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Opportunity Title: Remote Sensing Applications for Wildfire Prediction and Monitoring
Opportunity Reference Code: 0277-NPP-JUL24-JPL-EarthSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0277-NPP-JUL24-JPL-EarthSci

How to Apply All applications must be submitted in Zintellect

Application Deadline 7/1/2024 6:00:59 PM Eastern Time Zone

Description **Description:**

Wildfires are growing in frequency and magnitude, and result in great cost to economies, infrastructure, ecosystems, and human health. Wildfires can also drastically alter landscapes, leading to hotter and drier conditions with implications on vegetation succession, water budgets, streamflow and water quality. The project will apply a wide range of hydrology, thermal, surface reflectance, and vegetation satellite data (evapotranspiration, evaporative stress index, precipitation, land surface temperature, vegetation productivity, burn severity from ECOSTRESS, EMIT, MODIS, Landat, Sentinel-2, GPM) to improve wildfire prediction and forecasting, as well as identify impacts of wildfires on vegetation and water budgets. Work includes use of machine learning to develop models of wildfire severity and occurrence, and produce maps of fire risk from a range of satellite data sets. Work will be carried out closely with JPL scientists who are part of the project from the Water and Ecosystems Group and the Carbon Cycle group, and stakeholders.

Field of Science:

- Earth Science

Advisors:

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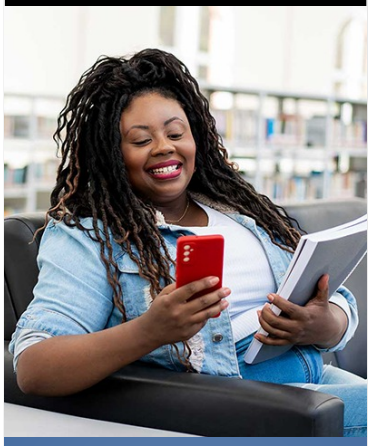
Applications from citizens from Designated Countries will not be accepted at this time, unless they are Legal Permanent Residents of the United States. A complete list of Designated Countries can be found at: https://www.nasa.gov/oiir/export-control.

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,

NPP NASA Postdoctoral Program

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- 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

Qualifications

Applicants should have a PhD in: Environmental Science, Earth System Science, Hydrology, Physics, or a related field. We seek a creative and highly motivated person with strong scientific background and excellent oral and written communication skills in English.

The candidate must be detail oriented, be able to work both independently and in close collaboration with others, should have excellent abilities in programming (Matlab, Python, or similar) and be familiar with processing big data. Prior experience of working with existing satellite data is regarded as merits. The candidate also should have an interest in working on an applied science project.

Eligibility Requirements

- **Degree:** Doctoral Degree.