

SYRACUSE UNIVERSITY COLLEGE OF ENGINEERING AND COMPUTER SCIENCE
2021 ECS RESEARCH DAY AGENDA
MARCH 12, 2021



PRESENTATION AWARDS

ENERGY, ENVIRONMENT AND SMART MATERIALS

First Prize: ***Light-Induced Self-Writing: A Novel Approach to Develop Organized Polymer Composite Materials.*** Shreyas Pathreker; Advisor Dr. Ian Hossein

Second Prize: ***Development of Inside Out Solid Oxide Fuel Cells for Combined Heat and Power Systems.*** Alexander Hartwell, Advisor Dr. Jeongmin Ahn

Third Prize: ***HYDRUS-1D Modeling to Represent Hydrologic Performance of the OnCenter Green Roof.*** Courtney Gammon; Advisor Dr. Cliff Davidson

COMMUNICATION AND SECURITY

First Prize: ***Optimized Virtual Antenna Array of Wideband Narrow Beam MIMO System for Overlapped Virtual Elements.*** Richard Tanski, Advisor: Dr. Jay Lee

Second Prize: ***Coverage in Networks with Hybrid Terahertz, Millimeter Wave, and Microwave Transmissions.*** Xueyuan Wang, Advisor: Dr. M. Cenk Gursoy

Third Prize: ***An Efficient Deep Capsule Network with Interleaved Sparse Connections and Attention-Based Routing.*** Chenbin Pan, Advisor: Dr. Senem Velipasalar

SENSORS, ROBOTICS AND SMART SYSTEMS

First Prize: ***Towards Disaster Recovery: Incorporating the Uncertainties Caused by Cyber Attacks in Controlled Islanding.*** Sagnik Basumallik, Advisor: Dr. Sara Eftekharnjad

Second Prize: ***Real-Time Adaptive Sensor Attack Detection in Autonomous Cyber-Physical Systems.*** Francis Akowuah, Advisor: Dr. Fanxin Kong

Third Prize (tie): ***Data Generation for Transient Stability Assessment to Address Lack of Training Data.*** Rui Ma, Advisor: Dr. Sara Eftekharnjad AND ***Soft Crawling Inchworm Robot Enabled by Dynamically Tunable Friction.*** Siavash Sharifi, Advisor: Dr. Wanliang Shan

HEALTH AND WELL-BEING

First Prize: ***Investigation of the Effects of Electrochemical Reactions on Complex Metal Tribocorrosion within the Human Body.*** Thomas Welles; Advisor Dr. Jeongmin Ahn

Second Prize: ***Prediction of Tight Junction Strand Architecture.*** Nandhini Rajagopal, Advisor Dr. Shikha Nangia

Third Prize: ***Persister Control by Leveraging Dormancy Associated Reduction of Antibiotic Efflux.*** Sweta Roy; Advisor Dr. Dacheng Ren