

ENGINEERING EXPO V SPRING 2019 SOE

Department	Senior Design Project Titles 2019
CBE	1. <i>A completely bio-based production of adipic acid using a genetically modified E. coli bacterium.</i>
	2. <i>Methanol Synthesis Through Direct Hydrogenation of Captured Exhaust CO2</i>
	3. <i>Transforming Barley Spent Grain from New Mexico Breweries into Furfural and Xylitol using Vacuum Distillation and Fermentation</i>
	4. <i>Catalytic Conversion of Steel Mill Exhaust to Fuel Grade Ethanol Using Rh/Mn-Supported on Mesoporous Silica Molecular Sieves</i>
	5. <i>Salmon-Derived Hemostatic Agents for the Treatment of Hemorrhaging in Trauma Victims</i>
	6. <i>Hydrogen Production from Potato Waste Using Cell-Free Synthetic Pathway Biotransformation</i>
	7. <i>Using Municipal Solid Waste from Landfills to Produce Electricity in Jamaica</i>
	8. <i>Production of genetically modified acellular pertussis components in DTaP vaccine manufacturing</i>
	9. <i>Manufacturing facility for High Density Polyethylene in Washington State, USA</i>
	10. <i>Manufacturing of Bio-Polyethylene from the Fermentation of Sugar Beets in North Dakota</i>
CS	<i>none</i>
CCFE	11. <i>Preliminary Design of a Chama River Walk</i>
ECE	12. <i>Ruggedized Vehicle Stopper Antenna</i>
	13. <i>Water Disinfection Generator Batch Controller</i>
	14. <i>Large-scale Video Annotation and Visualization</i>
	15. <i>Human-Centric Scheduling in Smart City Environments Based on Reinforcement Learning & Game Theory</i>
	16. <i>Sandia Rad-Hard Little Bus Challenge</i>
	17. <i>Advanced Haptic-based Tele-operation of an Unmanned Ground Vehicle</i>
	18. <i>Solar Powered Battery Charger for critical network devices</i>
	19. <i>Fabrication of soft glass fibers</i>
	20. <i>IoT –Controlled Drones for Security Applications</i>
	21. <i>Cyber Firemen Ethernet Network</i>

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	<p><i>22. Augmented Reality Human-Robot Interface</i></p>
	<p><i>23. Laser-Based, High-Quality Detection, Measurement and Inspection Using Drones</i></p>
	<p><i>24. RF Energy Harvesting</i></p>
<p>ME</p>	<p><i>25. Exploration of Material Properties in a Micro Bimorph Cantilever</i></p>
<p>NE</p>	<p><i>26. Deployable Thermal Micro-reactor as an Alternative to Diesel Generators in Remote Locations</i></p>
<p>NE</p>	<p><i>27. Small Modular Liquid Lead Cooled Reactor (SMALLr)</i></p>
<p>NE</p>	<p><i>28. Nuclear Space Power Reactor (NSPR)</i></p>
<p>NE</p>	<p><i>29. Nuclear Propelled Thermal Rocket Engine for Transport from Low Earth Orbit to Cislunar Orbit</i></p>
<p>ME, NSME ECE Collaborative Project</p>	<p><i>30. ME, NSME, and ECE Interdisciplinary Project</i></p>
<p>DEMO</p>	<p><i>31. Lobo Launch</i></p>