



SANTA CLARA UNIVERSITY

School of Engineering

# 2021 Senior Design Conference Session Winners



SANTA CLARA UNIVERSITY

# School of Engineering

## Senior Design Presentation Award Bioengineering Session 1:

*EnclIDE: Encellin Implant Delivery System*

**John DePalo**

**James Peterman**

**Isabelle Vidamo**

**Advisors: Unyoung (Ashley) Kim, Verna Rodriguez**



SANTA CLARA UNIVERSITY

# School of Engineering

## Senior Design Presentation Award Bioengineering Session 2:

*G-MAP: Gastrointestinal Myoelectric Activity Phantom*

**Kei Castleberry**

**Sarah King**

**Edie O'Connor**

**Advisors: Prashanth Asuri, Shoba Krishnan**



SANTA CLARA UNIVERSITY

# School of Engineering

## **Senior Design Presentation Award Bioengineering Session 3:**

*MilkGuard: Predictive Modeling and Mobile App Development*

**Beau Hsia  
Emma McCurry**

**Advisors: Unyoung (Ashley) Kim, Maryam Mobed-Miremadi**



SANTA CLARA UNIVERSITY

# School of Engineering

## **Senior Design Presentation Award** **Civil, Environmental and Sustainable Engineering Session 1:**

### *Suburban Tiny Home Development*

**Paul Carr**

**Chris Wang**

**Colin Wood**

**Advisors: Laura Doyle, Edwin Maurer, Tonya Nilsson**



SANTA CLARA UNIVERSITY

# School of Engineering

## **Senior Design Presentation Award** **Civil, Environmental, and Sustainable Engineering Session 2:**

*Water Treatment Solutions for Wildfire Impacted Watersheds*

**Michael Reyes**

**Jackson Shank**

**Mai Sinada**

**David Villani**

**Advisor: Aria Amirbahman**



SANTA CLARA UNIVERSITY

# School of Engineering

## **Senior Design Presentation Award** **Computer Science and Engineering Session 1:**

*Alzheimer's Disease Diagnostic Support Tool*

**Chelsea Fernandes**  
**Aiyushi Kumar**  
**Shreya Venkatesh**

**Advisors: Ahmed Amer, Julia Scott**



SANTA CLARA UNIVERSITY

# School of Engineering

## **Senior Design Presentation Award** **Computer Science and Engineering Session 2:**

*Drone Mesh Wifi System for Disaster Scenarios*

**Cameron Burdsall**

**Mark Rizko**

**Advisor: Behnam Dezfouli**





SANTA CLARA UNIVERSITY

# School of Engineering

## **Senior Design Presentation Award Computer Science and Engineering Session 3:**

*Siheyuan*

**Andrea Horvath**

**Isabel Wu**

**Advisor: Dan Lewis**



SANTA CLARA UNIVERSITY

# School of Engineering

## **Senior Design Presentation Award** **Computer Science and Engineering Session 4:**

*OneMe: Virtual Identity Creation and Verification, as a Service*

**James Grom**

**Advisor: Silvia Figueira**



SANTA CLARA UNIVERSITY

# School of Engineering

## **Senior Design Presentation Award Computer Science and Engineering Session 5:**

*Urban Planning Optimization via “Cities: Skylines”*

**Jack Cunningham**

**Carter Duncan**

**Alexander Kennedy**

**Andrew Wang**

**Advisor: Ying Liu**



SANTA CLARA UNIVERSITY

# School of Engineering

## **Senior Design Presentation Award** **Computer Science and Engineering Session 6 - TIE:**

*Security of Android Bluetooth with Respect to Colocated Apps*

**Omar Garcia**

**Sean Kelker**

**Advisor: Yuhong Liu**



SANTA CLARA UNIVERSITY

# School of Engineering

## **Senior Design Presentation Award** **Computer Science and Engineering Session 6 - TIE:**

*Lightweight Speed Protocol*

**Zachary Hardy**

**Advisor: Yuhong Liu**



SANTA CLARA UNIVERSITY

# School of Engineering

## **Senior Design Presentation Award** **Electrical and Computer Engineering Session 1:**

*Telehealth Sensor Authentication Through Memory Chip Variability*

**Holden Gordon**

**Calvin Kimbro**

**Thomas Lyp**

**Advisor: Fatemeh (Sara) Tehranipoor**



SANTA CLARA UNIVERSITY

# School of Engineering

## **Senior Design Presentation Award** **Electrical and Computer Engineering Session 2:**

*Powering IoT Sensors with RF Energy Harvesting*

**Kristi Nguyen**

**Austin Rothschild**

**Advisor: Kurt Schab**



SANTA CLARA UNIVERSITY

# School of Engineering

## **Senior Design Presentation Award** **Electrical and Computer Engineering Session 3:**

*Automated Mixed-Dose Pill Dispenser with Image Verification*

**Rohan Bhatt**

**Nairu Garcia-Acevedo**

**Advisor: Andrew Wolfe**





SANTA CLARA UNIVERSITY

# School of Engineering

## Senior Design Presentation Award Interdisciplinary Session 1:

*Modular Oceanic Autonomous Underwater Vehicle (AUV)  
for Novel Actuation (MOANA)*

**John Elstad  
Sean Even  
Bryan Gilbertson  
Matthew Holmes**

**Andrew Kambe  
Gregor Limstrom  
Robert Percell**

**Advisors: Christopher Kitts, Godfrey Mungal**



SANTA CLARA UNIVERSITY

# School of Engineering

## **Senior Design Presentation Award Interdisciplinary Session 2:**

*Jamming Attack Workaround Study*

**Soren Madsen  
Jack Schoen**

**Advisors: Behnam Dezfouli, Andrew Wolfe**



SANTA CLARA UNIVERSITY

# School of Engineering

## **Senior Design Presentation Award Mechanical Engineering Session 1 - TIE:**

*Frugal Urban Greenhouse*

**Connor Pearson**

**Alexandra Rivera**

**Emma Rosicky**

**Advisor: Godfrey Mungal**



SANTA CLARA UNIVERSITY

# School of Engineering

## **Senior Design Presentation Award Mechanical Engineering Session 1 - TIE:**

*Portable Bicycle-Powered Refrigeration*

**David Gilbert**

**Zach Gotvald**

**Kerri-Ann Kamei**

**Lindsay McConville**

**Brooke Watson**

**Brian Woo-Shem**

**Advisor: Hohyun Lee**



SANTA CLARA UNIVERSITY

# School of Engineering

## **Senior Design Presentation Award Mechanical Engineering Session 2:**

***Elastic Tail Propulsion at Low Re***

**Rafaela Barros-Barreto**

**Jennifer Miranti**

**Yoel Park**

**Elijah Vidal**

**Advisor: On Shun Pak**



SANTA CLARA UNIVERSITY

School of Engineering

# Congratulations, Seniors!



SANTA CLARA UNIVERSITY

## School of Engineering

# Thanks to Our Amazing Session Chairs!!!

Karina Aguirre

Nolan Anderson

Nicholas Arroyo

Daryn Browne

Valeriya Chulyukina

Kendall Defelippi

Mika Domingo

Meryem Esa

Jose Galang

Salvador Garcia

Anoushka Gupta

Michael Hall

Siena Hanna

Betty Hou

Dwight Johnson

Katya Keklikian

George Kouretas

Ben Lampe

Nicole Lawson

Niko Lopez

Stephanie Lu

Rikesh Mehta

Anthony Orciuoli

Anne Dannielle Paloma

Tania Pham

Jordan Randleman

Claire Russon

Devin Schmidt

Clarissa Silvers

Colin Sim

Eva Stenberg

Jake Taylor

Tyler Tivadar

Ashley Troske

Quinton Turner

Leslie Valenzuela

Siddharth Venkatesh

Mariela Zuniga



SANTA CLARA UNIVERSITY

School of Engineering

**Thank you,  
everyone,  
for a great event!**