

UNT to Offer Ph.D. in Mechanical and Energy Engineering



A doctorate in Mechanical and Energy Engineering will enable students to earn a degree while conducting research and study in some of the nation's most impressive state-of-the-art research facilities such as the Zero Energy Research Laboratory (pictured).

The College of Engineering now offers a Ph.D. in Mechanical and Energy Engineering (MEE), the first degree of its kind in Texas and one of the only doctoral programs specializing in energy applications in the field of Mechanical Engineering in the United States. The degree program's first students began studies in Spring 2015.

MEE was established in 2007, and the department was the first of its kind in the nation. Faculty research topics such as environmental sustainability, materials and manufacturing, and oil and gas.

"The ability to offer an innovative Ph.D. program, in addition to bachelor's and master's degrees in mechanical and energy engineering at UNT, provides prospective students a unique opportunity to study and conduct research alongside world-class

faculty and to develop both broad and in-depth knowledge for solving energy problems," said MEE Department Chair Yong Tao.

The combination of mechanical engineering with energy will produce engineers that understand and comprehend the importance of energy in all streams of mechanical engineering. Graduates with degrees in mechanical and energy engineering are valuable to a number of industries including alternative energy, energy management and conservation, nuclear energy, advanced materials design, automotive manufacturing, and pharmaceuticals. Texas is among the top three states with the highest employment of mechanical engineers according to the U.S. Bureau of Labor Statistics.

Inside

Energy savings study	P.2
New Faculty	P.3
Drone Research.....	P.4
NSF GRF Recipient.....	P.5
International Outreach	P.6
Competition Winners	P.8



Research: Plant-based Building Materials Boost Energy Savings



During a three-year period, UNT researchers developed and tested structural insulated panel building materials made from kenaf, a plant in the hibiscus family that is similar to bamboo. Kenaf fibers are an attractive prospect because they offer the same strength-to-weight ratio as glass fibers.

University of North Texas (UNT) researchers discovered that plant-based building materials can provide up to 20 percent energy savings, as well as reduce energy consumption and the overall carbon footprint compared with synthetic building materials currently on the market. The research was featured in a Sept. 23, 2014, article on the National Science Foundation website.

The finding comes as scientists around the world are turning to plants as a resource for biodegradable, renewable and environmentally friendly products and materials that can reduce landfill waste, help the environment and cause little to no damage to natural ecosystems.

"Today, many buildings are constructed with wood and Styrofoam panels," said Nandika D'Souza, a professor who led the study to develop kenaf-based building materials with grant funding from the National Science Foundation. "Wood takes 12 years to grow, but kenaf only takes nine months. So, not only are we helping preserve wood, a valuable resource, but we also use less water to grow and create the kenaf-based materials."

Their studies show that the kenaf materials, including composite panels, provide up to 20 percent energy savings compared to fiberglass or steel and Styrofoam products. As a result, energy consumption and overall carbon footprint are reduced.

The building materials were tested in 2012 at UNT's Zero Energy Laboratory, the only laboratory of its kind in Texas and a testing ground for current and future sustainable materials and technologies. The Zero Energy Laboratory is managed by Department of Mechanical and Energy Engineering Chair Yong Tao, who has more than 20 years of experience in researching energy engineering, thermal sciences and renewable energy sources. Tao

also is director of UNT's PACCAR Technology Institute.

A low-cost process to prepare kenaf for use as a building material was developed by UNT Associate Professor of Biology Brian Ayre and Michael Allen, a professor at the UNT Health Science Center. The process involved soaking kenaf fibers in a microbial solution. The microbes naturally dissolved everything but the necessary plant materials.

Researchers found that using the microbial solution minimized water absorption and created a 40-percent increase in mechanical properties over steam-processing the plant fibers, a common alternative used to create other plant fiber products.

"The development of natural fiber alternatives to fiberglass, and plant-modified structural foam, offers a zero volatile compound option for home, automotive and consumer applications," D'Souza said.

The cross-disciplinary collaboration was key to this breakthrough, D'Souza said. "None of this could have been possible without the genuine recognition of intellectual value between our plant biologists, construction engineers, materials, mechanical and energy engineers."

During the course of the project, the research team created and hosted outreach camps for students in fourth through 12th grades, while advising UNT undergraduate and graduate students who were involved in the research work.

The research team has been studying kenaf as an alternative to glass and other synthetic fibers for nearly 10 years. D'Souza's research, which spans industries from pharmaceuticals to aircraft manufacturing, focuses on how new and sustainable materials can be brought together to become stronger and more effective.

North Texas
Engineer



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College of Engineering Proudly Announces New Faculty Members



The **Department of Computer Science and Engineering (CSE)** welcomes Dr. Eduardo Blanco, Dr. Pat Burke, Dr. Robin Pottathuparambil, and Dr. Mark Thompson.

Blanco (first photo) joins the CSE faculty as an Assistant Professor. He received his Ph.D. in Computer Science from the University of Texas at Dallas in 2011 and his B.S. in Computer Science from the Technical University of Catalonia in 2007. Blanco previously had been a Research Scientist at Lymba Corporation and Adjunct Faculty at Southern Methodist University.

His primary research interest is in computational semantics. Topics include semantic relation extraction and inference, extra-propositional aspects of meaning (negation, modality, uncertainty, etc.), probabilistic semantic inference and customization of relation inventories. He is the co-director of UNT's Human Intelligence and Language Technologies lab.



Burke (second photo) joins the CSE faculty as a Lecturer. He received his Ph.D. in Computer Science and Engineering from the University of North Texas in 2014. He completed his M.S. in Computer Science at the University of North Texas in 1988, and earned a B.S. in Computer Science from the United States Air Force Academy in 1977. Burke completed most of his Ph.D. studies concurrent with his employment with Raytheon in North Texas. He retired after nearly 30 years in the Software Engineering industry in order to complete his dissertation.

His main research interest is software engineering with an emphasis on finding better development tools and processes to avoid errors in the final software products. Retargetable compilers provide some potential in this area and formed the basis for his dissertation research.



Pottathuparambil (third photo) joins the CSE faculty as a Lecturer. He received his Ph.D. in Electrical & Computer Engineering from the University of North Carolina at Charlotte in 2013, his M.S. in Electrical Engineering from the Indian Institute of Technology, Delhi, India, in 2005, and his B.E. in Electrical and Electronics Engineering from the University of Madras, India in 2001. Prior to UNT, he worked at UNC Charlotte as a Visiting Lecturer for a year.

His research focuses on building field-programmable gate array-based hardware accelerators for computational science applications. He also has experience in developing scientific applications for multi-core architectures.



Thompson (fourth photo) joins the CSE faculty as a Lecturer. He received his Ph.D. from Louisiana Tech University in Computational Analysis and Modeling in 2013, his M.S. in Mathematical Sciences and M.B.A. in Business Administration from the University of Texas at Dallas in 2005 and 1995 respectively, and his B.S.E. in Computer Engineering from Tulane University in 1990. Before coming on board at UNT, Thompson was an Assistant Professor and Coordinator of Computer Information Systems at Northwestern State University (NSU) in Natchitoches, La., where he taught courses across several disciplines in CIS, mathematics, and computer science.

His research interests include telecommunications and networks, cyber security, computer forensics, programming and algorithms, and data mining.



The **Department of Mechanical and Energy Engineering** welcomes Dr. Kyle Horne (fifth photo) who joins the department as an Assistant Professor. At Utah State University, Horne received his Ph.D. in 2014 and his M.S. and B.S. (both 2009) in Mechanical Engineering. In addition to Utah State, his research has included work at the Centre for Advanced Diffusion-Wave Technologies (CADIFT) at the University of Toronto and as a Chateaubriand Fellow at the Ecole Centrale de Paris in France.

His research interest is computational science and engineering, with a strong emphasis in heat transfer and fluid flow. Along with his strong emphasis in computing, he has also worked with a variety of experimental methods both theoretically and practically, including particle-image velocimetry, photothermal radiometry, oscillating-cup viscometry and atomic-force microscopy.

Professor Named National Academy of Inventors Fellow

Dr. Narendra Dahotre, distinguished research professor in the Department of Materials Science and Engineering at the University of North Texas, has been named a National Academy of Inventors (NAI) Fellow.

Being named an academy fellow is a high professional distinction given to academic inventors who have demonstrated a highly prolific spirit of innovation in creating or facilitating inventions that have made a tangible impact on quality of life, economic development, and the welfare of society. Nominees must be a named inventor on at least one patent issued by the U.S. Patent and Trademark Office and must be affiliated with a university or other academic entity.



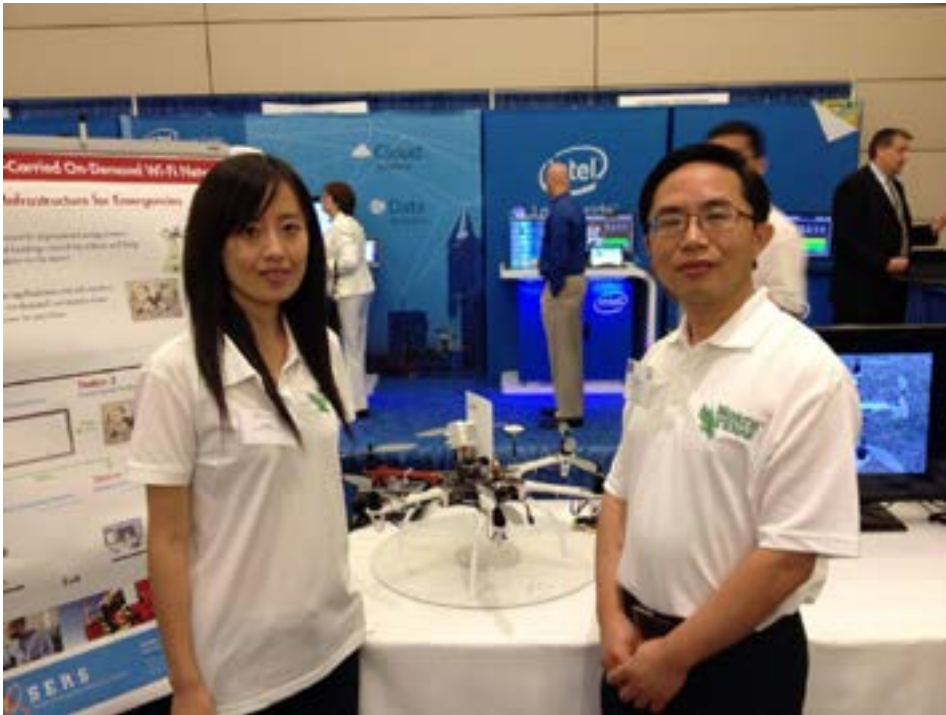
Dahotre's work over 25 years on laser materials interactions has been compiled in four books and resulted in 15 U.S. patents issued and two U.S. patents pending, 12 proceedings and more than 240 papers.

Most recently, Dahotre filed a patent on a new laser machining and cutting of bone technology that could change the way surgeons operate.

"I am honored to be recognized by my peers for my work in science and technology of laser materials processing and manufacturing," Dahotre said.

Dahotre was inducted as a 2013 NAI Fellow on March 7, 2014, in Alexandria, Va., at the U.S. Patent and Trademark Office headquarters.

Drone Research at UNT Improves Communication After Disasters



Two Electrical Engineering researchers have received an award and media attention, including an article on the National Science Foundation (NSF) website, for a project that uses drones to create Internet hotspots and to restore communication after a disaster.

Drs. Shengli Fu, Associate Professor and Interim Chair of the Department of Electrical Engineering (EE), and Yan Wan, EE Assistant Professor, are part of a 15-person team that developed a Smart Emergency Response System that could someday be used to save lives in areas too dangerous for or inaccessible to humans.

By providing WiFi access and cell phone coverage in areas where connections may have been destroyed, the system

could enable victims to contact emergency workers or to enable first responders to communicate with control centers. Using a pair of drones that communicate with one another, one drone is flown out to disaster areas while another stays in line with the first to provide Internet access within three kilometers.

“After a catastrophe, anything that slows an emergency worker down can be disastrous,” Fu said. “Our goal is to reestablish those connections as quickly as possible so the workers on the ground can be more efficient in focusing their rescue efforts.”

Coverage of the WiFi drone project was picked up by the *Associated Press* in May 2014 and was published in other

(above photo) Drs. Shengli Fu (center) accepting the “Best Use of Advanced Wireless” award presented by Dr. Keith Marzullo (left) (the Division Director for the Computer and Network Systems Division in the Computer and Information Science and Engineering Directorate at the National Science Foundation) and Susan Spradley (right) (the Chair of the US Ignite Board of Directors).

(photo to the left) Drs. Yan Wan (left) and Shengli Fu (right) appear with their test drone at the Smart America Expo in June 2014.

U.S. media outlets. The researchers also were invited to two events in June 2014 to demonstrate their work. The first event was in Washington, D.C., at the SmartAmerica Expo, which is part of the SmartAmerica Challenge. The SmartAmerica project fostered collaboration between public and private organizations.

The NSF website featured an article in July 2014 on the drone project and a video interview of Wan conducted during the SmartAmerica Expo.

Fu and Wan also traveled to Silicon Valley, Calif., for a live demonstration at the US Ignite Application Summit. During the summit, Fu and Wan received the “Best Use of Advanced Wireless” award.

Professor Teams with Startup to Develop Portable Computing System



Dr. Shengli Fu, Associate Professor and Interim Chair of the Department of Electrical Engineering, has teamed with Dallas-based Myth Innovations to develop the Mi World™ Portable Computing System (PCS), which is a revolutionary next step for PCs and mobile devices. Mi World™ PCS is a secure portable computer, media server and personal cloud – all in one small device that fits a consumer’s hand and allows them to carry, connect to and share their digital world anywhere – at home, at work or on the go.

The personal and business applications for Mi World™ PCS are endless. The Mi

World™ device can connect wirelessly to up to 10 devices with or without first connecting to the Internet, and it can supercharge those devices by sharing the processor power of the other devices connected on its private network.

Through Mi World™’s technology, any smart device connected to the Mi World™ portable cloud can access the data and applications stored on Mi World™, and even the data and applications stored on the other connected devices, no matter the operating system. For example, an Apple device user can see an Android- or Windows-based machine, and vice versa.

NSF Graduate Research Fellowship

Natalie Parde has become the third UNT College of Engineering student to earn a Graduate Research Fellowship from the National Science Foundation, which will support her research into natural language processing and human robot interaction.



Natalie Parde's grant is to fund her project titled "Building a Better Agent: The Next Generation of Teachable-Agent Technology," in which she is programming a pedagogical robot, the teachable-agent, as a learning companion which takes the role of the student rather than the teacher.

"This will be a robot with educational and metacognitive goals," Parde said. "I'm primarily looking at helping two different groups: students and the elderly. For students it can be used as a learning aid because you're teaching things and refreshing the information you learned elsewhere. With the elderly, doing the same things help maintain their cognitive processes."

Parde's teachable agent is unique for its ability to communicate intelligently with its human instructor; early iterations of teachable-agent technology were more primitive and consisted of students creating visual knowledge maps using a computer, similar to laying out an outline for a paper. Though Parde is currently in the preliminary stages of her project, the ultimate goal will be a robot capable of carrying on a natural conversation with humans, which is much more powerful than the speech recognition technology used in iPhones to power Siri.

"I was doing a lot of reading about intelligent tutor systems, systems that are teaching things to people," Parde said. "I thought, 'what if we reversed that, and had people teach things to the system?'"

Parde initially chose to study journalism when she first arrived at college out of her interest in writing, language and communication. Finding herself unsatisfied with journalism she began to research other majors and found a better fit with computer science.

"I found that journalism just wasn't right for me," Parde said. "I wanted to do something that involved problem solving, so I signed up for Computer Science 1 and continued on from there. It was something on my own that I decided to investigate because I did like the idea of solving problems and using computers but I didn't have any prior programming experience."

By July of 2012 Parde was on a summer research team working with Dr. Gayatri Mehta on a project called UNTANGLED.

"[UNTANGLED] is basically a game that crowd sources mapping strategies," Parde said. "It's similar to a puzzle game: players untangle different blocks on a grid and try to get the highest score. What's going on behind the scenes is that we're taking the maps they created and using those to develop better ways to map hardware using mapping algorithms."

Her first taste of research sparked an interest in Parde, and even today, either abstract or explicit, all of her projects and research interests have applications to language and communication.

"That was when I started thinking that I would like to go on to grad school and get a Ph.D. I always really liked writing so even when I decided to study computer science I still wanted to do something that allowed me to work with language and communication," Parde said.

Natalie Parde is currently working as a graduate research assistant in the Human Language Technologies (HiLT) laboratory at UNT's Discovery Park. The lab is under the supervision of its director, Dr. Rodney Nielson, who holds a dual Ph.D. in Computer Science and Cognitive Science from the University of Colorado, Boulder. The work of the

lab focuses its research on these two areas and on perfecting methods for humans to better interact with the technology around them.

Parde spent the month of July 2014 in Athens, Greece, attending the International Research-Centered Summer School in Cognitive Systems and Interactive Robotics, Data and Content Analysis. Her team's project, "Fun, Dynamic, Multimodal Robot Learning with I Spy and 20 Questions," won first prize out of 13 projects created by teams of students from around the world. The project also won the competition's "People's Choice" award.



Parde working on 'I Spy' project, an interactive game-based approach to multimodal robot learning.

International Outreach

College expands international influence through inviting faculty and students to visit UNT Discovery Park campus.



Summer Student Research

During the spring and summer of 2014, the College of Engineering's Summer Undergraduate Program in Engineering Research (SUPER) brought undergraduate students from universities in Thailand and Mexico to UNT to conduct research. SUPER allows international students and UNT faculty to transcend cultures and time-zones to work on challenging engineering research projects. This past spring, the program supported 17 students from Chulalongkorn University and Mahidol University in Thailand. Later on in the summer, UNT hosted six students from the Instituto Tecnológico de Saltillo and Universidad Autónoma del Estado de México.

Students conducted research at Discovery Park – UNT's 300-acre research park – for eight weeks. At the end of their visit, students shared their SUPER experience in a report and presentation with their home university.

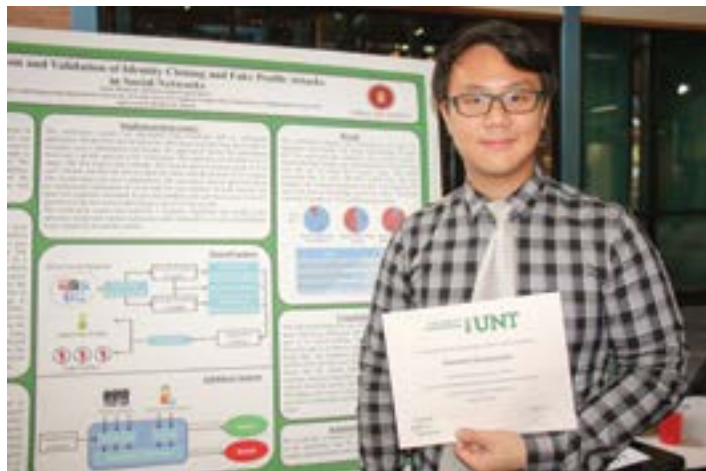
"SUPER continues to attract top students from internationally ranked engineering schools in Thailand and Mexico to UNT," said Dr. Kuruvilla John, Associate Dean of Research and Graduate Studies. "The program allows students to learn from our highly qualified faculty experts while using our state-of-the-art research facilities."

The research they conducted included:

- Vulnerability analysis for cloud computing systems;
- Wear behavior of bulk metallic glass composites;
- Nanocomposite foams for buildings;
- 3D printing of tires; and
- Real-time GPS tracking system for unmanned aerial vehicles.

"It is a great experience for students to work with faculty and graduate students. The program introduces them to research and how the research process works. Hopefully the students will pursue graduate school and research," said Dr. Hassan Takabi, Assistant Professor with the Department of Computer Science and Engineering.

SUPER is a competitive program, requiring students to have a cumulative grade-point average of 3.5 or higher in their engineering discipline and a strong research interest in areas relevant to computer science and engineering, electrical engineering, engineering technology, mechanical and energy engineering, or materials science and engineering at UNT.



"It has been a great experience. I have learned a lot and met new friends."

*Taweekiat Trongwongsa
Chulalongkorn University*



"Everything was wonderful. I had the opportunity to improve my skills, work in teams, and I also learned all about the research topic (cloud computing)."

*Denisse Marlene Estrada
Instituto Tecnológico de Saltillo*

Researchers from Mexico Visit College for Possible Collaboration

Two researchers from the CINVESTAV (Centro de Investigación y de Estudios Avanzados del Instituto Politécnico Nacional) Saltillo visited the UNT College of Engineering on June 23-24, 2014, to explore possible research collaborations.

CINVESTAV is a Mexican non-governmental scientific research institute affiliated with the National Polytechnic Institute. The researchers, Dr. Francisco Javier Rodríguez-Varela (in top photo, to the left) and Dr. Luz Abril Torres-Méndez (in bottom photo, to the right), spoke with faculty from the Departments of Computer Science and Engineering, Electrical Engineering and Materials Science and Engineering. They toured several labs and had the opportunity to meet with UNT student researchers.

Rodríguez-Varela met with Dr. Wonbong Choi (in top photo, to the right) and Dr. Sundeeep Mukherjee from the Department of Materials Science and Engineering. Areas discussed for possible collaboration were testing of materials for sensors with Choi and amorphous materials for fuel cells with Mukherjee.

Rodríguez-Varela is an Associate Professor in CINVESTAV Saltillo's Sustainability of Natural Resources and Energy Group. He has been the leader of three national and two bilateral international projects financially supported by CONACYT-Mexico (Consejo Nacional de Ciencia y Tecnología, or the National Council of Science and Technology). Rodríguez-Varela has published research papers in relevant indexed journals such as *Electrochemistry Communications*, *International Journal of Hydrogen Energy* and *Journal of the Electrochemical Society*. His research interests include electro-catalysis (including development of new materials for electro-catalysis), novel energetic materials, fuel cells, and alternative energy systems.

Rodríguez-Varela previously visited Discovery Park in 2012 for the second Global Discovery Workshop on Alternative & Sustainable Energy Systems and attended the third annual Global Discovery Workshop on Energy Efficient Buildings and Communities, which was held in Tartu, Estonia.

Torres-Méndez met with Dr. Xiaohui Yuan of the Department of Computer Science and Engineering, and Drs. Shengli Fu, Yan Wan, and Kamesh Namuduri (bottom photo to the left) of the Department of Electrical Engineering. Areas discussed for possible collaborations were computer vision with Yuan, air to underwater communications with Fu, aquatic environments for underwater robot control with Wan, and control, coordination, and communication among autonomous underwater robots with Namuduri.

Torres-Méndez is an Associate Professor in CINVESTAV Saltillo's Robotics and Advanced Manufacturing Group. She was



a 2007 finalist of the "Mexican Women Inventors Innovators Prize: Julieta Fierro Edition" with the project "Color Recovery and Enhancement of Underwater Images." Her research interests are navigation and exploration of autonomous underwater robots using visual and depth information, multisensory active perception, control systems, computer vision (3D reconstruction based on intensity and range data), statistical models in image formation and appearance, and trajectories of a computer vision guided robot arm.

CINVESTAV and UNT researchers agreed to explore joint publications and possible areas for CONACYT/NSF research proposals.

Faculty Participate in Seminar

In May 2014, a group of UNT faculty and staff traveled to Mexico for an enriching time of discovery and professional growth through the Faculty Abroad Seminar (FAS), a 10-day professional development seminar sponsored by UNT-International in collaboration with the Office of the Provost and the Office for Faculty Success. Gabriel Carranza, Assistant Vice Provost for Global Engagement and Adjunct Research Professor in Biolog-

ical Sciences, and Amanda White Bennett, Assistant Director for Global Engagement, led the program. Faculty participants included Dr. Peter Collins, an Assistant Professor in the Department of Materials Science and Engineering, and Dr. Nandika D'Souza, a joint Professor in the Departments of Mechanical and Energy Engineering and Materials Science and Engineering. The schedule included visits to Panamerican University and the United States/Mexico Commission for Educational and Cultural Exchanges (COMEXUS).

Student Team Takes Second Place in IEEE Circuit Design Competition

A two-student team representing the University of North Texas placed second in the IEEE Region 5 Student Electronic Circuit Design Competition, held April 5, 2014, at the Texas A&M—Corpus Christi Campus.

Marina Nishimura and Kyle Clocker, both junior-year Electrical Engineering students, competed against 21 teams from IEEE Region 5 universities to solve a technical problem provided to the teams on the day of competition. The competition, part of the IEEE Region 5 Annual Business Meeting, was open to undergraduate IEEE student members who were registered for the business meeting.

This was Clocker's and Nishimura's first time to attend the regional meeting and to participate in the circuit design competition. Since they knew each other from project classes, they decided to enter the competition as a team. According to Clocker, the students began preparing for the competition during the winter break.

"We prepared for the competition by studying basic circuits and components, focusing on control systems and robotics, which were the specialty of the competition chair," Nishimura said.

At the start of the competition, the students were given the



specifications of a prototype circuit that they were to design and construct as well as parts and test equipment. The student teams had six hours to complete their circuit project and one hour to write a report explaining their approach to the technical problem.

The contest called on the students to develop a circuit that would turn on a fan and use four different settings: high, medium, low, and off. The two control options were either thermal feedback or clapping, and the UNT students chose clapping because it was worth more points.

A team of judges from industry and academia evaluated each design and demonstration during the afternoon of

the competition. The winners were announced at the business meeting's Saturday evening banquet, and certificates were awarded to the winning team members. Cash prizes were \$500 for the student branch of the first place team, \$250 for the student branch of the second place team, and \$100 for the student branch of the third place team.

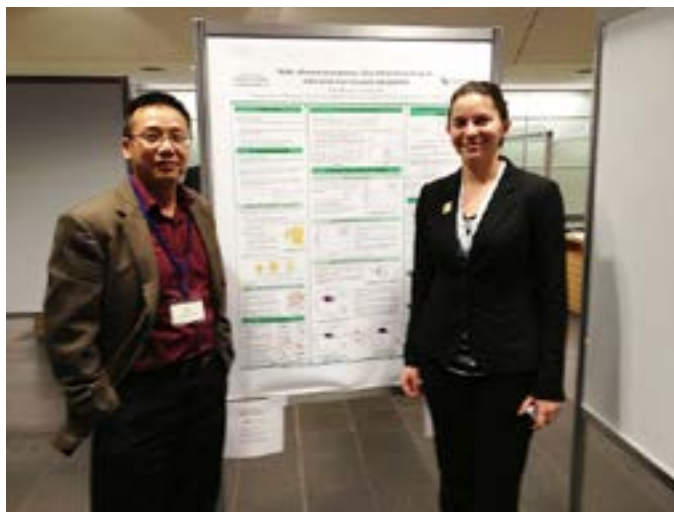
Clocker said that the students plan to compete again next year. The competition was "a practical test of what you have learned so far. It was a great learning experience."

1st Prize at International Competition Awarded to Graduate Student

Jessica Rimsza, a graduate student from the Materials Science and Engineering Department (MSE), won first prize in the student poster contest at the U.S.-Germany joint conference on glass and optical materials held in Aachen, Germany, in May 2014.

Rimsza works with Dr. Jincheng Du, an Associate Professor in the MSE Department, toward her doctorate degree. At the conference, she presented findings on water/nanoporous silica interactions from ab initio molecular dynamics simulations. The results provide fundamental understandings of glass-water interactions and reactions that are critical to the corrosion and chemical durability of glass materials for various technological applications. "Jessica's work has attracted a lot of attention due to the fundamental importance of issues related to glass corrosion and the interesting findings she obtained from the advanced first principles simulations used in her study," Du said. "Jessica also did a great job by providing a clear interpretation and presentation of her results."

Rimsza was selected to win the first prize among a large number of poster presentations, and the award was presented by the president of the Germany Glass Society and the chair of the



American Ceramic Society Glass and Optical Materials Division (ACerS GOMD) during the conference banquet.

Rimsza is the 2013-14 Programming Committee Chair for ACerS' President's Council of Student Advisors. In 2012, she was awarded a prestigious National Science Foundation Graduate Research Fellowship. In the summer of 2014, Rimsza participated in a research exchange at Pierre-and-Marie-Curie University in Paris supported by NSF International Materials Institute on New Functionality of Glasses.

The Joint Meeting of DGG – ACerS GOMD took place from May 25 - 30, 2014, and included the 88th Annual Meeting of German Society of Glass Technology (DGG) and the American Ceramic Society's Glass & Optical Materials Division Annual Meeting (ACerS GOMD) together with the 10th International Conference on Advances in Fusion and Processing of Glass (AFPG), Glass Trend Seminar and the 2nd International Glass Fiber Symposium and the Symposium on Nuclear Waste Forms – Fundamentals and Application. More than 600 people attended the conference, which was a great networking opportunity for Rimsza and other participating students.

Development Officer's Report

During a recent meeting, an alumna asked, "Why haven't you introduced to me to all that my department, the College of Engineering, and the University of North Texas have to offer, sooner?" My quick reply was, "We tried, and now are glad you're engaged with us." Since becoming Dean of the College of Engineering in 2008, Costas Tsatsoulis has offered multiple invitations for alumni to reconnect.

If you attended the tailgate mixer prior to the UNT vs. SMU football game or the Homecoming game, you were able to meet alumni and their families and friends, meet faculty and their families, and eat a delicious breakfast buffet. Some tailgate mixer attendees went to the football game using tickets provided by the College of Engineering.

Our activities have included mixers throughout the DFW area as well as cities with concentrations of College of Engineering alumni. Dean Tsatsoulis also has co-hosted events with the Colleges of Arts & Sciences, Business, Music and Visual Arts & Design.

With these efforts we've garnered increases in annual support to current students and lab support.

Gifts to the Department of Computer Science and Engineering alone just last year exceeded \$100,000. Engineering Technology, formerly Industrial Arts, received nearly as much.

Jeffrey McKee, Class of 2012, leads the alumni of the Department of Mechanical and Energy Engineering, one of our newest and fastest growing departments. He looks forward to meeting you on campus or around the DFW area.

Todd Samuels, the Mean Green Club, and the Alumni Association host watch parties for various UNT athletic programs. Todd is a proud 1990 Computer Science alumnus.

Other connection activities have included a dinner party hosted



Development Director Reginald Grant, Travis Mayberry, Engineering Technology class of 2012, and his guest, Ross Moore, at the tailgate party before the Sept. 6, 2014, UNT vs. Southern Methodist University game.

by Kathy Foster, Class of 1979, at her home in the DFW area as well as a Texas style BBQ hosted by Larry Sullivan, Class of 1990, in his backyard in the Pacific Northwest.

If you haven't already connected with your classmates or former faculty, or if you are willing to assist our current students in pursuing their dreams, I'd like to help you.

With Green Pride,
Reginald Grant

College of Engineering Advisory Board Meeting, November 11, 2014

From left to right in photo:

Devin Joll, PepsiCo and College of Engineering Recent Graduate Advisory Board Chair

Andrew Toth, Triumph Group (substituting for Casey Litaker)

Keith Seawright, L-3 Communications (substituting for James Gibson)

Mario Garza, AT&T

Rick Beutter, Stryker Communications

Etta Clark, PepsiCo and College of Engineering Advisory Board Chair

John Randall, Zyvex Labs

Dave Faller, Sprint (board candidate)

Michael Morris, Bell Helicopter (substituting for Michael Severson)

Siva Gopalnayaranan, Peerless Manufacturing Co.

Costas Tsatsoulis, Dean of the College of Engineering

Bill Kahn, Peterbilt Motors Co.

Don Burgio, Verizon

Landon Sproull, Peterbilt Motors Co.

Brian Reid, Odyssey Aerospace



Advisory Board members not in the photo:

Craig Berry, Siemens PLM Software, Inc.

Charles Campbell, Labinal

Jason Cinek, TDIndustries

Larry Eckersley, Freese and Nichols Inc.

James Gibson, L-3 Communications

Jeremy Green, Zodiac Aerospace

Lettie Haynes, BNSF Railway

Ashley Ledbetter, CBS ArcSafe Inc.

Casey Litaker, Triumph Aerostructures

-Vought Commercial Division

Sean McMenamin, Peerless Mfg Co.

Lee Palmer, Hitachi Consulting

Chris Pearce, Cisco Systems

Michael Severson, Bell Helicopter

James Stikeleather, Dell

Jim Womack, Cowtown Angels

ALUMNI TAILGATE



CSE Chair Dr. Barrett Bryant on the right visits with Wes Fox (1992) and his son Paxton.



Dean Costas Tsatsoulis with Provost Warren Burggren.

Alumni, faculty, staff, and Engineering Ambassadors and other students came out to the Tailgate Party for the Mean Green home opener game against Southern Methodist University on Sept. 6, 2014. Scrappy, the Mean Green Mascot even made an appearance, along with the UNT Dance team. After the tailgate party, attendees moved to Apogee Stadium for the 11 a.m. kickoff to watch UNT beat SMU by a score of 43-6.



Ambassador Sandra Ruiz and Dr. Richard F. Reidy.



Ambassador Marina Nishimura and EE Interim Chair Shengli Fu.



ETEC Chair Enrique Barbieri is with Erin Lansmon, wife of Christian Winter, on right. Christian earned his BS in Electronics Engineering Technology in 2006.



Department Chairs of the College of Engineering: Enrique Barbieri, Engineering Technology (ETEC); Yong Tao, Mechanical and Energy Engineering (MEE); Barrett Bryant, Computer Science and Engineering (CSE); and Shengli Fu, Interim Chair, Electrical Engineering (EE).



Ambassador Maria Moreno (center) with new CSE faculty member Dr. Eduardo Blanco (left) and CSE Chair Dr. Barrett Bryant (right).

ETEC Chair Dr. Enrique Barbieri and Engineering Ambassador Calum Fletcher.



Ambassadors Holly Gage (left) and Sarah Pena (right) with MEE Chair Dr. Yong Tao.

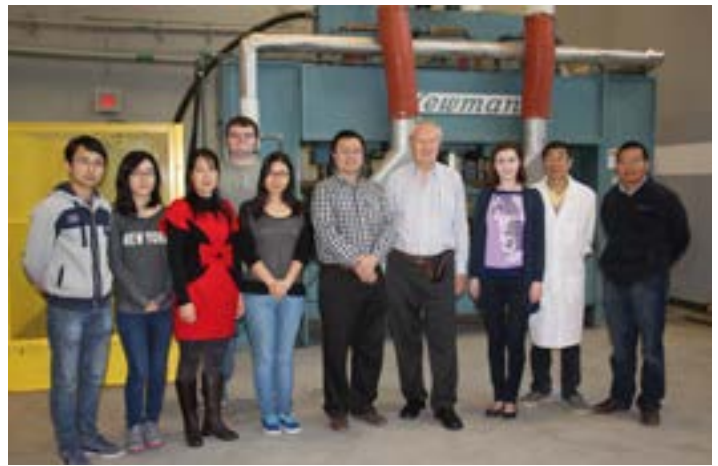


Scrappy with Barrett, Blanco, Student Assistant Emily Deacon (left) and Ambassador Sandra Ruiz (right), and Pena.



New Lab Space

In the Summer of 2014, construction was completed on a 16,000-square-foot building that now houses the Nuconsteel Materials Testing Lab (photos on the left) and the Bioproducts Manufacturing Laboratory (photos on the right). These laboratories will aid researchers in the Departments of Engineering Technology, Materials Science and Engineering, and Mechanical and Energy Engineering.



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