



Engineering Technology News

Texas State University

VOLUME III, Number 2

Fall 2014

Engineering Technology Welcomes Dr. John Schemmel as New Director of CIM Program



Dr. John J. Schemmel, P.E., FACI joins Texas State University as the new program director for the Concrete Industry Management program in the Department of

Engineering Technology. Dr. Schemmel comes to Texas State University, as a tenured full professor, after spending four years on the faculty in the Department of Civil Engineering at Valparaiso University, Valparaiso, Ind. John also served for 15 years on the faculty in the Department of Civil Engineering at the University of Arkansas, Fayetteville, Ark. and two years in the Department of Civil and Environmental Engineering at South Dakota State University, Brookings, S.D.

Dr. Schemmel received his Ph.D. from North Carolina State University, Raleigh, N.C. in 1989, his M.S. from Lehigh University, Bethlehem, Pa. in 1984 and his BSCE from the University of Wisconsin, Madison, Wis. in 1982. His administrative experiences include Associate Dean for Academic Affairs, College of Engineering, University of Arkansas and Head, Department of Civil and Environmental Engineering at South

Dakota State University. Dr. Schemmel's industrial experience includes engineering, standards, and management consulting services, founder and formerly co-owner of eTEC LLC, and Research Engineer for the USACE Waterways Experiment Station, Vicksburg, M.S. Dr. Schemmel's is a licensed professional engineer in Arkansas and is a Fellow of the American Concrete Institutes. He has received two best paper awards from the American Association of Engineering Education as well as the Certification Award from the American Concrete Institute.

Dr. Schemmel has several short and long-term goals for building on the solid foundation of the CIM program at Texas State. His number one priority will be the recruitment and retention of outstanding high school and transfer students. Closely associated with this effort will be an expanded marketing program. Dr. Schemmel will be working closely with the CIM faculty, CIM Patrons, and all other program constituents to develop an efficient and effective recruitment/marketing program. A unique element of this effort is a proposed CIM summer camp for high school guidance counselors. The concept is to have an advocate of the CIM program in as many high schools as possible. Dr. Schemmel believes that continued growth in the quality and

number of students in the CIM program will keep employers looking first to Texas State for summer interns and full time employees.

Dr. Schemmel also hopes to build on his concept of an Undergraduate Research Center focused on concrete related issues. While at Valparaiso University, Dr. Schemmel was able to conduct four separate undergraduate driven research projects as a proof of concept effort. In the short time he has been on campus, Dr. Schemmel has spoken with the Texas Aggregate and Concrete Association, a national contractor, and the National Ready Mixed Concrete Association about formally establishing and funding such a center at Texas State. The concept has received enthusiastic response from all parties.

In the shorter-term, Dr. Schemmel will be working with the CIM faculty evaluate the current curriculum. In particular Dr. Schemmel would like the students to have the opportunity to take some elective courses, whether technical or in the College of Business. He is also developing a list of nationally recognized experts to come to Texas State to make presentations to both the CIM and CSM students as well as local industry professionals.

The Texas State University System Board of Regents



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Department of Engineering Technology Recognition at 2014 Fall Convocation



Photo by Chandler Prude
 Dr. Denise Trauth with Dr. Vederaman Sriraman and Faculty Senate Chair Michel Conroy



Photo by Chandler Prude
 Dr. Trauth congratulating Dr. Jiong Hu



Photo by Chandler Prude
 Dr. Trauth congratulating Dr. Soon Jae Lee

Dr. Sriraman honored with the Everett Swinney Excellence in Teaching Award

Each year the Faculty Senate recognizes outstanding achievement in the teaching profession by recognizing faculty with the Everett Swinney Excellence in Teaching Award. Three faculty members from across the campus were recognized by President Trauth at the 2014 fall convocation on August 22, 2014. Dr. Sriraman was one of the three awardees. In the past, Dr. Sriraman has also been honored with the Alumni Association Teaching Award of Honor, the Presidential Award for Excellence in Teaching and the University Distinguished Professor award.

Engineering Technology Faculty Dr. Hu and Dr. Lee Receive Tenure and Promotion

At the 2014 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 Engineering Technology Department receiving both tenure and promotion included Dr. Jiong Hu and Dr. Soon Jae Lee, each were promoted from assistant professor to associate professor.

Dr. Jiong Hu also received two 2014 Presidential Distinction and Achievement Awards including the Presidential Award for Excellence in Teaching and the Presidential Award for Excellence in Scholarly/Creative Activities.

Grants Announced at Convocation

Dr. Trauth also announced two significant grants: The NSF IUSE Grant and the NASA NSPIRES Grant. Please see the articles on page 6 concerning these two important grants and the detailed participation of Engineering Technology faculty.

Awards Presented for Years of Service

At the 2014 convocation, 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. Mr. Scott Rowe was recognized for his 30 years of service.

The Department of Engineering Technology recognized Mr. Scott Rowe, senior lecturer, at the August 22, 2014 faculty meeting. Mr. Rowe received his 30-year pin and certificate at a luncheon held by President Trauth.



Mr. Scott Rowe

22, 2014 faculty meeting. Mr. Rowe received his 30-year pin and certificate at a luncheon held by President Trauth.

Texas State Team Wins Texas HALO Fund Investment Prize

SioTeX™ Corporation, a specialty chemical and performance materials manufacturer, won the Texas HALO Fund Investment Prize during the 14th Annual Rice University Business Plan Competition in Houston. The team also took first place in the Shark Tank Challenge Round and was runner-up for the Center for the Advancement of Science in Space International Space Station National Lab Space Flight Prize. This marked the first year a Texas State team had been invited to compete in what is arguably the richest, largest and most competitive business plan competition in the world. The Texas HALO Fund Investment Prize was awarded for extraordinary entrepreneurship, demonstrated by independent thinking, tireless persistence, belief in the big idea, talent to motivate the team, fortitude, ability to change and adapt to the marketplace, and the aptitude to take a great idea and a small amount of capital and build a globally competitive business.

The interdisciplinary team was formed in December 2013 and is built around commercializing a technology developed in the Materials Science, Engineering & Commercialization Ph.D Program. With the investment prize, SioTeX™ is constructing a pilot plant to produce Eco-Sil™, a low-cost and ecofriendly alternative to fumed silica. Eco-Sil™ is manufactured from rice hulls, an abundant and renewable resource. Target markets include paints, plastics and tires, which account for \$1.5 billion in sales annually. The Department of Engineering Technology is represented on this team by Ash Kotwal, Vice President of Manufacturing.

Texas State Team Wins Grand Prize at ACS GCI Business Plan Competition

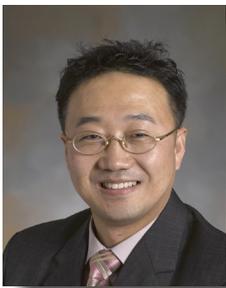


Photo by Patrick Gosnell

The SioTeX™ executive team consists of Marcus Goss, COO, Ash Kotwal, VP of Manufacturing, Dr. Haoran Chen, CTO, Cesar Rivera, CCO and Lisa Taylor, VP of Sales & Marketing.

The SioTeX™ team also recently won the Grand Prize at the 2014 American Chemical Society Green Chemistry Institute Business Plan Competition. The competition took place at the 18th Annual Green Chemistry & Engineering Conference in Bethesda, Maryland. This business plan competition was dedicated to green chemistry and engineering and focused on sustainability-oriented entrepreneurship. The win provided additional validation of their innovative technology and further demonstrated the team's ability to effectively communicate its corporate strategy.

ACI Adhesive Anchor Installer Certification



Dr. Yoo Jae Kim

Mr. David Stayshich, from Fluor Corporation and also a member of our Construction Science and Management Advisor Board, approached the department with a request to have one of our faculty member's certified to train installers in the ACI (Adhesive Anchor Installers) Certification. The reason for his request was that, at the time, there were no ACI Trained professionals in the state available to provide the necessary training for adhesive anchor installers.

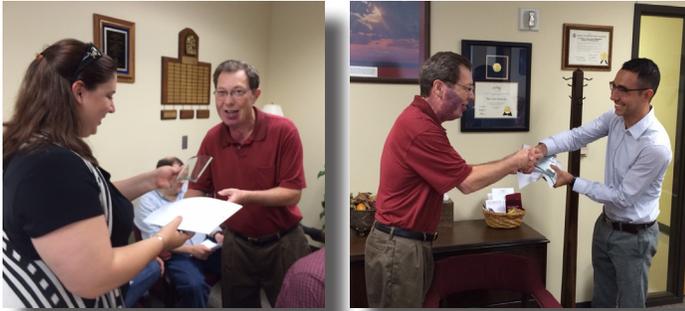
Dr. Yoo Jae Kim, from the Concrete Industry Management faculty volunteered for the training. Dr. Kim also has several other certifications including: ACI Concrete Field Test Technician I, PCI Precast Concrete Quality Control Level I and II and Hilti Adhesive Anchors Installation. The two day training course took place in Maryland, during the summer and he is currently waiting on word from ACI, confirming his successful completion of the course. The ACI Adhesive Anchor Installer Certification is relatively new and was necessitated by the 2006 partial collapse

of the roof of the Central Artery Tunnel Project, also known as the "Big Dig" in Boston. The cause of the collapse, which killed one motorist, was due to the gradual deformation in the anchor adhesive used in the project. Because of this accident, the American Concrete Institute (ACI) partnered with the Concrete Reinforcing Steel Institute to develop the certification program for adhesive anchor installers. This certification is included in the ACI 318 Building Code and is part of the 2012 International Building Code (IBC).

Applause for our wonderful staff...



The Department of Engineering Technology staff members are the best! L to R: Yvette Propeck, Carla Collins, Sylvia Salinas and Chelsea Horton.



Dr. Bartlett Honored with the AIST Kent D Peaslee Junior Faculty Award

Assistant Professor Laura Bartlett has been honored as the second grant recipient for the Kent D. Peaslee Junior Faculty Award from the Association for Iron and Steel Technology (AIST). The award totals \$35,000/year and is renewable for a period of three years for a possible total of \$105,000. The purpose of this award is to increase the number of younger engineering professors with a vested interest in the iron and steel industry. This award was established in 2013 in honor and memory of Kent D. Peaslee, of



Missouri University of Science and Technology, for his unequalled passion for teaching and promoting the steel industry to students, faculty members, and steel industry personnel. His achievements forged a legacy of encouragement to all those dedicated to advancing the technical development, production, processing and application of iron and steel. Ron Ashborn, executive director of AIST said, "Overall, the committee felt Dr. Bartlett's proposal was energetic and enthusiastic, and demonstrated increased steel industry interaction during the past year." Dr. Bartlett plans to use this funding to expose Texas State students to the wonderful opportunities that a career in the steel industry has to offer. She also plans to use the funds to engage students in steel related research, paid internship support, scholarships and industry events and conferences. The AIST Foundation awards over \$600,000 annually in scholarships and grants, and offers a growing number of programs to help students and faculty become further involved in the iron and steel industry.

Students that are interested in learning about technical careers in the steel industry, paid internships, scholarships, or getting involved with steel related research programs on campus should contact Dr. Bartlett. More information about AIST can be found on the link to the website: www.aist.org

Bartlett and Torres recognized: Program for Excellence in Teaching and Learning

Dr. Andy Batey presented the award for participation in the Program for Excellence in Teaching and Learning to Dr. Laura Bartlett and Dr. Anthony Torres at the fall 2014 departmental faculty meeting.

In this program, new assistant professors participate in eight sessions dedicated to strengthening teaching and learning, creating an awareness of various university resources and addressing the tenure and promotion process. The goals of the program are to inspire teaching excellence, as well as to instill a sense of community among the new faculty on campus. Upon satisfactory completion of the Program for Excellence in Teaching and Learning, participants receive a certificate, an award and up to \$800 in travel funds to attend conferences supporting excellence in teaching and learning.



Brian Avila



Jacob Hammack

SMMA Scholarship Recipients

The San Marcos Manufacturers Association (SMMA) awarded two \$750 scholarships to two students from the Manufacturing Engineering Technology and Manufacturing Engineering programs. Jacob Hammack, from the Department of Engineering Technology and Brian Avila, from the Ingram School of Engineering were the recipients of SMMA scholarship in 2014.



Our Newest Arrival

Congratulations to Dr. Soon Jae Lee and his wife Yun-Jin Tae on the birth of their first child, Yule Tae Lee, Born May 22, 2014.

CONFERENCES



Alolika Mukhopadhyay with Dr. Farhad Ameri

ASME IDETC Conference

Alolika Mukhopadhyay presented her research paper, "An Approach for Measuring the Information Content of Textual Engineering Requirement Using a Form-neutral Representation" at the ASME International Design Engineering Technical Conference (IDETC) in Buffalo, NY in August 2014. Alolika's research is supported by NSF Award #1334259.

IDETC is the flagship international conference in engineering design. During this conference, Dr. Ameri was selected as the chair of the Systems Engineering, Information, and Knowledge Management (SEIKM) technical committee for the academic year 2014-2015.

Torres and Kim Attend PCA Conference

Dr. Anthony Torres and Dr. Yoo Jae Kim attended a professor's workshop at Portland Cement Association (PCA) in Skokie, IL. from July 21-25, 2014. The PCA conference's theme "The Professors' Workshop," is designed to provide faculty in engineering, architecture and construction management programs the tools to teach the latest developments in concrete design, construction and materials. The week-long session included networking opportunities to exchange ideas with professors from many universities, demonstrations by software vendors, and more than \$1,500 of free resource materials." Dr. Kim and Dr. Torres attended the conference which also included tours of the PCA/CTL Group structural labs, lectures on education training and a presentation from the lead structural engineer of the Burj Khalifa, the current world's tallest building in Dubai.

Texas State CIM Students Win Third Place in High Strength Concrete Competition at TACA 60th Annual Meeting

The 60th annual meeting of Texas Aggregates and Concrete Association (TACA) was held June 18-20, 2014 in Irving, Texas. The TACA Annual Meeting is the premier convention for Texas aggregate, concrete and cement industry professionals, providing a combination of informative sessions, enjoyable activities, networking opportunities, award acknowledgements and fund-raising events. At the awards luncheon on Friday, July 20, Texas State CIM students Brian Ledsinger and Alex Burkhart were awarded third place in the High Strength Concrete Competition

Texas State Students Attend the 118th Annual Metalcasting Congress in Shamburg Ill.

Metalcasting Congress is held every year in the spring and consists of technical sessions, awards banquets, a table-top exhibition show and Cast in North America (an exhibit opportunity for metalcasters to showcase their capabilities to casting buyers).



Professor Bartlett, Sabra Serino, and Michael Grams at Metalcasting Congress.

The Metalcasting Congress featured hundreds of technical presentations on cutting edge technological developments. This year there were over 450 exhibitors and a total of more than 7,000 metalcasting industry representatives that were in attendance. There are many student events during the conference and this gives students a unique opportunity to interface with potential employers as well as to meet students from other universities. This year Dr. Bartlett attended the conference as Steel Session Chairman and presented a paper, "The effect of silicon addition on the dynamic fracture toughness of high manganese and aluminum steel." The president of the Texas State Student Chapter of AFS, Mr. Michael Grams, and Secretary of AFS, Ms. Sabra Serino also attended this event. During their time at Metalcasting Congress, Mike and Sabra were able to attend many technical presentations as well as meet industry connections and interface with students from other universities. We would like to thank the Foundry Education Foundation, Texas AFS, and the Department of Engineering Technology for helping to sponsor student travel to this event.



Brian Ledsinger and Alex Burkhart

NSF IUOE: Texas State STEM Rising Stars

The LBJ Institute for STEM Education & Research at Texas State University was awarded a four-year, \$1.5M research & development grant. Dr. Kimberly Talley, P.E. and Dr. Vedaraman Sriraman are both Research Scholars with the LBJ Institute for STEM Education & Research. For this grant Dr. Talley is a Co-PI and Dr. Sriraman is a member of the Senior Personnel. The research team will move beyond researching stand-alone practices and will focus on combining effective STEM learning and teaching practices in context. Texas State STEM Rising Stars is committed to producing significant improvements in freshman and sophomore major retention rates and graduation rates in chemistry, computer science, engineering, engineering technology, mathematics and physics.

This project aims to achieve the following over the project's four years: 1) increase the overall second-year STEM undergraduate student retention rate to achieve a target of 62.5% retention; 2) increase the retention rate of Hispanic and African American STEM majors to achieve a target of 53% retention; 3) increase the overall representation of Hispanic and African American students (combined) in STEM majors to achieve a target of 36% representation; and 4) increase the number of female students completing undergraduate STEM degrees to achieve a target of 20% completion. These goals will be achieved by organizing and implementing a multi-faceted program of recruitment and retention activities to support student academic and social needs while fostering instructional change. An established theoretical framework that addresses academic and social integration elements and is informed by contextual micro-level data guides the proposed program.

The proposed intervention and model includes a cohesive set of four strategies and specific supporting activities:

1. Improve instruction by establishing active learning in STEM education faculty learning community and redesigning introductory courses: a) STEM education active learning faculty summer institute and quarterly brown bag; b) Redesigned introductory computer science courses.
2. Establish early and motivating field-of-study and career explorations for students: a) Summer Orientation Sessions for first-year STEM students; b) First-year introductory course in Engineering and Engineering Technology.
3. Foster meaningful student engagement experiences into the professional community; a) Guided internships for second-year students in Engineering and Engineering Technology; b) Enhance student mentoring and social and educational activities and recruitment.
4. Support student academic learning through evidence-based learning support approaches: a) Scale up existing Supplemental Instruction in chemistry and mathematics; b) Expand the existing Learning Assistant (LA) program in physics.

The students in our department will be supported by this grant through nearly every aspect of the intervention as many programs in other departments will improve the courses our students take.

Texas State Receives \$ 15 million NASA NSPRIRES Grant

This summer, Texas State received its single largest grant fund. The grant, "NASA Stem Education Constellation," was funded by NASA in August 2014. The main objective of this grant is to deliver a high quality, national educator professional development (EPD) model. The grant activities will be guided by the following four operational strategies: 1. Produce valued resources, 2. Serve communities with highest needs, 3. Enrich teacher preparation programs, and 4. Harness the power of distance learning and the reach of MOOCs. This is a five year grant. Texas State has partnered with Howard University, North Carolina Central University, Norfolk State University and Salish Kootenai College. Internally, the grant is a collaborative effort between the Colleges of Education and Science and Engineering involving a team of faculty members. Dr. Vedaraman Sriraman is one of the team members.

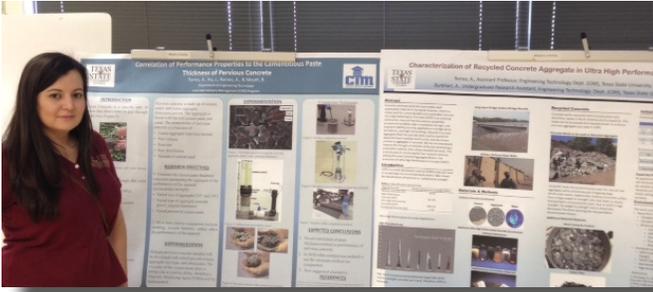
Additional Grants

1. U.S. Department of Education, Bahram Asiabanpour, Semith Aslan, Hassan Salamy, Jesus Jimenez, Yoo Jae Kim, Araceli Ortiz, and Vishu Viswanathan, "REENERGIZE: Attraction, Recruitment and Retention of Students in STEM Programs through Renewable Energy Research and Education Partnership with Five Minority-Serving Institutions" MSEIP Program, Amount: \$613,000, September 2014 – August 2017
2. TxDOT, 2014, S. J. Lee, H. Jiong, and Y. J. Kim, "Improved Crack Sealant Application Methods", Amount: \$229,640, September 2014 – August 2017.
3. Kim, Y., Torres, A., "Concrete Based on Portland Limestone Cement with Limestone Content Greater than 15%", \$30,000, Capitol Aggregate, June 1, 2014 - May 31, 2015.

NIST Grant Awarded to INFONEER

Engineering Informatics Research Group (INFONEER) received a \$235,000 federal research grant from the National Institute of Standards and Technology (NIST) in September 2014 to develop a methodology for structured and collaborative ontology modeling in the manufacturing engineering domain. The proposed methodology is intended to support the collaborative process of ontology development in a multi-developer and multi-user environment. The developed methodology is geared towards generation of a dynamic ontology that can represent various types of manufacturing services in a standard and formal fashion such that it enables automated discovery, classification, composition and orchestration of manufacturing services to deliver the functionalities required for production of complex electro-mechanical products. Dr. Ameri is the sole PI on this project and the duration of this project is three years starting October 2014.

GRANTS AND RESEARCH



Amy Ramos at poster presentation

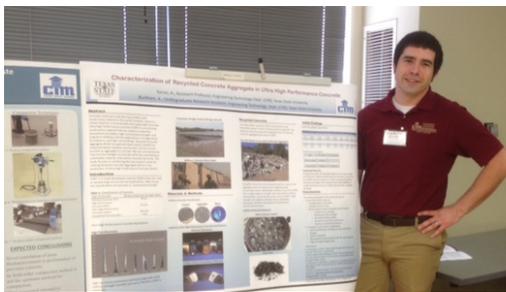
Undergraduate Research Conference

Two undergraduate students in the Engineering Technology Department, Amy Ramos and Alex Burkhart, presented their research at the Undergraduate Research Conference sponsored by the honors college on April 23 - 25, 2014.

Amy Ramos' presentation was titled: "Correlation of Performance Properties to the Cementitious Paste Thickness of Pervious Concrete." Amy's poster was on analyzing the cementitious paste thickness of pervious concrete. Pervious concrete is a type of construction building material that has the ability to allow water to pass through the material and enter the soil below. This is useful in controlling flood areas and increased ground water recharge. Pervious concrete has been used in parking lots, roadways and greenhouses. Amy is using a unique analysis method to characterize this sustainable material. Additionally, Amy was the 2014-2015 recipient of the Durrenberger Scholarship for Women in Science.

Alex Burkhart's presentation was titled: "Characterization of Recycled Concrete Aggregate in Ultra High Performance Concrete." Alex's poster was on the design and characterization of ultra high performance concrete made with recycled concrete aggregate. Ultra High Performance Concrete (UHPC) is a type of concrete that has drastically higher property values than conventional concrete. One performance criteria is compressive strength, which UHPC has an ultimate compressive strength of 20ksi or more. This material is often used in high rise buildings and long span bridges. Alex's goal in this research is to develop this material using recycled elements in order to reduce the increased cost of production.

Under the guidance of Dr. Torres, Alex also received the Student Undergraduate Research Fund (SURF) grant to partially fund his research in this area (\$1,000).



Alex Burkhart at poster presentation.



INFONEER NEWS



Peyman Yazdizadeh Shotorbani



Alolika Mukhopadhyay

The Engineering Informatics Research Group has two new student members. Alolika Mukhopadhyay joined INFONEER in June 2014. Alolika received her B.S. in Mechanical Engineering from the West Bengal University of Technology in India in 2012. Her research at Texas State is focused on developing an ontology for modeling engineering requirements and also creating the software tools that can be used for processing the ontology. Peyman Yazdizadeh Shotorbani joined INFONEER in August 2014. Before coming to Texas, Peyman was a graduate student at Tampere University of Technology in Finland with a major in Machine Automation. His Master's thesis project in Finland was about designing a multipurpose ontology for KPI values of mobile robotic lines. Peyman holds a B.S. in Electrical & Computer Engineering from the University of Tabriz, India. Peyman's research at Texas State is focused on applying data mining and machine learning techniques to supplier capability analysis.

The objective of the Engineering Informatics Research Group at Texas State University is to develop the necessary tools, models, and methods that enable explicit knowledge representation, management, and reuse in support of knowledge-intensive activities design and manufacturing. Please join us in welcoming the newest members of our team and wish them a productive and joyful academic experience at Texas State.

INDUSTRY OUTREACH

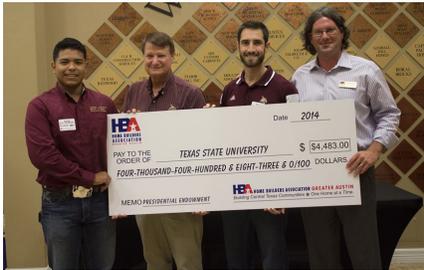
Texas State Now an AIC Testing Center

As of fall 2013, Texas State University is an American Institute of Constructors (AIC) Testing Center. Both the Associate Constructor (AC) exam and the Certified Professional Constructor (CPC) exam will be offered during fall and spring semesters to our students and construction professionals in the region.

Construction Science and Management majors are eligible to take the 300-question, eight-hour exam, once within 12 months from graduation. The cost of the exam is \$165 and students must receive a 70% or higher score to pass. Topical areas include: Construction Methods, Materials and Equipment; Bidding and Estimating; Budgeting, Costs and Cost Control; Planning, Scheduling and Control; Construction Safety; Construction Geometrics and Project Administration.

Congratulation to the CSM Students that took the American Institute of Constructors (AIC), Associate Constructors (AC) Exam this past April, they all passed.

HBA Endowed Scholarship is Fully Funded



L to R: Erik Sifuentes, Dr. Gary Winek, James Holmes and Lee Whitaker President of the Hays County Home Builders Association.

Mr. Lee Whitaker from the Hays County Home Builders Association (HBA), presented a check to Dr. Gary Winek, director of the Construction Science and Management Program at Texas State University and two students from the Construction Student Association, James Holmes and Erik Sifuentes, for the amount of \$4483.00. This money was raised through a skeet shoot, that was held by the organization this past August and was the final payment necessary to fully fund the HBA's, Endowed Scholarship at the Texas State's Presidential Level of \$25,000. Next year the interest from the Endowed Scholarship will fund the first HBA scholarship, which will be awarded to an academically talented student, interested in Residential Construction. Typically the Endowment will yield a scholarship of about \$1000 per year.

CALLING ALL ALUMNI

The Department of Engineering Technology is attempting to update information from their former graduates for our alumni database. Please contact Sylvia Salinas at ssalinas@txstate.edu and request a survey. Your response and any comments will be treated with the utmost confidentiality.

9th Annual CSA Golf Tournament

What a blast! This year's 9th annual CSA Golf Tournament was a huge success!

Every year, the CSA hosts a Golf Tournament in the spring semester with Construction Industry employers. This event has proved to be one of the most beneficial events that the CSA host's all year. Teams are composed of two company representatives and two students of the Construction Science and Management Program. This format provides a great opportunity for students to interact with construction industry leaders, while it gives employers the chance to learn more about our organization and program at Texas State University; and of course, we all get to enjoy a great (or not so great) day of golfing! The tournament was kicked off this year with a 'ball drop,' where the owner of the winning ball was given a Yeti cooler! The prizes didn't stop there, competitors had a chance to win a variety of cool prizes, including a trip to Pebble Beach Resort, at our hole-in-one, longest drive, closest to the pin, and raffle competitions. The top three teams were presented with a plaque during dinner at the awards ceremony. Congratulations to these teams for beating out their competition: 1st: Architectural Division 8, 2nd: Spaw Glass and 3rd: Bartlett Cocke General Contractors. The success of this event wouldn't have been possible without our wonderful sponsors. Each sponsorship level includes tournament entry and dinner/drink tickets. Silver sponsors also receive a tournament t-shirt, company logo on the t-shirt, and a sponsorship sign at one of the holes. Gold sponsors receive the silver package, plus preferred company logo placement on the t-shirt, two extra drink tickets, and 10% off next year's tournament. We are proud to announce that we had a record number of sponsors this year! CSA would like to say thank you and recognize all of our sponsors for this year's tournament.



- GOLD: JE DUNN Construction
McCarthy
Spaw Glass
Archer Western
- SILVER: Yates Construction
Hill & Wilkinson General Contractors
Vaughn Construction
TDIndustries
- BRONZE: Sabre Commercial
Highland Homes
Hensel Phelps
Bartlett Cocke General Contractors
Equipment Depot
Architectural Division 8
Rogers-O'Brien Construction
Texas State University

COMMUNITY OUTREACH

Green Design Summer Camp 2014

Dr. Kim, PE, LEED AP coordinated a week-long green design summer camp from July 8-15, 2014 for middle school students. Students were recruited mainly from Miller and Good Night middle schools in San Marcos CISD to the week long camp. Twenty-four students (including more than 50% female, more than 50% minority) attended the program. Topics covered included engineering design process, teamwork & communication skills, artistic inspiration & creativity, renewable energy in homes, sustainable sites, water efficiency, sustainable construction materials, CAD solid modeling, 3D printing and water jet cutting, and hands-on assembly.

Students participated in a team-based "green design" project in which they applied a variety of engineering, design, renewable energy, and architectural skills in completing their custom-designed green home. Ashley Kotwal helped with the event in the concrete lab.



CSA Continues with Ramp Builds

Another successful ramp build! Thanks to everyone who came out for the September 20, 2014 ramp build; and a huge thank you to Bob Gardner with Texas Ramps for providing us the opportunity to give back to our community!



The Texas State Research and Education Foundry Casts Brass Medallions for the Winners of the City of San Marcos Storm Drain Design Competition

This summer the Texas State Foundry cast brass medallions replicas for the winners of the City of San Marcos Storm Drain Design contest. In November 2013, the City of San Marcos and Texas State University sponsored an art competition to design storm drain manhole covers that have been installed on all new city-owned storm drains. The contest was intended to raise awareness of water quality issues and the impact that pollutants, dumped into city storm drains, can cause to the San Marcos River and other tributaries. "Conservation and preservation efforts are critical for the well-being of the San Marcos River and its ecosystem, and everyone in this community has a stake in the care of this key water resource," said Denise Trauth, president of Texas State University. "So we are pleased to have partnered with the city in this initiative that will heighten awareness and improve our efforts to keep this watershed clean." The winners of this competition were Mabel Lopez and Andrea Weissenbuehler of the Art Department. The brass medallions were a 1/6 scale model of



the artists' original design and were presented to the artists this July in a ceremony that took place in the Texas State Research and Education Foundry. The actual storm drains are made of cast iron and were cast by East Jordan

Ironworks in Ardmore Okla. and are currently being installed city wide. East Jordan Ironworks is member of AFS and helps support our students by supporting scholarships, internships and full time job opportunities. Every year, the Texas State Research and Education Foundry technical staff and students produce a number of awards for a variety of student and professional organizations. This excellent work is made possible from generous donations from the Texas Chapter of the American Foundry Society, the Foundry Education Foundation, and their corporate members.

STUDENT ORGANIZATION NEWS



Texas State 2014/2015 ACI Student Officers (from left to right): Cole Pilgrim, Amy Ramos, Alex Burkhart, Brian Ledsinger

American Concrete Institute ACI Student Chapter

2014/2015 OFFICERS:

President: Alex Burkhart
Vice-President: Amy Ramos
Treasurer: Brian Ledsinger
Secretary: Cole Pilgrim

Inaugural Sporting Clay Tournament – Held August 29, 2014

When the 2013-2014 ACI at Texas State Student Chapter officers began planning a sporting clay tournament fund-raiser more than a year ago, they expected to have a few folks from industry there, and hopefully break-even monetarily on the event. With 16 companies and 70 shooters participating, along with \$7,000 raised for the chapter, it looks as if this event just might have a “shot” at returning next year.

The ACI at Texas State Inaugural Sporting Clay Tournament was held at the National Shooting Complex in San Antonio. Students were able to compete and network with representatives from the following companies:

- ACI Central Texas
- AUI Contractors
- Beck Ready Mix
- Bexar Concrete Works
- Flexicore of Texas
- Gosco Concrete Accessories
- Heldenfels Enterprises Inc.
- Ingram Ready Mix
- Jaster-Quintanilla San Antonio, LLC.
- Martin Marietta
- Performance Truck
- Precast Manufacturers Association of Texas
- Sika
- Texas Lehigh Cement
- Tex Mix Concrete
- Vulcan Materials

Industry professionals not only took part in the competition, but jumped on board to help sponsor it. “Like I’ve always said, if the chapter plans something and works hard at putting it together, we in the industry will support it” said Victor Bretting with AUI Contractors. Bretting was also the winner of the industry participant grand prize, a Beretta A300 Outlander 12-gauge shotgun.

Money raised will go towards meetings, events, convention attendance, and community outreach. “This chapter has never had a fund-raiser” said ACI president Alex Burkhart. “This exceeded our expectations and has set a precedent for future fund-raisers” he said. “Now we just have to do it bigger and better.”



American Concrete Institute

Always advancing

STUDENT ORGANIZATION NEWS

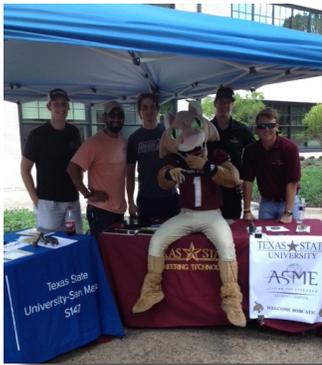


2014/2015 OFFICERS

President: Abel Ardis

Vice president: Aaron McGraw

Secretary: Sabra Serino



Texas State AFS and ASME Students Participate in the Annual Student Involvement Fair

On September 10th, the student chapters of AFS and ASME participated in the annual Student Involvement Fair. The

Student Involvement Fair is an event that is open to all Texas State students, but specifically targets all new students and transfers students. It was held on Wednesday, September 10, 2014 in the LBJ Student Center Paseo and Patio from 10 a.m. - 2 p.m. Students gave away AFS merchandise that was donated by AFS National. The event was an enormous success and resulted in many students that were previously undecided about their choice of majors considering a degree in Manufacturing Engineering and Technology. AFS students Bryan Avila and David Coleman are shown with other students below with Boko the Bobcat.

Spotlight on the Cast Metals Internship Program

Thanks to financial support from the Texas AFS Chapter, CMC Seguin, and local metalcasters and their suppliers, we were able to offer internship opportunities to five outstanding Engineering and Technology students. Mr. Bryan Avila accepted an internship at Southwest Steel Casting Company (SWCC), a manufacturer steel castings primarily for the oil and gas industries. While at SWSC, Bryan completed a study to improve the process controls during heat treatment of steel castings and improve traceability. This led to an overall improvement in quality and less rejections from customers. The Engineering Technology Department would like to thank Mr. Harry Phillips, President of Southwest Steel Casting Company, for extending this wonderful opportunity to Bryan.



Trevor Scott, a senior in the Engineering Technology Department, completed an internship at Del Sol Industrial Services Inc. in Canyon Lake. Within the foundry industry, Del Sol is a full service foundry equipment, foundry consulting, and foundry supply provider. Trevor is now employed full time with Del Sol. The Engineering Technology department would like to thank Mr. Lee White, president

of Del Sol Inc. for providing this opportunity to Trevor. Ryan Hamilton, a senior in the Manufacturing Engineering program completed an internship at Lufkin Industries in Lufkin Texas. Lufkin is a key manufacturer of components for the oil and gas industries and is now a part of GE Oil and Gas.

The Texas State Student Chapter of the American Foundry Society Hosts Open Foundry Day

In March, the Texas State Student Chapter of the American Foundry Society hosted Mountain Valley Middle School in Canyon Lake for Open Foundry Day. The students listened to a presentation by Dr. Bartlett about technical and engineering career opportunities in the Cast Metals Industry. The Mountain Valley students then toured the engineering and technical labs in the Roy F. Mitte building. The tour culminated with a lesson in moldmaking



and casting of bronze bobcat heads in the RFM Research and Education Foundry. The student chapter of AFS will be having a number of Open Foundry Days throughout the academic year that are designed to expose students to the art and science of metalcasting. These events are sponsored by the Texas Chapter of

the American Foundry Society as well as donations from the Foundry Education Foundation.



STUDENT ORGANIZATION NEWS

ASME Student Chapter Activities

The Texas State University chapter of the American Society of Mechanical Engineers (ASME) is an opportunity to get to know your fellow Bobcat engineers. The student chapter of ASME at Texas State serves as a springboard into the world of engineering. The community is great for networking with companies that want to hire Bobcats like you, building up your resume, and great career advice. Our meetings typically offer free food and a guest speaker who will benefit you in some fashion.

ASME ended the last spring semester by selecting a new executive committee. Mr. Sean Moore is serving as chair, Sean is an undergraduate in the Engineering Technology program. Mr. Devanda Lek was selected as the vice-chair. Devanda is a Doctoral Instructional Assistant (DIA) in the Material Science, Engineering, and Commercialization (MSEC) program. Mr. Sean Syring is the new secretary, Sean is an undergraduate in the School of Engineering. Mr. Juan Gomez will serve as treasurer, Juan is also a DIA in the MSEC program.

Involvement and networking is an important component of ASME and we are always recruiting new students. Involvement extends beyond campus as a few Bobcat engineers have presented their research at the International Mechanical Engineering Congress & Exposition (IMECE). IMECE is the premier Mechanical Engineering conference that focuses on the challenges and breakthroughs in Mechanical Engineering. This semester another student will present at IMECE 2014 held in Montreal, Canada. Student should like us on Facebook (<https://www.facebook.com/txstateasme>) or follow us on Twitter (@ASMETXST) to keep up to date with news and upcoming events.



ASME Student Chapter Officers 2014-2015

Chairperson: Sean Moore
Vice Chairperson: Devanda Lek
Treasurer: Juan Gomez
Secretary: Sean Syring

Chair: Sean Moore was born and raised in Brenham, Texas. Upon graduating high school in 2003, he enlisted in the Marine Corps to serve in various locations including Iraq. Honorably discharged, Sean enrolled at Texas State University to pursue a degree in Engineering Technology, and Applied Mathematics. Currently, Sean is working in the micro and nano fabrication field in hopes of publishing his first academic paper before he completes his undergraduate degree in December 2014.

Vice-Chair: Devanda R. Lek was born in Austin, Texas; he received a B.S.M.E. from University of Texas at San Antonio and a M.S.T. from Texas State University. Devanda enrolled in the Material Science, Engineering, and Commercialization program(MSEC) at Texas State University, where he serves as a Doctoral Instructional Assistant. Currently, Devanda is a part of the Nano and Microsystems Group conducting research on mechanical assemblies.

Secretary: Sean Syring was born in San Antonio, Texas where he attended Churchill High School. Sean is undergraduate at Texas State University where he majors in Manufacturing Engineering with a minor in Applied Mathematics. He has an interest in mechanical systems, oil/energy, material handling systems and nanotechnology. Outside of school Sean enjoys hunting, fishing, golf and sports.

Treasurer: Juan A. Gomez received the degree of Industrial Engineer at the Universidad de La Sabana in Bogota, Colombia. He worked in the industry as a research and development assistant, supply chain supervisor and quality manager for several years acquiring the required experience to pursue a Master's of Science in Technology with an emphasis in Manufacturing. Juan joined the MSEC program in fall 2012, focusing his research on the manufacturing of microfluidic devices to be used in biomedical applications.



STUDENT ORGANIZATION NEWS

Construction Student Association News



2014/2015 OFFICERS

President 2014: Ashton Allen

President 2015: James Holmes,

Vice President: Karen Thomas

Treasurer: Lane Conaway,

Secretary: Trevor Lundgren,

ABC Ambassador: Matt Bearden

AGC Ambassador: Mitchell Classen

NAHB Ambassador: Erik Sifuentes

USGBC Ambassador: Maya Shebesta

Special Events Leader: Oliver Moore

Continuing Education Leader: Cameron Huser

Community Outreach Leader: Javier Mendez

Information Technology Leader - Andrew Childs

Within only four semesters at Texas State, it is shocking to see how much the CSM program has grown. This semester there are over 300 students enrolled in the Construction Science and Management Program, there is a new Concrete Industry Management Director, and there is a new Construction Student Association website. Growth of this level on the academic end of the industry exemplifies the high demand for well qualified constructors. To simply state that Bobcats in the CSM and CIM programs are "at the right place at the right time," is an understatement.



L to R: Trevor Lundgren, Emily Tsitrian', Karen Thomas and BJ Spencer

The fall semester is off to a great start, CSA has already hosted two major tailgates, two members' meetings, several job site tours, and a multitude of continuing education classes including Emily Tsitrian's visit to speak on PlanGrid. Any officer, faculty, or student will be quick to point out that this year's group of CSA officers have been putting in a whole new level in effort to better the program, organization, and students. It's this continued growth and dedication to the program that differentiates Bobcats from many of the other great universities in Texas.

Looking forward to the remainder of the fall and quickly approaching spring semester, CSA's break neck pace is sure to continue. This academic year students will be participating in a total of four student competitions ranging from ASC/TEXO's 72-hours of blistering work on a design-build project, to the marathon pace required for ABC's Construction Management Competition.

Students and faculty alike are already looking forward to the 10th Annual CSA Spring Golf Tournament! If anyone is interested in becoming a sponsor for next year's tournament, please contact Ashton Allen (aa1538@txstate.edu) or James Holmes (jdh208@txstate.edu). It is our goal to have as many alumni on the green as possible, alongside their future co-workers. Given the success of last year's CSA/ASID (American Society of Interior Designers) team effort towards their Bobcat Build Project, this year's spring project is certain to produce an amazing end product as well. The previous project totaled over 1500 man hours of work completed in three days with a market value of nearly \$17,000. Working together with other majors is an excellent opportunity for cross-platform communication and networking. More importantly though, these projects are a chance for students to give back to the community and improve the lives of those in need.



In closing, it is important to acknowledge those that make the student efforts possible. Industry donations allow the organization to experience continued growth and participate in the events previously stated. Continuity and support provided through the Texas State University Department of Engineering Technology is undoubtedly the most critical party in maintaining CSA operations. With that said, a big thank you to Dr. Andy Batey, Dr. Gary Winek, Dr. Cassandre a Hager and Professor Vivek Sharma from all the CSA Officers.

Awards Day 2014



The Department of Engineering Technology held the annual awards day ceremony on April 25, 2014. 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.



Leadership and Service Award Recipients.

The Service Award recipients are students who have contributed to making the Department of Engineering Technology exemplary at Texas State University. The recipients included: Eric Adams, Ashton Allen, Matthew Bearden, Mitchell Classen, Lane Conaway, Courtney Dindinger, Justin Dickey, Sable Galindo, Juan Gomez-Ortega, Alfredo Gonzalez, Michael Grams, David H. Haddad, Timothy Hartline, James Holmes (not present), Evan Humphries, Hyunhwan Kim, Trevor Jordan, Ashley R. Kotwal, Devanda Lek, James McNeill, Amy Ramos, Garrett Rodgers, Andres Sanchez, Alexander Schultz (not present), Karen Thomas, Ana Ugartechea-Garcia, and Santos Verdin.



Academic Excellence Award Recipients.

Academic Excellence awards were presented to students who have displayed above average academic skills. This year's recipients were Justin Dickey, Evan Humphries, Ana Ugartechea-Garcia, Seth Arnold, Joshua Brown, Joseph Flanagan, Joshua McGoldrick, Jessica Schwab and James Holmes.

The Leadership Award recipients are students who have exhibited superior leadership skills, particularly in professional organizations. The recipients of the leadership awards were: Ashton Allen, Grieselda Azua, Matthew Bearden, Mitchell Classen, Lane Conaway, Brenda DeLeon, Justin Dickey, Ramsey Doany, Kevin Fuller, Michael Grams, David Haddad, James Holmes (not present), Evan Humphries, Trevor Jordan, Ashley Kotwal, Ryan LeMoine, James McNeill, Francisco Javier Mendez, Jonathan Morgan (not present), Andres Sanchez, Alexander Schultz (not present), Erik Sifuentes, Samuel Solis, and Karen Thomas.



Research Award Recipients.

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 who received departmental scholarships were recognized by category.



CIM Scholarship Award Recipients.

Awards Day 2014

The CIM Scholarships were presented to students by Mr. Bruce Ingram, Dr. Robert Habingreither and Dr. Andy Batey. Recipients included Alexander Burkhart, Zachrey Garcia, Alfredo Gonzalez, Christopher Livingston, James McNeill, Cole Pilgrim, Amy Ramos, Justin Sullivan and Santos Verdin.

The ACI Central Texas Scholarship recipients were Paul Skogen and Santos Verdin (not pictured).



Other Departmental Scholarship recipients included: Ashton Allen, Mitchell Classen, David Haddad, Francisco Javier Mendez, Jesus Pena, Cole Strauss and Ryan Untermeyer. Students not present: Miguel Hertado, Erikpreet Kooner, Joseph McBride, and Joshua McGoldrick.



ACI San Antonio Scholarship Award Recipients.

The ACI San Antonio Scholarship recipients included Cody Houser, Amy Ramos and Santos Verdin.



FEF Scholarship Award Recipients.

The FEF Education Foundation Scholarships were presented by Dr. Robert Habingreither, Dr. Laura Bartlett and Dr. Andy Batey. Recipients were Abel Ardis, Bryan Avila, Austin Dyer, Michael Grams and Sabra Serino.



Faculty, staff, students and family enjoyed the ceremony and the delicious refreshments.

SPRING 2014 CAREER FAIR

