Opportunity Title: Terahertz Technology Development
Opportunity Reference Code: 0024-NPP-MAR26-JPL-TechDev

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0024-NPP-MAR26-JPL-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 4/2/2026 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:

This research area is intended for the development of terahertz sensors, sources, instruments for applications in Earth, planetary and space science. Emphasis is placed on laboratory technology demonstration for future insertion into ongoing or upcoming NASA mission proposal opportunities. Spin off applications in defense and security, biology and medicine are also part of ongoing investigations. Specific component based research topics include Terahertz Schottky mixers and detectors, superconducting detectors and down converters, terahertz oscillators, amplifiers and electron tube sources, nanotubes, photomixers, bolometers, passive THz waveguide and quasi-optical elements, and THz antennas and planar arrays. Applications include passive remote sensing (both room temperature and cryogenically cooled systems), active spectroscopy (frequency and time domain), advanced radar imaging, biomedical interactions and exobiology. Candidates will work with an experienced team of technologists and instrument designers who specialize in terahertz devices, systems, components and applications. Background information can be found at: http://thz.caltech.edu, and in the following three review articles: (1) P.H. Siegel, "Terahertz Technology," IEEE Trans. Microwave Theory and Techniques, vol. 50, no. 3, March 2002, pp. 910-928, (2) P.H. Siegel, "THz Technology in Biology and Medicine," IEEE Trans. Microwave Theory and Techniques, vol. 52, no. 10, pp. 2438-2448, Oct. 2004, (3) P.H.

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Siegel, “THz Instruments for Space,” IEEE Transactions on Antennas and Propagation, November 2007.

Location:
Jet Propulsion Laboratory
Pasadena, California

Field of Science: Technology Development

Advisors:
Imran Mehdi
Imran.Mehdi@jpl.nasa.gov
818-354-2001

Applications with citizens from Designated Countries will not be accepted at this time, unless they are Legal Permanent Residents of the United States. A complete list of Designated Countries can be found at: https://www.nasa.gov/oiir/export-control.

Eligibility is currently open to:

- U.S. Citizens;
- U.S. Lawful Permanent Residents (LPR);
- Foreign Nationals eligible for an Exchange Visitor J-1 visa status; and,
- Applicants for LPR, asylees, or refugees in the U.S. at the time of application with 1) a valid EAD card and 2) I-485 or I-589 forms in pending status

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

Point of Contact Mikeala

Eligibility Requirements

- **Degree:** Doctoral Degree.