MIT IEEE UNDERGRADUATE RESEARCH TECHNOLOGY CONFERENCE

MEET INNOVATIVE TECHNOLOGY

NOVEMBER 4-6
STATA CENTER & BUILDING 34

November 5, 2016 (Saturday)
Technical Paper Oral Presentation
Session #1: 10:30am - 12:30pm (MIT Stata Center)

MACHINE LEARNING AND CLOUD COMPUTING

Time	Presenter	Title
10:30am	**Zheyuan Shi**	Strategic Reporting in Exponential Family Prediction Markets
10:50am	**Christina Tsangouri**	An Interactive Facial-Expression Training Platform for Individuals with Autism Spectrum Disorder
11:10am	**George G. Boateng**	StressAware: An App for Real-Time Stress Monitoring on the Amulet Wearable Platform
11:30am	**Monica Kumaran**	Lightweight Malware Detection based on Machine Learning Algorithms and the Android Manifest File
11:50am	**Renee Meinhold**	Efficiently Computing Piecewise Flat Embeddings for Data Clustering and Image Segmentation
12:10pm	**Anisha Nakagawa**	Hurricane Evacuation Traffic Model

BIOLOGICAL AND BIOMEDICAL ENGINEERING AND TECHNOLOGY

Time	Presenter	Title
10:30am	**Sarah Agnalt**	Vein Detection using Vein Transillumination and Contrast Differentiation for Practitioner Aid
10:50am	**Suma Anand**	Drive field filter design for Magnetic Particle Imaging (MPI) apparatus
11:10am	**Katarina Stevanovic**	Synchrotron Imaging of Intact Honeybees Affected by Nosema
11:30am	**Daniel Caraballo**	Affordable Photolithography with Biomedical Applications
11:50am	**Holly Nguyen**	Personalizing a Sleep Health App for College Students Using Personality Traits and Chronotype
12:10pm	**Joseph Majeski, Kevin Lynch**	Lung Cancer Tissue Samples Discrimination through Statistical Analysis of Polarimetric Angular-Resolved Diffuse Measurements

COMMUNICATIONS AND SECURITY

Time	Presenter	Title
10:30am	**Somtochukwu Okwuosah**	Multi-Communication Type Debugging Probe
10:50am	**Yilan Zhu**	Simulation Model on Chaotic Asynchronous Transmitter and Receiver
11:10am	**Maxwell Yun**	Thermal Energy Harvesting for Self-Powered Smart Home Sensors
11:30am	**Khai Phan**	Security Assessment of Audience Response Systems Using Software Defined Radios
11:50am	**Blake Hewgill**	Performance of a Highly Configurable Channel Emulator
12:10pm	**Sarah Lam**	Wireless Infrastructure Enhances On Body Health Monitoring Systems

MACHINE LEARNING AND CLOUD COMPUTING

1:30pm	**Christopher Liao**	Workload Characterization of the Shared/Buy-in Computing Cluster at Boston University
1:50pm	**Khaled K. Saab**	Estimation of Cluster Centroids in Presence of Noisy Observations
2:10pm	**Avi Cooper, Poojit Hedge**	An Indoor Positioning System Facilitated by Computer Vision
2:30pm	**Connor Sell**	Some Exact Solutions to Non-Negative Matrix Factorization
2:50pm	**Nick Anthony**	Limited Precision Deep Neural Networks

WEARABLE TECHNOLOGY

1:30pm	**GuiHui Liu**	Smartphone Enabled Telerehabilitative Wearable Glove for Stroke Patients
1:50pm	**Dan Lin**	A Test Bed for Detecting and Mimicking Finger Joint Bending
2:10pm	**Lauren Plant**	Smart E-Textile Gloves for Quantified Measurements in Movement Disorders
2:30pm	**Matthew Constant**	Smartwatch-driven Multisensory Recorder
2:50pm	**Brian Goldwyn**	HealthVisor: A Look into Data-rich Bio-monitoring
3:10pm	**Rabeeh Majidi**	Smart Adaptive Boot for Ankle Instability Treatment

ROBOTICS AND AUTOMATION TECHNOLOGY

1:30pm	**Yeeho Song**	Compliant Leg Designs for Attenuating Impact of Airdrop Landing of Quadruped Robots
1:50pm	**Alberto Rivera**	A Generalized Solution to The Coverage Problem in Swarm Robotics
2:10pm	**Wesley Caruso**	Development of Low Cost Device for In-Situ Algae Monitoring
2:30pm	**Charles Thangaraj**	A Scalable Modular Heterogeneous System for Home and Office Automation
2:50pm	**Mingchen Li**	Experimental Validation of Diffusion Coefficient Identification Using a Multi-Robot System