



Sunday, October 8, 2023 (10:30AM - 1:00PM EST)

Lightning Talks Schedule (In-Person and Virtual)

Stata Center 32-123



Massachusetts
Institute of
Technology

TIME	Lightning Talk Title	Presenters	Technical Track
10:30AM	ID-161 PCA-Based Efficient CNN Model Construction for ASL Recognition	Joshua J Comfort (Salisbury University)	Technology of Automation
10:35AM	ID-198 Tensor Decomposition for Compression of Multimodal Dual-Encoder Deep Neural Networks	Subhadra Vadlamannati (Mercer Island High School)	Technology of Automation
10:40AM	ID-156 Bioinformatic Analyses Determine Biomarkers for Resistive Small Cell Lung Cancer	Katie Sie (UC Berkeley)	Technology of Computation
10:45AM	ID-256 Classifying Alzheimer's Disease Outcome in Single-Cell RNA-Seq Datasets	Sara Nath (The Gatton Academy of Mathematics and Science)	Technology of Computation
10:50AM	ID-268 Personalized Blood Glucose Prediction For Type 1 Diabetes Patients with a Convolutional Long Short-Term Memory Network and Transfer Learning	Bryan Zhu (Bellevue High)	Technology of Computation
10:55AM	ID-273 A Novel Metaheuristics for Traveling Salesman Problem	Bryan Zhu (Bellevue High)	Technology of Computation
11:00AM	ID-280 Quantifying Exam Stress Progressions Using Electrodermal Activity and Machine Learning - Lightning Talk	Abigail Hsu (Cambridge Centre of International Research)	Technology of Computation
11:05AM	ID-306 Detection of Anemia Through Image Threshold Processing of Palpebral Conjunctiva	Advika Vuppala (High Technology High School, Affiliated research with Drew University)	Technology of Computation
11:10AM	ID-315 The Effects of Aerobraking on Time and Variable Altitude	Divya Krishna (Edison High School)	Technology of Exploration
11:15AM	ID-191 Public Perceptions of Synthetic Cooling Agents in E-Cigarettes on Twitter	Andrew Liu (UNC-Chapel Hill)	Technology of Humanity
11:20AM	ID-196 Development of Viral Strategies to understand the Role of Glia in Synaptic Refinement	Anne-Sarah Nichitui (Dartmouth College)	Technology of Humanity
11:25AM	ID-205 FoodFrame: A Python Package for Nutrition & Waste Metrics	Tushar Dalmia (Stanford University)	Technology of Sustainability
11:30AM	ID-265 Struvite Synthesis from Agricultural Effluent: A Sustainable Nutrient Management Strategy	Jamie S Kim (Woodson High School); Anush Devkar, Akshaya S Lohia (Thomas Jefferson High School for Science and Technology)	Technology of Sustainability
11:35AM	ID-230 (VIRTUAL) MSAD: Multimodal Semi-Supervised Abuse Detector	Abigail M Hou (St Agnes Academy)	Technology of Computation
11:40AM	ID-254 (VIRTUAL) Computational Study of Polyethylene Terephthalate (PET) under Neutral Hydrolysis: Sustainability of Novel Methods of Depolymerization	Sidhya Pathak (Thomas Jefferson High School for Science and Technology)	Technology of Computation
11:45AM	ID-298 (VIRTUAL) Biomarkers for Anxiety: Applying Amygdala Alpha Coherence Metric via Deep-Brain Stimulation	Trishay Naman (Coppell High School)	Technology of Computation
11:50AM	ID-10 (VIRTUAL) A phylogenetic method for estimating COVID-19 transmission rate using coronavirus genomes	Skylar A Gay (University of Georgia)	Technology of Engineering

IEEE MIT Undergraduate Research Technology Conference 2023
Lightning Talks Presentation Schedule



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11:55AM	ID-169 (VIRTUAL) Exosome Biogenesis of Human Stem Cells Regulated by Scalable Bioreactors	Shaoyang Ma (Florida State University)	Technology of Engineering
12:00PM	ID-173 (VIRTUAL) Predicting Solar Cycle 25 with a Hybrid CNN-LSTM Model	Alice Hu (West Windsor-Plainsboro High School North)	Technology of Engineering
12:05PM	ID-174 (VIRTUAL) The Role of ECG Morphology and Heart Rate Variability Features in Detecting Heart Arrhythmias from Short ECG Recordings	Alice Hu (West Windsor-Plainsboro High School North)	Technology of Engineering
12:10PM	ID-203 (VIRTUAL) Application of Machine Learning to the Ising Model	Dylan Kang (Henry M Jackson High School)	Technology of Engineering
12:15PM	ID-231 (VIRTUAL) Enhanced Liposomal Coatings of Porous Silicon Nanoparticles	Anjishnu Debnath (Scripps Ranch High School and UC San Diego)	Technology of Engineering
12:20PM	ID-289 (VIRTUAL) The Potential Applications of Recombinant Spider Silk Proteins in Cardiovascular Tissue Engineering	Louella Seo (Kimball Union Academy)	Technology of Engineering
12:25PM	ID-225 (VIRTUAL) Racial Bias Detection and Mitigation in Hate Speech Detection Systems through Machine Learning Techniques	Anantrao M Chinta (New Jersey Institute of Technology)	Technology of Humanity
12:30PM	ID-246 (VIRTUAL) SkinSPECT: A Novel Convolutional Neural Network and Deep Learning Model to Detect the Early Onset of Skin Cancers	Abhinav Gurram (Green Hope High School)	Technology of Humanity
12:35PM	ID-272 (VIRTUAL) Improving Screen Readers and Website Accessibility for the Visually Impaired Using GPT-3.5	Karthik R Konuganti (John P. Stevens High School)	Technology of Humanity
12:40PM	ID-307 (VIRTUAL) CamVisors: A Low-Cost Smart Glass System Utilizing Computer Vision for the Blind	Matthew Yao (Walla Walla High School)	Technology of Humanity
12:45PM	ID-291 (VIRTUAL) Bamboo-based Superabsorbent Hydrogels for Potential Replacement of Superabsorbent Polymers in Sanitary Napkins	Louella Seo (Kimball Union Academy)	Technology of Sustainability
12:50PM	ID-170 (VIRTUAL) Comprehensive Cyber Defense System: A Look into Adaptive Protection for the Most Common Ransomware Attacks	Riya R Pawar (Rutgers University)	Technology of Networks
12:55PM			