BAYLOR ENGINEERING CAPSTONE DESIGN
2018-2019 PROJECT PORTFOLIO

FALL 2018 PROJECTS

• **Brandt Companies:** (ME) Ducting and plumbing systems for commercial real estate project
• **Lockheed Martin:** (ME) Support equipment for installing large modular systems during aircraft production
• **Modern Technology Solutions:** (ME/ECE mix) Deploying communication relays using lighter-than-air transport
• **Baylor SAE Baja:** (ME) Transmission gearbox optimized for off-road competition vehicle

EARLIEST OPPORTUNITY PROJECTS (FALL 2018 OR SPRING 2019 BASED ON INTEREST)

Projects listed below could be potentially offered in either semester of the 2018-2019 academic year at the discretion of our Fall 2018 students, instructors, and corporate sponsors.

• **Bare Bucha:** (ME/ECE mix) Proof-of-concept for kombucha brewing equipment
• **Dycor Manufacturing:** (ME/ECE mix) Motion capture system to assist prosthetics therapy patients
• **Zaragoza Family:** (ME/ECE Mix) Power-assisted swing for special needs child
• **Dr. Alex Yokochi, ME Dept.:** (ME/ECE mix) Device for converting waste methane gas to liquid hydrocarbons
• **Mother Neff State Park**: (ME/ECE mix) Proof-of-concept for solar-powered park exhibit

SPRING 2019 PROJECTS

• **Alcon:** (ME/ECE mix) Biomedical industry – Project Scope TBD
• **Lockheed Martin:** (ME) Commercializing scrap material from composite part production processes
• **Lockheed Martin:** (ME) Project Scope TBD
• **Texzon:** (ME/ECE mix) Test equipment to support wireless electric power distribution
• **Security Brands:** (ME) Intrusion-resistant fence gate hinge system
• **Corporate Project:** (ME/ECE mix) Performing visual inspection using unmanned aircraft
• **Corporate Project:** (ME/ECE mix) Telecommunication industry – Project Scope TBD
• **Corporate Project:** (ME) Construction industry supplier – Project Scope TBD
• **CASPER:** (ME/ECE mix) Full scale, research-grade capsule for Drop Tower
• **Baylor ECS Research:** (ME/ECE mix) Dr. Seung Kim, Electrical & Computer Engineering – Project Scope TBD
• **Baylor ECS Research:** Electrical & Computer Engineering – Project Scope TBD
• **BU Organization Project:** (ME/ECE mix) Robotics design competition – Project Scope TBD
• **BU Organization Project:** (ME) Low-cost ground vehicle design competition – Project Scope TBD
• **Fortenberry Family**: (ME/ECE mix) Flotation device for special needs child
• **Good Neighbor Waco:** (ME/ECE mix) Solar energy system for community center

Teal italicized projects have not been formally confirmed.

*Projects marked with asterisks require fundraising – Students on these projects will assist at fundraising events. This list will be regularly updated.*