NASA Glenn Faculty Fellowship Program (NGFFP) - 2016 NGFFP/16-1

at

NASA Glenn Research Center (GRC)

Cleveland, Ohio

Application for the 2016 NGFFP opens on Monday, November 9, 2015 and closes on Monday, February 1, 2016.

Program Description

The ten-week 2016 NASA Glenn Faculty Fellowship Program (NGFFP) is open to full-time STEM faculty members who are US citizens teaching at accredited U.S. universities and colleges. The NGFFP will be offered at NASA Glenn Research Center (GRC) in Cleveland, Ohio, from Monday, June 6, through Friday, Aug. 12, 2016. Proposed faculty work must be aligned with the needs of GRC, and have a high probability to contribute towards advancing NASA mission.

The NGFFP aims at providing the following mutual benefits:
(1) Enhance faculty professional knowledge through their engagement in relevant and cutting-edge research at GRC;
(2) Stimulate exchange of ideas between faculty and GRC researchers and engineers;
(3) Enrich and refresh the research and teaching at US academic institutions by infusing NASA mission-related research and technology content into classroom teaching; and
(4) Contribute complementarily to in-house research, technology and engineering work packages and objectives of GRC, towards advancing the NASA mission.

Glenn Research Center

GRC is distinguished by its unique blend of aeronautics and space flight experience. The Center's Competencies and world-class research and technological advancements encompass Space Flight Systems Development; In-Space Propulsion Systems and Cryogenic Fluids Management; Power, Energy Storage and Conversion; Air-Breathing Propulsion; Physical Science and Biomedical Technologies in Space; Materials & Structures for Extreme Environments; and Communication Technology and Development. The main campus of GRC is adjacent to the Cleveland Hopkins International Airport, and has over 140 buildings, 24 major facilities and more than 500 specialized research and test facilities. A satellite campus of GRC is the Plum Brook Station located 50 miles west of Cleveland. The 6,400 acre Station offers four large world-class facilities for space technology and capability testing for NASA's mission and major programs. Major aerospace industries in the US may reserve any of the unique facilities in the Station, on availability basis, to conduct specialty testing.

As a designated NASA lead Center for Air-Breathing Propulsion from subsonic to hypersonic speed, GRC has a role is to develop, verify, and transfer Air-Breathing Propulsion technologies to U.S. industry. GRC is, also, a designated Center of Excellence in Turbomachinery, whereby it develops new and innovative turbomachinery technology to improve the reliability and performance, efficiency and affordability, capacity and environmental compatibility of future aeronautical and space propulsion systems. Other GRC primary areas of expertise include a broad array of research, technology and engineering development efforts in aerospace power, space electronics, launch and exploration vehicles, and space processes and experiments which include combustion and reacting systems, and fluid physics and transport. Additionally, GRC is engaged in technology development in advanced energy, including renewable wind, solar and coal energy. Some of several energy-related demonstration projects focus on testing, evaluation and advancement of wind turbines, fuel cells and photovoltaics.

Research, engineering and technology engagements comprise NASA mission-related **areas of interest**, including:

A. Acoustics
B. Advanced Energy (Renewable Wind and Solar, Coal Energy and Alternative Energy)
C. Advanced Microwave Communications
D. Aeronautical and Space Systems Analysis

E. Computer Systems and Networks
F. Electric (Ion) Propulsion
G. Icing and Cryogenic Systems
H. Instrumentation, Controls and Electronics
I. Fluids, Computational Fluid Dynamics (CFD) and Turbomachinery
J. Materials and Structures, including Mechanical Components and Lubrication
K. Microgravity Fluid Physics, Combustion Phenomena and Bioengineering
L. Nanotechnology
M. Photovoltaics, Electrochemistry-Physics, and Thermal Energy Conversion
N. Propulsion System Aerodynamics
O. Space Power Generation, Storage, Distribution and Management
P. Systems Engineering

More in-depth descriptions of GRC research opportunities for faculty may be found at the following "url" for Higher Education programs: http://www.nasa.gov/centers/glenn/education/
and by visiting the GRC portion of NASA Postdoctoral Program (NPP) site: http://nasa.orau.org/postdoc

Eligibility

Science and engineering U.S. citizens who are full-time, tenured faculty or in tenure-track positions at 4-year accredited U.S. colleges and universities, or full-time faculty at 2-year U.S. academic institutions are eligible to apply to NGFFP. Faculty members from under-represented groups and at U.S. Department of Education-designated Minority Serving Institutions (MSIs), namely, Historically Black Colleges and Universities (HBCUs), Hispanic Serving Institutions (HSIs), Tribal Colleges Universities (TCUs), and Asian American and Native American Pacific Islander-Serving Institutions (AANAPISIs) are particularly encouraged to apply.

Each NGFFP Award is for **one** summer residency at GRC. Candidates who have participated in the NGFFP during the immediate past two consecutive summer seasons are asked to defer their application for, at least, one year.

GRC is committed to implementing all Federal laws, regulations and guidelines related to the development of affirmative employment and inclusion of persons with disabilities. Women and under-represented groups, and disabled persons with qualifications in Science, Technology, Engineering or Math (STEM) disciplines are encouraged to apply.

Requirements for NGFFP Award

Each selected Fellow will be **expected to**:

- **Not** receive remuneration from other U.S. federal sources (e.g. Grants & Contracts) during the NGFFP tenure;
- Complete a **continuous, full-time**10-week summer tenure at GRC;
- **Not** take leave or concurrently engage in teaching and/or research at an institution during the 10-week Fellowship at GRC;
- Conduct a research presentation or seminar at GRC, during the Fellowship tenure;
- Abide by NASA regulations governing scientists and engineers, as guest investigators;
- Disclose to GRC full information on Fellowship-derived, patentable invention;
- Submit a final written report on the results and outcomes of their research, at the end of their Fellowship;
- Complete a program feedback form, on-site, at the end of the Fellowship, before departing from GRC.

Application

Fellowships are awarded to STEM faculty with specific interests and experience which are compatible with available opportunities within GRC host organizations. Such opportunities typically reflect any of the "**areas of interest**" enumerated under earlier sub-heading "**Glenn Research Center"**. If possible, a faculty member who wishes to pursue a Fellowship opportunity at GRC is encouraged to contact potential GRC host organization(s), to determine a match and alignment of their desired area(s) of study with GRC's research, engineering, technology and development engagements, prior to submitting an application.

The Fellowship tenure is **firmly 10 weeks** in duration. Extensions beyond the 10-week period may be granted, only if deemed mutually beneficial and funding is available. Fellowships do **not** provide for vacation time which should be scheduled **outside** the 10-week tenure period. Faculty members are expected to adhere to the official tenure period, and be **full-time** in residence at GRC, during their Fellowship. Additional information may be obtained by contacting:

Dr. M. David Kankam / University Affairs Officer-GRC
NASA Glenn Research Center
21000 Brookpark Rd., MS 7-4
Cleveland, OH 44135
Telephone: (216) 433-6143
E-mail: Mark.D.Kankam@.nasa.gov

Supporting material, including a curriculum vita and an **originally signed** letter of recommendation/support from the Dean or Head of applicant's Department must be mailed, under a **separate** cover, to reach Dr. Kankam at the above address, by the due date (**February 1, 2016**) of the NGFFP application.

****** A fully completed electronic application must be submitted to: Mark.D.Kankam@nasa.gov .

** For ease of identification and to ensure timely receipt of a completed application, an applicant is advised to insert the following on the "Subject Line" in the E-mail: NGFFP16_Last Name_First Initial

Application opens on Monday, November 9, 2015 and closes at 5:00 PM (EST) on Monday, February 1, 2016.

Stipends

The **weekly** stipend for faculty is as follows:

Assistant Professor -	$1,400.0
Associate Professor -	$1,500.0
Full Professor -	$1,600.0

As guests of GRC, faculty fellows are effectively self-employed for tax purposes. Hence, federal and state taxes will not be withheld from stipend payment. Fellows will be responsible for meeting any federal and state tax obligations.

Relocation and Travel Allowances

A relocation allowance of $1,000.0 will be provided to Fellows who live more than fifty miles from GRC **and** acquire a temporary residence in the Cleveland area while working at GRC during the summer. Fellows who receive the relocation allowance will, also, be reimbursed a **maximum of** $500.0 or actual expenses, whichever is less, for travel expense for one round-trip from their home institutions to take up appointment at GRC. The **combined** relocation and travel allowances will not exceed $1,500.0 for any eligible Fellow.

Housing

In-coming Faculty members must make their own housing arrangements. A list of short-term accommodations within the vicinity of GRC will be mailed to successful applicants, at least, six weeks to the official start date of the Fellowship. The NGFFP does not provide additional living expenses for program participants.

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APPLICATION FOR SUMMER 2016 FACULTY FELLOWSHIP

Name:_____
(Last, First M.I.)

Country of Citizenship: _____

****NOTE: If selected, US citizenship will be verified before confirmation of Fellowship**

Current Position, Department, Institution:_____

Home Address: Work Address:

_____ _____

_____ _____

Telephone: ( ) _____ Telephone: ( )_____

E-mail:_____ Fax: ( ) _____

Highest Academic Degree, Field, School, and Year: _____

Prioritize up to **2** "Areas of Interest" (on pages NGFFP/16-1-2)_____

** **Include max. 2-page write-up of your projected contribution(s) to selected "Area(s) of Interest".**

If you do not hold a doctorate, are you working towards that degree? ( ) Yes ; ( ) No

If Yes, give expected date of graduation, school and department: _____

Special Field of Knowledge: _____

Current Teaching Responsibility: _____

Current Research Area(s): _____

Sponsor(s) of Current Research (if any): _____

Have you previously participated in the GRC Faculty Fellowship? ( )Yes ( )No If Yes, state year(s), & GRC colleague(s):
_____

Anticipated Fellowship Research Area_____

Anticipated Glenn Host Organization and Colleague (if known): _____

OFFICE USE ONLY

Date Received: _____ OWM: _____ Weekly Stipend: $ _____

Date Processed: _____ PR Requirement: $_____

Include Statement of Academic Benefit (to be derived from participation in the Fellowship)

Professional References (Name, Title, Telephone, and E-mail address**)**

1. Dean or Department Head _____

2. _____

3. _____

Include in your application:
(1) A curriculum vita;
(2) An **originally signed** reference letter from your Dean or Department Head, including-
(a) Endorsement of your participation in the NGFFP, and
(b) Description of the tenure status of your appointment at your institution. The vita and letter should be addressed to:

Dr. M. David Kankam, University Affairs Officer, NASA Glenn Research Center, Mail Stop 7-4, 21000 Brookpark Rd., Cleveland, OH 44135.

Application and **all** supporting materials must be received **by 5:00 PM (EST) by Monday, February 1, 2016**. Participants are expected to be at GRC, full-time for the complete 10 consecutive weeks, beginning on Monday, June 6, 2016.

I certify that the information provided herein is complete and correct.

Signature _____ Date: _____

Kindly insert the following after the "Subject Line" at the end of this application: NGFFP16_Last Name_First Initial

****** Please:
1. Check for completeness of your application, then
2. On the "Subject Line" for your electronic mailing, insert the following: NGFFP16_Last Name_First Initial

NOTE: Applicants will be notified of the outcome of their application by Thursday, March 31, 2016.