

2025 SENIOR DESIGN CONFERENCE – May 2, 2025

LIST OF PROJECTS

No.	Project Title	Team Members	Faculty/Mentor
Architectural Engineering			
AE1	Design of TAMUK New Growth Center	Aaron Garza Ramey Stevens	Dr. Xiaoyu Liu
AE2	Design of TAMUK College of Nursing	Oscar Gonzalez Salvador Longoria Jr. Kaitlyn Luna Jacob Martinez	Dr. Xiaoyu Liu
AE3	Javelina Den	Rachel Montgomery Jessenia Moya Nayeli Montemayor Eva Delgado	Dr. Xiaoyu Liu
AE4	Design of LOGX Center	Jordan Gonzalez Aitong Xu Marco Ortiz Veyda Lake	Dr. Xiaoyu Liu
AE5	Design of Buc-ee's Gas Station	Jessie González Israel Gonzalez Tony Rosenbaum Jose Pina	Dr. Xiaoyu Liu
AE6	Design of Kingsville County Fire Station	Nahtzely Acosta Alicia Grey Ryan Pena Alexa Reyes	Dr. Xiaoyu Liu
Chemical Engineering			
CH1	Vinyl Chloride Production	Madison Flores Maria Porter Belicia Saldana	Dr. Matthew Alexander
CH2	Renewable Ethanol Synthesis from Corn	Justin Cappadona Haniya Farhat Ryan Taylor Gladys Ngamai	Dr. Matthew Alexander
CH3	Bioethanol from Corn Stover	Shelby Battles Maricela Cuevas Marissa Fletcher	Dr. Matthew Alexander
CH4	Liquified Natural Gas Plant Design	Kayla Brulloths Emmanuel Ramirez Merari Castillo Alexis Villalobos	Dr. Matthew Alexander
Civil Engineering			
CE1	Porky's Arcade	Christopher Gonzales Roger Hagan David Pena Jesus Soto Kevin Zeidan	Dr. Breanna Bailey

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CE2	Javelina Corral	Musallam Alazemi Luis Jaime Juan Marines Ray Saenz	Dr. Breanna Bailey
CE3	Pillar Point	Hamad S. Alazemi Sandra Barrera Jerika Hernandez Mohammad Kamal Sebastian Velazquez Alessia Willie	Dr. Breanna Bailey
CE4	Cattleman's Catch	Ricardo Barbosa Payton Chapman Rodolfo Gallegos Devyn Hampton Maggie Spiekerman	Dr. Breanna Bailey
Computer Science			
CS1	The Pet Place	Kekoa Madeira Sean Crosby Robyn Barrera	Dr. David Hicks
CS2	FPGA-Accelerated Phishing Detection	Henry Crawley Anthony Odvina Jonathan Martinez Jessie Contreras	Dr. David Hicks
CS3	Automotive Crash Detection App	Zackary Delagarza Luis Figueroa Nathan Gamez Jason Randolph Alexis Santiago	Dr. David Hicks
CS4	Squadron - A Social Media for Texas A&M - Kingsville	Devon Flores Jack Crockett Max Clarke Marcus Perez	Dr. David Hicks
CS5	Captured Garden	Rogelio Ramos Jonathan Marfell Jonathan Serna Wesley Thompson	Dr. David Hicks
CS6	Bioware	Angie Molina Martin Valadez Jared Keller Nicholas Morales Daniella Avila	Dr. David Hicks
CS7	Step Saga	Kaitlynn Gonzalez Miles Boyd Jamilee Juarez	Dr. David Hicks
CS8	Student Housing App	Andrew Trevino Xavier Gonzalez Marissa Del Bosque Alvaro Gonzalez	Dr. David Hicks
Electrical Engineering			
EE1	Smart Garage Control & Monitoring System	Yousef Aldahoum Abdullah Alazmi	Dr. Lifford McLauchlan

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EE2	The Hive	Trevor Reyna Anthony Anderson Diego Garza Elias Lemus	Dr. Lifford McLauchlan
EE3	Autonomous Home Security Robot	Javier Vazquez Sarah Mariscal	Dr. Lifford McLauchlan
EE3	TechMet - Smart Bicycle Helmet	Leonardo Ramos Brian Gomez Cristofer Lopez	Dr. Lifford McLauchlan
EE4	CapLockt: Two Factor Authentication Biometric Door Lock System	Jimmy Burrows Maielah Davis Ava Martinez Terri Tesch	Dr. Lifford McLauchlan
Environmental Engineering			
EV1	Sustainable Coastal Flood Prevention/Reduction Solutions for Rockport, Texas	Kalissa Lucio Lourdes Paulina Lerma Janay Garza Alejandro Dimas Alejandro Juarez	Dr. Jennifer Ren
Mechanical Engineering			
ME1	Design and Analysis of a SCARA Robotic Mechanism	John Cantu Kassandra Plata Gerardo Rosas Raul Zamora Ricardo Guevara	Mr. Grady Isensee and Dr. Hong Zhou
ME2	Closed Loop Cooling System for EV Batteries	Adam Gonzalez Bryan Gutierrez Nathan Loose Lazaro Reyes Ramiro Vera	Mr. Grady Isensee and Dr. Hong Zhou
ME3	Design of a Dust Mitigation Device for Extraterrestrial Conditions	Isaiah Aleman Jeremiah Aleman Oliver Barera Zariela Coronado Zavier Drennon	Mr. Grady Isensee and Mr. Rajashekar Mogiligidda
ME4	Microturbine Exhaust Heat Reclamation System	Hunter Collins Nathan Francis Hector Gonzalez Joseph Toren	Mr. Grady Isensee and Dr. Sangsoo Lee
ME5	Design of a Hydraulic Arm for Industrial Applications	Benjamin Avalos Cole Charbula Josey Ibarra Christopher Scott Cody Upton	Mr. Grady Isensee and Dr. Hong Zhou
ME6	Design of an Extraterrestrial Human Powered Rover	Kevin Araiza-Chavez Ryan Avila Mark De Hoyos Marco Hernandez Angelina Moreno Emilio Villarreal	Mr. Grady Isensee and Dr. Larry Peel
ME7	Mechanical Infrastructure for a Cumene Chemical Process	Margarito Luna Eloy Martinez Autumn Robinson	Mr. Grady Isensee and Dr. Sangsoo Lee

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Multi-Disciplinary			
MD1	TAMUK Smart Parking Lot System (EE/CS/CP)	Marcos Mendoza Destiny De La Garza Diego Emiliano Trevino Luis Lucio	Dr. David. Hicks and Dr. Lifford McLauchlan
MD2	Transmission Pipeline and LNG Plant Design (CH/NG)	Ramiro Carrillo Jonathan Carrillo Rafael Guerrero Octavio Montoya	Dr. Matthew Alexander and Dr. Jose Cabezas