LeTourneau University
ENGINEERING & ENGINEERING TECHNOLOGY

Senior Design Presentation Schedule

April 26, 2024

Click on the Live Link to attend virtually or watch recording.

Live Link & Session #	Start/End Faculty Advisor	Project Description
FENNEC 1	8:00 AM - 8:35 PM ***FENNEC*** Dr. Andrew Davis	**Flight Emulation with Neural Networks for Event Characterization** Using data from a small RC helicopter, the project will use neural networks to develop a simulation model and predict traditional flight coefficients.
LETS 2	8:45 AM - 9:20 AM ***LETS*** Dr. Hoo Kim	**LETU-ETL Team Stealth** is designing an Unmanned Aerial Vehicle (UAV) for stealth application using ETL's special paint coating. Goal is to minimize the radar cross section (RCS) of the drone and maintain aerodynamic design.
STARS 3	9:30 AM - 10:05 AM ***STARS*** Dr. Nathan Green	**Starlink Tracking Antenna Reference System (STARS)** Project will design, build, and test a system to track Starlink and other similar satellites through the sky and record their live-sky signals for processing by the RF team.
LUSCE 4	10:15 AM - 10:50 AM ***LUSCE*** Dr. Joonwan Kim	**LeTourneau University Smart Charging Exploration** Project is developing a "recharge-on-the-go" charging solution for Electric Vehicles to reduce reliance on traditional grid connections.
LETREP24 5	11:00 AM - 11:35 AM ***LETREP24*** Dr. Ko Sasaki	**LeTourneau Rehabilitation Engineering Project 24** will develop a "wearable" system to log the trunk movement of patients with lower back pain (LBP) and report the summary data to their physicians for objective evaluation.
TATO 6	11:45 AM - 12:20 PM ***TATO*** Dr. Gitogo Churu	**Transition and Transfer Objective** Project will design, build, and test a device that can effectively help a disabled person easily and safely transfer in and out of a vehicle, building on lessons from previous years projects.
ACME 7	12:45 PM - 1:20 PM ***ACME*** Dr. Kraig Warnemuende	**Additive Construction Materials Experimentation** Project will update the design and footprint of the existing concrete 3D printer for the potential to print a concrete canoe.
SAE Baja 8	1:30 PM - 2:05 PM ***SAE Baja*** Prof. Jeff Johnson	**SAE Baja – Renegade Racing** Project will improve many components of the existing Baja car to enhance performance, functionality, and readiness for the spring 2024 competition in Pennsylvania.
LUNAR 9	2:15 PM - 2:50 PM ***LUNAR*** Dr. Chad File	**LeTourneau University Nexus for Amateur Rocketry** Project will design, build and test a successful Rocket with a payload, to compete in NASA Student Launch (NSL) competition while meeting all rules and requirements.
Frontier Robotics 10	3:00 PM - 3:35 PM ***Frontier Robotics*** Prof. Norman Reese	**Frontier Robotics** will design, build, test, and compete two 15-lb robots, as well as host a local competition. Project will also design and construct a relocatable arena, and a unique area glass test system.
OnTrack 11	3:45 PM - 4:20 PM ***OnTrack*** Dr. Yunus Salami	**LETU Go-Kart Track Development** Project will prepare a design for a campus Go-Kart track. Items include layout, pavement, standards, and safety, as well as evaluating potential sites. A test portion of the track will be built.
R&D 12	4:30 PM - 5:05 PM ***R&D*** Dr. Darryl Low	**Reconnaissance and Disruption for Facultative Lagoon Rehabilitation** Project will provide two autonomous boats, a small one for mapping lagoons and a large one for disruption of the dense sludge blanket of the lagoon.
SAUWW 13	5:15 PM - 5:50 PM ***SAUWW*** Dr. Ezequiel Pessoa	**Submerged Arc Underwater Wet Welding** Project will develop a flux for SAUWW application that increases arc stability, decreases cooling rate, and improves weld bead geometry, using the Kielhorn underwater welding tank.