



**BENG 493 - Senior Advanced Design Project 2**  
**Spring 2020**  
**Final Presentations**

**Date:** Friday, May 1<sup>st</sup>, 2020

**Time:** 1:00 pm to 3:15 pm

**Location:** BlackBoard Collaborate Ultra

**Guest Link:** <https://us.bbcollab.com/guest/3046cd353f1449fd934e01f85081fccd>

**Format:** Pre-recorded 10 min. presentations will be played through BB. Following each presentation will be a 5 min. live Q & A session with the team.

1:00 pm – 1:01 pm Welcome & Introductory Remarks

1:01 pm – 1:16 pm (including Q&A): Team 6 (Mystic)

**Team names:** Ikra Chaudhry, Fouzia Syed, Holly To, Van Anh Tran

**Title:** Cooling Humidified Hat for Multiple Sclerosis Patients

**Advisor:** Dr. Nathalia Peixoto

**Sponsors:** Community Partners, Multiple Sclerosis Patients, and Respiratory Problem Patients

1:18 pm – 1:33 pm (including Q&A): Team 7 (Airtronics)

**Team members:** Ahmad Alach, Felipe Miqui, Abdul Noor, Gautam Subramanian

**Title:** Jaw Thrust Elevation Device

**Advisors:** Dr. Qi Wei, Dr. Louis Marmon (Children's National Hospital)

**Sponsors:** GMU, Children's National

1:35 pm – 1:50 pm (including Q&A): Team 2 (OASHA)

**Team Members:** Ranya Al-Rawi, Zainab Aldarraj, Alexander Hughes, Bailey O'Shea, Seyedeh Pardis Sohraby Anaraki

**Title:** DNA-based biosensor for multiplexed detection of pathogenic bacteria

**Advisor/Sponsor:** Dr. Rémi Veneziano

1:52 am – 2:07 pm (including Q&A): Team 5 (SleepWatch)

**Team Members:** David Fernandez Pardo, Lamis Ibrahim, Sepehr Shadian

**Title:** Video-based Detection of Epileptic Seizures

**Advisor/Sponsor:** Dr. Vicky Ikonomidou

**BREAK (15 min)**

2:23 pm – 2:38 pm (including Q&A): Team 1

**Team Members:** Bakr Marouf, Angel Mora, Anh Nguyen, Alice Peters, Alexis Robbins

**Title:** Steerable Drill for Pedicle Screw Insertion

**Advisors:** Dr. Mahesh Shenai (INOVA), Dr. Lance Liotta, Marissa Howard

**Sponsors:** GMU, INOVA

2:40 pm – 2:55 pm (including Q&A): Team 4 (C-VAC)

**Team Members:** Nelson Alvarado, Vien Dang, Arwa Mostafa, Cameron Safi

**Title:** OR Smoke Evacuation System

**Advisors:** Dr. Mahesh Shenai (INOVA), Dr. Juan Cebral

**Sponsors:** GMU, INOVA

2:57 pm – 3:12 pm (including Q&A): Team 3 (Fire Fighters)

**Team Members:** Ala Al-humadi, Rameen Khalid, Holly Lane, Hannah Young

**Title:** Surgical Fire Prevention System

**Advisors:** Randy Warren, Dr. Larry Walker (INOVA), Dr. Jihui Lee (INOVA)

**Sponsors:** GMU, INOVA

3:13 pm – 3:15 pm Closing Remarks