



FY2023/24 RFP Research Grants

Department of PI	Research Project	Faculty
Chemical & Biomolecular Engineering	Improving Sustainability of the Natural-gas Midstream Value Chain via Advanced Digital Twin Development	Dr. Qiang Xu – PI Dr. Sujing Wang – Co-PI
Chemistry & Biochemistry	Developing and formulating metal dithiolene near-IR tracers for pipeline leak detection	Dr. P. Chandrasekaran - PI
Electrical Engineering	Machine Learning based Defect Detection in Automated Ultrasonic Testing for Weld Inspection	Dr. H. Zargarzadeh - PI
Industrial & Systems Engineering	A Prototype Thermoplastic Composite Pipe Support Pad for Preventing Corrosion	Dr. Robert Bradley - PI
Electrical Engineering	Phase II: Incipient Leakage Detection Through Embedded Sensors and AI on Drones Based on 5G	Dr. H. Zargarzadeh - PI
Industrial & Systems Engineering	Digital Transformation of Industrial Asset Performance Management: Development of AI/ML Methods & Addressing Challenges to Deployment	Dr. Xinyu Liu – PI Dr. X. Li – Co-PI Dr. Yueqing Li – Co-PI
Mechanical Engineering	Multi-scale Modeling of LNG Pipeline Risk Assessment under Dual Impact of Flow-induced Vibrations and Severe Weather Events	Dr. Jenny Zhou – PI Dr. X. Li – Co-PI