

Environmental Engineering Department News

Texas A&M University-Kingsville

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EVEN Highlights



Volume 3 Issue 4

October—December
2012

Student Achievements

December Commencement—Graduating with **Doctor of Philosophy** were **Dr. Jose Cabezas** and **Dr. Anand Karre**, **Master of Science** were **Vinod Balakrishnan**, **Sagar Chitri**, **Mara Contreras**, **Ayokunle Falade**, **Etejoe Imejoe**, **Brandon Klim**, **Vanessa Garcia-Silguero**, **Danning Wu**, **Yangyang Zou**, **Jingyi Zhang** and **Bachelor of Science** was **Denis Guleiof**. [Congratulations All!!](#)



Di Yang (MS) was awarded **1st Place** in the **4th Annual Javelina Research Symposium** for her poster titled "MODIS-Landsat Data Fusion for Estimating Vegetation Dynamics: A Case Study for Two Ranches in West Texas" on October 18, 2012.

Ana Cardona (BS) and **Dr. David Ramirez** gave a presentation titled "Filtration Efficiency of an Industrial Filter on Carbon-Based Nanomaterials" at the **Ronald E. McNair Scholars Program**, TAMUK on October 18, 2012.

Natalie Rocha (MS), **Iris Facundo** and **Natalia Rojas** (both BS) won the **Top 5%** poster prize from the **10th Annual Pathways Student Research Symposium** held in Galveston, TX. **Dr. Hongbo Su** served as a judge in the sessions of "Environmental Science and Engineering". November 9-10, 2012.

The **AAEE Student Chapter Organization** hosted a **Popcorn Fundraiser** on the 1st floor of the Engineering Complex. November 29, 2012.

Dr. Kim D. Jones took his UNIV 1101 freshmen class to Edinburg, TX where they toured rainwater harvesting systems at the **AgriLife Extension Center** and the **Boys and Girls Clubs**. They also received training on Low Impact Development technology at the **TAMUK Citrus Center**. November, 2012.



Undergrad Corner

The **ABET** site visit was held in December 2-4, 2012. The Department We should be officially informed in January or February of the outcome. The visit went well and the program could be accredited as early as Fall 2013.

If you are interested in joining the **AAEE Student Organization** please contact **Theresa Perez** (BS) secretary at theresa.a.perez@gmail.com. If interested in joining the **AWMA Organization** please contact **Iris Facundo** (BS) Secretary at irisfacundo@yahoo.com.

If you have any questions you can contact our department a 361-593-4330 or send Cathey an email at allen@tamuk.edu.

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Graduate Dissertation / Thesis Defense Completion

Jose Cabezas (PhD) defended his **Dissertation** titled “Bioremediation of Groundwater at an ISR Uranium Mining Site Using Hydrogen Injection”. Advisor: Dr. Lee Clapp Nov. 30, 2012

Anand K. Karre (PhD) defended his **Dissertation** titled “Evaluation of Biological Sequential Air Emissions Treatment Systems for VOC and Opacity Emission Control”. Advisor: Dr. Kim Jones Dec. 5, 2012

Vinod Balakrishnan (MS) defended his **Thesis** titled “Evaluation of Nutrient Removal from Urban Stormwater Runoff Using a Coanda-Effect Screen”. Advisor: Dr. Kim D. Jones Nov. 19, 2012

Yangyang Zou (MS) defended her **Thesis** titled “Filtration of Silica nanoparticles on Conventional Commercial Filters”. Advisor: Dr. David Ramirez Nov. 14, 2012

Danning Wu (MS) defended his **Thesis** titled “Adsorption of Benzene, Toluene and Hexane on Super Activated Carbon Nanoparticles”. Advisor: Dr. David Ramirez Nov. 15, 2012

Etejoe Imejoe (MS) defended his **Project** titled “Use of a Wireless Sensor to Characterize VOC Levels at a Gas Station in Kingsville, TX”. Advisor: Dr. Alvaro I. Martinez Nov. 27, 2012

Ayokunle Falade (MS) defended his **Thesis** titled “Evaluation of Tire Bale Performance as Fill Material for Roadbed Construction Semi-Arid Texas”. Advisor: Dr. Kim D. Jones Nov. 20, 2012

Sagar Chitre (MS) defended his **Thesis** titled “Physical Characterization and Quantification of Water Vapor Uptake Capacity of Landfill Biocover Media”. Advisor: Dr. David Ramirez Nov. 26, 2012

Vanessa L. Garcia-Silguero (MS) defended her **Project** titled “Citrus Waste Biorefinery: Adsorption Isotherms and Kinetics Evaluation of Ion-Exchange Resins to be Used in the Recovery of Galacturonic Acid from the Enzymatic Hydrolysis of Grapefruit Processing Waste”. Advisor: Dr. Kim D. Jones Nov. 27, 2012

Brandon C. Klim (MS) defended his **Thesis** titled “Optimization Model for the Management of a Horizontal Sub-surface Flow Constructed Wetland Planted with the Halophyte *Salicornia bigelovii* in the Treatment of Shrimp Mariculture Effluent”. Advisor: Dr. Kim D. Jones / Co-Chair Dr. Tzachi Samocha Nov. 20, 2012

Jingyi Zhang (MS) defended her **Thesis** titled “An Analysis of Particle Size Characterizations and Changes for Stormwater Events in South Texas”. Advisor: Dr. Kim D. Jones Nov. 26, 2012

Alumni News

Gerry Pinzon (MS EVEN Class of '02) is now the **STEM Advisor/Lab Manager/ Engineering Adjunct Professor** at **Texas A&M International University** in Laredo, TX.

Monica Staff-Hernandez (Class of '06) is a **Process Engineer** with **Formosa Plastics Corporation** in Point Comfort, TX.

Lizeth Oliva-Soto (MS EVEN Class of '07) is applying for engineering doctoral study in Europe. Good Luck Lizeth!

Tanvir Khan (MS EVEN Class of '12) is a **Ph.D. Researcher & Graduate Teaching Assistant** for Civil & Environmental Engineering at **Michigan Technological University** in Michigan.

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

Faculty / Staff News

Dr. Hongbo Su traveled to the **University of Texas at San Antonio** to give a seminar on “Remote Sensing and Hydrology”. October, 2012.

Ana Cardona (BS) and **Dr. David Ramirez** gave a presentation titled “Filtration Efficiency of an Industrial Filter on Carbon-Based Nanomaterials” at the **Ronald E. McNair Scholars Program**, TAMUK. October, 2012.

Dr. Lee Clapp traveled to Laredo, TX to participate in the **Eagle Ford Shale Stakeholders Summit**. October, 2012.

Dr. Kim D. Jones traveled to College Station to participate in the **TCN CE³SAR Fall Steering Committee Meeting** on November, 2012.

Dr. Kuo-Jen Liao traveled to Research Triangle Park, NC where he presented his funded project titled “Multipollutant Air Quality Management” sponsored by **Environmental Protection Agency (EPA)**. Dr. Liao also traveled to Arlington, VA where he participated in a **National Science Foundation (NSF)** grant-writing workshop. November, 2012.

Dr. David Ramirez was the invited speaker at the **New Faculty Investment Program**, TAMUK where he presented “Writing Grant Proposals”. Dr. Ramirez also submitted a proposal titled “Thermal-Swing Adsorption to Capture Toxic Air Emissions from Point Sources” sponsored by **HARC CITP** for \$100,000. November 2012.

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Institute for Sustainable Energy and the Environment (ISEE) News

Javier Guerrero, Cheryl Flores, Augusto Sanchez and Monica Hernandez organized 150 students from Mission Veterans Memorial HS., Mission HS, South Texas College -Dual Enrollment Academy, Pharr San Juan Alamo HS, Pharr San Juan Alamo Memorial HS, Pharr San Juan Alamo Southwest HS & Edcouch-Elsa HS to attend a campus tour and presentation on the College of Engineering. Graduate students who gave lab tours were Muhammad Ibrahim, Prajay Gor, Nathan Garza, Hassan Ghanem and Mariela Garza (ASCE). Student Leaders were: Jonathan Gorman, Ashley Rivera, Denis Guleiof, Natalie Rocha, Adeniyi Adetayo, Eva Saenz, Theresa Perez, Courtney Guillory, Tosin Oyelakin, Kai Williams Daniel Guerra, Juan Martinez, Jingyi Zhang and Rashida Sucky (all EVEN). October, 2012



Dr. Kim Jones was interviewed by the **Houston Chronicle** regarding recycling old tires. Dr. Jones has a grant titled "US/Mex Border Program: Waste Tire Reuse". To view the newspaper article please go to <http://www.chron.com/news/houston-texas/article/Where-old-tires-go-to-die-or-not-4063947.php?t=602202786b> November, 2012

Javier Guerrero worked with all 17 of the **Lower Rio Grande Valley TPDES Stormwater Taskforce** members to finalize and submit the annual reports for TPDES permit reporting. November, 2012.

Javier Guerrero Cheryl Flores, and Augusto Sanchez hosted a **Trimble GPS Unit Training** led by Robbie Trcka from Western Data Systems at TAMUK on November 9, 2012. Javier, Cheryl and Augusto also hosted a **Webinar** titled "Stormwater/Constructed Wetland Design" held at the **Weslaco Citrus Center** on November 19, 2012.

Juan Martinez (BS) and Daniel Guerra (BS) working under the direction of Javier Guerrero completed the following **Projects**: (1) Literature review– Artificial turf as a surface application on TxDOT traffic islands used as subsurface storm water detention systems, a low impact development strategy (2) Development of Texas Pollutant Discharge Elimination System FS4 Phase II Permit Guidance documents for development of Storm Water Management Plans. Guidance to be used by the LRGV Storm Water Task Force. (3) Development of task force marketing brochures.

Eva Saenz (BS) and Theresa Perez (BS) working under the direction of Cheryl Flores have been instrumental in compiling a grant database for potential funding sources, website designs, and a newsletter to benefit ISEE and The **LRGV TPDES Stormwater Task Force** and graduate work and upcoming events.

Theresa Perez (BS) has **designed** three Rainwater Harvesting Systems for our **Low Impact Development (LID)** demonstration projects in the Rio Grande Valley (Amigos del Valle, San Juan; Valley Nature Center, Weslaco; Montebella Park, Brownsville). Over 12,000 sqft and 25,000 gallons of storage total.

Dean's Corner

The fall **2012 Conference for South Texas-Coastal Bend STEM** (Science, Technology, Engineering and Math) Coalition was held on October 15th at the **Kingsville Community Center**. Approximately 15 area schools and junior colleges attended the conference.

Upcoming Events

ISEE will host their **15th Annual Stormwater Management Conference** on April 16-19, 2013 at **The Pearl Resort** on South Padre Island. If you would like more information you can contact Cheryl Flores at Cheryl.Flores@tamuk.edu.

We wish everyone Happy Holiday's and see you in 2013.



Go Javelina's !!!!