

IEEE MIT Undergraduate Research Technology Conference 2020  
Poster Presentation Sessions Schedule

**Sunday, October 11, 2020 (8:00AM - 10:00AM)**

**Poster Presentation (Session #1 - Room A)**

**Innovative Technologies Track**

**Session Moderator: Chelsea Chen**

TIME	Poster Title	Presenter
8:10AM	<b>PO20-0006</b> Analysis of Power Systems Abnormalities, A Case Study Approach	<b>Kai Shraiberg</b> (Wentworth Institute of technology)
8:20AM	<b>PO20-0014</b> Harnessing the Power of Comparative Functional Genetics: How the Medically Important Enzyme Na <sup>+</sup> , K <sup>+</sup> -ATPase Can Advance the Treatment of Cardiovascular Diseases	<b>Yi Xie</b> (Massachusetts Institute of Technology)
8:30AM	<b>PO20-0015</b> Inter-campaign Bias and Data Noise Issues in the ICESat Series	<b>Noah Bergam</b> , Sanskar Agrawal, Lukas Harris, Michael Nguyen, Mihika Sharma (University of Texas at Austin)
8:40AM	<b>PO20-0018</b> Cane Companion: Leveraging Modern Hardware Tools and Utilizing Deep Learning Methods to Create an Assistance Method for Individuals with Visual Disorders	<b>Neeraj Rattehalli</b> , Ishan Jain (Menlo Atherton High School)
8:50AM	<b>PO20-0021</b> Optimization of the Temporal Profile of DBS Therapy for Parkinson's Disease	<b>Aidan Riley</b> (University of Connecticut)
9:00AM	<b>PO20-0044</b> A New Strategy for Effectively Developing clear and concise Asynchronous Virtual Courses	<b>Winter Williams</b> (University of Massachusetts Amherst)
9:10AM	<b>PO20-0057</b> A Novel Approach to Assisting Gene Therapy of Hearing and Balance Loss Using Artificial Intelligence	<b>Connie Jiang</b> , Michelle Chen (Palo Alto High School, Crystal Springs Uplands School)
9:20AM	<b>PO20-0062</b> High Dimensional Quantum Sampling and Entropic Uncertainty	<b>Keegan Yao</b> (University of Connecticut)
9:30AM	<b>PO20-0063</b> Evaluating the Impact of Data Offloading in Dense Wireless Networks with Optical Communication	<b>Myles Toole</b> (University of Massachusetts, Boston)
9:40AM - 10:00AM	<b>Session Open for questions for any poster presenters</b>	

**Poster Presentation (Session #1 - Room A)**

IEEE MIT Undergraduate Research Technology Conference 2020  
Poster Presentation Sessions Schedule

**Sunday, October 11, 2020 (8:00AM - 10:00AM)**  
**Poster Presentation (Session #1 - Room B)**  
**Machine Learning / Artificial Intelligence (AI)**  
**Session Moderator: Penny Tan**

TIME	Poster Title	Presenter
8:10AM	<b>PO20-0012</b> Coreference Resolution for Neutralising Gendered Pronouns	<b>Parth Raghav</b> (Reed College)
8:20AM	<b>PO20-0047</b> Faster Region-Based Convolutional Neural Network for Tumor Localization in Thermograms: A Novel Deep-Learning Based Approach to Breast Cancer Screening	<b>Sadhana Lolla</b> (Massachusetts Institute of Technology)
8:30AM	<b>PO20-0049</b> A Novel Pupillometric Based Application for the Automated Detection of ADHD Using Machine Learning and Time-series Analysis	<b>William Das, Shubh Khanna</b> (Hunter College High School, Icahn School of Medicine at Mount Sinai)
8:40AM	<b>PO20-0051</b> Fast Detection of Toxic Emissions Using Deep Neural Network Based Sensing	<b>Ibrahim Bhavnagarwala, Adam Bhavnagarwala</b> (Danbury High School)
8:50AM	<b>PO20-0056</b> Three Methods to Handle Data Scarcity: Low-Resource NMT of Classical Latin Poetry	<b>Lucas Leary</b> (University of Puget Sound)
9:00AM	<b>PO20-0067</b> Developing a Computational Model to Diagnose Patients with Dementia	<b>Christina Vu</b> (Union College)
9:10AM - 10:00AM	<b>Session Open for questions for any poster presenters</b>	

**Poster Presentation (Session #1 - Room B)**

IEEE MIT Undergraduate Research Technology Conference 2020  
Poster Presentation Sessions Schedule

**Sunday, October 11, 2020 (10:30AM - 12:30PM)**  
**Poster Presentation (Session #2 - Room A)**  
**Robotics and Controls, Security and Communications, Computer Systems,  
Human-Computer Interaction and Graphics Tracks**  
**Session Moderator: Meenu Singh**

TIME	Poster Title	Presenter
10:40AM	<b>PO20-0034</b> Active Domain Randomization for Robust Control	<b>Qixuan Jin</b> (California Institute of Technology)
10:50AM	<b>PO20-0035</b> Talk and Roll Bot - Mindcontrol	<b>BingFang Chen</b> (New York City College of Technology)
11:00AM	<b>PO20-0046</b> Hero-1 Robotic Arm	<b>Joycephine Li</b> (New York City College of Technology)
11:10AM	<b>PO20-0065</b> Exploring Post Quantum Analog Encryption	<b>Anant Sinha</b> (University of Michigan Ann Arbor)
11:20AM	<b>PO20-0059</b> Implementation of MPI in A Data-Driven Thermal Simulation Approach for CPUs	<b>Kayla Ruttan</b> (Clarkson University)
11:30AM	<b>PO20-0027</b> Development of Mobile Applications for Medical Isotope Reference	<b>Vanessa Rodriguez</b> (St. Joseph's College)
11:40AM - 12:30PM	<b>Session Open for questions for any poster presenters</b>	

**Poster Presentation (Session #2 - Room A)**

IEEE MIT Undergraduate Research Technology Conference 2020  
Poster Presentation Sessions Schedule

**Sunday, October 11, 2020 (10:30AM - 12:30PM)**  
**Poster Presentation (Session #2 - Room B)**  
**BioEECS and Applied Physics Track,**  
**Circuits, Materials, and Nanotechnologies Track**  
**Session Moderator: Chelsea Chen**

TIME	Poster Title	Presenter
10:40AM	<b>PO20-0001</b> LMM-22: An Enhanced Linear Mixed Model (LMM) Approach for Genome-Wide Association Studies (GWAS) for the Prediction of Diseases and Traits among Humans from Genomics Data	<b>Siddharth Sharma</b> (Stanford)
10:50AM	<b>PO20-0037</b> Development and validation of a melanoma genomic index (MGI) focused on CNVs and AOH from whole-genome SNP aiding in histological assessments of complex melanocytic lesions.	<b>Varun Agarwal</b>
11:00AM	<b>PO20-0048</b> Simple Retooling of EAGLE CAD for Designing Complex Macro to Micro Fluidic Circuits	<b>Pallavi Balivada</b> (Boston University)
11:10AM	<b>PO20-0050</b> Demonstration of Doppler Ultrasound Based Innovative Diagnostic Tool for Cancer	<b>Saksham Saksena</b> (Houston High School, University of Memphis)
11:20AM	<b>PO20-0061</b> SEIZURE DETECTION IN EPILEPSY PATIENTS USING MACHINE LEARNING ALGORITHMS	<b>Aribah Baig, Alessandro Barbiellini Amidei</b> (Foxborough High School, Saint Sebastian's School)
11:30AM	<b>PO20-0070</b> Multiband Theory of Superconductivity	<b>Joseph Cain</b> (New York University)
11:40AM	<b>PO20-0011</b> Silk-Derived Highly Dispersed Ni Supported by N-Doped Carbon Nanosheet for Electrochemical CO <sub>2</sub> Reduction	<b>Shicheng Hu</b> (Massachusetts Institute of Technology)
11:50AM	<b>PO20-0031</b> E-Cigarette Vapor Vapor Sensor Using Indium Tin Oxide Nanofibers	<b>Alexander Cho</b> (Stevens Institute of Technology)
12:00AM - 12:30PM	<b>Session Open for questions for any poster presenters</b>	

**Poster Presentation (Session #2 - Room B)**