	Orange County C-STEM Project **5th Annual UCD RoboPlay Competition** **Saturday, 5/19/2018** **University High School, Irvine** **For OC Middle School, High School & College Students**
Brief Description of Project (100 words)	The goal of the **Computing-STEM (C-STEM) OC** is to provide to middle school, high school and college students (and faculty) with the opportunity to learn and utilize UC Davis C-STEM Center's innovative educational program which integrates programming, robotics, Algebra and digital media. **Requested funds will support the organization of OC's 5th C-STEM Competition Day (5/19/2018),** including support for participating faculty, students and schools/colleges. It grew from 17 student teams competing in the first year (2014) to 47 student teams last year (2017). Each team consists of 3-5 students and eight unified school districts were represented. **OC C-STEM Project receives no funds from UCD and has been independently funded since inception.**
Detailed Description of the STEM Project	Dr. Harry Cheng, the Director of UC Davis C-STEM Center and Mechanical and Aerospace Engineering Professor developed modular robots which have advanced features found in the newest robotics systems and C-STEM curricula which are UC a-g approved. This interdisciplinary and hands-on innovative project is in alignment with the goals of the national agenda to expand and enhance STEM education and with the goals of the Community College's "Doing What Matters for Jobs and Economy." C-STEM OC project aims to promote student and faculty interest in programming, robotics and STEM disciplines in OC. Through UCD's novice-friendly, hands-on, interdisciplinary program, our goal is to inspire and motivate students to further explore and pursue careers and majors in C-STEM areas – to widen its appeals to the general student populations and to female students. For faculty, our goal is to introduce them to hands-on integrated learning, to engage them to work across disciplines and institutions, "activating fun, adventure, and competition" for students learning programming and robotics - and to strengthen the pipeline of students into STEM majors and careers. K-12 and college faculty participated in the UCD training workshops and inspired hundreds of students. A high school Physics faculty integrated C-STEM modules to all of his school's Physics sections, affecting over 250 students a semester. Further, this project has inspired parent engagement and various student initiatives such as starting a "C-STEM Club" and applying for $3,000 award from NCWIT to organize a week-long Robotic Camp for Girls. Three years ago, Irvine Valley College started to provide 2-week free summer program in C-STEM for high school students. Guest speakers on C-STEM Day have included an EVP of Blizzard, an Engineer from Boeing, a Technology Vice Chancellor for a college district, a former EVP of Toshiba, and the founding dean of UCI's School of Information and Computer Sciences. Further, this project continues upon grass-roots effort of volunteers, including STEM industry professionals who volunteer as judges. Last year, our project received special recognition from Congresswoman Mimi Walter's office. And this year, the Orange County Engineering Council awarded the OC C-STEM organizer, Merry Kim of Irvine Valley College, with Outstand STEM Service Award. **OBJECTIVES:** • Promote awareness and interest in STEM + Arts as a field of study and career for K-14 students; • Provide students with the opportunity to gain technical knowledge and develop critical thinking and problem-solving skills through project-based computing, robotics, digital media and math-integrated C-STEM curricula and learning activities; • Inspire and motivate students to explore STEM fields, especially for female students;

	• Organize the countywide 5th Annual C-STEM Day in OC (Saturday, May 19, 2018); • Showcase student learning through the RoboPlay Challenge Competition and Video Roboplay Competition on C-STEM Day • Provide participating faculty with support • Increase the level of connectivity between (1) faculty-to-faculty; (2) students-to-students at the middle school, high school and college levels; and (3) students-to-industry; Additional information can be obtained http://c-stem.ucdavis.edu/c-stem-day/overview/ **For OC C-STEM info, please contact Merry Kim, mkim209@ivc.edu – (949) 282-2724**
Donations and Sponsorships Sought	**Total Requested: $3,000 - $3,500** -food for participants, volunteer judges, teachers, etc. -materials and supplies for the robotic competition day setup Contact: **Merry Kim, mkim209@ivc.edu – (949) 282-2724**
Partnership/Volunteers	**20 Volunteer Judges are need for Sat. May 19, 2018** **We are seeking STEM Professionals – engineers, scientists, etc. The idea is to connect professionals with students who are interested in STEM fields.** **General volunteers needed to help setup, cleanup, etc. are needed the week of 5/14 & on Sat. 5/19** Contact: **Merry Kim, mkim209@ivc.edu – (949) 282-2724**


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