Senior Design Project Opportunity for Engineering Students in 2019-2020

The Digital Health Resource Center (DHRC) is offering opportunities for students in capstone design courses in engineering (biomedical, chemical and material science, civil and environmental, computer science, electrical and computer engineering, mechanical and aerospace) to engage in health and wellness-related design projects and use of the facilities at the health science campus of UC Davis through DHRC at Aggie Square.

Benefits:
• Selected student projects can receive funding of up to $2,000.
• Participating students and faculty have access to relevant facilities and technical expertise at DHRC, as well as to appropriate industrial partners.
• Participating students and faculty are provided with round trip group transportation to and from Aggie Square.
• Participating students and faculty have the opportunity to showcase their final designs at an event at the end of the spring quarter with industrial and other health care partners.

Requirements:
• Class sessions in the spring quarter of 2020 include sessions at DHRC facilities at Aggie Square.
• Proposed student design projects should be related to health and wellness care (see project themes).

Project Themes:
• Apps that support health and wellness.
• Projects related to health care data security.
• Devices to enhance hospital and home care.
• Medical diagnostic tools and devices.
• Wearable monitoring devices and systems.
• Seamless data sharing across different platforms.
• Advanced methods for patient transport within medical facilities.
• Software and algorithms for patient data management and analytics.
• Methods and systems for patient self-navigation within a health care facility.
• Management of patient generated data and its incorporation into the health care.
• Methods and systems for presentation of curated health information to seniors.
• Systems and methods for coordination of care teams and care-givers.
• Tools and devices that can enhance use of commonly used devices such as smartphones for medical diagnosis.

Project proposals are to be submitted through faculty members teaching senior design courses to Professor Bahram Ravani, Campus Director of CITRIS and the Banatao Institute via email at bravani@ucdavis.edu. For questions, please call Professor Ravani at 530-754-6130.