August 03, 2015 | By Erika Johnson

Undergraduate Summer Research Projects to Be Showcased at UC San Diego Aug. 13

Topics range from earthworm-inspired robotics to sea spray aerosols

More than 300 undergraduates will present faculty-mentored research to peers, professors and the general public at the annual Summer Research Conference on Aug. 13 at the University of California, San Diego. The conference is organized by UC San Diego Academic Enrichment Programs and is open to college students of all majors from across the region. This year's event will feature presentations focusing on a range of topics including earthworm-inspired robotics and the early cotton industry's influence on border culture to the blood brain barrier and sea spray aerosols.

The Summer Research Conference is free and open to the campus and local community, and registration is not necessary to attend. The event will take place from 8 a.m. to 4 p.m. on Aug. 13 at UC San Diego's Price Center and will include 35 breakout sessions in 17 rooms throughout the day. Panels will be grouped by topics, and each student presenter will have 15 minutes to share their research, followed by a short question-and-answer period.

"The goal of the conference is to support and celebrate undergraduate research conducted in San Diego and provide an opportunity for students to connect with peers in their respective scholarly fields," said David Artis, dean of Undergraduate Research Initiatives and director of Academic Enrichment Programs. "We are very excited to have participants from the local universities as well the University of Washington, Howard, Yale, and many places in between. It really has become a national conference."
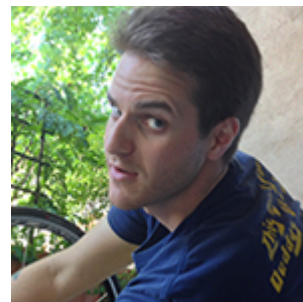
The conference is the conclusion of an intensive research program, which begins in late June and involves an eight or ten-week research apprenticeship with a faculty member, matched by student research interests. In addition to conducting original research for at least 30 hours per week, undergraduates are trained how to write a research paper and communicate findings at a conference as well as how to prepare for and succeed in graduate school.

UC San Diego students receive four units of independent study credit, and all undergraduates who participate in the Summer Research Program are provided with free on-campus housing for the summer and a fellowship stipend. The support is provided by several mentorship and scholarship programs under the umbrella of Academic Enrichment Programs, including the California Louis Stokes Alliance for Minority Participation (CAMP) in Science, Engineering and Mathematics program, which provides opportunity to underrepresented students seeking advanced degrees in those fields; the McNair Program—a year-long federal outreach program funded by the U.S. Department of Education that prepares first-generation, low-income and underrepresented students for doctoral study; as well as numerous undergraduate research scholarships.

Below is a sampling of research projects from UC San Diego students who will be presenting at this year's Summer Research Conference.

Charles Dorfan—Consumption and Gender Identity

Why do people buy things? And how does consumerism shape personality, social status and perception of happiness? Charles Dorfan is investigating all of this and more, particularly in the case of how masculinity is formed in relation to high-end bicycle equipment. A UC San Diego transfer student studying sociocultural anthropology, Dorfan intends to earn a doctorate in anthropology as well as a law degree before he goes on to become a civil rights lawyer to advocate for equal rights to education, healthcare and more. "The Summer Research Program offers an invaluable opportunity for me to do research on my own terms, without the pressures of regular coursework," said Dorfan.

Charles Dorfan

Deepika Suresh—Educational Intervention for Young Breast Cancer Survivors

Deepika Suresh, a senior at UC San Diego studying biochemistry and cell biology, would like to become a physician focusing on women's health. This summer she is working in a laboratory at the UC San Diego Moores Cancer Center to help determine the barriers that young breast cancer survivors face when referred for a genetic risk assessment. "The research I am conducting is great exposure to what I may be doing in the future as a physician," she said. "I look forward to presenting at the conference, especially because in science the way you communicate your data is crucial."

Deepika Suresh

Jahya Burke—Computing Smarter Energy

Jahya Burke wants to make a difference in the world by advancing technology as an engineer. An incoming junior at UC San Diego studying electrical engineering, Burke is helping research energy efficiency of computing systems this summer. Her work focuses on clustering, a data mining tool used to glean more useful information to be applied to smart grid technology. She is considering a path in academia or advancing technology in the engineering industry. "I chose to participate in the Summer Research Program to develop a better sense of what graduate school education is like for engineers," she said. "I also hope to increase my aptitude for research and enhance my ability to succeed in graduate school."

Jahya Burke

UC San Diego Academic Enrichment Programs facilitates numerous initiatives for UC San Diego students that provide research-oriented preparation for undergraduates of all majors as well as assistance in applying for scholarships, fellowships and graduate school. To learn more, visit their website here.

MEDIA CONTACT

Erika Johnson, 858-534-9372, erjohnson@ucsd.edu

UC San Diego's Studio Ten 300 offers radio and television connections for media interviews with our faculty, which can be coordinated via studio@ucsd.edu. To connect with a UC San Diego faculty expert on relevant issues and trending news stories, visit https://ucsdnews.ucsd.edu/media-resources/faculty-experts.