

2026 SENIOR DESIGN CONFERENCE – May 1, 2026

LIST OF PROJECTS

No.	Project Title	Team Members	Faculty/Mentor
Architectural Engineering			
AE1	Kingsville - The New Era	Cecilia Aguirre Guillermo Torres Melania Gonzales Larizza Guerra	Dr. Xiaoyu Liu
AE2	The Design of Historic Theater in Kingsville	Christopher Galvan Humberto Garces Brianda Vasquez Destinay Harris	Dr. Xiaoyu Liu
AE3	Rolls and Reels - Entertainment Facility	Carla Ortiz Shelbie Peal Tiffany Fuchs Sarena Pena Caitlyn Henderson	Dr. Xiaoyu Liu
AE4	Design of Barbell Rodeo Gym	Angel Mendoza Noah Chavez Eduardo Canchola Jesus Vargas Jr Octavian Keith Modeste Jr.	Dr. Xiaoyu Liu
AE5	Design of Agricultural Complex	Elias Sierra Dayton Noriega Daniel Gone Jose Lozano – Cantu Lucio Nava	Dr. Xiaoyu Liu
AE6	Design of a Kingsville Emergency and Evacuation Shelter	Sydney Whitmire Alonso Jimenez Makayla Richards Pandora Hernandez Odette Fernandez	Dr. Xiaoyu Liu
Chemical Engineering			
CH1	Dimethyl Ether from Methanol	Flor Beltran Isabella Duncan Celeste Torres Gustavo Riojas	Dr. Horacio Duarte
CH2	Off - Shore LNG	Jesus Cisneros III Jonathan Majek Austin Venable Andres Hinojosa	Dr. Matthew Alexander & Dr. Horacio Duarte
CH3	Hydrogen from Methane	Katherine Claudio Audrey Rodriguez Justin Calderon Brett Prause	Dr. Matthew Alexander
CH4	Syngas from Natural Gas	Gilberto Gonzalez Donovon Perez Parker Shearer	Dr. Matthew Alexander
CH5	Ethylene from Ethane	Millissa Boussoualim Sergio Farias Zoe Slusher Joshua Guajardo	Dr. Matthew Alexander

CH6	Phenylalanine from Glycerol	Alejandro Barrera Nathanael Beck Daniel Jones Dylan Maldonado	Dr. Matthew Alexander
CH7	T-butanol from Isobutane	Ivan Gomez Adrian Rios Francisco Salazar Daniel Trevino	Dr. Horacio Duarte
Civil Engineering			
CE1	Agricultural Farm Upgrade	Emede Canales Adrian Sepulveda Brandon Ochoa	Dr. Breanna Bailey
CE2	Athletics Office Renovation	Rodolfo Solis Farris Ashour Angelo Rangel Andres Cantu Ryan Solis	Dr. Breanna Bailey
CE3	Driscoll Water Desalination Plant	Amy Co Abdallah Alazemi Renata Canales Negrete Denise Palma Christopher Wheeler	Dr. Breanna Bailey
CE4	Football Stadium Upgrade	Cameron Roulston Donald Cruz David Villarreal Caleb Muschalek Jayden Shilling	Dr. Breanna Bailey
CE5	Seguin- Rail Transit Center	Michael De La Rosa Yasmin Garcia Jazmin Gutierrez Claudia Cervantes Emmanuel Jimenez	Dr. Breanna Bailey
CE6	Parking Garage	Abelardo Pena Abdulrahman Almegrin Saud Alghanem Ehklo Say Leonel Santos Hernandez	Dr. Breanna Bailey
CE7	Ricardo Overpass	Angel Elissetche Eduardo Perez Daniel Garza Edward Dancause Jason Gaddy	Dr. Breanna Bailey
CE8	Santa Gertrudis Creek Bridge	Gannon Comin Jaxon Mabile Mark Moreno Lucas Gonzales Jeffrey Borgstedte	Dr. Breanna Bailey

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Computer Science			
CS1	Visionary	Jason Canales Greg Gomez Josiah Onwuteaka	Dr. David Hicks
CS2	Boar Cast	Isiah Carrizales Robert Conde Ricardo Reyes Nicolas Vazquez	Dr. David Hicks
CS3	TENOR	Damian Arredondo Tomiwa Olanreweju Josephine Sanyu	Dr. David Hicks
CS4	Car Alert Sensor	Taylor Garcia Xitlalli Maravilla	Dr. David Hicks
CS5	AR Furniture Visualization	Ethan Cuellar Christian Gutierrez Jasper Martin Julian Rodriguez	Dr. David Hicks
CS6	TAMUK SOL	Devanie Contreras Emily Cortes Marcus Silva	Dr. David Hicks
CS7	TAMUK CRF	Nina Brown Jake Garza Elyan Gutierrez	Dr. David Hicks
Electrical Engineering			
EE1	Light Fidelity (LI-FI)	Evan Eden David Ortiz	Dr. Lifford McLauchlan
EE2	Tank Process Control System	Aaron Hernandez Dawson Roach Joseph Garcia	Dr. Lifford McLauchlan
EE3	HoloLift - Ultrasonic Volumetric Display	Nathaniel Handke Brian Rodriguez Matthew Dunlap Claudio S. Gallegos	Dr. Lifford McLauchlan
EE4	Fault Detection in Three-Phase Microgrids	Daniel Copas Craig Gordon Kody Torres Tristan Champion	Dr. Lifford McLauchlan
EE5	Solar Integrated Portable Power System	Brendan Joyce Onesimo Rios Huu Loc Le	Dr. Lifford McLauchlan
EE6	Single - Phase Power Factor Corrector for Single - Family Residential Structures	Jorge Martinez Charles Moore IV John-Ryan Lawrence	Dr. Lifford McLauchlan
EE7	Autonomy and Hybrid Communication System	Brittany Mounce Sebastian Trevino Isabel Wong Sydney Christopher	Dr. Lifford McLauchlan
EE8	Digital Effects Pedal	Martin Schmitt Isaac Rosa	Dr. Lifford McLauchlan

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Environmental Engineering			
EV1	Design and Optimization of a Portable, Solar-Powered Direct Air Capture (DAC) System for Decentralized Emissions in South Texas	Katelyn John Jordan Davis Kristin Trevino Julian Rivera Guadalupe Tocci	Dr. Jennifer Ren
EV2	Taming Brown Algae in Baffin Bay	Elissa Utley Serenity Fenwick Cody Fountain	Dr. Jennifer Ren
EV3	Recovering Water from Mechanical Draft Cooling Towers	Jacklyn M Reyna Maria M Bravo	Dr. Jennifer Ren
Industrial Engineering			
IE1	Oil Sampling Vessel Reliability Study	Ella Atherton Fernanda Contreras Hector Reyna Carlos Ruiz	Dr. Hua Li
Mechanical Engineering			
ME1	Manual Transmission Design and Analysis	David Calvillo Johnathan Garcia Luis Gonzalez Thomas Solis Tyler Walker	Dr. Hong Zhou
ME2	Fin and Tube Heat Exchanger Design and Analysis	Gabriel Cavazos Audrey Garza Sarena Nesmith Josue Saldivar David Salinas	Dr. Sangsoo Lee
ME3	VTOL Fixed Wing Drone Design and Analysis	William Hudspeth Kristina Nash Lucas Olivares James Rodriguez Jose Torres	Dr. Selahattin Ozcelik
ME4	Oxygen Butane Rocket Engine Design and Analysis	Brendon Cavazos Noah Estrada Daniel Houf Nicholas Kawamara Joseph Tonche	Dr. Arturo Rodriguez
ME5	TSGC Lunar Trencher Design and Analysis	Conor Andersen Kyle Cavazos Zachary Davis Marcus Martinez William Mcbrayer Diego Regalado	Dr. Larry Peel
Natural Gas Engineering			
NG1	A Natural Gas Well Performance: A Case Study of Amistad Field	Karson Shepherd Isiah Brown	Dr. Jose Cabezas