SMART
Singapore-MIT Alliance for Research and Technology

An Afternoon with MIT's leaders in Artificial Intelligence and Machine Learning

Developing a Roadmap for the Future Use of AI in Education and Home Health Monitoring

'A' IS FOR ARTIFICIAL INTELLIGENCE
Social Robots as a New Type of Educational Technology

AI is transforming the world at a rapid pace. As educators, how can we prepare students for the future workforce in the AI-economy? How might AI impact K-12 education? Should students learn about AI in the K-12 classroom? In this talk, Dr. Breazeal presents pioneering research in exploring social robots as a new type of educational technology. She will highlight provocative scientific findings with respect to the impact of social embodiment, non-verbal and emotive expression, personalization, and relationship on sustaining children's engagement, learning gains, and impact on attitudes. She will also present recent work on constructionist approaches to introduce K-12 school students to concepts and ethical design practices in AI through building, programing, training, and interacting with robots and digital media.

Cynthia Breazeal
Associate Professor
Personal Robots Group, MIT Media Lab
Associate Director of Strategic Initiatives,
MIT Quest for Intelligence
Massachusetts Institute of Technology

Dina Katabi
Andrew and Erna Viterbi Professor of
Electrical Engineering and Computer Science
Massachusetts Institute of Technology

HOME HEALTH MONITORING
With Machine Learning and Wireless Sensors

This talk will introduce Emerald, a new technology that uses machine learning to aid with health monitoring in the home. Emerald automates health monitoring through innovations in wireless sensing and machine learning. The Emerald device is a Wi-Fi like box that transmits low power radio signals, and analyzes their reflections using neural networks. It infers the movements, breathing, heart rate, falls, sleep apnea, and sleep stages, of people in the home -- all without requiring them to wear any sensors or wearables. By monitoring a variety of physiological signals continuously and without imposing a burden on users, Emerald can automatically detect degradation in health, enabling early intervention and care. The talk will describe the underlying technology, and present results demonstrating Emerald's promise in a geriatric population.

Wednesday, May 22, 2019
Stephen Riady Centre
UTown Auditorium 1 in NUS Campus
1 CREATE Way, Singapore 138602

Talks: 2.00 p.m. to 3.30 p.m.
Panel Session: 3.30 p.m. to 4.00 p.m.
Reception to follow
Open to public: Register here