



# College of Engineering

## 2011 Annual Report



**Jared Fiorentine**, a 2011 Mechanical and Energy Engineering alumnus, received a U.S. Student Fulbright Research Grant while an undergraduate at UNT to allow him to travel to Chile and participate in a project involving concentrated solar power systems (CSP).

Sponsored by the U.S. Department of State, the Fulbright is the largest U.S. international exchange program allowing students to undertake international graduate study, advanced research, or teaching in a country of their choice. The Fulbright Program is one of the most prestigious awards programs worldwide, operating in more than 155 countries.

Fiorentine said he chose Chile because it has the Atacama Desert in the north, an ideal place to test concentrated solar systems. "Plus, my wife and I have always wanted to live in a Spanish speaking country," he added. He decided to work with Dr. Humberto Vidal, professor of civil and mechanical engineering at the Universidad de Magallanes (UMAG).

The project will allow him to gain practical familiarity with designing and installing CSP systems, which he has chosen as his master's thesis topic and intended profession upon returning to the United States. His participation in the project began in March 2012.



**Undergraduate and graduate students** who are interested in cold-formed steel design were invited to test their problem-solving skills in the International Student Competition on Cold-Formed Steel Design. Cold-formed steel is a thin type of steel structure that is less expensive and more environmentally friendly than other materials. The 2011 competition resulted in a total of 78 entries from 9 universities in the United States, Canada, China, Turkey, and Australia.

Dr. Cheng Yu, associate professor in the UNT Department of Engineering Technology, is coordinator of the Construction Engineering Technology Program and organizer of the competition. The students were challenged with designing an optimal cold-formed steel cross-section shape. Student entrants were required to work on the challenge individually, and no team solutions were accepted.

The competition, launched in 2011, is co-sponsored by American Iron and Steel Institute (AISI), along with the National Science Foundation (NSF), Cold-Formed Steel Engineers Institute (CFSEI), and the University of North Texas.

**Three College of Engineering faculty members** attended the 2010 International Symposium on Electronic System Design (ISED) in Bhubaneswar, India. The event was funded by the National Science Foundation and the Indian Department of Science and Technology, and co-sponsored by the University of North Texas (UNT).

The conference was attended by science and technology leaders from the United States, India, United Kingdom, Singapore, Germany and Taiwan. The event provided major visibility to UNT and also provided a student recruitment ground for the university.

# International