

# SENIOR DESIGN CONFERENCE – May 4, 2018

## LIST OF PROJECTS

No.	Project Title	Team Members	Faculty/Mentor
<b>Architectural Engineering</b>			
AE1	Design of Energy Efficient Baseball Clubhouse	Victoria Longoria Christopher Hoch Justin Mendoza William Peterson	Dr. Xiaoyu Liu
AE2	Design and Renovations of the Student Union Building	Loay Anbar Sophia Calderon Rose Leonard Gabiella Trevino	Dr. Xiaoyu Liu
AE3	Designing a New Engineering Complex	Matthew Reyes Jesus Trevino Michael Watson	Dr. Xiaoyu Liu
<b>Civil Engineering</b>			
CE1	Rehabilitation of Third Street	Fahad M. Alahmari Abdulmuhsen A. Alajmi Mohamed M. Alameri Abdullah M. Alazemi Nawaf M. Aldossari	Dr. Pat Leelani
CE2	Research about Tall Building	Hamad A. Alghuwainem Abdulmajeed S. Almutairi Shaimaa S. Almutairi Talal H. Alneghemesh Nasser S. Alotaibi	Dr. Pat Leelani
CE3	TAMUK New Music Building	Faisal M. Alqahtani Justin M. Buchen Gabriel F. Barrera Gilbert Castelano Walter K. Chaho	Dr. Pat Leelani
CE4	New Utilities Room	Christian Hinojosa Neyra N. Linares Othman E. Malallah Edwin F. Manrique Jarrah Y. Mohammad	Dr. Pat Leelani
CE5	Renovation of Mesquite Grove Facilities	Clara O. Owinje Marc K. Rybczynski Christian Trejo Lizeth K. Vazquez Saul E. Yanez	Dr. Pat Leelani
CE6	Rehabilitation of Santa Monica Street	Mohammed Alazmi Mohammed A. Aljedaie Khalid O. Almutairi Meshal S. Almutairi Saad A. Alsaffar	Dr. Pat Leelani
CE7	Courthouse Parking at Eleven Street	Anthony Arredondo Jonathan Cabrera Luke E. Herring Victoria A. Longoria Omar De La Rosa	Dr. Pat Leelani

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CE8	TAMUK Jogging Track	Abdulaziz Alothman Jeremy C. Gallardo Luis G. Hernandez Hamza A. Saadi	Dr. Pat Leelani
<b>Multidisciplinary Projects</b>			
MD1	NASA Mars Sample Return System	Samuel Z. Dunlap Robert E. Eledu Jorge A. Lankenau Lane E. Patterson Russell D. Prophet David Rodriguez	Dr. Nael Barakat, ME Dr. David Hicks, CS
MD2	Aquaris: A Solar-Powered Water Filtration Unit	Omar Cavazos Jorge Medina Brittany Rodriguez Reneal Rodriguez Javon Walker	Dr. Breanna Bailey
MD3	Rockport-Fulton FEMA Dome	Diego Andrade Tamez Hector Leal Macain Proske Sara Cantu Williams	Dr. Breanna Bailey
MD4	Mobile Suit: Vision	Juan M. Fernandez Blanca E. Mendoza Rafael Moya Mario E. Ramirez Haylee S. Reyna Jesus Fasci	Mr. Raj Mogiligidda, ME Dr. David Hicks, CS
MD5	Minesweeping Robot	Avery I. Briones Zachery A. Garcia Alejandro Valencia Emmanuel Vega Sergio Zamora Jacob Vichique	Dr. Selahattin Ozcelik, ME Dr. David Hicks, CS
<b>Mechanical Engineering</b>			
ME1	Turbojet Engine	Aziz M. Abdullah Veronica E. Alvarez Victor O. Guzman Darren A. Rhodes Farid A. Solis	Mr. Grady Isensee Dr. Choongbae Park
ME2	Feedwater Heat Exchanger	Saad M. Alajran Abdulrahman Alazemi Ersheed Alkhatlan Omar Almahjan Khaled J. Almay	Mr. Grady Isensee Dr. Yousri Elkassabgi
ME3	Fusion Based Neutron Source	Juan M. Alvarez Clay W. Blackwell Moiz I. Butt Miqueas Z. Duran Jeffrey W. Parks Abdullah Weiss	Mr. Grady Isensee Dr. Xue Yang

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ME4	Hand Powered Tricycle	Khaled N. Alanzi Ammar Alghamdi Hassan Alhulaili Faleh S. Almlihi Tariq N. Alotaibi Basil N. Alsubaie	Mr. Grady Isensee Dr. Cervantes
ME5	Human Rover Competition	Aaron M. Balles Carlos Gavidia Josiah H. Gomez Kevin G. Hill Jason A. Rodriguez Jaime Vargas Olanrewaju S. Oseni	Mr. Grady Isensee Dr. Shah Alam
ME6	Airborne Wind Turbine	Abdullah Y. Alahmadi Abdulaziz A. Aldaham Fehaid M. Alhajri Abdulaziz Almari	Mr. Grady Isensee Dr. Yousri Elkassabgi
ME7	Automobile Collision Force Dampening	Camren A. Bryant Kale L. Karlen Dave L. Pacheco Thomas M. Soto John C. Yarbrough Andres Carrillo	Mr. Grady Isensee Dr. Williams Dr. Hisham Albataineh
ME8	Asparagus Harvester	Cassandra R. Carrizales Albert C. Castro Robert J. Sanchez Jonathan D. Soto Caleb Y. Wong	Mr. Grady Isensee Dr. Choongbae Park
ME9	An Improved Diamond Drill Bit for the Petroleum Industry	Mona Alsolmie Malcolm Cameron Utah Cox Malcolm Davis Mauricio Rivas Alexander Lopez	Mr. Grady Isensee Dr. Mohammad Hossain
<b>Computer Science</b>			
CS1	HomeArch VR	Bradley Guerrero Hailee Mrotek Emily Saenz Osakpemwokan Alonge	Dr. David Hicks
CS2	Javelina Community	Natalie Perez Diane Montez	Dr. David Hicks
CS3	Code Quality Checking Using Applied Neural Networks	Christopher Cavazos Ross Sullivan Bryan Kolenda	Dr. David Hicks
<b>Electrical Engineering</b>			
EE1	Robo Coffee	Anna Soto Andres Aleman Joseph LaCue	Dr. Lifford McLauchlan
EE2	Maritime Safety Switch	Efrain Cortina Derrick Waterman Jeremy Law Homero Quintanilla	Dr. Lifford McLauchlan

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EE3	Smart Sensor Car Seat	Thomas Ramos Rene Garza Delanie Vidales	Dr. Nuri Yilmazer
EE4	Development of an Autonomous Lawnmower	Alex Hernandez M Omar Lopez Alex Ortega Arafat Hussain	Dr. Lifford McLauchlan
EE5	Infrared Mapping Alarm System (IRMAS)	Landon Willson Drew Hill Cornell George Chris Mosher	Dr. Nuri Yilmazer
<b>Environmental Engineering</b>			
EV1	Electro Dewatering at the Owen Stevens Water Treatment Plant (OSWTP)	Kevin H. Averitt Jose A. Soria Christina M. Williams	Dr. Lucy Camacho
EV2	Landfill Final Cover Renovation	Candice R. Valerio Omar H. De la Garza Courtney D. Davis	Dr. Lucy Camacho
EV3	Achieving Class-A Biosolids through Thermal Drying	Brooke T. Schalm Andrew T. Medrano Alexandra M. Arrazola	Dr. Lucy Camacho
<b>Chemical Engineering</b>			
CH1	Production of Ethyl Acetate from Ethanol and Acetic Acid	Yash Bhakta Danielle Escalante Celine Garcia Jacqueline Molina	Dr. Matthew Alexander
CH2	Production of Oxalic Acid from the Oxidation of Ethylene Glycol	Anthony Montez Carla Centeno Christian Falcon	Dr. Matthew Alexander
CH3	Acrylic Acid from Propylene and Oxygen	Thomas Castanon Yatziry Martinez Jose Quintanilla Liliana Vela	Dr. Matthew Alexander
CH4	Production of TAME from Olefins and Alcohols	Miguel Zamora Dominic Homs Jade Redublo Christian Villarreal	Dr. Matthew Alexander
CH5	Production of Acetone from the Dehydrogenation of Isopropanol	Daniel Diaz Jose Franco Rodney Garza Juan Hernandez	Dr. Matthew Alexander
CH6	Production of Styrene from Ethylbenzene	Cassandra Gomez Ivan Morin Joel Wilson Rudy Flores	Dr. Matthew Alexander
CH7	Production of Ethylene Oxide from Ethylene And Oxygen	Joe Castillo Marc Cruz Fares Diqnah Jesus Garcia	Dr. Matthew Alexander
CH8	Production of Synthetic Gasoline from Natural Gas	Trevor Allen Daniel Garza Fernando Martinez Carlos Rivas	Dr. Matthew Alexander

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CH9	Production of Adipic Acid from Cyclohexene	Julian Reckord Herbert Nnadi Orlando Ruvalcaba Michael Taiwo	Dr. Matthew Alexander
CH10	Process of Sulfur Recovery	Orlando Pena Jared Quintanilla Yalitza Diaz Nicholas Rodriguez	Dr. Matthew Alexander
CH11	Production of Urea	Robert Bazan Jacob Cann Rohan Joseph Jose Raya	Dr. Matthew Alexander
CH12	Production of Formalin from Methanol and Oxygen	Zach Antosko Veronica Medrano Jose Garcia Shelby Porter	Dr. Matthew Alexander
CH13	Converting Orange Rinds to Ethanol	Katherine Gonzales Castulo Morales Cesar Lopez	Dr. Omar Al- Qudah
<b>Natural Gas Engineering</b>			
NG1	Drilling Prognosis: Conventional Deviated Well, Hankamer Basin, Liberty County, Texas	Nahum Carr Nicholas Gaither Andrew Landry Wayne Norfleet Cameron Weese	Dr. Jose Cabezas
NG2	An Onshore Drilling Program for Hydrocarbons in Duval County Texas	George Andrade Victor Beltran James Schmidt Chance Sharpe Alejandro Vera	Dr. Jose Cabezas
NG3	Well Production Optimization using an Artificial Lift Method	Jesmin Chavez Ramon Cid Alberto Hernandez Joe Maldonado Adrian Reyna	Dr. Jose Cabezas
NG4	Production Optimization through Gas Lift Design	Sarah Gilbert April Gonzalez Alejandro Palacios Daniel Torres Eduardo Gonzalez	Dr. Jose Cabezas
NG5	Converting Water Injection Wells into CO <sub>2</sub> Injection Wells in an Enhanced Oil Recovery Process	Eutiquio Guerrero Bryan Lopez Daniel Ritz Jesus Fabela	Dr. Jose Cabezas
NG6	Natural Gas Dew Point Control (DPC) Plant Design	Alejandro Gonzalez Erik Sanchez	Dr. Nazmul Rahmani