Summer break means barbeques, fireworks, vacations, and relaxation. But for the College of Engineering, it’s also a chance to connect with young students from around the country, and to introduce them to various aspects of engineering. This summer, the college has played host to three such activities.

Through the support of a grant funded by the U.S. Department of Education, and brought to UNLV by the Nevada System of Higher Education, the College of Engineering held a three-day nanotechnology camp in June, designed to broaden students’ interest and encourage them to study science and engineering at the college level. Sixteen area high school students came to UNLV’s campus and participated in hands-on activities, learning about nanotechnology and its cutting-edge applications. Mechanical engineering Professor HuiZhao, along with other engineering faculty and graduate students, led them in projects that included synthesizing nanoparticles, making dye-sensitized solar cells, and using nanoparticles to enhance the efficiency of solar cells.

In July, the college continued its relationship with the Fort Valley State University Cooperative Developmental Energy Program, once again hosting the Mathematics, Science, and Engineering Academy, a summer residential outreach program for academically talented minority and female high school students. Various members of the College of Engineering faculty, staff and advisory board members, including Professors Eugene McGaugh and Jaci Batista, Jeff Markle, and Raul Flores provided attendees with an introduction to the fields of engineering and computer science through lectures and interactive experiences, like rocket building/launching and working with circuit boards. Their itinerary also included visits to the Hoover Dam, Grand Canyon, and Nevada Solar One.

In collaboration with the University of Nevada, Reno, and with the support of the U.S. Department of Transportation and Transit UTC, Professor Hualiang Teng of UNLV’s department of civil and environmental engineering and construction organized and led a transportation engineering camp in July to encourage students to explore careers in transportation engineering. In addition to visiting the Hoover Dam, Nevada Railroad Museum, and the Freeway and Arterial System of Transportation (FAST), the 20 Nevada high school students in attendance were also given presentations by the Regional Transportation Commission. The camp concluded with a hands-on visit to UNLV’s Transportation Research center, which included the chance for the students to try out the driving simulator.

This year, the college will continue to reach out to young generations, introducing them to STEM disciplines through FIRST Robotics events, engineering workshops with middle and high school students, participation in the NASCAR STEM Initiative, the MATH Counts Winter Camp, and the annual “Introduce Kids to Engineering Day,” held on campus in conjunction with Boys & Girls Clubs of America.
A Message from Interim Dean Rama Venkat

Greetings,

Being situated in one of the most diverse metropolitan cities in the nation, with one of the least diversified economies, presents the Howard R. Hughes College of Engineering with challenges that are not uncommon, but that pose vital questions in today's world – how can we continue delivering quality education to a diverse student population? While federal research dollars are on the decline, how can we increase our research activities? How can we best prepare our students for what has become a highly competitive workforce while also contributing to the diversification of our local economy?

This year, our college has risen to the challenge of answering these questions. The Fred and Harriet Cox Senior Design Competition, now in its 13th year, continues to flourish and turn out new ideas and technologies, with several of those entrepreneurial-minded undergraduate competitors now in the process of forming local start-up companies. The college's research activities in water, energy, and transportation – all themes of great local relevance – have doubled in the last couple of years, with the promise of delivering new discoveries and great local relevance – have doubled in the last couple of years, with the promise of delivering new discoveries and technologies, with several of those entrepreneurial-minded undergraduate competitors now in the process of forming local start-up companies. The college's research activities in water, energy, and transportation – all themes of great local relevance – have doubled in the last couple of years, with the promise of delivering new discoveries and great local relevance – have doubled in the last couple of years, with the promise of delivering new discoveries and technologies, with several of those entrepreneurial-minded undergraduate competitors now in the process of forming local start-up companies.

I invite you to contact us, should you wish to hear more about our activities or research. We always welcome collaboration in various arenas with our peers, and would love to hear about your ideas.

Best wishes for the upcoming year,
Western Lithium Makes Major Equipment Donation

The College of Engineering recently received a major donation of battery equipment, valued at $66,500, from Western Lithium Corporation. Comprising of an inert gas glove box, planetary ball mill, eight-channel battery mixer, and various other items, the equipment is being used by an interdisciplinary group of students and faculty, with the goal of enhancing aspects of energy materials research at UNLV. “Our donation provides equipment access for new students for educational and training purposes,” says Western Lithium Corporation’s CEO and President, Jay Chmelauskas. “A larger pool of students with access to lithium equipment and technology will support more investment and larger research projects in the growing lithium sector.”

The equipment will be located in UNLV’s High Pressure Science and Engineering Center (HiPSEC), an interdisciplinary facility used by undergraduate and graduate students from the colleges of science and engineering. Ravhi Kumar, Associate Research Professor in the department of physics & astronomy and a member of HiPSEC, will lead teams of students using the new equipment to conduct materials research. “This equipment enhances the capabilities of characterization facility necessary for materials research at UNLV,” Kumar says.

The College of Engineering wishes to thank Western Lithium Corporation for their generous support.