Monday, November 9 - Undergraduate Expo Posters				
Submission Code	**Poster Number**	**Submission Name**	**First Name**	**Last Name**
187191	U1	Design and Fabrication of a Solar Water Heater	Ethan	Thorwarth
190807	U2	Modeling Carbon Transport in a Modified Desalination Membrane	Kinjal	Gupta
190857	U3	Development of a Wearable Pressure-Sensing Insole for Athletic Foot Strike Monitoring	Ashokkumar	Sharma
191582	U4	Topology-Preserving Graph Neural Network for Data-Efficient Surface Pressure Prediction on Naca 4412 Airfoils at Low Reynolds Numbers	Suhaan	Saeed
191879	U5	Multi-Objective Airfoil Shape Optimization Using Nsga-Ii and Cst Parameterization	Chadley	Gede
192120	U6	Development of a Digital Twin Framework for Predictive Maintenance of the Rsw System in Peruvian Industrial Fishing Vessels	Shweta	Dabetwar
192462	U7	Strengthening and Embrittlement Tradeoffs in Ss316l With Molybdenum or Tungsten	Sudhir	Karthikeyan
192687	U8	The Importance of Modeling Realistic Damping in an Fsae Vehicle	Shota	Fujihara
192894	U9	Additive Manufacturing of Regionally Customized Insoles for Diabetic Foot Care	Martin	Ha
193084	U10	Suction Force Characterization of 3d-Printed Octopus-Inspired Soft Grippers	Kajetan	Walicki
193141	U11	Titanium Microalloying in Lpbf Inconel 718 for Enhanced Precipitation Strengthening	Eitan	Sacks
193307	U12	Design and Experimental Validation of a Low-Cost Emg-Controlled Active Orthosis for Upper-Limb Rehabilitation	Aaron	Olton
193347	U13	Design and Testing of a Low-Cost Sensor Buoy	Jiawei	Hu
193468	U14	Reliability-Driven Optimization of Lunar Surface Microgrids: Structural Mass Reduction and Thermal Resilience via Phil Validation.	Marisa	Zimmerman
193524	U15	Making Fragmented Beam Into a Material	Eduardo	Garcia Sosa
196239	U16	Solar Hybrid Cooling for Tropical Climates	Sofia	Miller
197928	U17	Design and Simulation of an Optimized PID Control Architecture for a Single-Axis Robotic Joint Actuator	Danahe	Marmolejo
198168	U18	Pdms-Based Coatings for Environmentally Friendly Marine Antifouling Applications	Samantha	Hoang
198287	U19	Additive Manufacturing Techniques for Villus-Crypt Biomimetic Scaffolds: From Vat Photopolymerization to Hydrogel-Based Bioprinting	Adriza	Banerji
198368	U20	Title: Peg-Functionalized Interdigitated Electrodes for Electrochemical Detection of Ca-125 With Limit of Detection Evaluation	Mason	Cooper
198411	U21	Space Solar Power for High-Altitude Mining: A Techno-Regulatory Assessment Using the Cerro De Pasco Case Study	Jerhyn	Camillocci
198497	U22	Introducing Machine Learning Predictive Models for the Electrospinning Process for Non-Destructive Evaluation Predictions	Ashley	Freel
198500	U23	Automated Electrohydrodynamic Feature Extraction in Near-Field Electrospinning Using Computer Vision	Abigail	Ramsey
198551	U24	An Automated Deep-Learning Workflow for Segmenting and Characterizing Carbonaceous Particles in Transmission Electron Microscopy Ir	Andrew	Braun
198553	U25	Dynamic Control System of the Compliant Earthworm Robot	Elaine	Batts
198607	U26	Multiplex Detection of Alzheimer's Disease Biomarkers Using a Microfluidic-Based Capacitive Biosensor	Nathaniel	Pierre-Louis
198717	U27	A Dataset Generation Framework via Custom Wireless Daq for a Dual-Bed Gasifier	Pavel	Sidun
198735	U28	Optimization of a Mechanical Pet Water Bottle Recycling System for Fdm 3d Printing Filament	Danahe	Marmolejo
198806	U29	Nanosensor for Ppt-Level Pfas Real-Time Detection in Water	Mohammad	Hossan
198912	U30	How to Find a Suitable Ai Model for Battery Soh Diagnosis?	Qiuyan	Li
198952	U31	Twinforge: A Simulation-First Digital Twin Framework for Defect Propagation and Robotic Handling in Additive Manufacturing	Nicholas	Fedorak
199113	U32	Effect of Alternating Magnetic Field Strength on the Heat Generation Characteristics of Magnetic Particle Suspensions	Brooke	Rosenshine
199205	U33	Vision-Based Sim-to-Real Reinforcement Learning for Cobot Precision Pick-and-Place	Veronica	Fish
199475	U34	Investigation of Stiffness and Strength of a Non-Adhesive Metal-Composite Joint for a Motorcycle Composite Battery Container	Massimo	Tozzi
199516	U35	The Role of Geometric Cohesion in Granular Flows	Rizal Allan	De Leon
199703	U36	Influence of Surface Charge on Functionalized Polystyrene Film Morphology	Luke	Baxter
199747	U37	Quadrotor Uav Attitude Control System Design Based on Lqr and Complementary Filter	Chadley	Gede
199878	U38	Barriers for School Systems	Asheesh	Lanba
199951	U39	Vision-Based Tactile Sensing for Dermoscopic Imaging: Detecting Early Signs of Skin Cancer	Sohail	Zaidi
200019	U40	Composition-Dependent Liquid-Phase Sintering of Extrusion-Printed W-Ni-Fe Heavy Alloys	Julia	Oubre
200024	U41	Transient Thermal Analysis of Active and Passive Interventions for Next-Generation Wildland Firefighter Emergency Shelters	Paola	Mora
200168	U42	The Daqmobile: An Rc Car-Based Sensory Platform for Improved Learning Experiences	Ayse	Tekes

200198	U43	Tessellation Fidelity of Planar and Curved Microtextures in Stl Conversion Under Matched Areal Roughness	Karl	Kain
200209	U44	Model-Informed Closed-Loop Robotic Cutting for Controlled Chip Morphology	Eugenia	Jin
200213	U45	Evaluating Geometry Interpolation Methods for Realistically-Shaped Voids: A Sensitivity Analysis of Stress Fields	Sohail	Zaidi
200223	U46	Modeling Carbon Transport in a Modified Desalination Membrane	Samuel	Mitchell
200224	U47	Hydrophobic Aerogel Surfaces: Effects on Ice Formation and Removal	Sohail	Zaidi
200232	U48	Mof-Derived Cerium-Modified Nitrogen-Doped Carbon Nanocomposite Coatings for Enhanced Corrosion Protection of Mild Steel	Sohail	Zaidi
200240	U49	Motion Control of Ziplines: A New Design Methodology Inspired by Speed Governors	Feng	Dung
200246	U50	Development of a Bilateral Glove System for Hand Rehabilitation	Austin	Stallings
200271	U51	A Finite-Element Study of Ellipsoid-Fitting Algorithms for Realistically-Shaped Microstructural Heterogeneities	Caiden	Sivak
200283	U52	Data Center Waste-Energy Recovery: Armory Innovation Data Center	Hanna	Lutz
200284	U53	Design and Testing of a Desktop Braider for Bioresorbable Blood Flow Diverters	Leighton	Karpinia
200287	U54	Development of an Immersion Ultrasonic Testing System for Defect Detection	Aedan	Bird
200289	U55	Vision-Based Object Localization and Robotic Arm Positioning	Kaleem	Bocus
200291	U56	Understanding Pen Spinning as a Control Problem: Identifying Initial Forces to Replicate Desired Motion	Shashwat	Yadav
200295	U57	Non-Dimensionalized Surrogate Modeling and Optimization Method of Toroidal Propeller Design	Sohail	Zaidi
200308	U58	Osiris-Ugv: Energy-Aware Path Planning and Trajectory Evaluation for Autonomous Soil Sampling	Sohail	Zaidi
200312	U59	Use of Nonlinearities for Hand Tremor Suppression	Drew	Homan