Electrical & Computer Engineering

POSTER SESSION, 8:30am to 12:00pm
Harrington Gym

Automated Wearable ECG Editing With DNN
Vincenza Burdulis, Jacob Nguyen,
Daniel Sardak (CS/DS)
Advisor: Bashima Islam

Design of AI-Enabled Chatbot
Qiihan He, Rolando Salamea-Lopez, Colin Mettler (CS), Guillermo Morel Mendez (CS), Hrishikesh Nair, Quincy Payne (ME), Federico Perez (DS), Xiao Xiao (CS)
Advisors: Lin Cheng (MME), Bo Tang

Developing DC/DC Converter Topology for Fuel Cell Charging of 280-400V Hybrid-Battery Bus
Ryan Cote, Edison Doko, Efthymios Marios Loukedes, Kathryn Sirowich, Meng Wang
Advisor: Gregory Noetscher
Sponsor: Honeywell International, Inc.

FPGA Accelerated SAT Solver
Sam David (ECE/CS), Joshua Eben, Andrew Gray, Patrick Hunter (ECE/CS), Matthew Lund, Coco Mao (Xinyun Mao)
Advisor: Koksal Mus

FSAE Electric Car
Hussain Bhatti, Harris Brancazio (ME), Henrique Checcucci Bahia dos Santos (ME), John Demedeiros, Emma Dimming (RBE), Connor Dowgielewicz (ME), Zoe Goodman, Carson Graham (CS), William Gunn (ME), Sam Kierstead (ME), Evelyn Maude (RBE), Arnav Sacheti (CS/ECE)
Advisors: William Michalson (RBE), David Planchard (MME), Andre Rosendo (RBE)

Hybrid GaN-SIC Power Switches for Future E-Mobility Applications
Wassim Faker
Advisor: Stephen Bitar

Industrial Control System
Christopher Danti, Casey Frommer
Advisor: Gregory Noetscher
Sponsor: Babcock Power Services

Integrated Solutions Towards Wireless Transcutaneous Oxygen Monitor
Ali Atta (ECE/BME), Olivia Kendzulak, Ryan McSweeney, Naisargi Mehta (ECE/BME)
Advisor: Ulkuhan Guler

Luminescence-Based Sensing for Transcutaneous CO2 and SpO2 Assessment
Evan Apinis, Kleo Golemi, Kosti Pano
Advisor: Ulkuhan Guler

Modular Gaming Table
Kaiwen Chen (ME), Jimmy Clemente (ME), Joshua DeVoy (ME), Nikolaos Konstantinou, Emma Nollman (ME), Chloe Trotta-Smith (ME)
Advisors: Medhi Mortazavi (MME), Donald Brown

Music for Muscular Dystrophy
Luke Harrington, Joshua Hollyer, Dexuan Tang
Advisor: Stephen Bitar

Open-Source Design of a Cryptographic ASIC
Trevor Drane
Advisor: Patrick Schaumont

Opportunistic Communication with Zero and Low Power Radios
Aisling Corcoran, Alberto Flores, Tai Le, Allan Villatoro, Elisabeth Whitemore
Advisor: Bashima Islam

Scanning Array for EMI Detection
Sarah Chen, Michael Iberger
Advisor: Gregory Noetscher
SCApeGoat: Side-Channel Analysis Library
Samuel Karkache (ECE/CS), Trey Marcantonio
Advisors: Fatemeh Ganji, Patrick Schaumont

Shunt Resistor Based Circuit Breaker Design for Ground Fault and Arc Fault Detection
Pari Nguyen, Olivia Peterson, Dominic Ridolfi, Elinor Ross, Mason Roth
Advisors: Reinhold Ludwig, Edvina Uzunovic
Sponsor: Schneider Electric

soloPlane: Modular Electronic Mallet Instrument
William Merry (RBE), Robert Oleynick (ECE/CS), Nathaniel Reppucci
Advisors: Scott Barton (HUA), Patrick Schaumont

Speech Driven 3D Modeling
Ryan Antes, Jacob Hand
Advisor: Ziming Zhang (ECE/CS)

T-Scope: Side-Channel Leakage Assessment with a Hardware-Accelerated Online TVLA Test
Andrew Malnicof, Hao Wang
Advisor: Patrick Schaumont

Wireless Wearable Electromyogram (EMG) Shoulder System
Julia Antocci, Thomas Flanagan, Max Kanefsky, Timothy Walsh
Advisor: Edward Clancy

Variable Planar Inductor
Abigail Bracht, Maria Cox, Brendan O'Mullan, Brooke Schoen
Advisor: Gregory Noetscher