

## Keynote Speakers

### **Dr. Nuria Oliver Ramirez**

*Scientific Director, Telefónica Research, Spain*

#### **Towards Human Behavior Modeling from Data**

*Human Behavior Modeling and Understanding is a key challenge in the development of Intelligent Environments. In my talk I will describe a few of the projects that I have carried out over the course of the past 20 years to address this challenge. In particular, I will present work on Smart Rooms (real-time facial expression recognition and visual surveillance), Smart Cars (driver maneuver recognition), Smart Offices (multi-modal office activity recognition), Smart Mobile Phones (boredom inference) and finally a Smart World (crime prediction). I will conclude my talk highlighting opportunities, challenges and lessons learned that could be helpful to researchers and practitioners in the area.*



Authors Biography: Nuria Oliver is Scientific Director at Telefonica R&D. She graduated top of her class and top of Spain in Electrical Engineering and Computer Science from the ETSIT at the Universidad Politecnica of Madrid (UPM), Spain in 1994. She received her PhD degree from the Massachusetts Institute of Technology (MIT), Cambridge, MA, in June 2000. From July 2000 until November 2007, she was a researcher at Microsoft Research in Redmond, WA. After 12 years in the US, she returned to Europe to co-create the Research organization at Telefonica R&D by creating and leading an internationally recognized industrial research team in Barcelona. She is the first female Scientific Director at Telefonica. She is a Senior Member of IEEE and honored to be the first Spanish female computer scientist named a Distinguished Scientist of the ACM. She is also a Fellow of the European Association of Artificial Intelligence (eurAI).

### **Dr. A.J Brush**

*Principal PM Manager, Microsoft Research, United States of America*

#### **Turning Homes into Intelligent Environments: Attempts, Challenges, and Opportunities**

*Do people really want intelligent environments? What is an intelligent home? Visions of smart homes have long been featured in the media and caught the attention of academic researchers. For the past 12 years, I have studied and built technology for homes and families using sensing, inference, and actuation in both serious and playful applications with the goal of turning homes into intelligent environments that people still want to live in. Using past projects as examples, I'll share insights on technology use from in-home studies and highlight research opportunities. The challenges we faced deploying prototypes into homes inspired Lab of Things, a publicly available platform that has been used for teaching and research projects across a range of applications from automation, energy management to accessibility.*



**Authors Biography:** A.J. Bernheim Brush's research area is Human-Computer Interaction with a focus on Ubiquitous Computing and Computer Supported Collaboration (CSCW). Currently embedded in a Microsoft product group since January 2016, she spent the previous 11 years in Microsoft Research. A.J. is most well known for her research on technologies for families and her expertise conducting field studies of technology. She co-led MSR's Lab of Things project, a flexible open-sourced platform for experimental research that uses connected devices in homes and beyond. She has built and deployed numerous sensing systems into homes. She is a Senior Member of the ACM and was honored to receive a Borg Early Career Award in 2010. Her research has received 2 best paper awards and several best paper nominations. A.J. is co-general chair of UbiComp 2014, and serves on the UbiComp Steering Committee and the CRA-W board. A.J. also serves regularly on Program Committees for many conferences including UbiComp, Pervasive, CHI, and CSCW.

### **Prof. Andrew Hudson-Smith**

*Professor of Digital Urban Systems, University College London, United Kingdom*

**Towards the Internet of Everything: Connecting, Communicating and Creating Digital Environments**

*Technically is it possible to connect almost anything and everything to the Internet and as such we are on the cusp of creating true Intelligent Environments. There is however a need to join up systems, to simplify data collection and to communicate the vast amount of information in a clear and simple manner. The talk explores the rise of connected environments, the state of the art and also a reality check on what is possible in reality. It explore issues around big data, standards, IoT devices, Virtual Reality and uses between professionals, policy makers and the public at large.*



**Authors Biography:** Professor Andrew Hudson-Smith is Director of Centre for Advanced Spatial Analysis (CASA) at University College London. Andy hold a Chair in Digital Urban Systems and is Editor-in-Chief of Future Internet Journal; he is also an elected Fellow of the Royal Society of Arts, a member of the Greater London Authority Smart London Board. He oversees 20 research associate staff, is directly responsible for 6 lecturing staff, 2 Professors, 12 PhD students. Total personal grant income from 2009 exceeds £15.5 million with projects across multiple sectors and disciplines. He is also a member of the All Party Parliamentary Group on Smart Cities.