

**Opportunity Title:** Propulsion Aeroelasticity and Structural Dynamics

**Opportunity Reference Code:** 0009-NPP-MAR26-GRC-Aero

**Organization** National Aeronautics and Space Administration (NASA)

**Reference Code** 0009-NPP-MAR26-GRC-Aero

**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 \(oua.org\)](#).

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](#)

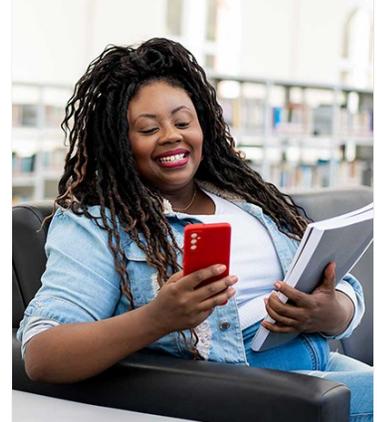
The [NASA Postdoctoral Program \(NPP\)](#) offers unique research opportunities to highly-talented scientists to engage in ongoing NASA research projects at a NASA Center, NASA Headquarters, or at a NASA-affiliated research institute. These one- to three-year fellowships are competitive and are designed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

**Description:**

**Opportunity is Restricted to U.S. Citizens Only**

An analytical and experimental research program in aeroelasticity and structural dynamics of turbomachines is being conducted in order to understand the basic mechanisms involved in flutter, forced response, vibration, and control of vibration. Our objective is to apply the results directly to current and future-generation turbomachines and their components in order to improve their aeroelastic characteristics, and their performance and design. Current research includes development of models and computer codes to predict flutter, forced response, nonlinear vibrations, and passive and active vibration control in turbomachinery components of propulsion systems. The analytical models account for variations in blade properties (mistuning), nonlinear frictional contacts, and complex unsteady flowfields based on computational fluid dynamics so that the models are applicable to fan, compressor and turbine blades of advanced propulsion systems.

Vibration and aeroelastic experiments are conducted to guide the development of analytical models, to verify them, and to check the designs. Experimental research includes measurements of steady-state and unsteady blade deflections and stresses, vibration frequencies, structural damping, flutter, and forced response. We are interested in analytical and



Whether you are just starting your career or already at a senior level, ORAU offers internships, fellowships, research opportunities, and contract positions that can provide you with invaluable experience. Download the ORAU Pathfinder mobile app and find the right opportunity to propel you along your career path!

Visit ORAU Pathfinder [↗](#)



**Opportunity Title:** Propulsion Aeroelasticity and Structural Dynamics

**Opportunity Reference Code:** 0009-NPP-MAR26-GRC-Aero

experimental research to control vibrations, reduce vibratory stresses, improve operability and increase fatigue life of turbomachinery blades. Passive and active damping concepts are being investigated.

**Location:**

Glenn Research Center  
Cleveland, Ohio

**Field of Science:** Aeronautics

**Advisors:**

Milind Bakhle  
Bakhle@nasa.gov  
216-433-6037

**Questions about this opportunity?** Please email [npp@orau.org](mailto:npp@orau.org)

**Point of Contact** [Mikeala](#)

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