DTS DAVIS TECHNOLOGY SERIES

CONNECTING INDUSTRY, ACADEMIA AND SCIENCE

Featuring Keynote Speaker

Ramesh Raskar, PhD
Associate Professor of Media Arts & Science, MIT

Ramesh Raskar is an Associate Professor at MIT Media Lab and directs the Camera Culture research group. His focus is on building interfaces between social systems and autonomous systems. He is the recipient of the Lemelson Award (2016), ACM SIGGRAPH Achievement Award (2017), DARPA Young Faculty Award (2009), Alfred P. Sloan Research Fellowship (2009), TR100 Award from MIT Technology Review (2004) and Global Indus Technovator Award (2003). He has worked on research projects at Google [X] and Facebook and co-founded/advised several companies.

"Health Computing and Extreme Imaging"

New data-driven solutions are producing automated machine learning methods for big-data as well as privacy-preserving machine learning tools for distributed and fragmented 'small-data'. How can we empower small hospitals that have scant patient imagery in their medical records to cooperate and solve evolving public health challenges using distributed **machine learning**? Can we use the power of social graphs to deal with diseases of 'social contagion'? How can we perform large image-based studies to understand social determinants of health in developing countries using global satellite imagery? The talk will discuss a range of population-centric solutions.

Dr. Raskar also will present a second lecture at 10:00 a.m. Tuesday, May 15, 2018, at the GBSF, #4202, Davis:

Co-design of ultra-fast imaging and computation is improving bio-imaging technologies to make the invisible visible and produce groundbreaking cameras to see around corners. Can we create 'computational cameras' in every modality? Dr. Raskar's team at MIT is developing ultra-fast imaging to penetrate through fog, a coded time-of-flight camera to analyze light scattering, a radio frequency (RF) camera to see through walls, a THz camera to read through books and an ultrasound camera that can analyze non-line-of-sight occlusions. Recently Dr. Raskar's lab demonstrated a 'heterodyne time of flight' camera that can achieve three micrometer precision by combining optical and electronic coherence.

12:00 – 1:00 PM
Monday, May 14, 2018

Hosted by Richard Levenson, MD, Vice Chair for Strategic Technologies
Pizza will be provided!

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