Department of Science and Technology
Ministry of Science and Technology
Governement of India

VAIshwik BHArtiya Vaigyanik (VAIBHAV) Fellowship (Ist 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.

<div align="center">OR</div>

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

Review Process for Evaluation of Applications
- o All applications will be handled in the strictest of confidence.
- o A Review Committee comprised of representatives and independent external reviewers from India and government departments will examine the proposals.
- o 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.
- o 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:

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