The German Center for Research and Innovation (DWIH) and Universität Hamburg
cordially invite you to a panel on:

Crossmodal Learning in Humans and Robots

Tuesday, October 16, 2018
6:30 p.m. - 8:00 p.m.

with

Abdeslam Boularias, PhD
Assistant Professor of Computer Science, Rutgers University

Dezhen Song, PhD
Professor of Computer Science and Engineering, Texas A&M University

Jianwei Zhang, PhD
Professor of Computer Science, Universität Hamburg

Zhigang Zhu, PhD
Professor of Computer Science, City College of New York

moderated by

Frank Steinicke, PhD
Professor for Human-Computer Interaction, Universität Hamburg

Please RSVP by October 14. Registration is required to attend the panel discussion

Location: Grand Central Tech, 335 Madison Ave, 4th floor, New York, NY 10017

Topics surrounding crossmodal learning are increasingly discussed and debated by AI-experts, members of the industry, policy makers and citizens of all countries. While citizens are amazed and concerned alike by trends towards machine learning, human-robot interaction and sensory-driven motor behavior, researchers and industry are breaking down barriers and pushing towards new developments in artificial intelligence. Additionally, policy makers and law enforcement agencies are fiercely discussing the use of intelligent and learning machines in our daily life, e.g. in medical devices for monitoring people with impaired mobility to combat their illness or in police-action and the military.

Crossmodal learning refers to the adaptive, synergistic synthesis of complex perceptions from multiple sensory modalities, such that the learning that occurs within any individual sensory modality can be

German Center for Research and Innvoation (DWIH)
Crossmodal Learning at University of Hamburg

enhanced with information from one or more other modalities. Crossmodal learning is a broad, interdisciplinary topic that has not yet coalesced into a single, unified field. Instead, there are many separate fields, each tackling the concerns of crossmodal learning from its own perspective, with currently little overlap.

By bringing together researchers from different universities and different countries, all with outstanding expertise in crossmodal learning, the panel discussion will enable a multilayered analysis of current developments, new findings, theories and systems. The debate moderated by Professor Frank Steinicke, Universität Hamburg, Germany, will ensure an engaging and critical discussion by leading experts in their fields.

Speaker Biographies:

Abdeslam Boularias is an Assistant Professor of Computer Science at Rutgers University. He received the engineering degree in computer science from the École Nationale Supérieure d'Informatique (ESI) in Algeria in 2004, the Master's degree in computer science from University of Paris-Sud in France in 2005, and the Ph.D. degree from Laval University in Canada in 2010. From August 2010 to April 2013, he was a Research Scientist with the Empirical Inference Department at the Max Planck Institute for Intelligent Systems in Germany. From May 2013 to July 2015, he was a Postdoctoral Fellow and a Project Scientist at Carnegie Mellon University. His main research interests include planning under uncertainty, reinforcement learning, and robotics.

Dezhen Song is a Professor with Texas A&M University, College Station, Texas. Song received his Ph.D. in 2004 from University of California, Berkeley, MS and BS from Zhejiang University in 1998 and 1995, respectively. Song's primary research area is Robot perception, networked robots, visual navigation, computer vision, surveillance, and stochastic modeling. Dr. Song has published 1 monograph, 10 book chapters, and over 90 papers in selective peer-reviewed journals and conferences. Dr. Song received the Kayamori Best Paper Award of the 2005 IEEE International Conference on Robotics and Automation (with J. Yi and S. Ding). He received the NSF Faculty Early Career Development (CAREER) Award in 2007. Song co-chaired the IEEE Robotics and Automation Society (RAS) Technical Committee on Networked Robots from 2007 to 2009. From 2008 to 2012, Song was an Associate Editor of IEEE Transactions on Robotics. From 2010 to 2014, Song was an Associate Editor of IEEE Transactions on Automation Science and Engineering. Song is currently a Senior Editor for IEEE Robotics and Automation Letters, a new flagship journal for IEEE Robotics and Automation Society. Since 2012, Song serves as a member of Multimedia Editorial Board for Springer Handbook of Robotics, the bestselling and the most authoritative book in robotics.

German Center for Research and Innvoation (DWIH)
Crossmodal Learning at University of Hamburg

Jianwei Zhang is professor and head of TAMS, Department of Informatics, Universität Hamburg, Germany. He received both his Bachelor of Engineering (1986, with distinction) and Master of Engineering (1989) at the Department of Computer Science of Tsinghua University, Beijing, China, his PhD (1994) at the Institute of Real-Time Computer Systems and Robotics, Department of Computer Science, University of Karlsruhe, Germany, and Habilitation (2000) at the Faculty of Technology, University of Bielefeld, Germany. His research interests are cognitive robotics, sensor fusion, dexterous manipulation and multimodal robot learning, Industry4.0 etc. In these areas he has published about 300 journal and conference papers (with 4 Best Paper Awards), technical reports, four book chapters and five research monographs. He has been coordinating numerous collaborative research projects of EU and German Research Council, including the Transregio-SFB TRR169 "Crossmodal Learning". Jianwei Zhang is life-long Academician of Academy of Sciences in Hamburg.

Zhigang Zhu received his B.E., M.E. and PhD degrees, all in computer science from Tsinghua University, Beijing, China, in 1988, 1991 and 1997 respectively. Dr. Zhu is currently the Herbert G. Kayser Professor of Computer Science, at The City College of New York and The CUNY Graduate Center. He is Director of the City College Visual Computing Laboratory (CcvcL), and Co-Director of the Master's Program in Data Science and Engineering at CCNY. Previously he was Associate Professor at Tsinghua University and Senior Research Fellow at the University of Massachusetts, Amherst. From 1997 to 1999 he was Director of the Information Processing and Application Division in the Computer Science Department at Tsinghua University. Dr. Zhu's research expertise spans the areas of computer vision, multimodal sensing, human-computer interaction, and various applications in assistive technology, robotics, surveillance and transportation. Among other honors, he is a recipient of President's Award for Excellence (CCNY, 2013) and his PhD thesis was selected into the Hundred National Excellent Doctoral Theses (China, 1999). He is an Associate Editor of Machine Vision Applications, Springer and IFAC Mechatronics Journal, Elsevier.

German Center for Research and Innvoation (DWIH)
Crossmodal Learning at University of Hamburg