SESEY 2015 Projects

Faculty	Project Title
School of Chemical, Biological, and Environmental Engineering (CBEE)	
Dr. Skip Rochefort/Dr. Travis Walker	
Materials/EnvE/ChE	Haiti Project: Recycled Plastic Waste as Building Materials in Third-World Countries
Materials/EnvE/ChE	3D Printing - Recycled Plastic for 3D printing filament
Materials/BioE/ChE	Hydrogels and Composite Materials for Spinal Disc Replacement
Materials/BioE/ChE	Rheological Properties of Equine Synovial Fluid
Materials/BioE/ChE	Why can bugs walk on water? Surface properties of liquids
Dr. Greg Rorrer (ChE/Biological)	
Bioprocess ChE/BioE	Silicon Uptake by Biofuel Producing Algae
Bioprocess ChE/BioE	Light Absorption by Biofuel Producing Algae
Bioprocess ChE/BioE	Nitrogen Uptake by Biofuel Producing Algae
Bioprocess ChE/BioE	Microscopic Imaging of Biofuel Producing Algae
Dr. Greg Herman (ChE/ECE)	Synthesis of nanoporous membranes to remove heavy metals from aqueous solutions
Dr. Chih-hung Chang (ChE)	Using an Inkjet Printer to Fabricate Semiconductor Devices
Dr. Chih-hung Chang (ChE)	Fabrication of Silver Features using Microreactor-Assisted Printing
Dr. Liney Arnadottir (ChE)	Computational Chemistry: Large-Scale Computing for Chemical Properties
Dr. Nick AuYeung (ChE)	Solar Thermochemical Processing (Big Mirrors and molten salts!)
Dr. Nick AuYeung (ChE)	Solar Thermochemical Energy Storage (thermochemical batteries for storage))
Dr. Tyler Radniecki (EnvE)	Treating Landfill Leachate with Biological and Chemical Processes
Dr. Jeff Nason (EnvE)	Copper binding by organic matter in natural water and wastewater effluent
Dr. Jeff Nason (EnvE)	Quantification of engineered nanoparticle aggregation in aquatic systems
Dr. Elain Fu (BioE)	Paper microfluidic devices for field testing for disease control in 3rd World Countries
Dr. Adam Higgins (BioE)	Enhancing the process to wash cryopreserved blood
Dr. Bo Sun (Bio-Physics)	The FORCE of Backyard Creatures
School of Mechanical, Industrial and Manufacturing Engineering (MIME)	
Dr. David Blunck (ME)	Self-propelled boat using a flame source for science demonstartions
Dr. Ethan Minot (Physics/Nanotechnology)	Nanotechnology: Carbon-based electronics
Dr. Javier Calvo-Amodio (IE)	Improving Process Flows in an Oregon Metals Manufacturing Company
Dr. Yigit Menguc	Fabrication of Dielectric Elastomers (tendons, muscles, ligaments)
Dr. David Cann (Materials)	Fabrication and testing of piezoelectric ceramic
Dr. Brian Fronk	Fun with Fluids: Building a Manometer
School of Civil and Construction Engineering (CCE)	
Dr. Meghna Babbar-Sebens (CE)	Rain Garden Visualization Tool
Computer Science	
Dr. Eugene Zhang	Computer Generated Paintings
Dr. Eugene Zhang	Hatching 3D Shapes