

NTU SELECTS OPTOMEK LENS 3D PRINTING FOR BI-METALLIC NASA PROJECT



Optomec, the New Mexico-based developers of Directed Energy Deposition (DED) and Aerosol Jet Printing (AJP) metal 3D printers, has revealed that its Laser Engineered Net Shaping (LENS) 3D printing technology will help NASA reach the moon in 2024.

As part of a project led by the Navajo Technical University (NTU), Optomec's LENS 3D printer will be used to produce bi-metallic rocket engine parts that will support NASA's mission to send astronauts back to the moon by 2024. Also working on the project are the Marshall Space Flight Center Advanced Manufacturing Center (MSFC), University of Alabama Huntsville (UAH), and V&M Global Solutions, a scientific and engineering consulting firm.

Project - Grant - NASA - Manufacturing - Research

The project is supported by a grant from NASA, provided to help encourage additive manufacturing research and education for space technology applications. "We are extremely honored to receive this grant from NASA," comments Dr. Monsuru Ramoni, Ph.D., an assistant professor of Industrial Engineering at Navajo Technical University and the principal investigator for this grant.

"IN ADDITION TO PROVIDING WORKING PARTS FOR NASA TO MEET ITS GOAL OF WALKING ON THE MOON IN 2024, THESE RESEARCH ACTIVITIES PROVIDE UNPRECEDENTED LEARNING OPPORTUNITIES."

Dr - Monsuru - Ramoni - PhD - Assistant

Dr. Monsuru Ramoni, Ph.D., assistant professor of Industrial Engineering at Navajo Technical University and his team of students will be investigating the benefits of Additive Manufacturing for space exploration with the help of Optomec LENS for NASA. Photo via Optomec.

A type of DED 3D printing technology, Optomec LENS uses a metal powdered feedstock that is blown through a nozzle and then melted on contact with a laser array to 3D print parts. Its capabilities make it particularly suitable for adding new material to pre-fabricated components. As such, it

has been used in applications such as maintenance, repair and overhaul, and reducing waste.

LENS - Printing - Optomec - Developer - AJP

Alongside LENS 3D printing, Optomec is also the developer of AJP technology. This 3D printing...