

Electrical and Computer Engineering

POSTER SESSION, 9:00am to Noon Atwater Kent Labs, Hallway Floor 1

Electric Jet ski

Matthew Fredo, Patrick Hyland, Antonio Torres, Isaac Tufts, Samuel Boudreau (ME), James Hammel (ME), Mathieu Michaud (ME), Blake Pedersen (ME), Zachery Therrien (ME)
Advisors: Mehul A. Bhatia (ME), Stephen J. Bitar

Playing Pong for Stroke Rehabilitation Therapy Using a Real-Time Wireless Wearable Electromyogram Sensing System

Dilan Altiparmak, Alexandria Miera, Alicia Salvalzo
Advisor: Ted Clancy

Open Source 5G Networks, Spoofing Attacks and Proof-of-Concept Multi-Node Continuous Spectrum Analysis

Kena Dudac, John Matthews, Matthew Zoner, Eric Heinemann (CS), Conor McDonough (CS), John Petrarca (CS)
Advisors: Alexander Wyglinski, Robert Walls (CS)

User Study and Optimization of Wearable Transcutaneous Oxygen Sensor

Abigail Leonardi, Vanshika Rohera, Sydney Hobson (BME), Ciara Murphy (BME)
Advisor: Ulkuhan Guler

Open Source IC Design for Post Quantum Cryptography

Alexander Demirs, Bruce Huynh, Matthew Wong
Advisors: Patrick Schaumont, Herman Servatius (MA)

High Altitude Balloon for Measuring Environmental Pollution – HAB 4.0

Connor Borsari, Nicholas Chantre, Jonathan Lopez, Drew Solomon
Advisor: Gregory Noetscher

POSTER SESSION, 9:00am to Noon Atwater Kent Labs, Hallway Floor 2

Formula Electric SAE for 2022-2023

Daniel Ali (ME), Jared Bushnell (ME), Sophie Chretien (ME), Edward Clifford (CS), Javier Espinal, Eric Gustafson (ME), Ori Katz, Emily Kelley (RBE), Henry Livingston, Pranjali Mann (ME), James Mitchell (RBE), Macy McEnaney (ME), Peter Murray (ME), Matthew Reynolds (CS), Michael Rideout, Alan Robertson, Thomas Walsh (ME), Sam Sands (ME), Alexander Wessel, Noah Wolf
Advisors: William Michalson (RBE), David Planchard (ME)

Detecting Clouds and Forecasting Power of a PV System

Megan Hanlon, Emma Pruitt, Olivia Rockrohr, Erin Carter (CS),
Advisors: Gregory Noetscher, Tian Guo (CS)

Ropeless Lobster System: Resurfacing Oceanic Locator

Caylee Butler (ME), Slater Campbell, Trevor Parks (ME), Charlie Snow (CS)
Advisor: William Michalson (RBE)

Photon Emission and Laser-Assisted Side-Channel Analysis of Hardware Implementations

Evan Wu
Advisor: Shahin Tajik

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POSTER SESSION, 9:00am to Noon
Atwater Kent Labs, Pumpkin Lounge,
Floor 1

Virtual Conference with Augmented Technology

Weizhe Wang
Advisor: Xinming Huang

WPI Center for Well-Being Electrical System Design

Thuyen Nguyen
Advisor: Stephen J. Bitar

Automate Model Data into a Physics-Based Analytic Software

Maya Ellis
Advisor: Shamsnaz V. Bhada
Sponsor: MITRE

Small-Size Soccer Robots

Benjamin Schwantes
Advisor: Stephen J. Bitar

Audio-Based Object Recognition

Zhuolin Liu, Michael Rothstein
Advisor: Bashima Islam

Vulnerability Analysis of Security ICs Against Laser Fault Inject

Kyle Mitard
Advisor: Shahin Tajik

Real-Time Temperature Controlled Microalgae Incubator Testbed

Max To, Katerina Angjeli
Advisor: Stephen J. Bitar

Open Source FPGA Implementation of Number Theoretic Transform for CRYSTALS-Dilithium

Brandon Voci
Advisor: Patrick Schaumont,
Herman Servatius (MA)

