

IEEE MIT Undergraduate Research Technology Conference 2021

Poster Presentation Sessions Schedule

Sunday, October 10, 2021 (9:00AM - 11:00AM)

Poster Presentation (**Session Room A**)**Machine Learning / Artificial Intelligence (AI) Track**

Session Moderator: Shulammite Lim

| TIME | Poster Title | Presenter |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 9:00AM | ID-71 Supervised Binary Convolutional Neural Networks with Model Stacking for Diagnosis of Fundus & Eyelid Diseases | Sirihaasa Nallamothe (University High School) |
| 9:10AM | ID-73 How Do Deep Neural Nets Compute Optical Flow? | Raphi Kang (Massachusetts Institute of Technology) |
| 9:20AM | ID-78 Novel Druglikeness Classifier Using Quantum Computing | Rithvik Ganesh (Plano West Senior High School) |
| 9:30AM | ID-86 FallWatch: A Novel Approach for Through-Wall Fall Detection in Real-Time for the Elderly | Aditya Chebrolu (Independence High School) |
| 9:40AM | ID-90 Computational Models Recapitulate Key Signatures of Face Processing in the Fusiform Face Area | Alex Abate (Massachusetts Institute of Technology) |
| 9:50AM | ID-94 L1-Norm Principal Component Analysis via Multiple Bit Flipping | Christie Agbalessi (Rochester Institute of Technology) |
| 10:00AM | ID-99 Poster - The Effect Of Data Augmentation on Deep Representations | Phuc H Ngo (Beloit College) |
| 10:10AM | ID-102 Neural Activity & Visual Stimuli: How the Brain Sees Video | Hermes Bonilla (Florida International University) |
| 10:20AM | ID-107 FlowState - Productivity Helper | Tejas Khare (Hillsborough High School, NJ) |
| 10:30AM | ID-11 Outfitting a Compact Steel Casting System for Mobile Foundry for Department of Defense (DoD) Rapid Equipping Force (REF) | Joshua Thomas (Worcester Polytechnic Institute) |
| 10:40AM | ID-92 Deep Learning Models using Grad-CAM Algorithm and Augmented OCT | Andrew M Romero (CSU Chico: OIIP Lab) |
| 10:50AM - 11:00AM | Session Open for questions for any poster presenters | |

Poster Presentation (Session Room A)

IEEE MIT Undergraduate Research Technology Conference 2021
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Sunday, October 10, 2021 (9:00AM - 11:00AM)
Poster Presentation (Session Room B)
Machine Learning / Artificial Intelligence (AI); Innovation Research;
Biological and Biomedical Engineering (BioEECS);
Session Moderator: Qiong Huang

| TIME | Poster Title | Presenter |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 9:00AM | ID-2 Developing a modified version of Generative Adversarial Network to predict the potential anti-viral drug of COVID-19 | Md.Sadek Hossain Asif (Notre Dame College Dhaka) |
| 9:10AM | ID-109 Latent Space Modeling of Heterochromatin Protein 1 (HP1) Evolution | Abigail M Adams (University of Wisconsin - Stevens Point) |
| 9:20AM | ID-111 Sentiment Analysis of COVID-19 Social Distancing Tweets | Diwen Zhu (University of Waterloo) |
| 9:30AM | ID-27 Breakthroughs in Honeybee Health: Continuous-Release Mist Diffusion of Thymol- Based Essential Oils | Kaitlyn N Culbert (Toms River High School North) |
| 9:40AM | ID-70 Resumary: User-Centered Design and Development of a Mobile App to Build Resume | Sophia L Zhou (Massachusetts Academy of Math and Science at WPI) |
| 9:50AM | ID-87 Optimizing Naval Power Systems for Transient and Steady-State Conditions | Davis Hobbs (University of South Carolina) |
| 10:00AM | ID-88 The Implications of State Aggregation for Markov Decision Process Models with Medical Applications | Madeleine M Pollack (Georgia Institute of Technology) |
| 10:10AM | ID-96 A Tool to Alleviate Perceived Stress in Adolescents | Ashika Srivastava (Chamblee High School) |
| 10:20AM | ID-101 Optimized Route Planning for the Visually Impaired | Allan Zhang (Ridge High School) |
| 10:30AM | ID-113 Improving Control of Upper Extremity Orthoses with Limb Trajectory Prediction | Mustafa Mohammed (University of Illinois at Chicago) |
| 10:40AM - 11:00AM | Session Open for questions for any poster presenters | |

Poster Presentation (Session Room B)

IEEE MIT Undergraduate Research Technology Conference 2021

Poster Presentation Sessions Schedule

Sunday, October 10, 2021 (9:00AM - 11:00AM)

Poster Presentation (**Session Room C**)Biological and Biomedical Engineering (BioEECS); Circuits, Materials, and Nanotechnologies;
Robotics and Controls; Security and Communications; Space Application and Technologies

Session Moderator: Chelsea Chen

| TIME | Poster Title | Presenter |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 9:00AM | ID-30 LungStat: Improving Lung Cancer Diagnostic Accuracy through Computer Vision | Aditya Rai (Plano West Senior High School); Kaustubh K Sonawane (Plano West Senior High School) |
| 9:10AM | ID-89 ANALYZING COX PROPORTIONAL HAZARDS ASSUMPTION VIOLATIONS IN BREAST CANCER PATIENTS USING TUMOUR mRNA ABUNDANCE DATA | Doyoon Kim (Cleveland High School) |
| 9:20AM | ID-93 Effect of Stroke Deviation on the Aerodynamic Performance of the Smallest Flying Insects | Hrithik Aghav (The University of Arizona) |
| 9:30AM | ID-81 Refocusing Analog Electronic Pedagogy to Emphasize Practical Skill Development within a PSoC Environment | Xavier A Smith (Massachusetts Institute of Technology) |
| 9:40AM | ID-82 A Dry Transfer Technique for Chemical Sensors Based on Two-Dimensional Materials | Melbourne Tang (Massachusetts Institute of Technology) |
| 9:50AM | ID-103 Characterization of large-area superconducting microwires for single-photon detection | Ekaterina Y Arutyunova (Wellesley College) |
| 10:00AM | ID-74 Efficient Ground Vehicle Navigation Using Aerial Images | Jehan Shalabi (Massachusetts Institute of Technology) |
| 10:10AM | ID-105 Outdoor-to-Indoor 28 GHz mmWave Measurements in the COSMOS Testbed Deployment Area | Sienna Brent; Gulnur Avci (Columbia University); Jared Moser (Stuyvesant High School) |
| 10:20AM | ID-97 Investigating the Relationship between Urbanization and Mosquito Hotspots | Ashika Srivastava (Chamblee High School); Uma Desai (El Segundo High School) |
| 10:30AM | ID-75 A Game Theoretical Authentication Approach Towards Trustworthy Outsourced Deep Neural Networks | Louay Ahmad (Montclair State University) |
| 10:40AM | ID-100 Fast and Secure Friend Recommendations in Outsourced Online Social Networks | Bharath K. Samanthula (Montclair State University) |
| 10:50AM - 11:00AM | Session Open for questions for any poster presenters | |

Poster Presentation (**Session Room C**)