Opportunity Title: Research and Development of High-resolution Satellite-based Data Products in Support of POWER program
Opportunity Reference Code: 0043-NPP-MAR26-LRC-EarthSci

Organization National Aeronautics and Space Administration (NASA)

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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:

NASA's POWER (Prediction Of Worldwide renewable Energy Resources) Project provides customized data parameters from NASA's CERES (Clouds and Earth's Radiant Energy System) mission, GEWEX Surface Radiative Budget project and the GMAO (Global Modeling and Assimilation Office) atmospheric reanalysis assimilation projects for the renewable energy including solar, sustainable building/architecture, and agricultural societal benefit areas. To provide trusted data for decision making, basic and applied research is carried out which requires continuous innovation in improving the accuracies of existing datasets and in developing new datasets relevant to the user communities.

This opportunity is for highly motivated candidates who are interested in the following areas of POWER's research work: applying innovative methods to satellite (e.g CERES Cloud products, TEMPO) and model datasets for developing higher resolution data products and their evaluation using surface measurements and/or satellite-based data products, assessing the variability of these data products in space and time, working with end users in identifying and developing new on-the-fly data products for solar, wind energy (i.e., like revising battery backup design parameters), and buildings/infrastructure decision support. The use of modern technologies

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such as machine and deep learning methods, data fusion approaches, and cloud computing is highly encouraged in this research and development area. Opportunities exist for applying these technologies for algorithm optimization to contribute to the above work. Candidates who have experience in utilizing satellite and/or modeling datasets mentioned above, and have advanced programming skills (e.g. Python, C, Cloud computing etc.) are strongly encouraged to apply.

Field of Science: Earth Science

Advisors:

Falguni Patadia
falguni.patadia@nasa.gov
(256) 417-9047

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

Qualifications

Candidates for the position must have a Ph.D. in Atmospheric science, Earth Science, physics, data science or a related field by the date of the appointment. A qualified candidate would have experience in the following:

Working with time-series data from multiple space-based and model observations (e.g., NASA CERES, MODIS, GPM, SMAP, MERRA, CMIP etc)

Statistical analyses

Machine and Deep learning methods

Advanced programming (e.g. Python, C, Cloud computing etc.)

Additional expertise in any of the following is beneficial:

Atmospheric Radiative Transfer

High performance computing

Point of Contact Mikeala

Eligibility Requirements

- **Citizenship:** LPR or U.S. Citizen
- **Degree:** Doctoral Degree.