Opportunity Title: Optical Instrumentation and NDE Technology
Opportunity Reference Code: 0014-NPP-MAR26-GRC-TechDev

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0014-NPP-MAR26-GRC-TechDev

How to Apply All applications must be submitted in Zintellect

Please visit the NASA Postdoctoral Program website for application instructions and requirements: How to Apply | NASA Postdoctoral Program (orau.org)

A complete application to the NASA Postdoctoral Program includes:

1. Research proposal
2. Three letters of recommendation
3. Official doctoral transcript documents

Application Deadline 3/1/2026 6:00:59 PM Eastern Time Zone

Description **About the NASA Postdoctoral Program**

The NASA Postdoctoral Program (NPP) offers unique research opportunities to highly-talented scientists to engage in ongoing NASA research projects at a NASA Center, NASA Headquarters, or at a NASA-affiliated research institute. These one- to three-year fellowships are competitive and are designed to advance NASA's missions in space science, Earth science, aeronautics, space operations, exploration systems, and astrobiology.

Description:

Opportunity Restricted to US Citizens Only

Optical Instrumentation and NDE Technology - Research and development of optical measurement technology for smart aerospace propulsion and power systems, including system health monitoring, diagnostics, and testing are being pursued. This technology includes laser-based techniques for flow characterization and surface temperature and pressure measurements, micro-optics, mobile sensing platforms, quantum optics, nanotechnology and biomimetics. New systems for both high spatial resolution and high temporal resolution of parameters such as velocity, temperature, pressure, damage detection and species concentration are conceived and developed in the Division laboratories and applied in the Center research facilities. Also, research and development in nondestructive evaluation (NDE) science to assure structural integrity and reliability of aerospace propulsion and power systems are being pursued. Areas of emphasis include nondestructive materials characterization for composite and monolithic advanced materials. These methods are used to assess quality, monitor degradation of components, aid life prediction models, and advanced structural health monitoring. Methods used and developed include ultrasonic guided and bulk wave, acoustics, x-ray microcomputed tomography, digital x-ray, and thermographic imaging. Biomedical applications of laser-based, electro-optics and NDE

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technologies are also sought.

Location:
Glenn Research Center
Cleveland, Ohio

Field of Science: Technology Development

Advisors:
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216-433-8665

Questions about this opportunity? Please email npp@orau.org

Point of Contact Mikeala

Eligibility Requirements
- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree.