IEEE Women in Engineering

ALBUQUERQUE SECTION

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Meeko Oishi received the Ph.D. (2004) and M.S. (2000) in Mechanical Engineering from Stanford University (Ph.D. minor, Electrical Engineering), and a B.S.E. in Mechanical Engineering from Princeton University (1998). She is a Professor of Electrical and Computer Engineering at the University of New Mexico. Her research interests include human-centric control, stochastic optimal control, and autonomous systems. She previously held a faculty position at the University of British Columbia at Vancouver, and postdoctoral positions at Sandia National Laboratories and at the National Ecological Observatory Network. She was a Visiting Researcher at AFRL Space Vehicles Directorate, and a Science and Technology Policy Fellow at The National Academies. She is the recipient of the NSF CAREER Award and a member of the 2021-2023 DoD Defense Science Study Group.

IEEE Albuquerque Affinity Group
Chair: Khandakar Nusrat Islam
Advisor: Prof. Eirini Eleni Tsiropoulou

Designing human-centric autonomy

(without creating HAL)

Meeko Oishi
Professor, Dept ECE at UNM

Thurs, Dec 2 5:30pm

ZOOM VIRTUAL MEETING

Free and Open to the Public
Pre-registration required

https://unm.zoom.us/meeting/register/tJ0lceCqrz8qHNGTMZfyNp01kVWMPQLUQiLj

Abstract:

Much of the recent focus on autonomous systems involves advanced algorithms for sensing and control, to assess and respond to the environment. State-of-the-art autonomous systems are typically unaware of and unresponsive to the human operator(s) in the loop. Making autonomous systems truly human-centric requires major shifts, to accommodate and respond to not only the state of the physical and computational elements of the system, but also the human elements. New methods and tools must be developed for modeling, prediction and verification, control, and communication, all of which must accommodate the uncertainty, risk tolerance, preferences, trust, workload, and confidence of the human in the loop. This talk overviews recent developments in probabilistic modeling and control for human-centric autonomous systems and promising directions for future work.

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