



VAIshwik BHArtiya Vaigyanik (VAIBHAV) Fellowship (1st Call)

(For Indian Diaspora)

(For NRI/OCI/PIO)

Starting date: 15th June 2023

Closing Date: 31st July 2023

<https://dst.gov.in/>

Government of India had organized **Vaishvik Bharatiya Vaigyanik (VAIBHAV)** Summit to connect Indian STEMM diaspora with Indian Institutions. The summit was attended by more than 25,000 attendees. 230 panel discussion sessions were held over 23 days on 18 Verticals (research areas) and 80 Horizontals (sub-research areas) (see more details in following sections). Indian STEMM diaspora from more than 70 countries had participated in the deliberations.

In this connection the Government has taken a step further to shape and implement the VAIBHAV programme and is announcing VAIBHAV Fellowship Call-2023 as a first step. **The Department of Science and Technology (DST)**, Ministry of Science and Technology, Government of India, would implement the VAIBHAV Fellowship Program. DST is one of the Government Departments under Ministry of Science and Technology which plays the role of a nodal department for organizing, coordinating and promoting S&T activities in the country with the objective of promoting new areas of Science & Technology.

VAIBHAV Fellowship envisages a collaboration between scientists of Indian Diaspora with Indian Higher Educational Institutions (HEIs), Universities and/ or public funded Scientific Institutions. The VAIBHAV Fellow would identify an Indian Institution for collaboration and may spend up to two months in a year for maximum 3 years.

Emoluments for the Fellowship:

- Fellowship in INR 4 Lakh roughly (equivalent to USD 5000 per month), for minimum 01 month and maximum up to 02 months per year for a period of maximum 03 years,
- International Travel from place of work in parent institute to place of work in India in business class once a year,
- Fully furnished Accommodation in guest house or hotel up to Rs.7500/- per day
- Contingency Rs.1,00,000 per year for research expenditure in India

- Domestic Travel (economy class) for academic purposes up to two Indian academic/ scientific institutes in a year

It may be noted that total eligible grant will be released to Indian host Institute and these institute would be providing Fellowship amount to the VAIBHAV Fellow and extend other support.

Expectations from the VAIBHAV fellow:

- Sharing the Best Practices on research and translation of research, incubation etc.
- Build long term connections,
- Connect Indian Students to the foreign faculty/scientists
- New approaches to Research processes and futuristic technologies

VAIBHAV Fellow is expected to give a report to DST within 21 days of completion of travel indicating work done/initiated, follow up required etc.

Expectations from Host Institution

The host institute will host the scientist and provide office/lab facilities, consumables, access to lab equipment and facilitation for various infrastructure support. The following activities will be done by the host faculty/scientist:

- Will start a project/technology translation/start-up/incubation which should be aligned with the priorities area of the country
- The VAIBHAV fellow would collaborate with the Indian scientist team during his visit and beyond *via* online meetings.
- The host institution would implement the project within 3 years in consultation with VAIBHAV fellow.
- The host Institution would submit the progress report and financial documents to DST at the end of each year and a project completion report at the end of 3rd year. The reports need to be jointly prepared by the host and the VAIBHAV fellow.
- Host institute will adapt the shared best practices
- Will build the long-term research connections with the fellow
- Will develop a new approach to research processes and try to develop new technologies/innovation etc.

In addition to the emoluments to VAIBHAV fellow, the financial support (up to 5 Lakhs per year for 3 years) will be given to host institution to facilitate the VAIBHAV fellow for research work as per DST norms. This funding will cover the following expenses in connection with a project;

- Consumables and Accessories,
- Contingency
- Institutional Overhead

Justification for budgetary support needs to be provided by the host institute, for which a project proposal shall be submitted by the Host Institute in consultation with VAIBHAV fellow as a part of VAIBHAV Fellowship application.

Registration in Public Fund Management System (PFMS) is mandatory for all Host Institute. In case, Indian Host Institute is a private organisation, registration in Darpan portal of NITI Aayog is needed.

Research areas under which applications may be submitted

Proposals are sought in select identified verticals and horizontals of VAIBHAV (as mentioned in the preamble):

1. **Quantum Technologies:** Quantum Communication; Quantum Computing; Quantum Sensing and Metrology; Quantum Materials and Devices
2. **Artificial Intelligence and Machine Learning:** Foundation of AI/ML; AI/ML and Signals; AI for Social Good; AI and Robotics
3. **Computational Sciences:** High Performance Computing Architectures; Computational Atmospheric Sciences; Cyber Physical Systems
4. **Data Sciences:** Data Science Project Management; Data Science Infrastructure, Deployment and Hosting; Data Privacy and Security; Data Science Education; Data Science Applications
5. **Photonics:** Photonic Devices; Optical Imaging and Bio-photonics; Photonic Materials and Sources; Nano-photonics; Integrated Photonics and Communication
6. **Energy:** Future Electricity Systems; Sustainable Mobility Technologies; Advanced Fossil Technologies; Sustainable Future Fuels
7. **Electronics and Semiconductor Technologies:** Semiconductor Materials and Process Technologies; Semiconductor Devices: Physics and Technology; Electronic Circuits and System Design
8. **Communication Technologies:** Cellular Evolution 5G and Beyond (THz Comm); Communication Technologies for IoT/CPS; High Speed Optical Communication - backbone networks; Cognitive Technologies for Futuristic Communication
9. **Aerospace Technologies:** Aerospace Systems and Design; Propulsion Technologies; Flight Structure and Integrity; Modeling and Simulations; Unmanned Aerial Systems and Countermeasures

10. **Materials and Processing Technologies:** Structural Materials; Materials Recycling & Purification; Advanced & Functional Materials; Catalytic Materials & Processes; Computational Materials Science
11. **Earth Sciences:** Atmospheric Science; Polar Science; Ocean Science/Technology; Geo Science/Technology
12. **Environmental Sciences:** Air Quality Management; Water Quality Management; Soil and Waste Management; Carbon Sequestration and Biodiversity Conservation; Climate Change
13. **Advanced Manufacturing Technologies:** Smart Manufacturing, IoT, Digital Manufacturing; Additive Manufacturing; Precision/Micro-nano Manufacturing/Surface Engineering; Industrial Machines, Robotics/Automation; Speciality Products Manufacturing
14. **Health, Medical Sciences and Biomedical Devices:** Advanced Technologies in Health Care; Precision Health; Holistic Health; Remote and Rural Health - Reaching the unreached
15. **Pharmaceuticals and Bio-Technology:** Biotherapeutics and Biosimilars; Industrial Biotechnology; Infectious Diseases/ Disease biology; Drug Discovery, Repurposing and Drug delivery
16. **Agricultural Sciences:** Precision Agriculture; Sustainable and Climate Smart Agriculture; Food Safety and Nutritional Security; Climate Resilient Livestock, Veterinary Therapeutics and Zoonoses control, Nanotechnology in sustainable agriculture and metabolic biology, Modern Fisheries and Aquaculture and seed production, Genome editing, Robotics, farm automation, Digital Agriculture
17. **Social Sciences for SDGs:** Behavioral Community Approaches & its impact on Societal Development; Societal aspect of Technology Development with cause; Socio-Economic aspect of Development
18. **Management:** Fostering academic collaborations; Mechanisms to increase R&D outputs from Indian institutions; Business innovation; Entrepreneurship for growth; Management of New-Age (Knowledge) Organizations; Making India R&D center of the world / Making India Center of Practice-Oriented Management Knowledge

Eligibility: (For applicants – VAIBHAV Fellow)

- Non-Resident Indian (NRI), Persons of Indian Origin (PIO) and Overseas Citizen of India (OCI), currently working abroad
- Ph.D/M.D/M.S/M.Tech degree from a recognized University
- Engaged in active research
- Working/worked in Institute/University of top-200 QS World University Ranking (subject-wise) (in regular/tenure employment) for at least 5 years or more.

OR

Working in Industry or Research Laboratories of repute in abroad for at least 5 years or more (but should not be PhD or Post-doctoral fellow)

Eligibility: (For host Indian Institutions)

- Higher Educational Institutions / University ranked in top 200 in NIRF overall rankings or having NAAC 'A+' grade or above
and/or
- Public funded Scientific Institutes/National Laboratories.

Documents needed to apply

- Statement of Purpose (one-page max.)
- Bio-data of Applicant in prescribed format (two pages max.)
- List of recent publications of applicant (last three years) with impact factors
- Copy of Valid Passport
- Academic Qualification – Copy of certificate for highest degree
- Experience Certificate
- Undertaking by the applicant in prescribed format
- No-objection certificate from the parent institute
- Consent letter from Host Institute in India
- CV of the host scientist /faculty (two pages max.)
- List of recent publications of the host scientist/faculty (last three years) with impact factors

How to apply

Each application should be submitted to DST. Please note following important application instructions:

- The application should be submitted *on-line* to DST.
- The applicant can download the proposal formats from websites www.dst.gov.in / www.onlinedst.gov.in and should submit completed application form and all relevant information through e-PMS portal of the DST. *Applications would be received in on-line mode only. Physical or e-mail applications will not be considered.*
- Any shortcomings in the proposal or non-submission through the e-PMS portal will result in rejection of the proposal. DST will not be responsible for these shortcomings.
- In case applicant could not submit the proposal in time, DST would not entertain that project offline and also no request to extend the date would be entertained.
- It may be noted that after submission, applicant will get Temporary Project Number (TPN), auto generated by the system, which should be mentioned in all future references.

Important Dates

- Launch of VAIBHAV fellowship at DST websites: **June 15, 2023**
- Deadline to submit Application in current cycle: **July 31, 2023 (5:00 PM IST)**

Merit Evaluation Criteria and Deliverables

We support research excellence and therefore contributions to research, training and mentoring are considered and valued as part of the merit review process, with a focus on the quality and impact of these contributions. Applications must address all of the following criteria in order to be considered for funding:

- Quality of the proposal and research findings, including significance and originality;
- Relevance and outcomes, including benefit to society;
- Knowledge transfer, exchange, and dissemination;
- Partnership and international collaborations;
- Applicants should submit a consent letter from their parent Institute.
- Expected results, outcomes and appropriateness of budget strategy to achieve them.

Review Process for Evaluation of Applications

- All applications will be handled in the strictest of confidence.
- A Review Committee comprised of representatives and independent external reviewers from India and government departments will examine the proposals.
- DST may consider inviting the shortlisted applicants for online presentation of their proposed work as part of the review process. Applications must attain a positive rating to be considered eligible for funding.
- The Experts Review Committee will prioritize applicants in given vertical. The final decision would be taken by the Government on recommendation of the VAIBHAV Apex Committee.

Contact Details:

For more details the following may be contacted:

Mr. Vinod Kumar Sharma

Under Secretary

VAIBHAV Cell

International Cooperation Division

Technology Bhawan

Department of Science and Technology

Ministry of Science and technology

New Delhi-110016

Email: vaibhav-india@gov.in



सत्यमेव जयते
Department of Science and Technology
Ministry of Science and Technology
Government of India



**Application Format
for
VAIBHAV Fellowship (First Call)
(For Indian Diaspora)**

1. General Information		
i.	Title of the proposal	
ii.	Important Keywords	
iii.	Proposed duration of visit (min 1 months and max up to 02 months/year for 03 years)	
a) Details of Parent Institution		
iv.	Parent Institution/ University/ National Research Lab (where applicant is employed)	
v.	<ul style="list-style-type: none">Is applicant working/ has worked in Institution is within top-200 QS world university ranking 2023 (Subject wise)?If yes, then mention the QS world university ranking of the Institute and duration of working there	
vi.	<ul style="list-style-type: none">Are you working in National Research Laboratory/ Industry of reputeLength of service in the present employment	
b) Details of Host Institution		
vii.	<ul style="list-style-type: none">Name of the Institute and Address	

viii.	<ul style="list-style-type: none"> Is it an Institution/ University with NIRF ranking or NAAC A+ or above grade? (Yes/No) If yes, mention NIRF ranking & NAAC Grading of Host Institution/ National Research Lab/ University 	NIRF ranking- NAAC Grade-
ix.	Is it a Public funded Research Lab/ Institution? (Yes/No)	
x.	Name and designation of Host Scientist/Faculty	
xi.	Designation and address of the Authorized official in Indian Institute/ University to receive the grant	

2. Personal Information of the Applicant

Name of applicant				
Title (Mr/Ms/Dr.)				
Father's Name		Present Nationality		
Gender (Male/Female/others)		Nationality at birth		
Telephone:		Mobile:		
Email:		Fax:		
Date of Birth:				
If applicant is OCI/PIO Card holder				
Passport Details	Passport no.	Date of Issue	Place of issue	Valid upto
If the applicant has work permit/work visa/other nationality (Indicate the country)				
Emergency Contact No.				
Present Designation in Parent Institution				

3. Academic Qualifications (Highest Degree)

Examination passed	Year of passing	Institution	Major subjects/specialization	Grade/percentage

3.1 Other Qualification (if any):

3.2 Academic Awards (if any)

S.No.	Name of Award	Year	Awarding Agency	Remarks

3.3 Languages known (Excellent/Good/Fair)

Language	Read (Excellent/Good/Fair)	Write (Excellent/Good/Fair)	Speak (Excellent/Good/Fair)

4. Employment details (starting from present employer)

Name and address of employer	Position held (Temporary/Regular)	Duration		Nature of Duties
		From	To	

4.1 Past professional visits to Abroad in last 10 years

S.No.	Year	Country visited	Purpose of Visit	Funding agency

4.2 Current Research activities

Areas of Research	
No. of papers published in peer reviewed journals, books, book chapters, patents etc (Attach the list)	
Ongoing projects	

5. Statement of research work to be undertaken in India & its relevance to scientific domain/developmental requirements (Host scientist and the fellow will develop the project together)

5.1 Collaborative Project Overview

(maximum 1000 words)

Include a discussion of the following:

- discussion of origin of the proposal
- rational of the subject supported by cited literature,
- hypothesis and key questions
- methodology
- current status of research and development in the subject
- relevance and expected outcome of the proposed study
- preliminary work done to date

5.2 Collaborative Project Objectives

(maximum 1000 words)

Should be in bulleted form, a short paragraph indicating the methods to be followed for achieving the objective and verifiable indicators of progress should follow each specific objective

5.3 Key Milestones:

Project Element	Milestone To Be Achieved	Year 1	Year 2	Year 3	Impact of Outcome
		Add more lines if required			

5.4 Expected Results of the Collaboration:

(Maximum 1000 words)

5.5 Likely Outcomes:

(Maximum 1000 words)

Discuss the following issues:

- (1) Specify the strategy for deployment or knowledge transfer of the research outcomes into a community context.
- (2) Identify any anticipated challenges in the deployment or knowledge transfer or research outcomes into a community context and how you plan to mitigate these challenges if they arise.
- (3) Address how you will identify opportunities for knowledge translation and end-user utilization in the development and application of the proposed innovations and technologies?

5.6 Unique and Innovative Aspects of the Proposed Research Project (Max 1000 words)**5.7 How will the project be beneficial for Host and Parent Institutions? (Max 1000 words)**

6. Financial Implications

6.1 List of equipment and other facilities available in the Institute for implementation of the project

(In case facilities of other institutes are utilized, a consent letter from these institute(s) may be enclosed)

6.2 Proposed budget for 3 years (budget should be proposed as per the guidelines)

Budget Head	1 st Financial Year	2 nd Financial year	3 rd Financial year
Consumables and Accessories			
Contingency			
Total			

6.3 Justification for consumables

6.4 List of facilities being extended by parent institution(s) for the project implementation.

Equipment available with the Institute/ Group/ Department/ Other Institutes for the project:

Equipment available with	Generic Name of Equipment	Model, Make & year of purchase	Remarks including accessories available and current usage of equipment
Host Scientist & group			
Host Department/Institute			
Other Inst in the region			

7. Documents need to be added with the application form before final submission

- A brief write-up describing the proposed research work
- Copy of degree certificate for highest qualification
- Copy of valid passport
- Copy of OCI/PIO Card/Work VISA
- A consent letter from the Indian host supervisor in Institute letterhead for carrying out applicant's research work in India
- No objection / Forwarding letter of applicant's Institute (Format Attached).

- g) Bio-data of applicant in prescribed format (max: 2 pages) including date of superannuation / completion tenure, field of specialization, Gender, current research interests, significant accomplishment.
- h) Undertaking by the applicant in prescribed format
- i) Last 3 years' list of publications with impact factors
- j) Reprints of two important recent publications
- k) Statement of Purpose (Max 1 page)
- l) CV of the host scientist and the list of publications of last 3 years

I hereby certify the statements above to be true and correct.

Applicant's Signature

Date and place:

Forwarded by

Head of Parent Institution/Employer

(with Signature & Office Stamp)

Host Scientist

(with Signature & Office Stamp)

Head of Host Institute

(with Signature & Office Stamp)

NO OBJECTION CERTIFICATE (NOC) from the Parent Institute

(On Institute letter head)

To,

**The Head,
International Cooperation Division
Department of Science and Technology (DST)
Ministry of Science and Technology
New Delhi-110016**

Sub: Letter of Consent for application to the VAIBHAV Fellowship Programme - (name of the candidate)

Mr./Ms./Dr. ----- is an applicant for the VAIBHAV Fellowship programme in India.
Mr./Ms./Dr.----- has been employed in this institute as ----- for the past -- -----
--- years.

We have no objection to support the application of ----- . If selected, -----
will be permitted to undergo the fellowship.

Yours sincerely,

(Signature of the head of the Institute with Seal)

Date

Undertaking by the VAIBHAV fellow and Host Scientist

To,

**The Head International Cooperation Division
Department of Science and Technology (DST)
Ministry of Science and Technology
New Delhi-110016**

Sir,

We _____
hereby certify that the collaborative proposal titled, “ _____

_____”, submitted for under Call
for VAIBHAV Fellowship by DST, New Delhi is our original idea and has not been copied/taken
verbatim from anyone or from any other sources. We further certify that this proposal has been
checked for plagiarism through a plagiarism detection tool i.e.
_____ approved by the Institute and the contents are original and
not copied/taken from any one or many other sources. We also declare that there are no plagiarism
charges established or pending against me in the last five years. If the funding agency notices any
plagiarism or any other discrepancies in the above proposal of mine, we would abide by
whatsoever action taken against us by DST, as deemed necessary.

Signature of Host with date

Name:

Designation:

Signature of VAIBHAV fellow with date

Name:

Designation: