

SEPTEMBER 2018 • ISSUE 1



# Lower Rio Grande Valley Stormwater Task Force

NEWSLETTER



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Welcome to our first Stormwater newsletter. This month was filled with events and major accomplishments for some of our students, professors and stakeholders. As you read through the newsletter you will find our stormwater students and their summer internships, scholarship recipient, reminders of future events you don't want to miss, and much more!

As always, don't forget to **SAVE THE DATE** for our next **Stormwater** conference happening on **May 21-24, 2019**.

If you are interested in including an announcement or submitting pictures, please feel free to email us at [lrgvswtf@utrgv.edu](mailto:lrgvswtf@utrgv.edu).

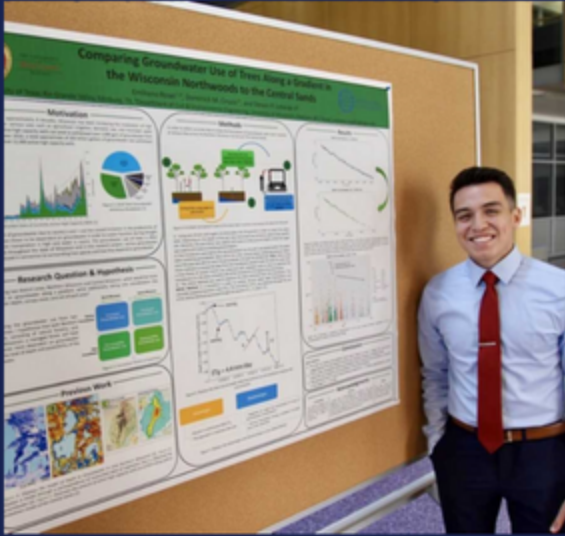
# FACULTY/STAFF NEWS

ON BEHALF OF THE STORMWATER TASK FORCE, WE  
WOULD LIKE TO CONGRATULATE AHMED MAHMOUD ON  
RECEIVING HIS PHD.





# Student Achievements



## Emiliano Rosel

This summer Emiliano was selected into the 2018 Summer Undergraduate Research Experience (SURE) Program at the University of Wisconsin in Madison. He had a great experience conducting research on trees and comparing their groundwater use across a gradient in the Wisconsin northwoods and Central Sands.

## Roberto Hernandez

This summer Roberto interned at Weslaco City Hall with the Planning and Coding department. He collected flowline elevations, heights, and size of crossings for the Weslaco Drain ditch system. For new subdivisions getting developed, Roberto would map the location for the new man holes, storm drains, water and sewage lines. He also collected existing man holes the City of Weslaco had, and mapped it in the ArcGIS including the flow and how it ran to other locations.

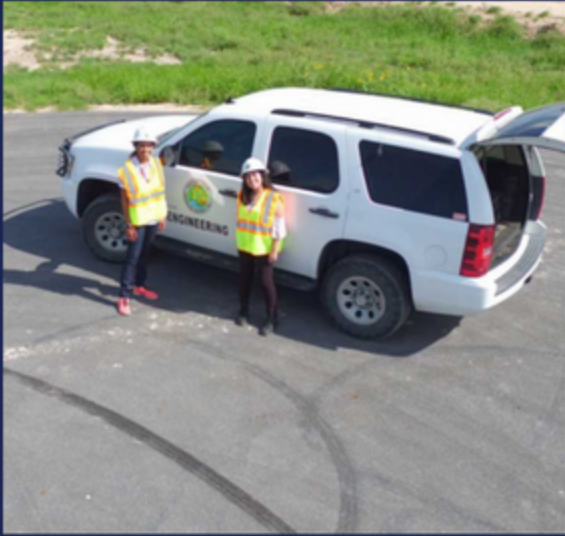


## Enrique Ugarte

Interned at TXDOT in the construction section. Oversaw construction progress of projects, inspect for quality, safety, public, and environmental issues that may affect construction, submit change orders for anything that was not foreseen in the planning and design stage.



# Student Achievements



## Roxana Tello

This summer Roxana interned at the Hidalgo County Drainage District No. 1. She worked alongside the engineers and survey technicians by reviewing proposed improvement plans and drainage reports. Also determined cost estimates and put together hydraulic reports.

## Linda Navarro

Linda interned at Weslaco City Hall, which gave her the opportunity to learn more about civil engineering in the field. The areas that she was exposed to were the following: water and sewer lines implementation, construction of new roads, inspect compaction tests, surveying, practice GIS and other GPS devices and so much more.



## Julio Garcia

Julio interned at the Texas Department of Transportation: Traffic Operations in Austin. Working under Traffic Operation he would oversee design and placement of signs, signals, pavement markings, lighting and intelligent transportation systems. Julio was also responsible for the collection and analysis of crash data used to plan highway safety and educational programs to promote safe driving practices, and oversee driver safety programs and campaigns aimed toward teen drivers, child safety, sober driving, hurricane evacuation and many other issues.





# Student Achievements



## **Zenaida S. Guerrero**

Zenaida is currently interning with the City of Weslaco's Engineering Department. Her title is Engineer I (1) and she is responsible in assisting the City Engineer, M. Hinojosa, PE, CFM, CPM. Zenaida has been given several engineering projects to complete in her time here; Designing a bike lane, pumps for a Lift Station rehabilitation, surveying local areas to address and design detention for drainage issues as well as help prepare construction plans and review construction bid packets from engineering firms who bid on city projects. As assistant to the City Engineer/Planning Director she must regularly attend City Council meetings and she is on the Staff for the Planning and Zoning board. Zenaida has also recently been admitted to the City's Drainage Committee on recommendation by the City Manager, Mike Perez. Zenaida has become proficient in using Arc GIS and Civil 3D AutoCAD.

Not pictured\*

**Daniel Hernandez - Intern for Cameron County**

**Jose Figueroa - Intern for City of Mercedes**

# SCHOLARSHIP RECIPIENT

*Aaron Martinez*



## WHAT CAUSED YOU TO BE INTERESTED IN STORMWATER?

I became interested in stormwater due to a conference I attended at South Padre Island. There I learned about ways cities try to use LID/GI projects to help the environment and how their stormwater drainage helps keep people safe from flooding and I wanted to learn more.

## HOW DID IT FEEL TO BE CHOSEN FOR THE STORMWATER SCHOLARSHIP AWARD?

It was an amazing feeling to be awarded the stormwater scholarship. It was an honor to be chosen to receive the scholarship between the many applicants.

## WHAT OPPORTUNITIES DO YOU THINK THIS SCHOLARSHIP AND PROGRAM PROVIDE YOU WITH?

This scholarship and program will help me pay for my tuition to attend the university and will allow me to meet new employers in my field and gain experience on what it is to be a civil engineer in the water resource field.



# ASCE OFFICERS

ASCE officers presenting plaque to Samuel Maldona, CEO and Jessica Maldonado, Director of Professional Services of SAMES, inc. for their sponsorship and support of the 2017-2018 student chapter.



## ASCE BOARD

Sabrina Guerra, Secretary

Ivan Rodriguez, Treasure

Brenda Salazar, Vice President

Enrique Pena, Vice President

Oscar Hernandez, President

Project Managers:

Sheldon Parada, Concrete Canoe

Ruben Pena, Steel Bridge

# PAST EVENTS



## Stormwater Program travels to Nashville, Texas

The Stormwater Program traveled to Nashville, Texas to attend the EWRI LID Conference to promote the Stormwater Program and support Dr. Ahmed Mahmoud, Civil Engineering Lecturer, speaking engagement on Stormwater Runoff. Program Manager, Deanna Levrier, Director of Water Studies, Mr. Javier Guerrero, and Stormwater Student Academic Assistants, Emiliano Rosel and Enrique Ugarte, were in attendance. The International Low Impact Development Conference highlighted interdisciplinary practice, research, and implementation of Low Impact Development (LID), Green Infrastructure (GI), Sustainable Urban Drainage Systems (SUDS) and Water Sensitive Urban Designs (WSUD). The focus was on using our past and present understanding of LID to tune management programs, design practice, and operation and maintenance into the future.



# PAST EVENTS



## US ARMY CORPS

The U.S. Army Corps of Engineers met with three lower Rio Grande Valley Counties: Cameron County, Hidalgo County, and Willacy County.



# SAVE THE DATE

The ASCE Student Chapter at the University of Texas  
Rio Grande Valley will be hosting the



ASCE Texas  
*STUDENT*  
*SYMPOSIUM*

at South Padre Island Convention Center

**APRIL 10 - 13, 2019**

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SPI CONVENTION CENTER  
7355 PADRE BLVD, SOUTH PADRE ISLAND, TX 78597

For more information, please visit: [TexASCE.org/Symposium](http://TexASCE.org/Symposium)



*21st Annual Lower Rio Grande  
Valley Water Management  
& Planning Conference*

**SAVE THE  
DATE**

*May 21-24, 2019*

*The Pearl | South  
Padre Island, TX*

Department of  
Civil Engineering  
UTRGV



# PROJECTS

## CITY OF PALMHURST & CITY OF MERCEDES

In both projects, UTRGV is cooperating with the city of Palmhurst and Mercedes to design and implement Green Infrastructure (GI) systems in the region. Green Infrastructure projects provide a significant impact on water quality and pollutant loadings on the Arroyo Colorado and the Laguna Madre in the LRGV by minimizing non-point source pollution. UTRGV students and faculty is working on the design of the bioretention systems and permeable pavements, that will promote water quantity mitigation and water quality treatment in both cities. Following construction, UTRGV students will conduct stormwater sampling and monitoring to determine the effectiveness of the GI system. Education and outreach will be provided to local stakeholders, developers, community leaders, and the general public.



# GRANTS



## CREST PROPOSAL

Dr. Andrew Ernest has been asked to submit a full proposal for the National Science Foundation Crest Grant. Project Overview: The CREST Center for Coastal Water Resources, Interdependent Infrastructure, Sustainability and Resiliency Research (C-WRIISRR) is a diverse team of researchers ranging from engineering, physical science, public administration, social science, medicine and public health with a core focus on coastal water resources, their impact on the sustainability of dependent ecologies and economies, and the interdependent infrastructure necessary to ensure their resilience under extreme climactic conditions. The primary research goal of C-WRIISRR will be to engage in fundamental and translational research that results in technology development, infrastructural enhancements and non-structural practices that promote both the sustainability and resiliency of ecosystems, urban communities and agricultural systems dependent on coastal water resources. Since approximately 40% of both the U.S. and World populations live on the coast, this goal is of both national and global importance. The underlying philosophy behind CWRIISRR is that scientific, engineered, social and policy constructs must be developed synergistically, inter-twined and implemented cohesively to effect a sustainable management approach. UTRGV is currently home to an active CREST Phase II Center (Award #1242090, Estimated End Date October 31, 2018). Upon consultation with NSF this Preliminary Proposal is submitted with the caveat that any forward progression on this submittal will be contingent on appropriate sequencing of awards/extension to ensure compliance with NSF restrictions on concurrent awards.

### 319 Hidalgo

Project will start in mid-September. A stakeholder kickoff meeting will take place in early October. UTRGV will travel to Austin on October 3rd for a gran workshop with the TCEQ regarding the administrative elements of the grant.

### 319 Laguna

The last round of comments regarding the QAPP was sent to TCEQ in Early August. It is expected to be approved sometime in September which will allow UTRGV to start the Monitoring work. The technical advisory committee and the steering committee have been meeting quarterly to discuss current issues and project status

# GRANTS

## LMEP

A final draft of the Strategic plan has been finalized. It will be distributed to the stake holders upon approval of the GLO. Dr. Kim Jones, Dr. Tushar Sinha, Dr. Omar Al-Qudah, and Dr. Lucy Camacho from TAMUK and Dr. Hudson Deyoe, Dr. Jungseok Ho, Javier Guerrero and Augusto Sanchez are the leading authors of the plan.

## TGLO CMP COLONIA

The demonstration project at La Esquina is complete. A series of workshops with the Community were held during June and July. TAMUK and UTRGV will start monitoring of the bioretention cell this fall under a 319 contract.

# GRANTS SUBMITTED

## TGLO CMP

UTRGV and its partners were invited to submit a full proposal for this year's TGLO Coastal Management Program after submitting preproposals in June. The three projects selected are:

- "Lower Laguna Madre OSSF and NPS Pollution Prevention and Awareness, and GIS Database Program"
- "Expansion of Fresh Water Inflows into the Lower Laguna Madre Monitoring Network"
- "Parking Improvements, and Educational Pavilion at Beach Access 3, South Padre Island"

## 319 TCEQ

UTRGV and the Stormwater Taskforce submitted to the TCEQ the grant "Development of the Lower Laguna Madre and Brownsville Ship Channel Watershed Protection Plan (WPP) Phase II" to the FY19 319(h) grant cycle. It is focusing on expanding the sorely needed monitoring work and data collection in the watershed.



## OTHER NEWS



We want to Welcome Hidalgo County Precinct #4 to the Stormwater Task Force. Hidalgo County has contributed to many events such as the recent USACE visit.

## REMINDERS

- MS4's MCM Binders-Please start preparing your new fiscal year MCM binder. One on one visits are being scheduled.
- We are now accepting speaker abstracts for the 21st Annual Water Quality Conference. For updates, visit [www.rgvstormwater.org](http://www.rgvstormwater.org).
- NPS Stormwater Awareness Program-The school year has begun and dates are being scheduled! If you wish to be more involved with your cities ISD outreach, please contact Deanna LeVrier at [Deanna.levrier@utrgv.edu](mailto:Deanna.levrier@utrgv.edu).

