2019 U3 *Automatic Generation of Usable and Secure Audio reCAPTCHA.*
Mohit Jain, Rohun Tripathi, Ishita Bhansali, Pratyush Kumar, Shwetak Patel
- U2 *Understanding the Role of Different Modalities in Reporting of Civic Issues in India.*
Anjali Singh, **Mohit Jain**, Shubham Atreja.
- U1 *Gaze-based Autism Detection using Videos.*
Karan Ahuja, Abhishek Bose, **Mohit Jain**, Kuntal Dey, Anil Joshi, Krishnaveni Achary, Blessin Varkey, Chris Harrison, Mayank Goel.

PEER-REVIEWED POSTERS, DEMOS & WORKSHOPS

- 2018 W8 *BigBlueBot: A Demonstration of How to Detect Egregious Conversations with Chatbots.*
Casey Dugan, Justin D Weisz, Narendra Nath Joshi, Ingrid Lange, James Johnson, **Mohit Jain**, Werner Geyer.
NIPS (*Conference on Neural Information Processing Systems*): Demo.
- 2015 W7 *UrJar: A device to address energy poverty using e-waste.*
Vikas Chandan, **Mohit Jain**, Harshad Khadilkar, Zainul Charbiwala, Anupam Jain, Sunil Ghai, Rajesh Kunnath, Deva P. Seetharam.
eEnergy (*ACM International Conference on Future Energy Systems*): Demo.
- 2014 W6 *Evaluating Demand Response Programs: Getting the Key Performance Indicators Right.*
Marilena Minou, George Thanos, Matteo Vasirani, Tanuja Ganu, **Mohit Jain**, Arne Gylling.
eEnergy (*ACM International Conference on Future Energy Systems*): International Workshop on Demand Response.
- 2013 W5 *Replicating Residential Sustainability Study in Urban India.*
Mohit Jain, M., Yedendra Shrinivasan, Tawanna Dillahunt.
CHI (*ACM Conference on Human Factors in Computing Systems*): RepliCHI Workshop.
- 2012 W4 *The Fate of a Digital Slate: Unexpected Issues with Deployment in Rural India.*
Indrani Medhi, Anuj Tewari, **Mohit Jain**, Edward Cutrell.
UXMag (*User Experience Magazine*), 11, 2.
- 2009 W3 *Approaches to Formal Verification of Security Protocols.*
Suvansh Lal, **Mohit Jain**, Vikrant Chaplot.
IMY-CRSI National Workshop on Cryptology.

- W2 *DISHA: DISease and Health Awareness for Children on Multiple Input Devices.*
Mohit Jain, Aakar Gupta, Navkar Samdaria, Praveen Shekhar, Joyojeet Pal.
 ICTD (*IEEE/ACM International Conference on Information and Communication Technologies and Development*): Poster.
- 2008 W1 *From Pilot to Practice: Creating Multiple-Input Multimedia Content for Real-World Deployment.*
 Joyojeet Pal, Udai Pawar, Apurva Joshi, **Mohit Jain**, Sai Gopal Thota, Sai Teja, Sukumar Anikar.
 IUI (*ACM International Conference on Intelligent User Interfaces*): International Workshop on Intelligent User Interfaces for Developing Regions (IUI4DR).

PATENTS

- 2019 P17 94843772. *System and Method for Chatbot Conversation Federation using Real-Time Auctioning.*
 Kuntal Dey, **Mohit Jain**, Kaushik Lahiri, Sarbajit K. Rakshit.
- 2018 P16 P201800225US01. *Real-Time Alteration of Standard Video and Immersive Video for Virtual Reality.*
Mohit Jain, Kuntal Dey, Willie Scott, Charu D. Pandhi.
- P15 P201800251US01. *Product Usage Identification and Recommendation Provision.*
 Sampath Dechu, **Mohit Jain**, Amrita Saha.
- P14 P201703816US01. *Exercise Monitoring and Coaching using Audio-only Devices.*
Mohit Jain, Anup Agarwal, Pratyush Kumar.
- P13 P201703817US01. *Multi User Interaction with Audio Devices using Speech and Gestures.*
Mohit Jain, Anup Agarwal, Pratyush Kumar.
- 2017 P12 IN820170172. *Conversational Challenge-Response System for Enhanced Security in Voice Only Devices.*
Mohit Jain, Pratyush Kumar.
- P11 IN820170145. *Augmented Conversational Agent.*
 Kuntal Dey, **Mohit Jain**, Pratyush Kumar.
- P10 IN820170194. *System and Method for Root Cause Analysis in Large Scale Data Curation Flows using Provenance.*
 Hima P. Karnam, Manish Kesarwani, Salil Joshi, **Mohit Jain**, Sameep Mehta.
- P9 IN820161479. *Feature Vector Profile Generation for Interviews.*
Mohit Jain, Ashok Pon Kumar, Pratyush Kumar, Ramachandra Kota.
- P8 US20180295071A1. *Adaptive Communications Display Window.*
Mohit Jain, Pratyush Kumar, Ramachandra Kota.
- P7 IN920170041. *Hybrid Virtual and Physical Jewelry Shopping Experience.*
 Ashok Pon Kumar, Pratyush Kumar, Anshul B. Shah, **Mohit Jain**, Megha Nawhal, Gyanendra Sharma, Amith Singhee.
- 2016 P6 UW48021.01US1. *Smartphone Based Blood Pressure Measurement using Cameras and Microphone.*
 Edward Wang, **Mohit Jain**, Shwetak Patel.
- P5 10133474. *Display Interaction based upon a Distance of Input.*
Mohit Jain, Ashok Pon Kumar.
GRANTED
- P4 US20170299640A1. *Identifying and Prioritizing Errors in Connectivity Models of Distribution Networks for Efficient Field Inspections.*
 Ramachandra Kota, Sambaran Bandyopadhyay, Rajendu Mitra, **Mohit Jain**, Vijay Arya.

- 2015 P3 9980099. *Indoor Location Detection using Ceiling Patterns.*
Mohit Jain, Megha Nawhal, Saicharan Duppati, Sampath Dechu.
GRANTED
- P2 US20170031463A1. *Single-hand, Full-screen Interaction on a Mobile Device.*
Mohit Jain, Ashok Pon Kumar, Zainul M. Charbiwala.
- 2013 P1 WO2013157013. *Selection of User Interface Elements of a Graphical User Interface.*
Mohit Jain, Sriganesh Madhvanath, Vimal Sharma.

ADVISING & MENTORING

CO-ADVISOR

- 2013 Deepika Chhabra [C9, C13]
 Master in Computer Science degree, IIIT-Delhi.

SUMMER INTERNSHIPS (8-16 weeks)

- 2018 Francis Tom
 Undergraduate student at IIT Kharagpur (EE).
- 2017 Sudharsan Krishnaswamy
 Undergraduate student at IIT Bhubaneswar (CSE). Present: Student at UCLA.
- Francis Tom [C20]
 Undergraduate student at IIT Kharagpur (EE).
- Anup Agarwal [C17, P13, P14]
 Undergraduate student at IIT Guwahati (CSE).
- Yuvraj Chugh
 Undergraduate student at NYU (CS).
- 2015 Saicharan Duppati [C19, P3]
 Undergraduate student at IIT Bombay (CSE). Present: Graduated from UC San Diego, working at Salesforce.
- 2013 Deepika Chhabra [C9, C13]
 Graduate student at IIIT-Delhi (CS). Present: Working at SD2 Labs.
- Jiten Thakker
 Undergraduate student at DA-IICT (ICT). Present: Graduated from NYU, working at Uplevel Security.
- Sagar Mohite
 Undergraduate student at DA-IICT (ICT). Present: Graduated from Univ of Utah, working at Evernote.

INVITED TALKS

- 2018 T8 Building Empathy with Chatbots
 IBM AI Systems Day
- 2017 T7 Build a Chatbot in 10-minutes
 ad:tech
- 2016 T6 Cognitive Shopping using Watson Conversation Services
 IBM Digital Leaders Connect
- T5 Cognitive Shopping using Watson Conversation Services
 IBM Cloud Innovation Forum

- 2013 T4 Persuade to Conserve
École Polytechnique Fédérale de Lausanne (EPFL), Switzerland
- T3 Persuade to Conserve
IBM Zurich Research Lab
- T2 Insights into Paper-based Record Management System
Microsoft Research India
- 2012 T1 Energy Efficiency and Conservation
IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS)

TEACHING ASSISTANT EXPERIENCE

- Spring 2016 CSE 414: Introduction to Data Management
Instructor: Dr. Dan Weld, University of Washington
- Fall 2015 CSE 590P: Advanced Topics in Ubiquitous Computing
Instructor: Dr. Mayank Goel, University of Washington
- Fall 2010 CSC 428/CSC 2514: Human Computer Interaction
Instructor: Dr. Khai Truong, University of Toronto
- Spring 2010 CSC 343: Introduction to Databases
Instructor: Dr. Diane Horton, University of Toronto
- Fall 2009 CSC 369: Operating Systems
Instructor: Dr. Karen Reid, University of Toronto
- Spring 2009 IT 215: Systems Software
Instructor: Dr. Anish Mathuria, DA-IICT
- Fall 2008 IT 205: Data Structures and Algorithms
Instructor: Dr. Ashok Amin, DA-IICT

VOLUNTARY ACTIVITIES

PROGRAM COMMITTEE MEMBER

- 2019 IUI, *ACM International Conference on Intelligent User Interfaces*

PUBLICITY CHAIR

- 2014 UbiComp, *ACM International Joint Conference on Pervasive and Ubiquitous Computing*
2014 ISWC, *International Symposium on Wearable Computers*

REVIEWER

- 2011-2019 CHI, *ACM Conference on Human Factors in Computing Systems*
2013-2019 IMWUT, *PACM on Interactive, Mobile, Wearable and Ubiquitous Technologies (previously UbiComp)*
2015 IUI, *ACM International Conference on Intelligent User Interfaces*
2015 JETR, *Journal of Engineering and Technology Research*
2014 CSCW, *ACM Conference on Computer-Supported Cooperative Work and Social Computing*
2011-2012 MobileHCI, *ACM Conference on Human-Computer Interaction with Mobile Devices and Services*
2012 APCHI, *Asia Pacific Conference on Computer Human Interaction*
2012 DIS, *ACM Conference on Designing Interactive Systems*

STUDENT VOLUNTEER

- 2010 CHI, *ACM Conference on Human Factors in Computing Systems*

SERVICE at IBM

- 2019-Present External Recognition Lead, IBM Research India.
- 2018-Present Patent Reviewer and Evaluator, IBM Global.
- 2018-Present HCI PIC (Professional Interest Communities) Chair, IBM Research India.
- 2016-2018 Internship Coordinator, IBM Research India.
- 2012-Present Volunteered at IBM demo booths in conferences (CHI 2018, COMSNETS 2018, ANTS 2012, etc.)

MISCELLANEOUS

- 2013-2014 Teaching children how to use computers in rural Bangalore Government schools.
- 2012-2013 Teaching English to children in rural Bangalore Government schools.

SELECTED MEDIA

- UrJar [C11, W7] **ProSieben**. Featured on the documentary series *Galileo* on ProSieben (Channel 7) in Germany. 2015.
- BBC**. Old Laptop Batteries could Power Slums, IBM says. Dec, 2014.
- MIT Technology Review**. Discarded Laptop Batteries Keep the Lights On. Dec 2014.
- IEEE Spectrum**. Turning E-Waste into Light. Dec 2014.
- SlashDot**. Using Discarded Laptop Batteries To Power Lights. Dec 2014.
- The Register**. IBM Research wants laptop batteries to retire and slum it. Dec 2014.
- The Economic Times**. Old laptop batteries could power slums in India: Study. Dec 2014.
- Live Mint**. India's digital transformation needs innovation. Mar 2015.
- Hindustan Times**. Trashed laptop batteries to power homes. Dec 2014.
- India Times**. Jugaad! Read What These Guys Did With Discarded Batteries. Jan 2015.
- NDTV**. IBM Researchers Use Dumped Laptop Batteries to Create Battery Packs. Dec 2014.
- BGR**. Discarded laptop batteries to create an emergency lighting system. Dec 2014.
- Newsweek**. Old Laptop Batteries Could Bring Power to India's Slums. Dec 2014.
- Uber Gizmo**. E-Waste Recycled, Delivers Power In Second Life. Dec 2014.
- Business Today**. Trashed laptop batteries to power homes. Dec 2014.
- DISHA [C1, W2] **Microsoft Blog**. Microsoft Announces Imagine Cup 2009 Worldwide Winners. July 2009.

RECOMMENDATION LETTERS

- Dr. Shwetak N. Patel
Professor, Computer Science & Engineering and Electrical Engineering, University of Washington
- Dr. Khai N. Truong
Associate Professor, Department of Computer Science, University of Toronto
- Dr. Zainul Charbiwala
Co-Founder and CTO, Tricog Health (previously Research Manager, IBM Research)
- Dr. Ravin Balakrishnan
Professor & Chair, Department of Computer Science, University of Toronto
- Dr. Pratyush Kumar
Assistant Professor, Computer Science and Engineering, Indian Institute of Technology Madras (previously Research Scientist, IBM Research)

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