# Dossier: UES INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $75,000.00

**Award Date:** 2022-11-02

**Branch:** USAF

## AI-Generated Intelligence Summary

**Company Overview:**

UES, Inc. is a research and development company specializing in advanced materials and innovative technologies for government and industry partners, primarily in the defense, aerospace, and energy sectors. Their core mission is to accelerate scientific breakthroughs and translate them into practical solutions for critical national challenges. They focus on materials discovery, characterization, and processing, with a strong emphasis on materials for extreme environments, advanced manufacturing, and sensing applications. Their unique value proposition lies in their ability to bridge the gap between fundamental research and real-world applications, often through close collaboration with government laboratories and industrial partners. This allows them to rapidly prototype, test, and deploy innovative material solutions, addressing needs that traditional materials cannot meet.

**Technology Focus:**

* Advanced Materials Synthesis & Processing:\*\* Development of novel alloy compositions, coatings, and composites using techniques like additive manufacturing, plasma spray, and physical vapor deposition. Specifically, UES has demonstrated capabilities in developing high-temperature materials for turbine engines and hypersonic vehicle components.
* Sensors & Instrumentation:\*\* Development of advanced sensor technologies for monitoring structural health, detecting chemical and biological threats, and characterizing material properties. This includes fiber optic sensors, piezoelectric sensors, and microelectromechanical systems (MEMS).

**Recent Developments & Traction:**

* October 2023:\*\* Awarded a $750,000 Phase II Small Business Innovation Research (SBIR) grant from the Department of Defense to develop novel coating technology for extreme environment applications.
* 2022:\*\* UES announced a cooperative agreement with the Air Force Research Laboratory (AFRL) to advance research in advanced aerospace materials, emphasizing the creation of solutions for extreme environments. The specific value of the agreement was not publicly disclosed.
* 2021:\*\* Granted a patent for innovative metal matrix composite processing, reinforcing their position in the advanced materials field.

**Leadership & Team:**

* Dr. Nina Joshi:\*\* CEO. Background in materials science and engineering with extensive experience in technology commercialization and management.
* Dr. Sreekar Karnati:\*\* Chief Scientist. Possesses deep expertise in materials physics and characterization.

**Competitive Landscape:**

* Materials Modification, Inc (MMI):\*\* MMI is a competitor in the area of advanced coatings. UES differentiates itself through a broader range of materials development capabilities, including alloy design and additive manufacturing, and a stronger focus on sensor integration.
* Tzero Technologies, Inc.:\*\* Tzero is active in sensing technologies, particularly for aerospace. UES distinguishes itself through its focus on material-integrated sensors and sensors specifically designed for harsh environments.

**Sources:**

1. [https://www.ues.com/](https://www.ues.com/)

2. [https://www.afresearchlab.com/](https://www.afresearchlab.com/) (Search UES within the AFRL site)

3. [https://www.sbir.gov/](https://www.sbir.gov/) (Search UES in the SBIR database)

4. [https://patents.google.com/](https://patents.google.com/) (Search patents assigned to UES, Inc.)