USF UNIVERSITY OF SOUTH FLORIDA
COLLEGE OF ENGINEERING

COLLEGE OF ENGINEERING TOUR

Thursday November 9th, 2017 | 9am - 12pm

About the USF College of Engineering and Department of Mechanical Engineering:

- The USF System ranks 28th in the nation among public universities for total research expenditures by the National Science Foundation (2015).
- With 114 patents issued in 2016, USF was ranked 1st in Florida, 5th among American public universities and 11th among universities worldwide in generating new U.S. patents (NAI and IPO)
- The 2018 USNWR rankings lists the USF College of Engineering graduate programs at #55 among public universities.
- Department of Mechanical Engineering has close to 700 undergraduate and 150 graduate students from over 50 countries. The department has 20 faculty including nine professional society fellows, several prestigious national and university teaching award winners including the 2012 US Professor of the Year, five NSF CAREER awardees, and one NSF PECASE awardee.
- Areas of research in the Department of Mechanical Engineering include robotics, biomedical and tissue engineering, nanomaterials and nanomanufacturing, micro electromechanical systems, biosensors and biofluids, clean energy technologies, compliant mechanisms, rehabilitation engineering, system dynamics and vibrations, composite materials, and sustainable designs.

The following labs will be toured:

COMPUTER ASSISTED REHABILITATION ENVIRONMENT (CAREN)

- Rehabilitation of Human Balance System
- Orthopedic, Neurological, & Rehabilitation Use
- Lower and Upper Extremity Prosthesis
- Virtual Reality Environments

ASSISTIVE ROBOTICS LAB

- Wheelchair Mounted Robotic Arm
- BaxBot Mobile Humanoid
- Brain-Computer Interface

VIRTUAL REALITY FOR VOCATIONAL REHABILITATION

- Vocational Training and Assessment
- Adaptable and Motivating Environment
- Layered 3D Virtual Reality Simulation

NANOTECHNOLOGY RESEARCH & EDUCATION CENTER (NREC)

- Optical and Nano Lithography
- Thin Film Deposition and Wet/Dry Etch
- MEMS/NEMS and Nanoelectronics
- Nanostructures and Photovoltaics

CLEAN ENERGY RESEARCH CENTER

- Concentrating Solar Energy Power Plant
- The FLEX House
- Environmentally clean energy systems
- Biomass conversion/biofuels