

OURE 2016-2017 Project Titles

3D Printing of Pediatric Valves for Congenital Defects
A Study of Quorum Sensing in <i>Bradyrhizobium japonicum</i>
A Study on Anchorage for FRCM-Concrete Joints
A Study to Understand User Perceptions of Webpage Security Cues
A Synthetic Biology Approach to Treat White-Nose Syndrome
Accurate LWIR measurements of polarization and angular dependent reflectance
Active Spatiotemporal Thermography
Aerodynamic Shape Optimization for Selected Subsonic and Supersonic Flow Problems
An Enhanced Supervised Learning Approach to Autonomous Aerial Combat
Analyzing Trajectory Data Using Cloud Computing
Angiogenesis in Chicken Embryos
Antibacterial Properties of Metal Doped Borate Glass
Application and Implementation of a Cognitive Radio Network in a post Natural Disaster Scenario
Application of ML Techniques to Analysis of Cognitive Aging Data
Assessing Ground Water Movement on the Big Barren Creek Watershed
Assessing Stream Channel Modification using Large-Wood Techniques
Assessment of Riparian Buffer Zones for Improving Surface Water Quality
Bias Battery Bank Design for Theta Pinch Experiment
Bifunctionalization of nanoparticles with DNA and PEG polymers
Biochemical and Cellular Responses Induced by Nickel Nanoparticles
Biodiesel Production Using a MSSR
Biomarker Discovery for early Breast Cancer Detection
B-Value of Parkfield, California
Cellular Hitchhiking on Microparticles to Alleviate Skin Injury
CFD Prediction of Magnus Moments for Spin-Stabilized Projectiles
CFD Simulation of Tunnel Noise in Hypersonic Wind Tunnels
Characterization and Optimization of Absorption Imaging for Li Quantum gas
Characterization of Microorganisms in Red Lake
Characterizing and Isolating Novel Extremophiles from Hypersaline Lakes from Western Australia
Collaborative Supply Chain Planning Involving Local Entrepreneurs: A Fort Leonard Wood Case Study
Complete Iterative Inversion Method (CIIM)
Computer Network Emulations for Coevolving Adversarial Agents
Crime Prevention Application: Enabling Community Safety
Design and Optimization of a Radioisotope Light Source
Design of a DC-DC converter for EMC Related Research
Designing Virtual Impactor for an Aerosol Printer
Detection of Oil and Gas in the Taranaki Basin, New Zealand Based on Seismic Interpretation
Development of a low-cost Electron Gun
Development of a Micro Schlieren System for Non-Intrusive Diagnostics
Development of CO ₂ Removal Systems for NASA's Advanced Exploration Systems
Development of Energy Harvesting System Via Reverse-Electrowetting
Development of LUMVE Algorithm for use in Orbit Determination
Development of Ultrasonic Actuators for PIM Source Identification Via Vibration
Diffusion of Light in Strongly Scattering Media
Documentation of Metal Deposition within Additive Manufacturing
Drag Modeling for High Fidelity Orbit Determination
Dynamic Simulation of a Nanorod and a Polymer Solution
Dynamics of E. Coli in a Recreational Watershed
Effect of Food Restriction and Activity levels on <i>Drosophila</i>
Effect of m-Tyrosine on Blood Brain Barrier Cells
Effect of Phosphorylation on Dbf2 in Cytokinesis
Electrodeposition of Oxygen Evolution Catalysts onto n-type Silicon for Photoelectrochemical Water Splitting
Energy Expenditure in Relation to Life History in Invertebrates
Energy Expenditure in Relation to Social Behaviors in Insects
Evaluation of DNA Origami Shape Independence for Drug Delivery
Evaluation of Six Sigma Green Belt Certification on S&T Graduates
Experimental Decay of E. Coli Concentrations in Stream Microcosms
Femtosecond laser Fabricated Optical Fiber Fabry-Perot Interferometer for High Temperature Application
Formation Control of Multiagent Systems
Fracture Mechanics of Additively Manufactured Ceramics
Fundamental Investigations into the Existence of a Helium Bound Metal-Containing Molecule
Graph-Theoretic Analysis and Synthesis of Resilient Networks
Gravity Modeling for High Fidelity Orbit Determination
Hemodynamics Simulation and Experiment of Aortic Aneurysm
High Resolution Spectroscopy of Lanthanide and Actinide Molecules
Horn Worm Studies in Senescence
How is the Interaction of Proteins Required for Cytokinesis Regulated
How the Extra Point NFL Rule Change Effects NFL Point Differentials
Identifying Urinary Metabolites as Possible Breast Cancer Biomarkers
Impact of Dense CO ₂ to In-Situ Gel Plugging Efficiency
Improved Cucurbituril Synthesis and Functionalization
In Cylinder Combustion Analysis for Ignition Tuning
Influence of Dynamic Segregation on Changes in the Air-Void System of Self-Consolidating Concrete for Pre-Cast Beams

Influence of Nanoparticle on Membrane Fluidity in Animal Cells
Influence of Pumping on Fresh Properties and Strength of Concrete
Influence of Pumping on the Air-void Systems of Concrete
Insights into Pt-Catalyzed Hydrogenation of Acetylene and Ethylene
Intake Length Tuning for Formula SAE
Intelligent Coordination of Multiple Autonomous Space Power Systems
Interactive Tactical Inventory Tracking Dashboard in Decision Making
Investigating Cytokinetic Protein Domain Function in Yeast
Investigating the Function of the IQG1 Domain in Yeast Cytokinesis
Investigation of Bond Behavior of PBO Fiber-Reinforced Cementitious Matrix Composite on Low Strength Concrete Interfaces
Laboratory Evaluation of CO2 Resistant Gel
Life Cycle Analysis of the Aluminum Smelting Process
Lipid Peroxidation/ Oxidative Stress
Machine Tool and Robotic Calibration
Mass Spectral Analysis of Aviation Particulate Matter Using Charged Particle Accelerator and Wein Filter
Material Balance Method in Tight Sand & Shale
Mechanics of Bending in Mechanically Pressurized Space Suits
Melding Computational Game Theory and Formal Models in Cyber Security
Microbial Influence on Removal of Metals from Mine Tailings Water
Microbialite Structures from Storr's Lake, San Salvador Island, The Bahamas
Microwave Materials Characterization of Geopolymer Constituent Materials
Mine Waste Germination Studies
Mounting Hollow Wing
Nanometer-Thick Gold on Silicon as a Proxy for the Electrodeposition of Epitaxial Ceramic Thin Films
NMR Analysis of Phosphorus in Streams
No-Boundary Thinking in Neural Networks Applied to Bioinformatics
Novel Aerosol Generator Development- Electro spray Technology
Numerical Simulation of Geologic Deformation Processes
On Applications of Concept Lattices
Oxygen Transfer in Activated Sludge at Low DO Conditions: Effects of Mixing
Petrography of Alluvial Fan Sandstone and Conglomerate of the Lower Permian Daheyan Low-Order Cycles, Southern Bogda
Physical Property Studies of Transition Metal Dichalogenide Nano-Layers
Piezo-Energy Harvester Design, Prototyping, and Characterization
Plant Disease Models for Optimal Eradication of Grape Disease
POET Biorefining Utility Cost Reduction Plan
Pyromorphite Dissolution at Stomach pH
Random Mutations and the Genetic Effect on Sleep
Rapid Prototyping of Aneurysms and Experimental Measurements of their Flow Dynamics
Relationship between CUP Particle Critical Point and Solvent Concentration
Removal of Emerging Contaminants from Drinking Water/ Wastewater
Researching Methods for Active Control Surfaces for Formula SAE
Reversible Asynchronous Logic for Ultra Low Power Processing Applications
Seismic Anisotropy and Mantle Flow Beneath Iceland
Seismic Interpretation of Taranaki Basin, New Zealand
Sensitivity of Oxidative Cellular Damage: Test Hypothesis on Model Hornworm
Separation of non-spherical micro-particles with magnetic fields
Simulating Mammalian Lifespans from a Theoretical Model of Damage
Simulation Study on Low Salinity Water Injection
Star Shape Nanoparticles for Drug Delivery
Statistical Analysis of Soccer Matches
Strategic Competitor Price Monitoring Dashboard Prototyping
Stratigraphy, Sedimentation, and Depositional Environment of the Clifty Creek Natural Area, South-Central Missouri
Structured Monolithic Adsorbents for Flue Gas Treatment
Super Capacitor Power Supply for Wireless Sensor Networks
Synthesis and Chemical Modification of Nanomaterials for Applications in Extreme Environment
Synthesis of SSZ-13 Catalyst for the Propylene to Propylene Oxide Rxn
Taranaki Basin Seismic Interpretation Project
Targeting novel material properties using additive manufacturing
Temporal Variation of Seismic B-values of Middle America Trench
The Affects of Humidity and Proper Hydration on Drosophila
The Analysis of Pragmatic Meaning in Old Norse and Middle High German Narratives
The Automated Design of SAT Solvers Employing Asynchronous Parallel Hyper-Heuristics
The Effects of Bioglass on Mesenchymal Stem Cells
Three-Dimensional Seismic Interpretation from Offshore New Zealand
Transient Pressure Analysis of Horizontal Wells
Translating Diderot and d'Alembert's Encyclopedie
Triboelectric Charging During the Roller Transfer Process
Ultrasonic Lens Cleaning
Using Mutants of IQG1 to Determine the Importance of Phosphorylation and Dephosphorylation
Water-Rock Interactions During High-Salinity Water-Flooding
Wearable, Bluetooth beacons and openHAB for Smart Environments