



### Program News

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### Thirteen Texas A&M-Kingsville Students Earn In-Demand Geographic Information Systems Certificates

13 students earned their certificates the week of December 8, and helped fill a growing need for GIS analysts. "GIS analysis is one of the hottest career opportunities today," said Yu. "GIS analysts are in demand across the nation, and for that matter, the world, as the use of GIS in government agencies, private businesses and nonprofit organizations grows dramatically. "This certificate program is to help students from various fields get enough knowledge to understand and use GIS techniques on real world problem solving and get certified as proof." To prove the point of the variety of study fields, of the three graduate students receiving their GIS certificates Dec. 8 and the 10 undergraduate students receiving their certificates Dec. 11, there are nine geology majors, three animal and wildlife sciences majors, and one environmental engineering major. "I was so impressed by the students," said Yu. "As they took the classes, they began to realize all the different ways the training can be utilized."

Geology major Jacob Hundl of Brazoria said he has already been utilizing the GIS skills he has learned in an internship with Mestena Uranium L.L.C. Prior to that, Hundl said he realized how effective the A&M-Kingsville GIS training had been when he and five other students attended a four-week field camp at Sul Ross State University. Students from some eight universities conducted detailed mapping of various geologic settings, and Hundl said his class more than held their own. "Texas A&M-Kingsville was the dominant school. We surpassed everyone, and were actually teaching other students what to do."

Ashleigh Green, range and wildlife management and computer information systems major from Troup, heard about GIS certification through a campus email notice. She knew from her work that GIS knowledge had a lot of value in her field. "In wildlife management, you can use GIS for habitat mapping. I'd like to serve as tech support on a wildlife field crew, and be at the forefront of a niche field." The students credit Yu to a great degree in learning a skill set out of their chosen field of study. "Dr. Yu is good at bringing the class into what he's teaching," said Hundl. "He's probably one of the most charismatic professors I've ever met." Saenz noted, "You won't fall asleep in his class. He gets excited doing his lectures, and that excitement is contagious."



**Graduate GIS Certificate Classes:** GEOL5312 (GIS, spring 2009), GEOL5352 (remote sensing, summer 2009), Advanced GIS (fall 2009)

**Undergraduate GIS Certificate Classes:** GEOG3450 (Field mapping & GPS, spring 2009), GEOG 2XXX(introduction to GIS, fall 2009), GEOG4435 (remote sensing, fall 2009), GEOG4425 (advanced GIS, spring 2010)

**List of Recipients:** Graduate – Martin Alcala (Environmental Eng.), Dean Wiemers (Wildlife), Ryan Darr (Wildlife), Undergraduate (picture from left) – Jacob Hundl (Geol), Billy Hales (Geol), Marshall Saenz (Geol), Jonas Ball (Geol), Sam Cantu (Geol), Ashleigh Green (Wildlife), Earnest Okeke (Geol), Gabriel Garcia (Geog), Noe Saenz (Geol). and David Smith (Geol)



## Program News

### Dr. Yu wins the 2009 John I Davidson President's Award



Dr. Jaehyung Yu receives the 2009 John I Davidson President's Award for practical paper from the Imaging and Geospatial Information society. His paper with the title of "Incorporation of Flow Stripes for Calibrating Surface Velocity measurements from Interferometric SAR data" is published in Photogrammetry and Remote Sensing, and recognized by winning the second place of the practical paper award. He attended the award ceremony during the annual conference of the ASPRS in Baltimore, MD.

### Dr. McGehee made presentation in an educational conference



Dr. Thomas McGehee presented his paper entitled "Geosciences Professional Training through Undergraduate Research" at the Facilitating Significant Learning Conference on Saturday February 14, 2009 at in the Irma Rangel College of Pharmacy at TAMUK.

### Geosciences welcomes six new majors this semester

Jarret Pawlik and John Schumann are joining us as transfers from Coastal Bend College-Beeville from Beeville, Texas. Jorge Valdez is a freshman transfer geology major from Weslaco. Jorge Luarca transferred in as a freshman geology major from Coastal Bend College-Alice. Jasmina Kocurek, and Samone Lindsey are internal transfers to our program now majoring in geology. We welcome all of our new majors, and hope their successful academic accomplishment for their future.



Jarret Pawlik



John Schumann



Jorge Valdez



Jorge Luarca



Jasmina Kocurek



Samone Lindsey

### Sedimentology Class Goes on Field trip to Padre Island



One important aspect of interpreting ancient environments from sedimentary structures is visualizing the depositional environment in which the rocks form. Although not everyone has access to spectacular outcrops to use as examples of depositional environments, we have a major barrier island close by for students to observe the formation of primary sedimentary structures that are linked to active beach processes. We enjoyed a Saturday fieldtrip to Padre Island to learn how to link beach processes → actively forming sedimentary structures → sedimentary environments.

### Introducing Our Undergraduate Research Team Members

Dr. Jehyung Yu has assembled three geology majors (Jonas Ball, Sam Cantu, and Noe Saenz) for his research team that will be paid from grants. An additional 5 majors will be learning project work to be considered in future granted projects (Adam Pasiak, Thomas Schuenemann, Jessica Garza, Jasmina Kocurek, and Samone Lindsay). Dr. Thomas McGehee has assembled a team of nine geology majors (Billy Hales, Ruben Cano, Cory Dibbens, Michael Schneider, Paul Laraway, Richard Hodges, Jacob Hundl, Rebecca Roscoe, and Orlando Gonzalez) that will be funded to do research this spring. Ruben Cano, Cory Dibbens, Michael Schneider, Paul Laraway, and Richard Hodges are working on synthetic fluvial system meshes to develop groundwater models using GMS and newly developed model generation tools. Rebecca Roscoe and Jacob Hundl are working on ore petrology related projects. Orlando Gonzalez is working on the development of petroleum geology prospect-generation lab exercises. Jonathan Stroup will be learning from the team leaders to be considered in the Fall semester projects.



### Introducing Our Undergraduate Research Team Members



**Jonas Ball** is a senior geology major who is one year from graduation. Jonas is working with Dr. Yu on a crime reduction approach by making a GIS mapping analysis for city of Alice, Texas using their historic crime data. He will present this research in an international academic conference in Las Vegas.



**Noe Saenz** is a senior-status geology major who is one year from graduation. Noe has been a research assistant with Dr. Yu for the past 2 years. Major projects include working with peers, Sam, Billy, and Octavio, on the 3-D GIS Models of the campus and current GIS traffic estimation project. Noe is also a Ronald E. McNair scholar and participated in the summer 2008 internship research with the program. He was selected by our Department to receive research funding on the USDA/CSREES Project # 2006-38422-17080.



**Billy Hales** is a senior-status geology major who is one semester from graduation. Mr. Hales has been a research assistant for Dr. McGehee and Dr. Yu for the past 3 years. He brings strong computer, geology, and quantitative skills to each research project he pursues. Major projects include: development of a geologic characterization of the Yuma Proving Grounds, development of a protocol to use CALINE4 CO dispersion model with Geographic Information Systems, development of a 3D model for Texas A&M – Kingsville, and development of a method to accurately characterize hydrogeologic models of fluvial aquifers.



**Orlando Gonzalez** is a senior status major who is 1.5 years from graduation. Orlando is working with Professor Dan Jackson to develop Petroleum Geology “Prospect Generation” exercises for the Petroleum Geology class.



**Rebecca Roscoe** is a senior status geology major. Rebecca Roscoe and Jacob Hundl are working with Dr. McGehee to develop ore mineralogy exercises for the undergraduate class in the Fall.



**Jacob Hundl** is a senior status geology major. Jacob Hundl is a teaching assistant for the sedimentology lab this Spring. He is also working with Ms. Roscoe to develop new ore petrology exercises for the mineralogy class.



**Ruben Cano** is a senior-status geology major who is one year from graduation. Mr. Cano has been a research assistant and Teaching assistant for Dr. McGehee for the past year and a half. Ruben has been working with Billy Hales, Dr. McGehee and Cory Dibbens to develop a method to accurately characterize hydrogeologic models of fluvial aquifers. Ruben worked with Bob Magee and the Department of the Navy specifically NAVFAC Atlantic in Norfolk, Virginia this past summer. He developed solid block models of the geology at contamination sites using Groundwater Modeling System geologic characterization tools.



**Cory Dibbens** is a transfer student from Texas A&M – Corpus Christi. Cory is currently a senior awaiting graduation in the Fall of 2009. Cory is working with Billy Hales, Ruben Cano, and Dr. McGehee to develop a method to accurately characterize hydrogeologic models of fluvial aquifers.



**Adam Pasciak** is a Junior-status geology major who is two years from graduation. Adam is working with Dr. Yu to develop a 3-D GIS Model and animation for Texas A&M Kingsville using the programs Google Earth and Google Sketchup.



**Thomas Schuenemann** is a Junir-status geology major who is two years from graduation. Thomas is working with Dr. Yu to develop a 3-D GIS Model and animation for Texas A&M Kingsville using the programs Google Earth and Google Sketchup.



**Jessica Garcia** is a Freshman-status geology major. Jessica is working with Dr. Yu to develop a 3-D GIS Model and animation for Texas A&M Kingsville using the programs Google Earth and Google Sketchup.



**Jasmina Kocurek** is a freshman-status geology major. Jessica is working with Dr. Yu to develop a 3-D GIS Model and animation for Texas A&M Kingsville using the programs Google Earth and Google Sketchup.



**Samone Lindsay** is a freshman-status geology major. Jessica is working with Dr. Yu to develop a 3-D GIS Model and animation for Texas A&M Kingsville using the programs Google Earth and Google Sketchup.



**Michael Schneider** is a junior-status geology major that is 1.5 years from graduation. Mr. Schneider is working as a teaching assistant for the Historical Geology Lab. He is also training to work with the Hydrogeological Modeling team.



**Paul Laraway** is a sophomore-status geology major. Mr. Laraway is working as a teaching assistant for the Earth Sciences Lab. He is also training to work with the Hydrogeological Modeling team.



**Richard Hodges** is a sophomore-status geology major. Mr. Hodges is working as a teaching assistant for the Earth Sciences Lab. He is also training to work with the Hydrogeological Modeling team.



**Samuel Cantu** is a senior-status geology major who is one year away from graduation. He has been a research assistant for Dr. Yu since 2006. He helps Dr. Yu and Dr. McGehee establish GIS programs at area high schools and community colleges. Sam received University recognition as a Who's Who on University campuses for his high academic achievements. He is currently working on the research project on blue ice mapping in Antarctica using remote sensing techniques.

### Two Geology Majors Received BS degree



**Ernest Okeke** (left) and **Alex Fuentes** (right) received Bachelor of Science in Geology in December, 2008. Ernest will attend TAMUK gas engineering program as a master student, and Alex will start his service for Army national guard as an officer. We wish all the best for their future. Congratulations! We are so happy for you.

### Geosciences Club News

#### Geosciences club obtained support from Conner Museum and the Student Organization

As of recently, we the Geosciences Club obtained support from Conner Museum and the Student Organization Funding Committee to implement and develop a campus-wide facility that provides students the opportunity to create jewelry items from rocks during recreational hours. The club has put together a list of supplies needed to complete the final stages of the Rock shop located at Conner Museum. The Museum and SOFC have agreed to purchase the necessary supplies allocated for the completion of the rock shop. This includes Rock saws, assorted polishing and sanding supplies totaling more than \$1300 dollars.

#### Exiting Geosciences field trip to Colorado and spring fling are coming

Spring Break is just around the corner with many Geosciences' students becoming more and more excited with the expected trip to Colorado starting March 14<sup>th</sup> to the 21<sup>st</sup>. SOFC has allocated \$600 dollars for this Educational field trip with visits to various geologic sites including Garden of the Gods and Cave of the winds. The students expected to enhance their geologic education in the outdoors will be Rebecca Roscoe, Orlando Gonzalez, Joe Martinez, Ruben Cano, Charles Ball, and I Jonas Ball. If you have any curiosities involving Geosciences I encourage you to attend the Spring Fling coming up March 11<sup>th</sup> from 5-9pm in the University Boulevard we will have our famous Dirt Cups and various rocks and minerals to satisfy your interests and taste. See you there!

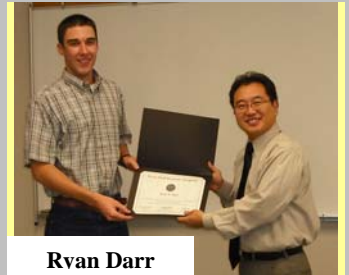




**Photo Gallery (GIS Certificate Ceremony, December, 2008)**



Martin Alcala



Rvan Darr



Dean Wiemers



Jonas Ball



Sam Cantu



Gabriel Garcia



Ashleigh Green



Billy Hales



Jacob Hundl



Ernest Okeke



Marshall Saenz



Noe Saenz



David Smith



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