NASA MIRO team visits Navajo Tech

From left: Brady Kimbrel, NASA Marshall Space Flight Center; Lisa Wininger, NASA Armstrong Flight Research center; Dr. Elmey Guy, Navajo Tech President, Becky Flick, NASA Armstrong Flight Research center; Dr.Monsuru Ramoni, PI, NASA MUREP-NAMER Grant. (Photo courtesy NTU)

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CROWNPOINT, N.M. — The NASA MUREP Institutional Research Opportunity (MIRO) team visited Navajo Technical University March 23-24 for an on-site review and to help strengthen the partnership for future opportunities.

In 2019, NASA MIRO awarded NTU a $3 million grant for the Navajo Tech Additive Manufacturing Education and Research (NAMER) project headed by Dr. Monsuru Ramoni.

“We want to continue to provide these types of resources for our students,” said NTU President Dr. Elmer Guy. “This way, they can grow in professional development.

On March 23-24, 2022, the NASA MUREP Institutional Research Opportunity (MIRO) Team visited Navajo Technical University (NTU). While here, they had the chance to meet with President Dr. Guy,

Provost Dr. Colleen Bowman, and Associate Professor Monsuru Ramoni, Ph.D., for an on-site review of NTU Institutional research building progress and help strengthen NASA partnership for future opportunities. In 2019, NASA MIRO awarded NTU a $3 million grant for the Navajo Tech Additive Manufacturing Education and Research (NAMER) project headed by Dr. Ramoni.

NTU students Winter Morgan (left) and Joel Yazzie give a presentation for NASA was "Surface Metrology of DED Lens AM Part: Contact Surface Profilometer." (Photo courtesy NTU)

"We want to continue to provide these types of resources for our students, this way, they can grow in professional development," said President Guy as he discussed the NAMER project with the NASA MIRO Team.

NTU Provost Colleen Bowman said the impact of the grant for NTU students is important, as she explained NTU's history and goals for students to the NASA MIRO team.

"These are great opportunities for Navajo people," Bowman said. "We must continue to pave the way for our students."

Ramoni, the grant's principal investigator, provided comprehensive updates on the grant's activities

and said NAMER strives to encourage additive manufacturing research to provide opportunities for Native American students to be part of the engineering industry.

NTU students gave presentations about their progress on projects they've been working on.

"I feel good about it, and it was a fun presentation," said Winter Morgan, NTU FAB Lab intern, as she described her experience presenting her project with her partner, Joel Yazzie. "Working with my partner Joel was great, and we have our first Joint published paper together."

Morgan and Yazzie are both excited to see their projects in print.

The presentation given by Yazzie and Morgan was entitled "Surface Metrology of DED Lens AM Part: Contact Surface Profilometer." Their project was based on collecting surface data using a 3D cube tool called a "surface profile meter" that is dragged over the surface of the 3D cube. Their paper was published in the American Society for Precision Engineering and can be found online at www.vnmglobalsolutions.com/publications

The second presentation, given by Nyala Murphy and Deidra Deswood, was entitled "SUM 2021 NASA AM Metal Internship," Their research was based on 3D printing applications for Aerospace companies, and the material they used is a nickel-based superalloy Inconel 718.

"I felt confident and was not worried; I've done enough presentations since I started working in the Fab Lab that I've gained the experience and understanding of my work," Murphy said.

She described her experience of the presentation with her partner, Deidra Derwood. "We work as a team, we continue to teach each other with collaboration and trust in one another, and we accomplished our goal together," Murphy, who is a peer mentor to Derwood, said.

More information about the NASA-funded Navajo Tech Additive Manufacturing Education and Research (NAMER), contact Dr. Monsuru Ramoni at mramoni@navajotech.edu.

Information provided by NTU