Environmental Engineering Department News

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Texas A&M University-Kingsville

Special Points of interest:

- August Commencement
- EVEN Lab Tours
- 2015 Legacy Scholarship
- 2015 Annual Pathways
 Student Research Symp.
- ABET Site Visit

Inside this Issue:

- Student Achievements
- Alumni News
- Faculty/Staff News
- ISEE News
- EFCREO News
- Upcoming Events: December Commencement



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EVEN Highlights



Volume 6 Issue 1

July—December 2015

Student Achievements

August 7th Graduate—Master of Science: Mohamed Elansary. Congratulations!! Mohamed is continuing his education in our PhD Program.

President Steven Tallant took a tour of the College of Engineering, EVEN labs to see the latest research innovations in Sept., 2015. (pictured right). In November, new Provost Heidi Anderson took a tour of our labs.

Hunter Balzen (BS) was awarded the 2015 Legacy Scholarship of the Auxiliary to the Texas Society of Professional Engineers. Congratulations!

Winners of the Texas A&M University System 2015 Annual Pathways Student Research Symposium held in Corpus Christi, TX on Oct. 22-23, 2015: Doctoral Environmental Science Category—Chihyuan "Andy" Chang (1st Place), Oluwatosin "Tosin" Oyelakin (2nd Place) and Shreesh Kulkarni (3rd place), Doctoral Physical Science Category—Francisco Haces (2nd Place). Lewis Haynes (PhD) was a Judge for the UG Categories.

AAEES and AWMA Student Chapters participated in the Javelina Fall Carnival selling pickles and fruit. All had a great time and the fruit sold out quickly. (pictured right)

ABET Engineering Accreditation Commission reviewers were on campus Nov. 8th-10th reviewing the College of Engineering programs, meeting with faculty, staff and students. Dr. Kumar Ganesan was the EVEN PEV who met with the AAEES Student Chapter and the EVEN 4306 Solid & Hazardous Waste class to discuss the EVEN undergraduate program. Everyone was pleased with the visit and the results will be released soon.



Pictured: Trent Pinion (MS) Dr. Lee Clapp, Dr. Stephan Nix, Mr. Randy Hughes, Pres. Steven Tallant, Dr. Lucy Camacho and Johnson Ajedegba (PhD)



Xiangting Hou (PhD) defended her Dissertation titled "Optimization of Multipollutant Air Quality Management Strategies in the United States". Nov. 2015. Advisor: Kuo-Jen Liao

Johnson Ajedegba (PhD) presented a paper titled "Current voltage relationship and factors affecting electrodialysis metathesis desalination using factorial design" at the 2015 Annual Meeting of the American Institute of Chemical Engineers (AIChE), Salt Lake City, UT Nov. 11, 2015. (pictured right)

Johnson Ajedegba

Student Organizations

If you are interested in joining the AAEES Student Organization please contact Hunter Balzen (BS), President at tamuk.aaees@gmail.com. If interested in joining the AWMA Student Organization please contact Tosin Oyelakin (PhD), President at AWMA.tamuk@yahoo.com. If you are a PhD student and interested in joining the Association of Doctoral Students (ADS) please contact Lewis Haynes (PhD), President at adstamuk@gmail.com.

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Student Achievements (cont.)

Kailas Malwade (PhD) had a book chapter published titled <u>A Comparative Study of the Aqueous-Phase Adsorption of Sulfamethazine onto Commercially Available and Laboratory Developed Activated Carbon</u> by Kailas R. Malwade, David Ramirez, and Sudarshan Kurwadkar *Emerging Micro-Pollutants in the Environment: Occurrence, Fate, and Distribution*. 113-131 DOI: 10.1021/bk-2015-1198.ch006

Chihyuan Chang (PhD) presented a paper titled <u>"Estimating Nitrogen Oxides (NO_x) Emissions from U.S. Shale Plays using an Integrated Topdown and Bottom-up Approach"</u> at the Chinese American Petroleum Association (CAPA) 2015 Petroleum and Petrochemical Technical Symposium in Houston, TX Oct., 2015. Authors: Chang, C.Y. and Liao, K.J.

Adekunle Teniola, Jesus Prado, Bonaventure Ezeh and Sharon Tazanu (all MS) successfully defended their Thesis' in Nov., 2015.

Muhammed Chowdhury and Wisdom Oghenerurie (both MS) passed the Certified Floodplain Management (CFM) exam on Nov. 12, 2015.

Oluwatosin Oyelakin (PhD) presented a paper titled "Mathematical modeling and experimental breakthrough curve of toxic vapor adsorption from crude oil and condensate storage tank" at the Society of Petroleum Engineering (SPE) Annual Technical Conference in Houston, TX Sept. 28. 2015. Authors: Oluwatosin Oyelakin, Lawal Olabanji and David Ramirez.

Oluwatosin Oyelakin (PhD) presented a paper titled <u>"Evaluation of thermal swing adsorption for the removal and recovery of toxic emitted from condensate storage tank"</u> at the 2015 Annual Meeting of the American Institute of Chemical Engineers (AIChE), Salt Lake City, UT Nov. 11, 2015. Authors: Oluwatosin Oyelakin and David Ramirez.



EVEN graduate students Rohan Jayasuriya, Adekunle Teniola, Nima Ghahremani, Ruiqiang Zong, Trent Pinion and Ahsan Ullah and faculty Lucy Camacho and Lee Clapp spent three days in November performing sampling and water quality testing at 11 wastewater facilities that discharge to the Rio Grande River between the Falcon Dam to the Gulf of Mexico. They were joined by representatives from the Mexican Institute of Water Technology (IMTA) and the International Boundary and Water Commission (IBWC). This effort was part of an ongoing *Binational Synoptic Water Quality Survey of the Lower Rio Grande/Rio Bravo*. (pictured left)

Pictured: Rohan Jayasuriya, Brownsville water technician, Ruiqiang Zong and Trent Pinion.

Alumni News

Ranjith Dandanayakula (MS Class of '04) opened his own firm Samudyata Infra Solutions Pyt. Ltd. in India and is the Director.

Rupali Sabnis, P.E. (MS Class of '04) is working with the City of Austin in Austin, TX as a Graduate Engineer, Watershed Protection Dept.

Chris Stark (BS Class of '15) is working with Northrop Grumman in San Antonio, TX as an Air Quality Engineer.

Sam Franco (BS Class of '15) is working with SCS Engineers in Houston, TX as an Environmental Staff Professional.

Mayokun Adekola (MS Class of '15) is working with Turner Construction Company in Houston, TX as a Field Engineer.

Ashutosh Deshpande (MS Class of '11) is working with Global Geo Engineering in Irving, CA as an Environmental Scientist/Geotechnical Engineer.

Shrey Kankaria (MS Class of '15) is working with Kronsys Inc. in Houston, TX as a Data Analyst.

Robert Salinas (MS Class of '13) is working with Flint Hills Resources in Corpus Christi, TX as Fire Protection Engineer.

Nekshad Tangri (MS Class of '15) is working with ZelEx in Houston, TX as an Environmental Engineer.

Dr. Ci "Jessie" Yang (MS Class of '09) has completed her PhD in Civil Engineering at Rutgers University in 2015 and is working with

Faculty / Staff News

July 1, 2015—Dr. Lee Clapp became the Chair for EVEN, (pictured on page 1) is a Professor and P.E. licensed. Please feel free to review our webpage at: http://www.tamuk.edu/engineering/departments/even/index.html

A warm welcome to our new Visiting Assistant Professor, *Dr. Thomas Lynn*. Dr. Lynn received his Ph.D. in Environmental Engineering at the University of South Florida. He is also a registered Professional Engineer. Dr. Lynn's research focuses on improving the water quality performance of stormwater management systems. (pictured right)

Dr. Lucy Camacho gave a presentation titled "Desalination of Simulated Shale Gas Produced Water by Membrane Distillation" at the International Desalination Association (IDA) World Congress in San Diego, CA Aug. 30—Sept. 4, 2015. Dr. Camacho attended the **Texas Delegation Tour** of the Carlsbad Desalination Project. This is the largest seawater desalination project in the Western Hemisphere. (picture right).

Dr. Yaneth Gamboa, Lab Manager gave tours of the Environmental Engineering Labs to 85 students from the Memorial High School Edgewood ISD on Oct. 20, 2015.

Dr. Jianhong Jennifer Ren and Dr. Tushar Sinha presented their research on "Surface Water-Ground Water Interaction and its Importance in Regional Water Resources Management" at the Water Environment Association of Texas Coastal Bend Section and Coastal Bend Chapter of Texas AWWA meeting on Nov. 18, 2015. Seyed Siavash Bassam (PhD), Kristen Hernandez (MS) and Chisara Anoruo (MS) also contributed to the presentation.



Dr. Thomas Lynn



Institute for Sustainable Energy and the Environment (ISEE) News

ISEE staff and partners participated in StormCon in Austin, TX. TAMUK and STORMCON cohosted the North American Surface Water Quality Conference & Expo at the JW Marriott; over 1,200 stormwater professionals attend this conference on Aug. 3-7, 2015. Pictured is EVEN MS student Wisdom Oghenerurie. EVEN students Ahmed Mahmoud (PhD), Taufiqul Alam (MS) and Md Yeasir Rahman (MS) also presented posters.

Staff and faculty representing ISEE and TAMUK Office of Research and Sponsored Programs, met with representatives from the Office of the Governor, with TCEQ Commissioner Toby Baker, former TCEQ Commissioner Buddy Garcia, and TWDB Commissioner Bech Brunn in Austin, TX to discuss water issues, funding opportunities, and support of the proposed Laguna Madre Estuary Program on Aug. 12, 2015.



ISEE hosted a TCEQ TPDES Multi Sector Permit Workshop at the Rio Red Research, Technology, and Education Center in Weslaco, TX on Aug. 20, 2015.

ISEE traveled to Austin, TX to meet with the TCEO Water Quality Division and discuss the TPDES permitting process on Sept. 18, 2015.

ISEE and Task Force members traveled to Austin, TX to participate in the TCEQ Water Quality Division Workshop on Sept. 22, 2015.

ISEE staff participated in the AI-RGV Building Communities Conference at South Padre Island, TX on Sept. 25, 2015.

As part of the regional stormwater management program in South Texas, ISEE hosted four (4) Household Waste Collection Events in Mission, Weslaco, Alamo and San Benito, TX in Oct., 2015.

ISEE hosted the 1st Annual Municipal Parks Stormwater Management Using Low Impact Development and Green Infrastructure Mini-Conference in Weslaco, TX. This is a program funded by the EPA NPS CWA 319 Program. The LRGV Sports Complex and Municipal Parks Environmental Council co-hosted the conference on Nov. 12-13, 2015.

Institute for Sustainable Energy and the Environment (ISEE) News (Cont.)

ISEE was awarded a grant from the Coastal Management Program entitled "Lower Rio Grande Valley Low Impact Development Outreach, Education and Demonstration Program—Using LID Concepts to Improve Water Quality of Stormwater Runoff in a Coastal, Rural-Colonia Setting" in the amount of \$161,130. PI: Kim Jones, Co-PI: Javier Guerrero

ISEE was awarded a grant from the U.S. Environmental Protection Agency entitled "Decision Making Tool (DMT^G) for Determining LID Stormwater Detention Requirements" in the amount of \$45,885. PI: Kim Jones, Co-PI: Javier Guerrero

ISEE were busy writing new proposals—they submitted five (5) proposals totaling \$1,598,577. Good Luck ISEE!

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Feel free to visit the following websites: http://rgvstormwater.org http://rgvlidprogram.com http://tamuk-isee.com

Eagle Ford Center for Research, Education and Outreach (EFCREO)

We welcome Dr. David Ramirez as the new Interim Director for EFCREO effective Sept. 1, 2015. Dr. Ramirez is an Associate Professor with Environmental Engineering.

Come January 2016, EFCREO will have a new face! Dr. William Worek (pictured right) is the new Executive Director of the Eagle Ford Center for Research, Education, and Outreach (EFCREO). Dr. Worek is coming from Stony Brook University in New York. Dr. Worek will lead the EFCREO effort to partner with industry, academia and the government to provide a wide range of technical support for the sustainable development of energy sources and foster technological advances.

EECREO and ISEE collaborated on a symposium on Development of Technology & Infrastructure for a 21st Century CNG/LNG Driven Economy held at the City of Cotulla Convention Center on Oct. 27, 2015. Keynote Speaker: Mr. Watson Potter with Stabilis Energy presented "LNG Infrastructure and Development for a South Texas Application". Shale Oil & Gas Business Magazine inserted an announcement in their magazine, Sept/Oct 2015 pg.12 issue. This was a huge success with over 50 attendees from Industry and Academia. Pictured right is Dr. Kim Jones giving a presentation.





Upcoming Events

December 2015 Commencement will be **Dec. 11, 2015 at 4p.m**. Environmental Engineering students graduating are: **PhD Student**: Xiangting Hou; **MS Students**: Bonaventure Ezeh, Olufunso Adetunji, Rohan Jayasuriya, Wisdom Oghenerurie, Jesus Prado, Sharon Tazanu and Adekunle Teniola; **BS Student**: Fernando Arredondo. Congratulations Graduates!!!

ISEE will be hosting the 18th Annual Lower Rio Grande Valley Water Quality Planning and Management Conference, May 17-21, 2016 at La Isla Grande, SPI, TX. The Call for Papers will be announced soon.

ISEE was awarded a contract from the USEPA Region 6 Water Quality Division to plan and deliver their annual regional conference. This is a tremendous opportunity for TAMUK and ISEE to oversee the conference from 2016-2021. In October 2016, the 18th Annual EPA Region 6 Municipal Separate Stormwater Sewer System (MS4) Conference will be held in Oklahoma City, OK. Region 6 is comprised of 5 States: Texas, Oklahoma, Arkansas, Louisiana, and New Mexico. The estimated value of this contract is \$1.5M (more information on this conference will be announced later)



Go Javelina's !!!!