



Engineering Technology News

Texas State University -- San Marcos

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Fall 2016

EDITOR'S NOTE

This is the first edition of the newsletter for 2016. Many exciting things have been happening in the department and they are highlighted here.

Engineering Technology faculty were honored during the 2016 Fall Convocation with Dr. In-Hyouk Song receiving tenure and promotion. Dr. Song was promoted from Assistant Professor to Associate Professor. Dr. Gary Winek received recognition for his 35 years of service to Texas State University. And, Dr. Federico "Fred" Aguayo and Mrs. Harnish Sharma were recognized as our newest faculty to join the department (see page 2).

The Board of Regents authorized the naming of the new science and engineering building The Bruce and Gloria Ingram Hall (found on page 3).

The Department of Engineering Technology held its annual awards day ceremony on April 22, 2016. The department recognized students for academic excellence, leadership, service and research. Also, the many departmental scholarship recipients were acknowledged at this ceremony (see pages 4 and 5).

Grants and Research highlights can be found on pages 6 and 7. Articles

include: Dr. Gary Winek and Ms. BJ Spencer submitted a Letter of Intent (LOI) seeking a \$100,000, four-year HELP Grant offered through The National Housing Endowment to create a Housing Concentration within the Construction Science and Management (CSM) degree. Mr. Vivek Sharma and Dr. Gary Winek recently received a \$32,138 computer grant to purchase 23 Engineering Workstations. Dr. Soon Jae Lee is working with Dr. Jeong-Hee Na, Research Fellow, from KICT (Korea Institute of Civil Engineering and Building Technology), and Dr. Pangil Choi, Research Professor, from Texas Tech University, to write a big research proposal (approximately \$3 million for 5 years) regarding asphalt overlay methods to repair jointed concrete pavements in South Korea. Bobcat Made, the university-wide maker space that is co-sponsored by the Department of Engineering Technology and directed by Dr. Kimberly Talley, is entering into its second semester. This space is available to all Texas State students free of charge, as a part of two NSF-funded grants to study the effect of maker space use on student retention and engineering design self-efficacy (see advertisement on page 16 for more details). Dr. Farhad Ameri presented two research

papers co-authored by Peyman Yazdizadeh Shotorbani and Ramin Sabbagh (graduate students from Engineering Informatics Research Group) at Advances in Production Management Systems (APMS) in Iguassu Falls, Brazil. Dr. Farhad Ameri chaired the Product Lifecycle Management (PLM) International Conference that was held in Columbia, South Carolina in July 2016. This year, 69 papers from 19 countries were presented at the conference. Dr. Ameri received a \$52,000 research grant from Digital Manufacturing and Design Innovation Institute (DMDII).

Our Construction and Concrete Industry Career Fair continues to fill the LBJ Student Center Ballroom with 64 employers in attendance (pages 8 and 9).

Our student organizations continue industry and community outreach. Articles about our student associations and their activities can be found on pages 10 - 13.

Industry outreach and conferences attended are featured on pages 14 and 15.

We hope you enjoy reading our newsletter, and we promise to send you future editions as they are published.

Cassandra Hager, Editor

The Texas State University System Board of Regents



The rising STAR of Texas

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KUDOS



In-Hyook Song with President Trauth

Engineering Technology Faculty Member In-Hyook Song Awarded Tenure and Promotion

At the 2016 Convocation, Dr. Gene Bourgeois, provost and vice president of Academic Affairs, recognized faculty members earning tenure and promotion. Dr. Trauth congratulated faculty members within the Department of Engineering Technology receiving both tenure and promotion. Dr. In-Hyook Song, was promoted from assistant professor to associate professor. Congratulations to Dr. Song.

Gary Winek Presented Award for 35 Years of Service



Dr. Gene Bourgeois, provost and vice president of Academic Affairs, recognized faculty members with 30, 35 and 40 Years of Service here at Texas State University at the fall 2016 convocation. Dr. Gary Winek received recognition for his 35 years of service. The Department of Engineering Technology recognized Dr. Winek, Construction Science and Management Program Director, at the August faculty meeting. Dr. Winek received his 35 year pin and certificate at a luncheon held by President Trauth.

Federico "Fred" Aguayo, Newest Tenure-track ET Faculty Member



Dr. Aguayo is an Assistant Professor in the Concrete Industry Management (CIM) Program housed in the Department of Engineering Technology at Texas State University. Dr. Aguayo completed his Ph.D. from the University of Texas at Austin May 2016 in Civil Engineering with a special emphasis in Infrastructure Materials Engineering. He also holds an M.S.E. (2012) and B.S (2011) from the University of Texas at Austin.

During his graduate study, Dr. Aguayo has conducted and directed several research projects related to the durability of Portland cement concrete and related binder systems. He was a recipient of the Portland Cement Association Education Foundation Research Fellowship (2013), American Concrete Institute Central Texas Chapter Scholarship (2012), and national champion of the Precast/Prestressed Concrete Institute Big Beam Competition (2012). He is actively involved in the American Concrete Institute (ACI), Portland Cement Association (PCA), ASTM International, and American Society of Civil Engineers (ASCE). He currently serves as the faculty advisor to Texas State's ACI Student Chapter in the Concrete Industry Management program. Dr. Aguayo also has a strong interest and devotion in helping underrepresented students pursuing STEM degrees.

Dr. Aguayo's primary expertise is in concrete durability, deterioration, and evaluation. His research interest includes durability of sustainable and alternative infrastructure materials and developing and linking standardized laboratory testing to field performance.

New Engineering Technology Faculty



Harnish Sharma

Mrs. Harnish Sharma joined the Department of Engineering Technology in Fall 2016 as an adjunct faculty member. Mrs. Sharma earned her three years diploma in Architecture from Bhopal, India; and her Bachelors in Architecture, from the National Institute of Technology, Raipur, India. During her undergraduate studies she was awarded the best thesis award in the university.

Mrs. Sharma earned her master's degree from the Department of Engineering Technology at Texas State University in May 2016.

Harnish has five years of experience as an assistant architect in India and two years while in Scottsdale, Arizona, working on an institutional building that was a LEED Silver project. She recently received her LEED Certification and is teaching the sustainability class for the department. She wants to make learning fun for her students, not cumbersome.

Mrs. Sharma is married to Mr. Vivek Sharma and has two children: a boy, Agastya, who is seven years old; and a girl, Prachi, who is five. Harnish loves to spend time with her children and family.

"The great thing in the world is not so much where we stand, as in what direction we are moving" – Oliver Wendell Holmes



Congratulations to Tae-Kyung Kim for Winning National Ready Mixed Concrete Association (NRMCA) Safety Art Contest

Dr. Yoo Jae Kim's son, Tae-Kyung Kim, won the NRMCA Art Contest category 7th to 12th Grade and received \$100 at the NRMCA Annual Convention at San Diego, CA, held April 10 - 12, 2016. The theme for the contest was "Ready Mixed Concrete Truck Driving Safety". Tae-Kyung is attending 7th grade at West Ridge Middle School in Austin. Last winter he participated in the contest. The art work will be used this year to create a 2017 NRMCA calendar. The art work was sponsored by the CIM Program at Texas State University.



Scott Rowe to Retire in 2017

Mr. Scott Rowe will be retiring from the Department of Engineering Technology January 15, 2017, after 33 years of service. Congratulations Scott! More time to spend with family and enjoy the outdoors.



New Science and Engineering Building to be named Bruce and Gloria Ingram Hall

*Excerpts from article:
Posted by Jayme Blaschke
Office of Media Relations
November 12, 2015*

The Board of Regents authorized naming the new science and engineering building to be built at the San Marcos Campus after Bruce and Gloria Ingram, who have had a longstanding relationship with Texas State. The Bruce and Gloria Ingram School of Engineering already bears the Ingram name, and the couple's most recent gift of \$5 million supported the construction of research facilities and equipment in the new engineering and science building, which is scheduled for completion in 2018.

"We have lived in the community for 45 years, and supporting Texas State is our way of giving back to San Marcos and the state of Texas," Bruce and Gloria Ingram said in a prepared statement. "We have watched the incredible growth of the Ingram School of Engineering over the past decade and are excited by what the future has in store."

The Ingram's \$5 million gift is eligible for a 100 percent matching grant from the Texas Research Incentive Program, thereby doubling the gift's value to \$10 million. In addition, Ingram Readymix, a company started by Bruce and Gloria Ingram in 1957, has given an in-kind gift of \$2.1 million worth of concrete to help construct the building.

"The Ingrams have been extraordinarily generous to the university over the years and their commitment to engineering and research activities has helped transform the Ingram School of Engineering," Trauth said. "These gifts will continue to have a remarkable impact on the university by allowing us to expand programs and research opportunities and helping Texas State reach new highs in excellence."

Texas State added its first engineering program in 1999, and an initial gift from the Ingrams led to the establishment of the Ingram School of Engineering in 2007. The new building had been a high priority for the university for several years, sparked primarily by rapid growth in engineering programs and research-related activities. The engineering program also plays a critical role in Texas State's goal of becoming eligible for the National Research University Fund, a state fund that helps qualifying institutions significantly increase their research activities.

"This building will allow Texas State University to be an even bigger player in the economic advancement of the local, regional and national economy," said Robert Habingreither, interim dean of the College of Science and Engineering. "Through both their vision and commitment to engineering education, Bruce and Gloria Ingram have made a very significant contribution to the mission of this institution and we are all deeply grateful for their unending support."

Over the years, the Ingrams have given more than \$14 million to Texas State, which includes endowments for faculty and scholarships for students. With all the matching gifts from the Ingrams and Ingram Readymix included, the Ingram family will have contributed \$21,255,500 to Texas State for the engineering program and the construction of research facilities in the new engineering and science building.

AWARDS DAY 2016



The Department of Engineering Technology held its annual awards day ceremony on April 22, 2016. The department recognizes students for academic excellence, leadership, service and research. Also, the many departmental scholarship recipients were acknowledged at this ceremony. Faculty, staff, students and family enjoyed the ceremony and refreshments.

The goal of the Houston-Lois Stokes Alliance for Minority Participation (H-LSAMP) Scholars program is to increase both the quality and diversity of our Nation's STEM workforce and the number of minority or underrepresented students who graduate with baccalaureate degrees in Science, Technology, Engineering and Mathematics. Students receiving their awards include: Parker D. Jackson and Eunice Solis.



Leadership and Service Award recipients.



Academic Excellence awards are presented to students who have displayed an exceptional record of academic achievement. Students receiving awards include: Zaid I. Almusaiid, Daisy Contreras, Zachary E. Desadier, Angel Hurtado, Jaime L. Hutton, Cole M. Pilgrim, Erikpreet S. Kooner, Isaiah Y. Lee, Mithil Mazumder, Joseph G. Powell, Edwin Rodriguez, Cole J. Strauss, Richard W. Weist (not all are pictured).

The Leadership Award recipients are students who have exhibited superior leadership skills, particularly in professional organizations. Students receiving awards include: Daniel A. Bermudez, Trevor Broussard, Braden R. Byrd, Angelica M. Compean, Samauel A. Huerta, Madeleine F. Jennings, Devanda R. Lek, Sean A. Moore, Duy L. Nguyen, Cole M. Pilgrim, Riazur Rahman, Anthony A. Solano, Eunice M. Solis, and Ryno Van Leeuwen.

The Service Award recipients are students who have contributed to making the Department of Engineering Technology exemplary at Texas State University. Students receiving their awards include: Brian T. Giang, Samuel A. Huerta, Madeleine F. Jennings, Devanda R. Lek, Sarah C. McMasters, Sean A. Moore, Riazur Rahman, Harnish Sharma, and Ryno Van Leeuwen. (not all are pictured).

AWARDS DAY 2016



Research Awards are presented to students who have gone above and beyond assisting the Engineering Technology faculty with their research projects and in some cases have also contributed some of their own research and presented it in either journals or at professional meetings. Students receiving their awards include Rupesh Bejugam, Alexander W. Burkhart, Madeleine F. Jennings, Spencer J. King, Joshua M. Kingston, Devanda R. Lek, Brian E. McAshan, Sean A. Moore, Duy L. Nguyen, Cole M. Pilgrim, Riazur Rahman, Andres Sanchez, Harnish Sharma, Eunice M. Solis, Ryno Van Leeuwen, and Peyman Yazdizadeh Shotorbani (not all are pictured).



The CIM Scholarships were presented to students by Dr. Bruce Ingram, Dr. Robert Habingreither and Dr. Andy Batey. Recipients included Alexander W. Burkhart, Braden R. Byrd, Jeremiah P. Crespo, Mason Davis, Michael A. Graves, Chase A. Hubbert, Tommy L. Huynh, Jake C. LaLanne, Bryce L. Martin, Cole M. Pilgrim, Ramon Vargas, Benjamin D. Wallace and Kady F. Williams.



The Texas Chapter of American Foundry Society Scholarship recipients were Jeremiah S. Converse, Parker D. Jackson, Madeleine F. Jennings and Carter A. McCain.

The FEF Education Foundation Scholarship recipients were Mario Campos, Jr., Jeremiah S. Converse, James W. Day, Madeleine F. Jennings, Carter A. McCain, and Luke W. McCrummen.

Other Departmental Scholarship recipients included Luis J. Aguilar, David W. Bienek, Keely N. Brack, Alexander W. Burkhart, Cassandra M. Cantu, Andrew R. Childs, Jeremiah S. Converse, Jeremy L. Cos, Zoltan David, Angel Hurtado, Parker D. Jackson, Erikpreet S. Kooner, Eric Mares, Will Mixon, Jennifer Naughton, James T. Popham, Oliver J. Powell, Shaun E. Roark, Edwin Rodriguez, Eunice M. Solis, Ryan J. Untermeyer, Tyler D. Vasek, Patrick A. Williams, and Stephen M. Williams.



HELP Grant

Dr. Gary Winek and Ms. BJ Spencer submitted a Letter of Intent (LOI) seeking a \$100,000, four-year HELP Grant offered through The National Housing Endowment to create a Housing Concentration within the Construction Science and Management (CSM) Degree. If the LOI is accepted, they will be asked to submit a complete proposal, which if funded will begin on January 1, 2017. The driving force behind the LOI was the Housing Industry, who strongly encouraged the writing of the letter. This is because it is predicted that 20 million more people will be moving to Texas by 2030 and the Texas housing industry is well aware of the increased need for construction professionals in the housing industry to provide the necessary dwellings for this population increase.

If funded, the grant will provide the money for the formation of a Housing Advisory Board. This Board will help in the development of the content to be included in the Housing Concentration. Once developed, the content will then be incorporated into the curriculum. This will be the first concentration in the CSM Program, to be possibly followed by others. The reason the program can consider the Housing Concentration, is that the CSM Major has grown to an enrollment of 400 majors, providing enough students to support industry specific concentrations.

Engineering Workstation Computer Grant Funded

Mr. Vivek Sharma and Dr. Gary Winek recently received notification that their \$32,138 computer grant to purchase 23 Engineering Workstations was funded. The Grant is to replace the aging computers in room 4233, which is mainly used by construction majors. The computers are Dell T 1700 Workstations with 3.3 GHz Quad Core Xenon Processors. They also include a terabyte hard drive and 2GB, NVIDIA Quadro Graphics Card. The need for the workstations was dictated by the increasing use of graphic intensive software such as Revit and other Building Information Modeling (BIM) programs, which require ever increasing processor speed, memory and high end graphics cards. Funds for the computers were provided through a computer fee, paid by the students. In order for departments to receive funding, they are required to submit a proposal for the computers, which are reviewed by the University's Academic Computing Committee and awarded to the best Proposals. Now each of the three computer labs used by all Departmental majors are equipped with Workstations.



Dr. Jeong-Hee Nam (Middle), Research Fellow, from KICT (Korea Institute of Civil Engineering and Building Technology), and Dr. Pangil Choi (Left), Research Professor, from Texas Tech University, visited Dr. Lee's Pavement Material Testing laboratory. Dr. Lee is working with them to write a big research proposal (approximately \$3 million for 5 years) regarding asphalt overlay methods to repair jointed concrete pavements in South Korea.

Bobcat Made Open for Second Semester

Bobcat Made, the university-wide maker space that is co-sponsored by the Department of Engineering Technology and directed by Dr. Kimberly Talley, is entering into its second semester. This space is available to all Texas State students free of charge, as a part of two NSF-funded grants to study the effect of maker space use on student retention and engineering design self-efficacy (self-efficacy is a person's belief in their own ability to do something; in this case to conduct engineering design).

But what is a maker space you ask? It is a collaborative lab where students can work on personal or class projects. Bobcat Made features specialized equipment to assist students with their making projects: a laser engraver/cutter, four 3D printers, a 2D vinyl cutter, three sewing machines, an embroidery machine, and a CNC mini-mill.

During Spring 2016, Bobcat Made's first semester of operation, Engineering Technology students from TECH 1311 and TECH 3210 completed class projects using the tools in Bobcat Made and senior design students in TECH 4398 used the sewing machine to construct their design prototype of a specialized wrist brace. Students also came to the space to work on personal projects, with approximately sixty participants taking the research survey that is required each semester for students to utilize the space.

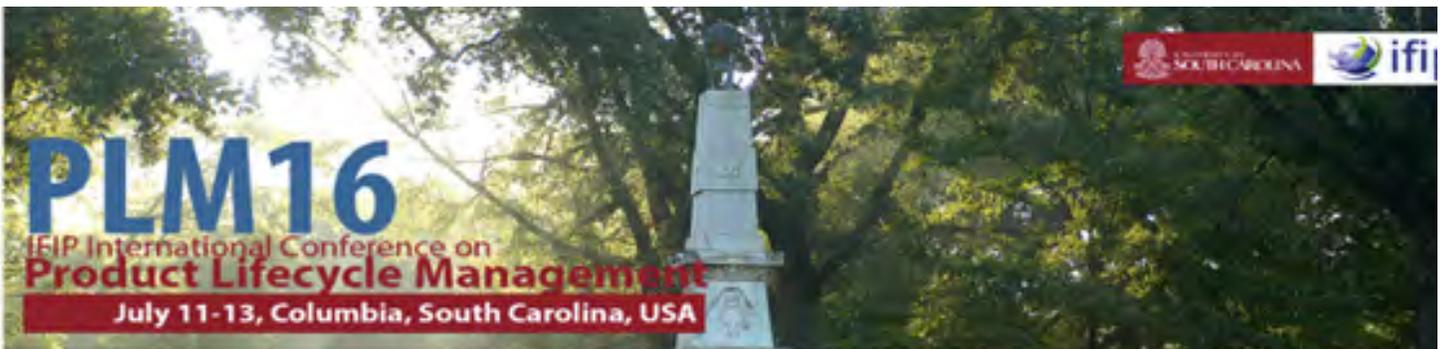
This maker space is staffed primarily by trained student volunteers. In exchange for volunteering at least three hours a week to greet and assist other students in Bobcat Made, the volunteers have access to the maker space for extended hours. As the space is so new the group of volunteers (and therefore open use hours) are growing. At the time of writing this article, Bobcat Made is open on Tuesday and Thursday mornings (9:30 a.m. – noon) and Monday, Wednesday, and Friday afternoons (noon-5 p.m., noon-3 p.m., and noon- 4 p.m., respectively) for Fall 2016. Please feel free to direct questions to Dr. Talley (kgt5@txstate.edu) or even just stop by Bobcat Made (ASBN 214) to get involved and/or come play in the maker space!

GRANTS AND RESEARCH



Dr. Farhad Ameri presented two research papers co-authored by Peyman Yazdizadeh Shotorbani and Ramin Sabbagh (graduate students from Engineering Informatics Research Group) at Advances in Production Management Systems (APMS) in Iguassu Falls, Brazil. The papers presented at the conference are titled

“Digital Factories for Capability Modeling and Representation” and “A Hybrid Method for Manufacturing Text Mining based on Clustering and Topic Modeling Techniques”. Dr. Ameri was elected as a member of IFIP Working Group on Advances in Production Management Systems in 2015.



Dr. Farhad Ameri chaired the Product Lifecycle Management (PLM) International Conference that was held in Columbia, South Carolina, in July 2016. This year, 69 papers from 19 countries were presented at the conference. PLM International Conference (PLM IC) brings together researchers, developers, and users of Product Lifecycle Management (PLM), an integrated

business approach to the collaborative creation, management and dissemination of product and process data throughout the extended enterprises that create, manufacture and operate engineered products and systems. The conference aims at involving all stakeholders of PLM, hoping to shape the future of this field and advance the science and practice of enterprise development.



DMDII
DIGITAL MANUFACTURING AND
DESIGN INNOVATION INSTITUTE

Dr. Farhad Ameri received a \$52,000 research grant from Digital Manufacturing and Design Innovation Institute (DMDII). The objective of the project supported by this grant is to enhance the intelligence and effectiveness of various supply chain decisions through providing real-time, dynamic insight into the technological capabilities, capacities, and quality history

of manufacturing suppliers. This project will result in creation of a cloud-based software solution for manufacturing capability modeling and sharing. This project will be conducted in collaboration with the Applied Research Institute at the University of Illinois at Urbana-Champaign (UIUC). Texas State leads this project.

DMDII is a federally-funded, public-private consortium of companies, academic institutions, nonprofit and governmental organizations aimed at improving the competitiveness of U.S. manufacturers by encouraging their adoption of digital manufacturing and design technologies. It supports cutting-edge research and development projects related to digital design and manufacturing. Texas State University became a tier-3 academic member of DMDII in Summer 2016. Dr. Ameri is the technical point of contact for Texas State University.

JOB FAIRS

FALL 2016 CONSTRUCTION AND CONCRETE INDUSTRY JOB FAIR



The Fall 2016 Construction and Concrete Industry Job Fair, held September 29, 2016, with 64 companies in attendance, continues to fill the LBJ Student Center Ballroom.

Presentations were given by Dr. Gary Winek, Construction Program Director; Tate Talamini, ACI Texas State Student Chapter President; Dr. Federico “Fred” Aguayo, Faculty Advisor for ACI; and the 2016-2017 Officers for CSA.



JOB FAIRS



It is always exciting for our current students to get acquainted with the Texas State alumni that work the company booths at these job fairs.

Companies in attendance included: Alleyton Resource, Alpha Building Corporation, Alpha Insulation and Waterproofing, Inc., American Constructors, Inc., Archer Western Construction, Baker



Concrete Construction, Inc., Bartlett Cocke General Contractors, Cadence McShane Construction, CenterPoint Energy, Colt Builders Corp., Concrete Strategies, LLC., Crossland Construction & Crossland Heavy, Cummings Electrical, D.R. Horton, Inc., David Weekley Homes, DPR Construction, Durotech LP, H-E-B, Hensel Phelps Construction Co., Highland Homes, ISEC, JE Dunn Construction, Joeris General Contractors, Ltd., Jordan Foster Construction, Key Insulation, KIEWIT, Kitchell Corporation, Lehigh Hanson, Lennar Homes, Martin Marietta, McCarthy Building Companies, Inc., Meritage Homes, MHI Wilshire/Coventry Homes, MW Builders, Neff Rental, Osburn Structures, LLC, Performance Contracting, Inc., Rogers-O'Brien Construction, Ryan Companies US, Inc., Satterfield & Pontikes Construction, Inc., SpawGlass Contractors, Inc., Structural Group, Tellepsen Builders, LP, Texas Department of Transportation, The Beck Group, The Brandt Companies, LLC, Trio Electric, Vaughn Construction, Vulcan Materials Company and Wheeler.

STUDENT ORGANIZATION NEWS



American Concrete Institute ACI Student Chapter

2016-2017 OFFICERS:

President: Tate Talamini
Vice-President: Ben Wallace
Treasurer: Bryce Martin
Secretary: Kady Williams

Competition Coordinator: Cole Pilgrim

Faculty Advisor: Dr. Federico "Fred" Aguayo

The American Concrete Institute (ACI) is a technical and educational society organized in 1904 to develop, share, and disseminate the knowledge and information needed to utilize concrete to its fullest potential. The ACI Student Chapter at Texas State University- San Marcos strengthens this link between ACI, The Concrete Industry Management Program (CIM) and the entire Texas Concrete Industry. The Chapter offers many opportunities to students such as meeting with leaders in the industry, attending seminars, visit sites, participate in ACI competitions, and networking with other professional societies at Texas State University.

The purpose of this chapter is to encourage student interests in the study of concrete and to develop an awareness of the mission and the work of ACI through its committees, publications, and chapters. Also, this chapter shall further engineering and technical education, scientific investigation and research, and development of standards for design and construction incorporating concrete and related materials. The chapter shall organize the efforts of its members for a nonprofit public service in gathering, correlating, and disseminating information.

2016-2017 Sponsor



We would like to send a special thank you to the folks at Bexar Concrete Works for sponsoring our chapter. Without their support, we would not be able to do many of the things we do.

Even with the extensive knowledge we gain from the classroom and guest speakers, there is no better way to learn than in the field. We provide members with numerous opportunities to travel to different plants and sites to experience first-hand what it is like in the field.

Industry leaders are very cooperative and provide us with great experiences.



Members on a tour at a local cement mill.



ACI participates in a variety of community service projects within the community, along with the Construction Student Association (CSA). This service learning gives us an opportunity to apply the knowledge and skills we have gained in the classroom.

The ACI student chapter just received the ACI Excellent University recognition for 2015. This is the sixth year in a row for the chapter to be recognized.

ACI Excellent University



ACI Level 1 Certification



Every member has the opportunity to earn their ACI Concrete Field Testing Technician – Grade I Certification. Most members

complete this certification within the first two years with the program.

STUDENT ORGANIZATION NEWS



Constructionarium England

Instead of going to the beach like many students do during spring break a group of CIM students decided to travel to the UK for a unique opportunity. Alex Burkhart, Tyler McKay, Cole Pilgrim, David Sitz, and Ben Wallace attended a program called Constructionarium in England. This program is designed to teach students that have learned about construction practices in the classroom and to put them to use by physically building a project during the week-long class. The CIM students were only the second group of students from the United State to attend the program. In the program the students do everything that is needed to build a project, from managing the paper work to tying the rebar and placing concrete. The students built a scaled down version of a cable stay pedestrian bridge. They were also the first group to finish their project that week and were one of the fastest groups to have finished the bridge project. The students also had the opportunity to explore London before returning to the states.



World of Concrete 2016

Alex Burkhart, Braden Byrd, Tyler McKay, Ramon Vargas, Bryce Martin, Cole Prilgrim, Tommy Bailey, Tom Huynh, Jeremiah Crespo and Lance Cain had an opportunity to attend one of the largest trade shows in the concrete industry in Las Vegas, Nevada. Braden Byrd and Alex Burkhart both spoke at a student session where they talked about their internships that they had taken the previous summer. Braden was selected as runner up and received a award at the opening ceremonies of the trade show. The students also attended a CIM social while in Las Vegas. At the social the students were able to interact with owners and presidents of companies in a casual atmosphere. Keeping up a CIM tradition, after the social the students with CIM director Dr. Schemmel and Department chair Dr. Batey went to the Cesar Palace buffet to see who could eat the most.



L to R: Jeremiah Converse, Madeleine Jennings and Rico Bendimez

American Foundry Society AFS

2016-2017 OFFICERS

President: Madeleine Jennings
Vice President: Jeremiah Converse
Treasurer: Rico Bendimez
Faculty Advisor: Mr. David Hanzel

American Foundry Society is a nationwide organization that focuses its energy on promoting the foundry industry and the wonderful opportunities it affords students and society alike. Our student chapter here at Texas State aims to serve the same purpose, as well as to help students find employment and internship opportunities within the industry. We hold Open Foundry days, which allow all students and faculty access to our research foundry in RFM. We have also held tours to various foundries in the Texas region. Additional to that, we organize field trips of our foundry and materials testing lab to local elementary, middle, and high schools to inspire young minds to consider a career in engineering or the foundry industry. Some events taking place in the near future will include an Open Foundry day, a visit from New Braunfels Christian Academy, and a fundraising event, where we hope to gather funds for tour expenses.

Materials Advantage

2016-2017 OFFICERS

President: Eunice Solis
Vice President: Riazur Rahman
Treasurer/Secretary: Marisa Downey
Faculty Advisor: Mr. Bill Pool

Material Advantage is an international student professional society dedicated to the science, engineering, and manufacturing of everything material! Material Advantage is dedicated to the entire range of material science and manufacturing. Once you've become a Material Advantage member, you'll quickly see that "Everything Else Is Immaterial!"

Material Advantage provides a single low-cost membership that provides access to the materials science and engineering professional's most preeminent societies: ACerS - The American Ceramic Society, AIST - Association for Iron & Steel Technology, ASM International - The Materials Information Society, TMS - The Minerals, Metals and Materials Society.

STUDENT ORGANIZATION NEWS



2016-2017 ASME Officers

President: Eunice Solis
Vice President: Oliver Powell
Secretary: Devanda Lek
Treasurer: Abel Solis

Faculty Advisor:
Dr. In-Hyook Song

ASME Student Chapter

The American Society of Mechanical Engineers (ASME) is the principal society for mechanical engineers in the world. A primary goal is the advancement of engineering through teaching, publication, codes and standards, and collaboration in research. At Texas State University, the goal of the student chapter is to serve as a stepping stone for engineering students who are entering the vast field of mechanical engineering.

The Texas State University chapter of the American Society of Mechanical Engineers (ASME) allows students with an interest in mechanical engineering to interact. The student chapter of ASME at Texas State serves as a foundation for students gain more exposure to the vast world of engineering. The community is great for networking with professionals and fellow students, and for furthering one's knowledge of mechanical engineering.

ASME at Texas State selected new officers for the 2016 – 2017 school year. Ms. Eunice Solis, who majoring in Engineering Technology, will serve as the President. Mr. Oliver Powell was selected as the new Vice President and Mr. Abel Solis will serve as the treasurer. Both Mr. Powell and Mr. Solis are students in the Engineering Technology program. The secretary position is held by Mr. Devanda

ASME Student Chapter Activities



TechShop Speakers

During the Spring 2016 semester, ASME hosted speakers from the TechShop, a makerspace located in Austin, Texas, that allows the creativity of an individual to manifest itself with the availability of their machines, tools, and experts. From welding shops to wood working stations and a textile room, the TechShop encouraged ASME members to believe that their possibilities are truly endless.

Lek, who is a graduate student in the MSEC program. Dr. In-Hyook Song, an Associate Professor of Engineering Technology, will serve as the faculty advisor for the school year.

On September 29, 2016, ASME held of it first social events for the fall semester. ASME members and students met up at Sunset Lanes in San Marcos for a fun night of bowling. It provided a chance for members to introduce themselves and make new connections with their fellow Bobcats.



Student Organization Bazaar

ASME participated in the Student Organization Bazaar, where students were given the opportunity to sell merchandise to raise money for their respective organizations. Members of ASME worked together to design and make custom earrings and magnets.

The fundraising event was a success and an excellent opportunity for members to network.

LBJ Rising Stars Grant

For the Spring 2016 semester ASME was awarded the LBJ Rising Stars Grant. This grant assisted ASME in increasing involvement and exposure to students at Texas State University. It has granted us the ability to print our custom shirts available to all students. In addition the grants have allowed us to create more section meetings with guest speakers.



STUDENT ORGANIZATION NEWS

Construction Student Association News



2016-2017 OFFICERS

President: Andrew Childs
Vice President: Chase Jones
Treasurer: John Henry Lebeau
Secretary: Keely Brack
ABC Ambassador: Chase Wiatrek
AGC Ambassador: Brian Giang
NAHB Ambassador: Ty Vasek
Communications: Jarvis Price
Special Events Coordinator: Andrew McGuirt
Community Outreach: Hector Loreda
Faculty Advisor: Mr. Vivek Sharma

If an organization were to be measured by transformative impact upon a student body and local community, the Texas State University – Construction Student Association (CSA) would leave a lasting impression on those who delve deeper into who we are and what we represent. The CSA accomplishes this by establishing and preserving relationships with construction industry professionals, facilitating learning opportunities outside of the classroom, while maintaining a charitable relationship with our community. The CSA exists to not only develop our students into future leaders, but also to establish a foundation of purpose that will serve as a catalyst for stronger bonds among the construction industry and within our communities. CSA is the second largest student organization on campus. This umbrella organization includes the student chapters of ABC, AGC, USGBC and



NAHB. CSA commits itself to building and developing people through a variety of events and workshops. Here is a summary of the accomplishments of CSA during the 2015-2016 school year. In sum, CSA hosted 12 guest speakers, 5 workshops, 5 jobsite tours, and 5 community outreach projects that totaled over 2,100 volunteer hours and \$53,000 in home renovations.

CSA's most successful fundraising event, our Annual Golf Tournament, is a unique experience as CSA pairs students with industry based on their construction interest. This year's tournament was a record breaker, having 25 total teams comprised by 23 construction industry sponsors and 50 student members (plus 5 student member volunteers). Through our Gold (\$1,100), Silver (\$850), and Bronze (\$650) Sponsorship Levels, the CSA was able to raise \$11,400 in net funding to put towards our annual Boko's Builders project, as well as other organizational expenses. This tournament also allows us to recognize CSA alumni for their continued support and contributions.

Each year, the CSA builds accessibility ramps (6 annually) for recently disabled members of our community. We partner with Central Texas Medical Center to provide these ramps for deserving individuals that need the service our students are able to provide. The large turnout of our members at these builds (typically 10-15) allow us to consistently finish a build in less than 5 hours and we have improved over time due to our student leaders passing on information as they learn.

Each Spring, CSA partners with Interior Design students at Texas State to plan, fundraise and execute a large scale community service project in the San Marcos area. The combined group is called Boko's Builders, and in 2016 they coordinated an interior remodel of the VFW Post 3413 in San Marcos, Texas. Some 60 different students from CSA and Interior Design exhibited incredible teamwork and dedication to completing this project for the many members of the VFW post. CSA realizes how important the surrounding community is to not only the success of the organization but to the enrichment of Texas State University.



INDUSTRY OUTREACH



FACULTY TRAINING

Dr. Yoo-Jae Kim, PE, LEED AP, serving as instructor for a week-long renewable energy research and education training program from May 16-20, 2016, for faculty from minority colleges in Texas. The participants were recruited from Huston-Tillotson University, Coastal Bend College, and Alamo College in San Antonio as part of REENERGIZE supported by the U.S. Department of Education.



CIM PROGRAM UPDATE - INTERNSHIPS

Over the course of the summer 16 CIM students completed their mandatory internships, which included such concrete industries as ready-mix concrete, precast/prestressed concrete, decorative concrete, and general contractors. Some of the companies include: Lehigh Hanson, Argos, JD Abrams, Osburn Structures, Vulcan Materials, Questmark, and more. The internship is required for all CIM students and takes place in the summer between the student's sophomore and junior year. The internship helps prepare the students for such classes as Concrete Construction Methods and Understanding the Concrete Construction System.

With the addition of Dr. Fred Aguayo came new laboratory improvements to accommodate his research area of expertise - concrete durability testing. Two high performance ovens have been added to the CIM concrete lab that are capable of completing accelerated ASR testing. A sophisticated environmental chamber has been added so that specimens can be tested under specific environmental conditions. Lastly, a Coefficient of Thermal Expansion testing apparatus has been added which allows for testing of concrete specimens under heat stress.



FIELDTRIPS

Dr. Yoo-Jae Kim has been teaching the Senior Laboratory class, in which he took the students to visit WJE Materials Lab in Austin, TX on September 6, 2016. Eight students and one Graduate Student attended the event.



GUEST SPEAKERS

Steve Kanetzky, a Texas licensed professional engineer, consulting engineer, and owner/operator of S. Kanetzky Engineering in Austin, visited the Engineering Technology department as a guest speaker in Mark Summers' CSM 3367 Mechanical, Electrical, and Plumbing (MEP) Systems course. Mr. Kanetzky graduated from The University of Texas at Austin with an undergraduate degree in electrical engineering. After graduation, he held various positions putting his engineering/construction skills to work in several industries in the Central Texas area, including Texas Utilities Generating Company at Comanche Peak, ELK Electric, and Energy Engineering. After completing a successful 13-year career at these and other employers, in 1996, he founded S. Kanetzky Engineering, LLC.

Mr. Kanetzky's firm employs engineers, construction professionals, and CAD designers/drafters to perform engineering contract design work for the construction industry. This includes design and construction projects pertaining to all aspects (mechanical, electrical, and plumbing) of various commercial projects in Texas, the U.S., and other countries around the world.

Topics discussed during his visit included electrical (power transmission, controls, and telecommunications), mechanical (heating, ventilating, and air conditioning [HVAC] systems), and plumbing (water supply, storm sewer, and air and gas supply) systems. Other topics included "green" technologies such as solar energy and LEED projects.

After his presentation, Mr. Kanetzky entertained questions from students about job opportunities for construction majors, future trends in the industry, and questions regarding ethics, business relationships, and entrepreneurial skills that has helped him grow his business into a highly respected MEP firm over the past twenty years. It is hoped that Mr. Kanetzky will come back to speak to a new class of MEP students.

CONFERENCES AND CONVENTIONS

ACI Milwaukee WI

CIM students Alex Burkhardt and Cole Pilgrim attended the ACI convention in Milwaukee. Alex had the opportunity to present his foundry waste research that he has been working on in a session at the convention. They were able to check out the sights and food, mainly cheese, of Milwaukee. Alex and Cole also challenged Dr. Schemmel to three rounds of GoKart racing, an opportunity where the students were able to school the teacher. Both Cole and Alex also attended several sessions and committees while at the convention.

NPCA Precast Show Nashville TN

CIM students Alex Burkhardt, Cole Pilgrim, Kady Williams, Bryce Martin, Mason Davis, and Dan Arkin were able to attend the leading trade show in the Precast Concrete Industry. While attending the trade show the students were able to attend education classes with industry members and committees related to the industry. The students were also able to walk through the trade show where many received leads on potential internships and jobs after graduating. The students were also able to enjoy the music and night life of Nashville after the show closed.

International Mechanical Congress and Exposition IMECE 2015



Four ASME student chapter members represented Texas State University at the ASME 2015 International Mechanical Engineering Congress & Exposition (IMECE) this past November 2015. Mr. Sean Moore, presented his research on the fabrication of micro-lens arrays. Mr. Juan Gomez, discussed the microfabrication of interconnection structures for microfluidic devices. Dr. Byoung Hee You served as a session Chair and Organizer for the research track of Design and Fabrication Analysis, Processes, and Technology for Micro and Nano Devices and Systems.

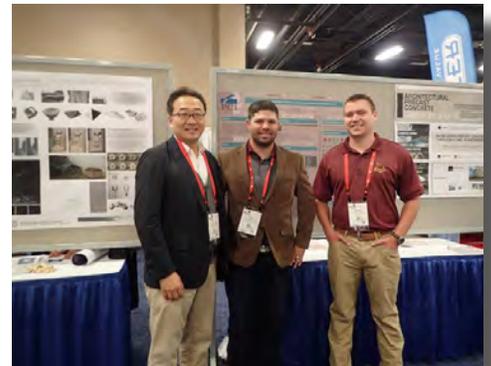
IMECE is the largest interdisciplinary and most prestigious Mechanical Engineering research conference in the world. IMECE 2015 took place in Houston, TX and was attended by leaders in industry, academia, and research from around the world.

PCI Convention & National Bridge Conference



Precast concrete is a high performance material that integrates easily with other systems and provides the versatility, efficiency, and resiliency to the construction industry. Precast concrete can be cast in controlled environments that allows the production of high quality concrete products that can be transported and installed. From March 1st to 5th, 2016, the PCI Convention & National Bridge Conference partnered

with The Precast Show to host the largest tradeshow in North America dedicated to precast concrete in Nashville, Tennessee. Giving attendees the opportunity to explore more products and technologies being exhibited than ever before, with representatives from 100-plus companies around the world showcasing their organizations' products and services. Dr. Yoo Jae Kim, Ryno Van Leeuwen and Brian McAshan attended the conference to gain knowledge regarding the latest advances, technical



knowledge and solutions for concrete manufacturing and construction. Mr. Van Leeuwen also presented the results of his study with a poster entitled, "The Effects Limestone Powder has on the Properties of Precast Concrete and the Environmental Benefits" which was well-received by industry professionals. Mr. Van Leeuwen received \$500 Travel award from Precast/Prestressed Concrete Institute. In addition to this outstanding learning and networking opportunity, the faculty member and students got some one-on-one time with industry experts, viewed live demonstrations, discovered new companies and learn what they offer the precast concrete industry.

BOBCAT MADE

3D Printers
Laser Cutter
Embroidery
& More!

Maker Space
Fall 2016
Open Use Hours
Plus Training Available



NOON - 6 PM
Mondays
10:30 AM - 6 PM
Wednesdays
NOON - 4 PM
Fridays
9:30 - NOON
Tuesdays
&
Thursdays

A maker space is a collaborative lab where you can work on personal or class projects.

BOBCAT MADE

ASBN 214

Want to be a part of Texas State's new maker space, Bobcat Made?

We are looking for volunteers to expand our open use hours

AND to have fun making, of course!!

Don't know where to start?

Just come in and say, "Hi" – our volunteer staff can help with a tour and training!

Questions? Contact Dr. Kimberly Grau Talley, PE: kgt5@txstate.edu