MEng Project Offering for 2016-17

This is a list of MEng Project offerings for 2016-2017, you may also contact individual faculty for additional opportunities. This page will be updated as additional project descriptions become available.

Professor Adie
Finite element mechanical modeling for dynamic optical coherence elastography

Professor Andarawis-Puri
coming soon

Professor Avedisian
Design of a Chemical Reactor that Builds Itself
Design of a More Energy Efficient Ink Jet Printer

Professor Bewley
Compressible turbulence in a bottle
Making extraterrestrial sand dunes in a lab

Professor Bonssar
Loading Device to Enable Non-Surgical Study of Post-Traumatic Osteoarthritis in Rodents
Methods and Devices for Reshaping Craniofacial Cartilage
Delivery of Injectable Patches for Intervertebral Disc Repair
Wearable and Implantable Sensors for Monitoring of Arthritis Patients

Professor Butcher
Micro-scale Multi-axial mechanical tester for soft tissues

Professor Campbell
Autonomous Systems Lab

Dr. Diaz Artiles
Biomechanical Modeling in OpenSim of Exercise Activities using Advance Exercise Concept (AEC) Devices
Cardiovascular Modeling under Artificial Gravity combined with Exercise

Professor Fisher
Design of a data acquisition system to the study performance of wood-powered combustion equipment
Sustainable Energy Cookstove Modeling and Design

Professor Hernandez
Hernandez Group

Professor Hoffman
A Social Robotic Construction Kit
Robot for Nonverbal Communication Research

Professor Louge
Dune Field Research

Professor Peck
Space Systems Design Studio

Professor Petersen
3D-Printing Insect Habit
Electro-Conjugate Fluid Driven Soft Robot
Soft Braitenberg Vehicles
Spider-inspired miniature jumping robot

Professor Savransky
Sciencecenter Moon Pointer
Space Imaging and Optical Systems Lab

Schaffer-Nishimura Lab
Study of brain vasculature network mapped using multi-photon laser microscopy in Alzheimer Mouse model using CFD

Professor Selva
SEAK Lab Meng Projects (Systems Engineering, Architecture, and Knowledge)

Professor Ulinski
Lucy 3D QA Phantom
ASML – Super Tapper
ASML – Piezo Manipulator Athermalization
TE Robotic Assembly Simulation
Professor van der Meulen
Reducing ligament strains following osteotomy in the canine stifle

Professor Williamson
The Aircraft Wake Phenomenon
Mini Turbines in an Urban Environment

Professor Zehnder
Design of Materials for Exceptional Fracture Resistance
Degradation of High Temperature Polymer Matrix Composite due to Moisture

Professor Zhang
Energy Efficiency at Telecommunication Facilities
Renewable Energy for Heating and Emergency Preparedness
Sustainable Design Practice in the Renovated Upson Hall
The “Power” of Precision Medicine
Computer-aided tomography (CAT) for mapping air pollution
Renewable New York 2030

Project Teams
The College has a large number of project teams and some MEng students complete their MEng projects related to a team.

MAE undergraduate research opportunities (many of these offerings are available to MEng students as well)

Department of Biomedical Engineering MEng Projects
Many Biomedical Engineering design project teams find having students with mechanical engineering backgrounds to be an asset.
BME Faculty MEng Projects

Systems Engineering Projects
Cornell University Sustainable Design
Cornell Cup Create an Innovative Modular Robotics Platform