

## Selection of funded past research projects

Title	PI	Primary University Department
The hazard recognition in underground mines application - HUMApp	Anani, Angelina	MINING AND GEOLOGICAL ENGINEERING
CESM Repurposing Mine Waste Strategic Innovation: Identification of Metal-Hyperaccumulating Plants as Polymetallic Systems for Ecocatalysis	Babst-Kostecka, Alicja	Environmental Science
Towards monetizing the climate benefits of mine site re-vegetation: assessing the carbon sink capacity of woody biomass on mining-impacted lands	Babst, Flurin	School of Natural Resources and the Environment
Mine Imaging Infrared, Emission, and Raman Spectroscopy (MIINERS) Consortium Development	Barton, Isabel	Mining & Geological Engineering
Novel sources of critical minerals from porphyry copper deposits	Barton, Mark	Geosciences
A Smarter Safety Management System: Using Predictive Analytics to Model Operators' Health and Safety Trajectory	Brown, Leonard	Dept. of Community, Environment, and Policy (MEZCOPH, Dept 4206)
Translating sustainability metrics into engineering decisions: Exploring strategies for sustainable material use in design and manufacturing	Budinoff, Hannah	Systems and Industrial Engineering
Measurement and modeling of sulfide tailings diagenesis in controlled experimentation: Implications for mine waste remediation	Chorover, Jon	Environmental Science
Mineral Resource Discovery Workshop Graduate Teaching Assistant Position	Earnest, Chris	School of Mining and Mineral Resources
Characterization of Bioinspired Green Glycolipids as Fugitive Mining Dust Mitigation Agents	Hogan, David	Environmental Science
A machine learning-based approach to recycling mine waste for developing sustainable construction materials	Kim, Hee Jeong	Civil and Architectural Engineering and Mechanics
Industrial Hygiene Capacity Building Across Mining	Lutz, Eric	SMMR
Building the Southwest Mine Rescue Consortium	Lutz, Eric	SMMR
Separation and Recovery of Energy-Critical Metals from Aqueous Sources by a Selective Sorption Technology Platform	Maier, Raina	Environmental Science
Geochronology of REE-bearing Proterozoic pegmatites in Arizona	Mako, Calvin	Arizona Geological Survey
GemHub: One-stop destination for geochemical proxies of gemstone provenance at the University of Arizona	Mallik, Ananya	Geosciences
Development of a capstone undergraduate research program in mineral resource focused analytical mineralogy/petrology	Mazdab, Frank	Geosciences
Virtual Ore Microscopy: an interactive cloud application to learn optical properties of ore minerals	Rezeau, Herve	Geosciences
Camera Aided Technology for Underground Mine Safety (CAT-UMS)	Risso, Nathalie	Mining and Geological Engineering
Active Learning in Mining: Using Robotics to prepare the next generation of Digital Miners	Tenorio, Victor	Mining and Geological Engineering
Making Portable Benchtop Package of Extractive Metallurgy Operations for the Purposes of Recruitment and Teaching	Zhang, Jinhong	Department of Mining and Geological Engineering
Accelerated Mineral Carbonation for Acid Mine Drainage Treatment, Mine Tailings Stabilization and Carbon Dioxide Sequestration	Zhang, Lianyang	Civil and Architectural Engineering and Mechanics