



Project Title: Plasma coating development and characterization

Project Reference Code: Renfro-Plasma Professes

Name of Project Leader: Mr. Michael Renfro

Host Facility: Plasma Processes

Internship Location: Plasma Processes

Host Facility Location: 4914 Moores Mill Road, Huntsville, AL 35811

Project Description:

In this project, the intern will get an opportunity to perform self-disciplined research on one of Plasma Processes technology development efforts. Our current efforts are in extreme environmental protection systems, space environments shielding and propulsion component qualification. A significant portion of the work will be performed in a laboratory environment supporting both production manufacturing and R&D.

Disciplines: Materials, Aerospace, Mechanical

Importance:

Relevance and importance of the topic, global examples, local examples.

Requirements:

- **Preferred Major**
 - any STEM students
- **Class work**
 - NA
- **Programming knowledge**
 - NA
- **Software knowledge**
 - NA
- **Other**

Biography:

Mr. Renfro is a materials engineer for Plasma Processes LLC (2009). He has a Bachelor of Science degree in Materials Engineering from the University of Alabama at Birmingham (2006). His work experience includes failure analysis, experimental design, and microstructural and powder characterization/analysis via advanced microscopy. His research efforts developed relationships among the different alloys, processing parameters, and physical and microstructural characteristics. He has helped to develop many analysis procedures and devised protocols to assess performance and characteristics of various metallic, ceramic, polymeric and composite materials. Since 2014 Mr. Renfro has been lead cold spray technologist at Plasma developing high pressure cold spray

capability and metallography lab manager. The current project focus is leading efforts in developing protective coatings for defense and aerospace applications.

Is U.S. citizenship required to participate in this project? Yes

Contact information: Michael Renfro (mrenfro@plasmapro.com)

Name(s) of Mentor(s) and contact information: Michael Renfro (mrenfro@plasmapro.com)

Internship Coordinator/ HR manager: Michelle Foster (mfoster@plasmapro.com)

The name and contact information of personnel at the host facility is provided for further assistance with questions regarding the host facility or the project.

Interns will not enter into an employee/employer relationship with the host facility. No commitment with regard to later employment is implied or should be inferred.