

# Environmental Engineering Department News

## Texas A&M University-Kingsville

### Special Points of interest:

- May Commencement
- Miss Texas A&M University-Kingsville
- 2015 Senior Design winners, Student Awards, and Poster Competition Winners

### Inside this Issue:

- Student Achievements
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- EFCREO News
- Upcoming Events



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## EVEN Highlights



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### Student Achievements

**May 15th Graduates—Bachelor of Science:** Samuel Franco, Kristen Hernandez, Ashley Rivera, José Santiago Roque, Maegan Saverline, Christopher Stark, and Jordan Wilborn. **Master of Science:** Mayokun Adekola, Shrey Kankaria, Nithesh Kattakola, Kedar Kunal Muddagowni, Nekshad Tangri and Carmen Thomas

**Congratulations!!** (pictured right are the new BS Graduates—missing: Kristen Hernandez)

MS Student **Chisara Anoruo** was selected by the **Society of Women Engineers** to receive the **2015 The Susan E. Stutz-McDonald Foundation Scholarship**. **Chisara** was one of 1600 applicants who demonstrated outstanding academic achievement as well as strong engineering potential. **Chisara** is currently on an internship this summer with **Southwest Research Institute** in San Antonio, TX.

**Miss Texas A&M University-Kingsville 2015** is EVEN BS Student **Carson Alsop**. Twelve girls competed by performing an opening number, casual wear competition, speaking competition and an evening wear competition. The top three contestants had a final question—Carson was elected on April 11, 2015. Carson also serves as **Student Government Association President**. (pictured right)

MS Students **Adekunle Teniola** and **Trent Pinion** took **1st Place in the Graduate Research Poster Competition** held in Kingsville on April 16, 2015. Their research is on “Ammonia Adsorption and Regeneration using Natural Zeolites and Struvite Precipitation from a Wastewater Effluent”.

**The 2015 Senior Dinner including the Ringing Out Ceremony** took place on May 14, 2015. BS Students winning **1st in Category: for Chemical and Environmental Senior Design** were José Santiago Roque, Samuel Franco, Kristen Hernandez, and Maegan Saverline. *“Point-of-use treatment system for removal of arsenic”*.

Students winning awards were: **Outstanding Senior—Ashley Rivera, Academic Excellence—Fernando Arredondo, and Outstanding Service—Maegan Saverline**.



“Miss Texas A&M University-Kingsville”  
Carson Alsop



### Student Organizations

If you are interested in joining the **AAEES Student Organization** please contact **Hunter Balzen** (BS) President at [tamuk.aees@gmail.com](mailto:tamuk.aees@gmail.com). If interested in joining the **AWMA Organization** please contact **Taylor Tinnell** (BS) President at [AWMA.tamuk@yahoo.com](mailto:AWMA.tamuk@yahoo.com).

**Lewis Haynes** is the President of the **Association of Doctoral Students (ADS)**. If you are interested in joining please send an email to [adstamuk@gmail.com](mailto:adstamuk@gmail.com)

## Student Achievements (cont.)

**Fernando Arredondo, Ashley Rivera, Christopher Stark, and Jordan “Cole” Wilborn** (all BS) gave a podium presentation on Point-of-use and point-of-entry treatment system for removal of uranium at the **Frank H. Dotterweich College of Engineering Senior Design Conference**. May 2015.

**Nekshad Tangri** (MS) successfully defended his Thesis entitled “*Desalination of Produced Water Using Membrane Distillation*”. May, 2015. Advisor: Lucy Mar Camacho

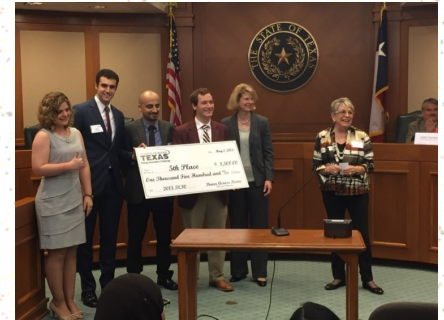
**Adekunle Teniola** (MS) was selected as the **2015 NSF Scholar** winning **\$1000** in NSF Travel Scholarship. **Adekunle** will be presenting his poster at the **19th Annual Green Chemistry Engineering Conference** in North Bethesda, MD in July.

Ghannoum, O., Tidwell, P., Robertson, A., **Ghahremani, N., Clapp, L., Camacho, L.**, Burnett, D. (2015) Podium presentation at the **Power Across Texas—Texas Energy Innovation Challenge** in Austin, TX. May, 2015. **Fifth place award—\$1,500** (pictured right in center is PhD Nima Ghahremani)

**Ghahremani, N., Clapp, L.** (2015). Assessment of desalination concentrate as an alternative water supply for hydraulic fracturing. Podium presentation at the **NGWA Groundwater Summit** in San Antonio, TX. March 16-18, 2015

**Haynes, L., Yang, W., Clapp, L.** (2015) Assessment of down-hole membrane-diffused hydrogen for stimulating uranium reduction and immobilization. Podium presentation at the **NGWA Groundwater Summit** in San Antonio, TX. March 16-18, 2015.

**Dr. David Ramirez** and 13 graduate engineering students presented their projects and assisted with the **KISD Gifted & Talented Student Presentation** held at the Gillett Intermediate School. EVEN Students were: **Jesus Prado** (MS): *Demonstration of instruments for air quality monitoring*; **Francisco Haces** (PhD) and **Kaveh Farhadi** (MS): *Design of a cyclone to capture particles from the air*; **Andrea Meyer** (MS) and **Shooka Khoramfar** (PhD): *A bio-filtration system to remove air pollutants*; and **Kayode Oluwabunmi** (PhD) and **Taufiqul Alam** (MS): *Design of a scrubber to remove particles from gas streams*. Approximately 50 students and 30 parents/relatives took part in this program. (pictured right)



## Alumni News

**Dr. Celina Camarena** (PhD Class of '11) had her manuscript accepted, full citation is Modeling and Experimental Study of Coupled Exchange of p,p'-DDE and Colloids in a Flume Simulated Stream-Streambed System, **C. Camarena, D. Otero, and J. Ren**, *Hydrological Processes*.

**Dr. Camarena** is working with **U.S. Ecology Texas, Inc.**, in Robstown, TX as **Environmental Manager**.

**Ariel Ramirez** (BS Class of '14) is working with **Equistar Chemicals, LP** in Corpus Christi, TX as an **Environmental Contractor** with **CDI Engineering**.

**Vikas Joshi, P.E.** (MS Class of '06) is working with **Uranium Resource Inc.** in Kingsville, TX as an **Environmental Engineer**.

**Sebastian Winkler** (BS Class of '14) is working with **Ranger Environmental Services, Inc.** in Austin, TX as an **Environmental Specialist**.

**Maegan Saverline** (MS Class of '14) is working with **Flint Hills Resources** in Corpus Christi, TX as an **Environmental Engineer**.

**Gehan Flanders** (MS Class of '13) is working with **TCEQ: Texas Commission on Environmental Quality** in Houston, TX as an **Air Specialist** in the **Radioactive Material Licensing Section**.

**Ketan Maroo, EIT** (MS Class of '01) is working with **ARCADIS/Malcolm Pirnie** in Pune, Maharashtra, India as **Director**.

**Krish Pavanandan** (MS Class of '00) is working with **Nuance Communications** in Burlington, MA. As **Senior HPC Engineer**.

**Tanviben Desai** (MS Class of '14) is working with **RSB Environmental** in Houston, TX as an **Environmental Specialist**.

**Aiyswarya Parthasarathy** (MS Class of 14) is working with **Gannett Fleming** in Houston, TX as an **Environmental Scientist/Engineer**.

**Kristen Hernandez** (BS Class of '15) will return to pursue her MS in Environmental Engineering at **AMK**.

## Faculty / Staff News

The Environmental Engineering Department welcomes **Dr. Yaneth Gamboa** as the new Lab Manager. Dr. Gamboa holds a BS in Civil Engineering from [La Gran Colombia University](#) in Bogota, Colombia, and Master's and Doctoral degrees in Environmental Engineering, both from [Texas A&M University-Kingsville](#). In recognition for hard work and excellence in academic performance as a doctoral student her dissertation, *Assessment of Possible Causes of Groundwater Contamination Near ISR Uranium Mining Sites*, was recognized as **Outstanding Research** by the College of Engineering. Yaneth was also recognized by the [Who's Who Among Students in American Universities & Colleges Program](#) in 2010 and 2013.

**July 1, 2015**—**Dr. Kim D. Jones** will step down as Chair for Environmental Engineering but will stay very busy as Professor for EVEN and Director of the [Institute for Sustainable Energy and the Environment \(ISEE\)](#). **Dr. Lee W Clapp** will become the new Chair for EVEN.

**Dr. Lucy Camacho** participated in a student recruitment video to promote **Environmental Engineering** at the Weslaco Center. Undergraduate programs in Chemical, Environmental and Natural Gas engineering are now taught at the **Weslaco Citrus Center**. **Dr. Camacho** and her students perform research on desalination technology for the future and as a female engineering faculty she made an excellent role model for recruitment of female engineers. May, 2015

**Oyelakin, O.A.** and **Ramirez-D.** (2015) "Control of Hazardous Air Pollutant Emissions from Crude Oil and condensate Storage Tanks Using Thermal-Swing Adsorption", conference proceedings of the 108th Annual Conference and Exhibition of the Air & Waste Management Association, June 22-25, Raleigh, NC, paper 23. **Oluwatosin Oyelakin** (PhD) also presented a poster.

**Dr. Tushar Sinha** presented a paper titled "Error Decomposition of Streamflow and Groundwater Projection under Climate Change Information" at the [NSF Annual Water Sustainability and Climate PI](#) meeting in Washington D.C. . Feb. 8-11, 2015.

**Dr. Jianhong Ren** and **Dr. Tushar Sinha** received funding of **\$60,000** from the [City of Corpus Christi](#) to develop a Decision Support Modeling System for Managing the Water Resources around the Region of Choke Canyon Reservoir of the Nueces River Basin.

**Clapp, L., Zong, R., Martinez, A.** (2015) Wireless PID Sensor Network for Monitoring VOC Levels Near Drilling Operations. Podium presentation at the [Flaring Issues, Solutions and Technologies Workshop](#) in San Antonio, TX. Feb. 19, 2015.

**Gamboa, Y., Clapp, L.** (2015) Two Poster presentations: Survey of groundwater concentrations of uranium and other constituents in Kleberg County, Texas, and A one-dimensional decay and transport model for assessing potential contamination from ISR mining sites at the [NGWA Groundwater Summit](#) in San Antonio, TX. March 16-18, 2015.

**Dr.'s Lee Clapp, Tushar Sinha** and **Kim Jones** coordinated this years [2015 MayMester](#). Two UG students from Del Mar **Lynda-Jane Foss** and **Jared Crawford** worked alongside PhD students **Nima Ghahremani** and **Jae-Hyung "Marie" Ji** collecting water quality data from nearby a water body in South Texas, evaluating the water quality from a perspective of water standards for surface water and integrating the water quality data into a Geographic Information System (GIS) format and spatial analysis evaluation. May 18-29, 2015.

## Institute for Sustainable Energy and the Environment (ISEE) News

A warm welcome to **Denise Hornsby**, the new Purchasing Coordinator for **ISEE**. Her specialty is purchasing research supplies, travel and conferences. Denise is a resident of Kingsville and has attended TAMUK majoring in Criminology and Wildlife Management.

**EVEN** and **ISEE** hosted the [17th Annual Water Quality Planning and Management Conference](#) at La Isla Grand Resort at South Padre Island on May 19-23, 2015. Over 350 attendees enjoyed a weeklong event of technical speakers, keynote guests and high school activities. [Texas Department of Agriculture Commissioner Sid Miller](#) and [EPA Region 6 Administrator Ron Curry](#) topped the keynote speaker program by sharing insightful information about the future of water ("Blue Gold") in our region. Key speakers included stormwater and environmental professionals from [EPA, TCEQ, TWDB, TWSSBC, USDA, and TDA](#). The highlight of the conference was the unveiling of **ISEE's** latest endeavor, the development of the plan for a **Laguna Madres Estuary Program (LMEP)**. The LMEP is an effort led by TAMUK and Cameron County. (pictured right are the ISEE Staff and Task Force Members)



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

(conference cont.) The goal is for the program to be accepted as the 29th member of the National Estuary Program and with a potential annual budget of \$600,000. The conference also featured 20 exhibitors and sponsors ranging from vendors of innovative products to engineering consultants. Poster Competition awardees were **Ahmed Mahmoud (PhD) 1st Place**, **Rohan Jayasuriya (MS) 3rd Place** and **Kristen Hernandez (BS) 2nd Place** in Undergraduate Posters. *ed are students/staff having a great time!*



**EVEN and ISEE** awarded over \$2,000 in cash awards this year. A fishing tournament on Saturday at the **White Sands Pier** rounded out the conference. ISEE staff: Javier Guerrero, Augusto Sanchez, Joaquin Martinez, and Denise Hornsby assisted by key LRGV Task Force members, including Chairperson Jose Hinojosa from the Santa Cruz Irrigation Dist. #15, planned this event over many months. *(pictured are students/staff having a great time!)*

ISEE and the EPA are partnering in 2016, and will co-host the largest regional stormwater conference in our area, the **EPA's MS4 Regional Conference**. The conference includes participation from regional MS4s (Municipal Separate Stormwater Sewer Systems) from New Mexico, Oklahoma, Texas, Arkansas and Louisiana. The EPA 2016 Conference will be held in June at Oklahoma City, Ok. (more information later)

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

The **Society of Petroleum Engineers TAMUK Student Chapter** in partnership with the **Society of Petroleum Engineers Southwest Texas Section** and the **TAMUK Eagle Ford Center for Research, Education and Outreach** hosted the **1st Annual "Student Driven" Research Symposium for Oil and Gas Operations**. This successful one-day event consisted of 100 attendees, 10 industry presentations and 17 student poster presentations. Poster and oral presentations given included keynote addresses by distinguished representatives from industry and academia. April 23, 2015.

**RESEARCH and TRAINING:** Certificate in Environmental Management for Oil and Gas Operations has been planned and will be offered in Spring 2016; **Coastal Bend Community Foundation**-awarded **\$10,000**; **NAS-Kingsville** funded one project at \$21,000 on building energy efficiency and the project started June 1, 2015; **City of Corpus Christi** has two projects ongoing and one is funded at **\$60,000** starting June 1, 2015, these projects focus on regional water resources management; **Houston Advanced Research Center** has several projects ongoing and three technologies are being field tested this summer. These technologies include condensate tank emission control, bio filtration, and sensor networks for air quality monitoring; **NSF RCN CE3SAR** has funded **\$25,000** to support a wide range of **EFCREO** activities 9/1/2015—8/31/2016; 3rd party evaluation for innovative technology development: **HERG, LLC**; **OSHA** Training programs for regional industries and communities is being planned; **Association of Doctoral Students** is working on getting this program started by Fall 2015; and UAV Research on boarder security and pipeline safety is ongoing.

**EFCREO Executive Director:** Interviews are currently ongoing and hope to be filled by Fall 2015.

## Upcoming Events

**August 2015 Commencement** will be **August 7, 2015**. Environmental Engineering students graduating are: **PhD Student:** *Saritha Karnae*  
**MS Students:** *Olufunso Adetunji, Mohamed Elansary, Sharon Tazanu.*

**EVEN, ISEE and STORMCON 2015** have partnered again, and will co-host **STORMCON 2015** in Austin, TX at the J.W. Marriot on **August 3-6, 2015**. The week will be highlighted with important meetings between ISEE researchers and various agencies like **TCEQ, Office of the Governor, and the TWDB**. On Tuesday, August 4th, President Tallant will be visiting our event; a dinner is planned for the evening.

**Congratulations Graduates!!**



**Go Javelina's !!!!**