Congratulations to the recipients of Undergraduate Summer Research Awards 2016!

The following is a list of students receiving 2016 Provost Summer Research Fellowships awards.

Paul Abatemarco
Major: Chemical Engineering, Chem, Bio & Pharma Engr
Faculty Advisor: Dr. Roman Vonorov
Project Short Title: Development of a Microfluidic Cell Culture System for the Study of Stem Cell Motility

Nadia Al-Ebbinni
Major: Chemical Engineering
Faculty Advisor: Dr. Robert Barat
Project Short Title: Detailed Chemical Reaction Mechanism Simulations of Methane Partial Oxidation

Ayesha Ali
Major: Biomedical Engineering
Faculty Advisor: Dr. Sahin Mesut
Project Short Title: The Fabrication of a Novel Carbon Fiber Microelectrode for Interfacing with the Brain

Sugosh Anur
Major: Biomedical Engineering
Faculty Advisor: Dr. Eun Jung Lee
Project Short Title: Activation of Cardiac Fibroblasts Using Biaxial Stretching Replicating Heart Attack In Vivo

Nahian Basith
Major: Electrical and Computer Engineering
Faculty Advisor: Professor Mohammed Feknous
Project Short Title: Computer Vision

James Basuino
Major: Computer Engineering
Faculty Advisor: Dr. Durga Misra
Project Short Title: Modular Electronic Control Surface for Percussive Instruments

Walter Berreta
Major: Computer Engineering
Faculty Advisor: Dr. Cong Wang
Project Short Title: A Reconfigurable Open-Architecture Servo System for Research on Advanced Robotic Manipulation

Andrea Cano
Major: Civil and Environmental Engineering
Faculty Advisor: Dr. Wen Zhang
Project Short Title: Microbial Fuel Cell (MFC) Lighting System for Mobile Systems

Wilmin Ceballos
Major: Electrical and Computer Engineering
Faculty Advisor: Prof. Mohammed Feknous

Project Short Title: Computer Vision

Albert George Fraser V
Major: Physics
Faculty Advisor: Dr. Cristiano Dias

Project Short Title: Properties and Designs of Amyloid Fibrils

Michael Fredericks
Major: Chemical Engineering
Faculty Advisor: Dr. Roman Voronov

Project Short Title: Mesenchymal Stem Cell Migration and Growth in Microfluidic Devices

Einreb Funda
Major: Electrical and Computer Engineering
Faculty Advisor: Prof. Mohammed Feknous

Project Short Title: Implementation of Electroencephalography to Generate Digital Instructions

Hannah Gattuso
Major: Biomedical Engineering
Faculty Advisor: Dr. Eric Fortune

Project Short Title: Differences in Neural Processing of small and large moving sensory images

Robert Gioia
Major: Information Technology
Faculty Advisor: Dr. Tara Alvarez

Project Short Title: Proposal to Develop Novel Video Game for Oculus Rift Platform to Therapy Children with Traumatic Brain Injury and Vision Disorders

Beverly Glasgow
Major: Civil Engineering
Faculty Advisor: Dr. Mengyan Li

Project Short Title: Biotransformation of 1,4-Dioxane and Co-occurring Contaminants by an Enriched Propanotrophic Consortium

Ravindu Gunawardana
Major: Computer Engineering
Faculty Advisor: Dr. Bipin Rajendran

Project Short Title: Hand-written Digit Recognition on an Embedded GPU

Victoria Harbour
Major: Department of Chemical, Biological and Pharmaceutical Engineering
Faculty Advisor: Dr. Sagnik Basuray; Dr. James Haorah

Project Short Title: Characterizing the Blood-Brain-Barrier with the Micro-Total Neurological System
Zohour Hassan
Major: Biomedical Engineering
Faculty Advisor: Dr. Bryan J. Pfister
Project Short Title: Excitatory and inhibitory nerve study to generate a therapy for traumatic brain injury

Liem Ho
Major: College of Science and Liberal Arts
Faculty Advisor: Dr. Michael Lee
Project Short Title: Equality Network: Connecting Patients with LGBTQ Friendly Healthcare Providers

Andrew House
Major: Biomedical Engineering
Faculty Advisor: Dr. Sagnik Basuray
Project Short Title: µfilms-Micro Total Analytical System for studying Polymeric Film-Based Drug Delivery System

Assma Itani
Major: Federal Department of Biological Sciences
Faculty Advisor: Dr. Gal Haspel
Project Short Title: Role of specific inhibitory motoneurons in C. elegans locomotion examined via microfluids, tracking and optogenetics

Ashish John
Major: Electrical Engineering
Faculty Advisor: Dr. Hieu P. Nygyen
Project Short Title: III-Nitride Nanowire Solar Cells Grown by Molecular Beam Epitaxy

Richard Johnson
Major: Mechanical Engineering
Faculty Advisor: Dr. Siva Nadimpalli
Project Short Title: Design of a Testing Methodology to Measure the Polymer/Ceramic Interface

Ian Jordan
Major: Electrical Engineering
Faculty Advisor: Dr. Denis Blackmore
Project Short Title: Chaotic Circuits and a Method for Semi-Chaotic Encryption

Jimmy Lu
Major: Computer Science and Mathematics
Faculty Advisor: Dr. Michael Bieber
Project Short Title: Algorithms for contingencies and other features in highly flexible educational workflow systems

Kabir Mitra
Major: Department of Chemical, Biological and Pharmaceutical Engineering
Faculty Advisor: Dr. Somenath Mitra
Project Short Title: Utilization of Waste Heat to Generate Pure Water by Carbon Nanotube Enhanced Membrane Distillation: Application to Power Plants

Mehnaz Moon
Major: Chemical Engineering
Faculty Advisor: Dr. Wen Zhang

Project Short Title: Microwave-Assisted Antifouling Membrane Filtration Technology

Jorge Murgueytio
Major: Mechanical and Industrial Engineering
Faculty Advisor: Dr. Zhiming Ji

Project Short Title: Analysis of Stress and Strain in a Depressurized Tank with Wall Embedded Channels

Mariam Mushtaq
Major: Department of Chemical, Biological and Pharmaceutical Engineering
Faculty Advisor: Dr. Edward L. Dreizin

Project Short Title: Energy Storage Materials with oxide-encapsulated inclusions of low melting metal

John Palmieri
Major: Biomedical Engineering
Faculty Advisor: Dr. Camelia Prodan

Project Short Title: Microtubule Research

Shyamal Patel
Major: Chemistry and Environmental Science
Faculty Advisor: Dr. Yong-Ick Kim

Project Short Title: Reconstitution of two component Circadian Oscillator from "proKaiC like seKaiC" to determine specific function of KaiA on KaiC A-loop and provide greater insight into Circadian Clock mechanism

Rohit Premkumar
Major: Biological Sciences
Faculty Advisor: Dr. Dirk Bucher

Project Short Title: Co-modulation of neural circuit activity by different neuropeptides

Omar Qari
Major: Biological Sciences
Faculty Advisor: Dr. Daphne Soares

Project Short Title: Mapping the Neural Connectivity of Midwater Amphipod Phronima

Umar Rao
Major: Electrical and Computer Engineering
Faculty Advisor: Prof. Mohammed Feknous

Project Short Title: Implementation of Electroencephalography to Generate Digital Instructions

Gopal Ravindhran
Major: Biology
Faculty Advisor: Dr. Cristiano L. Dias

**Project Short Title:** The role of trimethylamine N-oxide in preventing protein misfolding during Alzheimer’s disease

Ryan Rayman
Major: Biology
Faculty Advisor: Dr. Roman Voronov

**Project Short Title:** Transfection for the Expression of Fluorescent Proteins in Mesenchymal Stem Cells for High-Resolution

Matthew Reda
Major: Mechanical Engineering
Faculty Advisor: Dr. Lu Lu

**Project Short Title:** Autonomous Snow Removal

Jennifer Rochette
Major: Biomedical Engineering
Faculty Advisor: Dr. Antje Ihlefeld

**Project Short Title:** AudIQ: Auditory Cue Training to improve Auditory Awareness

Alan Romano
Major: Computer Science
Faculty Advisor: Dr. Michael Bieber

**Project Short Title:** Designing Instructor Mentoring and Oversight for Engaging Students in Participatory learning System

Kristen Scotti
Major: Department of Chemical, Biological and Pharmaceutical Engineering
Faculty Advisor: Dr. Xiaoyang Xu

**Project Short Title:** Engineering Ligand Targeted Polymer Nanoparticles for Drug Delivery across the Blood-Brain Barrier

Aesha Shah
Major: Chemistry and Environmental Science
Faculty Advisor: Dr. Yong Kim

**Project Short Title:** Circadian Clock Oscillation Mechanism in Cyanobacteria

Tasneem Shaltout
Major: Chemistry and Environmental Science
Faculty Advisor: Dr. Alexei Khalizov

**Project Short Title:** Tiny Particles, massive Impacts: The Relationship between the Morphological and Optical properties

Mansi Sheth
Major: Biomedical Engineering
Faculty Advisor: Dr. Treena Arinzeh

**Project Short Title:** Needleless Electrospinning

Michael Tadros
Major: Federated History
Faculty Advisor: Dr. Elizabeth Petrick
Project Short Title: Investigating the lack of voter participation among the demographic of 18-24 year olds

Prasanna Tati
Major: Civil and Environmental Engineering
Faculty Advisor: Dr. Jay Meegoda
Project Short Title: Low Cost Easily Replicated Water Filter made From Local Materials for Developing Countries

Ulysee Thompson
Major: Information Technology
Faculty Advisor: Dr. Augustus Wendell; Dr. Burcak Ozludil
Project Short Title: Prototyping a Temporospatial Simulation Framework: Case of an Ottoman Insane Asylum

Maira Valencia
Major: Chemistry and Environmental Science
Faculty Advisor: Dr. Kevin Belfield
Project Short Title: New Probes for Deep Vascular Imaging by Two-Photon Fluorescence Microscopy

Nevin Varghese
Major: Electrical and Computer Engineering
Faculty Advisor: Dr. Hieu P. Nyguyen
Project Short Title: III-Nitride Nanowire Solar Cells Grown by Molecular Beam Epitaxy