

A Special Thank You To Our Judges:

Dan Berger, GLOBALFOUNDRIES

Director Technology & Development/Advanced Silicon Packaging

Scott Bukofsky, GLOBALFOUNDRIES

Director of Business Development, Aerospace and Defense

Alex Cannella '15, Jaros, Baum & Bolles

Electrical Engineer

Patrick Cody '11, Curtis Instruments, Inc.

Senior Customer Support Engineer

Stevana Coliukos '16, IBM

Power Subsystem Technology & Qualification Engineer

Eileen Conway, Nano-Noggin Technologies,

LLC Executive Consultant and Data Maven

Kyle DeFalco '11, Central Hudson Gas & Electric Corp.

Electrical Engineer

Robb Engle, Sono-Tek

Vice President of Engineering

Jeff Gill, JBT Corporation

Mechanical Engineer

Everton Henriques '78, FuzeHub NY

Manufacturing Extension Partnership Program Solutions Manager

Cora Juczak '16, Central Hudson Gas & Electric Corp.

Junior Engineer

Claus Kinder, Selux Corporation

Director of Engineering Solutions

Robert Marcinik, Nordex Inc.

Vice President of Operations

Kevin Nguyen, Keysight Technologies Inc.

Field Applications Engineer

Ping-Chaun Wang, GLOBALFOUNDRIES

Principal Member of Technical Staff

ENGINEERING Senior Design EXPO

Friday, May 5 ▪ Wooster Hall



2:30 P.M. Refreshments and Networking

3:00 P.M. Welcome Remarks

3:15 P.M. Judging Begins

4:45 P.M. Winners Announced

Welcome to the spring 2017 SUNY New Paltz Division of Engineering Programs Senior Design EXPO!

We are proud to showcase our portfolio of Senior Design projects once again. The students and faculty have collaborated on these projects striving to achieve an innovative real-world design.

This year, we are excited to extend a hearty congratulations to the first graduating class of Mechanical Engineers. These students have reached an important goal through hard work, perseverance and the continued support of the SUNY New Paltz Mechanical Engineering faculty.

Finally, a very special thank you to the judges for their time and talents in recognizing our student's designs. Their assessment will have an impact on both present and future student's careers and designs.

Congratulations to all of the Senior Design participants! Enjoy the EXPO!

*Julio Gonzalez, Chair
Division of Engineering Programs*



*Congratulations to all of SUNY New Paltz
Division of Engineering Program's
graduating engineers, and the first class
of Mechanical Engineers,
from your friends at the American Society
of Mechanical Engineers.*

Engineering Senior Design II

Sarnicus Electronics: Clockwork A (Digital Delay/Looper)

Joseph Sarni, Sandra Liranzo &
Kumar Magar (EE)
Advisor: Dr. Julio Gonzalez

Snow Sense: Management and Automation of Snow Plowing Service Requests using Firebase

Felipe Telles (EE)
Kayla Marchant (ME)
Advisor: Dr. Baback Izadi
Co-Advisor: Nitya Narasimhan

Adjustable Cruise Control System for a Motorcycle

Dylan Atkins &
Christian Zoeger Boggiano (ME)
Advisor: Dr. Jared Nelson

Advanced Gantry System of an Open Source 3D Printer

Lori Jockers & Jeffrey Huang (ME)
Advisors: Dr. Jared Nelson
& Aaron Nelson

Design and Implementation of a Tesla Turbine

Ariel Pignatelli, Jack Yang &
Chris Cabral (ME)
Advisor: Dr. Rachmadian Wulandana

Hands-Free Solar Drone Charger

Joseph Micheletti, Rawsel Murillo &
Ali Ghamri (EE)
Advisors: Dr. Ghader Eftekhari
& Dr. Hassan Kalhor

ReaLock: The Smart Realty Lockbox

Serena Hazzard (EE)
Emerson Benn (CE)
Advisor: Dr. Baback Izadi
Co-Advisor: Dr. Nitya Narasimhan

Internet of Things and the Future

Joseph Abel (CE)
Advisors: Prof. Michael Otis &
Dr. Casimer DeCusatis

An RF Energy Harvesting System that Powers IoT Temperature Sensors using Ambient Local Wi-Fi

John Kuhling & Michael Feenaghty (EE)
Advisor: Dr. Reena Dahle

Variable Voltage Switch Mode Laptop Power Supply

Anthony Lederhaas & Justin Paul (EE)
Advisor: Dr. Gerald Selvaggi

Tabletop Robotic Soccer Goalie

Brendan Ruppel &
Mikaela Stiklickas (CE)
Advisor: Prof. Michael Otis

Finding Efficiency Using Thermoelectric Cooling

James Earl (CE) & Mark Rodi (EE)
Advisors: Dr. Faramarz Vaziri &
Dr. Rachmadian Wulandana

Programmable Battery Charger

Deep Shah, Yano Saint-Preux &
Joseph Julien (EE)
Advisor: Dr. Julio Gonzalez

Concussion Mapping

Adam Wilczewski (EE)
Advisor: Dr. Faramarz Vaziri

Weightlifting Analysis Device

Kelly Booth (EE)
Advisor: Prof. Michael Otis

Engineering Senior Design I

Dental Identification Device

Jessie Cziotka & Darwin Debrito (EE)
John Padoginog (CE)
Advisor: Dr. Julio Gonzalez

Mobile Manufacturing: 3D-Printing Drone

Azer Khan (CE)
Advisor: Dr. Faramarz Vaziri

Vibrate

Brian Castellano (CE)
Shakira Mata (EE)
Advisor: Prof. Michael Otis

Internet-of-Things Home Automation

Tony Thorbjornsen, Dhanvinder Singh
& Patrick Hynes (CE)
Advisors: Dr. Ghader Eftekhari &
Michael Otis

The Cluster of Pis

Joseph Camillone (ME)
Mick Matias (CE)
Advisor: Dr. Heather Lai
Stakeholder: Chirakkal Easwaran

Solar Refrigerator Using Thermoelectric Cooling (TEC)

Adama Ouedraogo (EE)
Advisors: Dr. Faramarz Vaziri &
Dr. Rachmadian Wulandana

Automatic Accident Assistant

Jim Ogana & Nicholas Wohlfahrt (EE)
Advisors: Dr. Faramarz Vaziri & Damodaran
Radhakrishnan