# **Environmental Engineering Department News**

# Texas A&M University-Kingsville

#### Special Points of interest:

- December
  Commencement
- Student Achievements
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Kim D. Jones Professor, Interim Chair Environmental Engineering Director of Institute for Sustainable Energy and the Environment

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engineering/departments/even.

# **EVEN** Highlights



Sept. 2017—Dec. 2017

## **Student Achievements**

August 2017 Graduates—Doctorate of Philosophy: Kailas Malwade; Master of Science: Mary Cate Ball and Olusola Fasae. (pictured is Dr. Kailas Malwade and Olusola Fasae). Congratulations!!!



The Air & Waste Management Association Student Chapter (AWMA) and the American Academy of Environmental Engineers & Scientists Student Chapter (AAEES) teamed up for the "Can You Build It" contest hosted by TAMUK Student Health and Wellness. AWMA and AAEES took 1st Place by building Mario. "Thank you for your donations of 252 cans, your continuing support are key to eliminating hunger in South Texas" - from Hunter Balzen, AWMA Student Chapter, Vice President. Nov. 8, 2017. (pictured is Hunter Balzen and Umer Shafiq)



The EVEN BS Program was reviewed by 9 external advisory board members, 8 faculty and 3 alumni on November 3, 2017. Current state of the program, program educational objectives, new course in management, senior design courses and other topics were discussed. Mr. Brian Flynn gave a presentation titled "Electric Cars, Climate Change & the Texas Oil Patch" on Nov. 2, 2017. Results of meeting will be forthcoming soon.

MS Student Natalia Rojas Arias presented her research project at 2017 Engineered Science Symposium at the Society of Hispanic Professional Engineers National Conference in Kansas City, MO. Nov. 1-5, 2017.

PhD Student, Francisco Haces Fernandez received **2nd Place** for his presentation at the TAMUS Pathways System Symposium on Nov. 3, 2017. Out of 35 Doctoral Students giving oral presentations TAMUK dominated with 10 Doctoral Students winning awards.

BS Students Monica Guerrero and Candice Valerio participated in the Society of Women Engineers National Conference in Austin, TX on Oct. 26-28, 2017. The conference had speakers from GE, The Department of Energy and tech demos by Google and Apple along with a career fair with over 300 companies and schools. (pictured right)



The AAEES Student Chapter participated in a tour of the Owen Stevens Water Plant, Nov. 17, 2017 and hosted its **Potluck Dinner** on Nov. 20, 2017. Busy! Busy!

## **Student Organizations**

If you are interested in joining the AAEES Student Organization please contact Courtney Davis (BS), Vice-President at tamuk.aaees@gmail.com. If interested in joining the AWMA Student Organization please contact Mohammad Umer Shafiq (MS), President at AWMA.tamuk@yahoo.com. If you are a PhD student and interested in joining the Association of Doctoral Students (ADS) please contact Mohammad Anwar Hossain (PhD), President at adstamuk@gmail.com.

## **Student Achievements (cont.)**

PhD Student, Siavash Bassam was selected to represent TAMUK as a presenter at the 14th Annual Pathways Student Research Symposium at Tarleton State on Nov. 2-3, 2017. Siavash received 3rd Place at the 10th Annual Javelina Research Symposium on Sept. 26, 2017. Advisor: Dr. Jianhong Ren.

PhD Student, Shooka Khoramfar presented her research work as a platform presentation at the SPE Annual Technical Conference and Exhibition in San Antonio, Oct. 9-11, 2017. Title of research was "Field Test for Biological Based VOC Emission Control for an Oil and Gas Production Facility in East Texas"; Shooka Khoramfar, Kim Jones, James Boswell and George King. Advisor: Dr. Kim Jones.

#### **Dissertation/Thesis/Project Defenses:**

Natalia Rojas Arias successfully defended her Thesis titled <u>"Adsorption Competition of Benzene, O-xylene and Water Vapor onto Super</u> Activated Carbon Nanoparticles" on November 14, 2017. Chair: <u>Dr. David Ramirez.</u>

Onyinyechi Hannah Anyanso successfully defended her Thesis titled <u>"Analysis of Estuary Waters in the Gulf of Mexico for Chemistry and Salinity Characterization"</u> on November 21, 2017. Chair: Dr. Lucy Mar Camacho.

Shooka Khoramfar successfully defended her Dissertation Proposal titled "Enhance Biological Treatment of Hydrophobic Hazardous Volatile Organic Compounds by Addition of Surfactants and Application of Fungal Biocatalysts" on November 28, 2017. Chair: Dr. Kim Jones.

Hunter Balzen successfully defended his Thesis Proposal titled "<u>Morphological and Chemical Characterization of Atmospheric Particulate Matter from Aguascalientes, Mexico"</u> on November 30, 2017. Chair: Dr. David Ramirez.

Andrea Meyer will defend her Project titled "Compilation of Groundwater Research conducted along the Rio Grande Watershed" on Dec. 4, 2017, Chair: Dr. Lucy Mar Camacho.

Mohammad Umer Shafiq will defend his Thesis Proposal titled "<u>Recovery of Rare Earth Elements from Geothermal Waters Using Novel Electrodialysis Metathesis"</u> on December 7, 2017. Chair; Dr. Lucy Mar Camacho.

Sunil Parajuli will defend his Thesis Proposal titled <u>"Reuse of Zeolites for Adsorption of Ammonia and Finding the Optimum Parameters for Phosphate Adsorption"</u> on December 11, 2017. Chair: Dr. Lucy Mar Camacho.

# **Department News**

Dr. J. César Bezares-Cruz took several students to the Greenwood Wastewater Treatment Plant in Corpus Christi, TX for an educational tour on Oct. 31, 2017. (pictured right: Dr. Bezares Cruz and MS Student Monsuru Suara)

Dr. Lucy Mar Camacho gave a presentation of her research in "Advances in Membrane Distillation for Water Desalination" to visitors at the KBH Desalination Plant in El Paso, TX. PhD Student Samuel Olatunji and MS Student Sunil Parajuli assisted. Full story in the *Fall 2017 Edition of Texas h2o*, the official newsletter of the Texas Section American Water Works Association (AWWA).





Dr. Omar Al-Qudah received an invitation to attend the World Science Forum 2017 Jordan at the King Hussein Bin Talal Convention Centre at the Dead Sea, Jordan under the gracious Royal Patronage of His Majesty King Abdullah II Ibn Al Hussein of the Hashemite Kingdom of Jordan, and in presence of the World Science Forum patrons, His Excellency János Áder, President of Hungary, and Her Excellency Irina Bokova, Director-General of UNESCO. The World Science Forum is a biennial gathering that was initiated in 1999 by the Hungarian Academy of Sciences and the United Nations Educational, Scientific and Cultural Organization (UNESCO). Under the theme Science for Peace, the WSF 2017's programme will examine how science and science policy can improve lives, protect the planet and build a durable and secure future for all of our world's citizens. Nov. 7-11, 2017.

"Texas A&M University-Kingsville Nuclear Doctoral Fellowship Program" PI: Y. Elkassabgi, L. Clapp, and X. Yang from the Nuclear Regulatory Commission in the amount of \$400,000 for period 6/30/17-6/29/21. Proposal Awarded.

# Faculty/Staff News

**Department Changes**: Dr. Lee Clapp, Professor for Environmental Engineering was appointed **Interim Associate Dean for Research and Graduate Affairs** effective Aug. 25, 2017. Dr. Clapp received \$1.28M in competitive external funding as PI and \$2.28M as Co-PI, published 17 journal and 19 conference papers, and supervised the research of 8 PhD and 40 MS students. (pictured right)



Dr. Kim Jones, Professor for Environmental Engineering and Director for the Institute for Sustainable Energy and the Environment (ISEE) was appointed as **Interim Chair for Environmental Engineering** effective Sept. 1, 2017. Dr. Jones served as Chair from Aug. 1, 2005—June 30, 2015. (pictured right)



"Collaborative Research: CRISP 2—Design and Control of Coordinated Green and Gray Water Infrastructure to Improve Resiliency in Chemical and Agricultural Sectors" PI: Tushar Sinha funded by the National Science Foundation (NSF) for \$625,000 for 09/01/17—08/31/2021. Proposal Awarded. Collaboration is with Arizona State University and Texas A&M University—Kingsville. (pictured right)



"Sustainable Remediation of Sites Contaminated with Perfluorinated Compounds Using Biochar" PI: Omar Al-Qudah submitted to Strategic Environmental Research and Development Program (SERDP) for \$199,867 for 03/01/2018—02/27/2019. Collaboration is with Texas A&M University-San Antonio. Proposal Submitted.

"Impact of Occupant on Emission and Transport of SVOCs in Indoor Environments" PI: Yaoxing Wu / Co-PI: M. Zhong, H. Shen submitted to the National Science Foundation for \$297,017 for 09/01/18—08/31/2021. Proposal Submitted.

"Integrated Satellite and Modeling Studies of Biomass Burning: Burned Area, Emissions and Impacts" PI: Min Zhong submitted to NASA Research Opportunities in Space and Earth Sciences (ROSES) for \$250,709 for 04/01/2018—03/31/2021. Proposal Submitted.

"Enhancing UV Disinfection Systems in Municipal Wastewater Treatment Plants as a Sustainable Means for Direct Potable Reuse" PI: J. César Bezares-Cruz / Co-PI: W.S. Walker, W. Lee submitted to National Science Foundation (NSF) for \$330,000 for 08/01/2018—07/30/2021.

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

ISEE held its 19th Annual EPA Region 6 Stormwater Conference on the Riverwalk at the *Hilton Palacio del Rio* in San Antonio, TX on September 17-21, 2017. The EPA Region 6, in partnership with the Municipal Separate Storm Sewer Systems (MS4s), and States in Region 6 and co-sponsored by Texas A&M University-Kingsville Institute for Sustainable Energy and the Environment invited stormwater professionals to participate. The conference was a success with approximately 400 attendees, 60 speakers and 30 exhibitors for all over the U.S. The Agenda with released speaker presentations and photos from the conference can be found on the TAMUK ISEE & EPA conference website. Attendees submitted pictures and interacted with others Guidebook during the conference at <a href="https://guidebook.com/guide/93128/">https://guidebook.com/guide/93128/</a>. San Antonio Express News Journalist, Brendan Gibbons, spoke with Dr. Kim Jones about the importance and significance of the conference after Hurricane Harvey devastated Houston and surrounding areas. Certification Courses had been added to the EPA Region 6 Conference with the San Antonio River Authority (SARA) and Certified Inspector of Sediment and Erosion Control (CISEC). (pictured right is one of the many well received presentations and a relaxing tour on the Riverwalk)





"Synergizing Recent Genetic Advances and Innovative Biomass Pretreatment Technologies for Production of Biofuels Value-Added Precursors" PI: Kim Jones / Co-PI: E. Ibrahim, P. Mills submitted to National Science Foundation (NSF) for \$557,393 for 01/01/2018—12/31/2020. Proposal Submitted.

"Lower Rio Grande Valley Low-Impact Development (LID) Water Quality Monitoring, Street Sweeping Program Characterization and Models" PI: Kim Jones / Co-PI: O. Al-Qudah submitted to Texas Commission for Environmental Quality (TCEQ) for \$282,009 for 09/01/2018—08/31/2021.

Feel free to visit our website: http://tamuk-isee.com

### Alumni News

Ujjwal Bhattarai (MS Class of '97) is working for ASSA ABLOY in New Haven, CT as an **eCommerce Webshop Manager**. (pictured right)

Hernan Lugo (MS Class of '11) is working for HBC Engineering Company in Miami, FL as a Project Manager. (pictured right)

Mary "Cate" Ball (MS Class of 17) is working for South Texas ISD in Brownsville, TX as a Science Teacher.

Dr. Kailas Malwade (PhD Class of '17) is working for CHEMTEX Environmental Laboratory in Sulphur, LA. as a Chemical Analyst. (pictured right)

Paige McIntyre (BS Class of '14) is working for Houston Methodist Hospital & Health Care in the Neuro Department in Houston, TX as a Research Coordinator. Paige is also an MS Student at Capella University. (pictured right)

Dr. Annette Hernandez Uddameri (PhD Class of "07) at Texas Tech University in Lubbock, TX has been promoted to Associate Dean for Undergraduate Studies. Dr. Hernandez also serves as an External Advisory Board Member for the TAMUK Environmental Engineering BS Program. (pictured right)

Shelby Loveland (BS Class of "17) is working for Dragados USA on the new *Harbor Bridge Project* in Corpus Christi, TX as an **Engineer.** 

Revathi Eti (MS Class of '11) is working for KPMG US Financial Services in Roseland, NJ as a Quality Analysis. (pictured right)

Rohan Jayasuriya (MS Class of '15) is working for the Texas Commission on Environmental Quality in Midland, TX as an Environmental Investigator II. (pictured right)

\*\*\*LinkedIn is a great way to stay in touch with our Alumni—please connect with Catherine Allen when you can. \*\*\*















# **Upcoming Events**

Friday, December 15, 2017 Commencement will be held at 1 P.M. for College of Engineering Students. Environmental Engineering students graduating are: MS Students: Onyinyechi Anyanso, Natalia Rojas-Aries, Nida Shaikh, BS Student: Yvonne Dives-Gomez and Crescencio S. Fonseca. Congratulations Graduates!!!

First Class Day for Spring Semester 2018 is January 16th! No Registration after January 31st! Good Luck to the new semester!!

University will be closed for the Christmas—New Year Holiday from December 25, 2017—January 1, 2018.

ISEE will hold its 20th Annual EPA Region 6 Stormwater Conference in Albuquerque, New Mexico at the *Hotel Albuquerque* in Old Town (room reservation link is pending) on August 19-23, 2018. The Conference is co-hosted by Bernalillo County, Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) & Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA). Conference website has been launched. Early registration has opened for \$300 until April, 30, 2018 Register here



Go Javelina's !!!!