VAIshwik BHArtiya Vaigyanik (VAIBHAV) Fellowship (2nd Cycle of Ist Call)

(For Indian Diaspora)

(For NRI/OCI/PIO)

Starting date: 23 January 2024
Closing Date: 15th March 2024(5:00 PM IST)
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 now announcing2nd Cycle of Ist Callof VAIBHAV Fellowship. **The Department of Science and Technology (DST)**, Ministry of Science and Technology, Government of India, is implementing 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 Fellow:

• Fellowship in INR 4 Lakh, 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

Institutional Financial Support:

In addition to the emoluments to VAIBHAV Fellow, the financial support (up to Rs 5.00 lakhs per year for 03 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.

Total eligible grant will be released to Indian host Institute which would be disbursing Fellowship amount to the VAIBHAV Fellow and extend other support.

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 mandatory. Without DARPAN ID the host institute will not be able to submit the proposal.

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 submit a report to DST within 21 days on completion of each travel indicating work done/initiated, follow up required etc.

Expectations from Host Institution

The Indian institute will host the VAIBHAV Fellow and provide office/lab facilities, consumables, access to lab equipment, facilitation for various infrastructure support and any other support required by the VAIBHAV Fellow during his stay. The following activities are expected to be performed by the host faculty/scientist:

- Will start a project/technology translation/start-up/incubation which should be aligned with the national priorities / missions
- Would collaborate with the VAIBHAV Fellow during his visit and continue further interaction*via* online meetings.

- The host institution would implement the project within 3 years in consultation with VAIBHAV Fellow.
- The host Institution would submit the periodic 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 VAIBHAV Fellow
- Expected to develop a new approach to research processes, prototype, new technologies/innovation etc.

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 (in regular/tenure employment) for at least 5 years or more.
  [Desirable: top-200 QS World UniversityRanking (subject-wise)]
  <div align="center">OR</div>
  Working in Industry or Research Laboratories of repute in abroad for at least 5 years or more (**but <u>should not be</u> 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

i.	Biodata of VAIBHAV Fellow (07 pages max) **(format attached as Annexure-I)**
ii.	List of recent publications of VAIBHAV Fellow (last three years) with impact factor
iii.	Copy of certificate for highest qualification
iv.	Copy of passport
v.	Copy of OCI/PIO Card /Work Visa
vi.	Undertaking by the Applicant and the host in the prescribed format **(format attached as Annexure-II)**
vii.	Consent Letter / No-Objection letter / Forwarding letter from Indian Host Institution (on letterhead expressing consent to allow the applicant's research work in his institution) **(format attached as Annexure-III)**
viii.	Consent Letter/ No-Objection letter/ Forwarding letter from VAIBHAV Fellow's Institute/ University/ Company **(format attached as Annexure-IV)**
ix.	Bio-data of the Host Scientist alongwith list of publications of last three years including the impact factor **(format is same as Annexure-I)**
x.	Conflict of Interest (to be given by the Host Scientist in prescribed format) **(format attached as Annexure-V)**

How to apply

Application should be submitted to DST **by Host Indian Scientist** through *on-line* E-PMS Portal of DST only. Please note following important application instructions:

- **Host Scientist need to apply on behalf of the Indian Diaspora as DST would release the funds to the host Institution which will be reimbursed to the fellow by the host Institution.**
- The applicant can apply online by using the following link https://onlinedst.gov.in/Projectproposalformat.aspx?Id=2317 and should submit completed application with all relevant information through e-PMS portal of the DST. *Applications would be received in on-line mode (through ePMS) 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.
- 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 correspondence.

Terms and Conditions

- Multiple applications from Host/Applicant shall be rejected. One host/applicant can submit only one application.
- In case applicant could not submit the proposal in time, DST shall not entertain that project offline and also no request to extend the date would be entertained.
- Without consent letter from Head of Institute of Host and applicant, the application shall not be entertained and shall be treated as disqualified.
- No calls/emails will be entertained 72 hrs prior to the closing of call.

Important Dates

- Launch of VAIBHAV fellowship at DST websites: **23 January 2024**
- Deadline to submit Application in current cycle: **March15, 2024 (5:00 PM IST)**

Evaluation Criteria and Expected Deliverables

We support research excellence and therefore contributions to research, training and mentoring are considered and valued as part of the 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:

Sl. No.	Assessment Criteria
1.	Scientific and Technical merit including novelty of the proposal
2.	Proposed methodology and viability of the proposal
3.	Expected outcomes
4.	Specific advantage of collaboration for Indian S&T
5.	Long term alignment with national priorities / missions
6.	Justification of Collaboration
7.	Possible product development, TRL& commercialization /industrial collaboration/improvisation of existing technology
8.	Research Accomplishments (As evidenced by impactful papers / patents etc.) of Indian Diaspora
9.	International Recognitions / Awards / Fellows of Academies etc. of Indian Diaspora
10.	Successful / noticeable past research collaboration of Indian Diaspora with Indian Institutions
11.	Research Accomplishments (As evidenced by impactful papers / patents etc.) of Indian Host
12.	International Recognitions / Awards / Fellows of Academies etc. of Indian Host
13.	Successful / noticeable past research collaboration of Host with foreign Institutions
14.	Research Infrastructure available at Host Institution

15.	The lead initiatives taken / existing in the host Institution to accelerate international research collaborations

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:

VAIBHAV Cell
International Cooperation Division
Department of Science and Technology
Ministry of Science and Technology
Technology Bhawan
New Delhi-110016

Email: vaibhav-india@gov.in

PROFORMA FOR BIO-DATA (to be uploaded)

1. Name and full correspondence address

2. Email(s) and contact number(s)

3. Institution

4. Date of Birth

5. Gender (M/F/T)

6. Category [Gen/SC/ST/OBC]

7. Whether differently abled (Yes/No)

8. Academic Qualification (Undergraduate Onwards)

S. No.	Examination passed	Year of passing	Major Subjects/ Specialization	University/Institution	% Marks/ Grade

9. Work experience (in chronological order)

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

10. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant

S.No.	Name of Award	Awarding Agency	Year

11. Publications *(List of papers published in SCI Journals, in year wise descending order).*

S.No.	Author (s)	Title	Name of Journal	Volume	Page	Year

12. Detail of patents

S.No.	Patent Title	Name of Applicant (s)	Patent No.	Award Date	Agency/Country	Status

13. Books/Reports/Chapters/General articles etc.

S. No.	Title	Author's name	Publisher	Year of Publication

13. Languages Known

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

14. Current research Activities (**Ongoing projects)**

15. Partnerships and International Collaborations

16. Significant accomplishments

<u>Undertaking by the VAIBHAV Fellow and Host Scientist</u>

To,

Head VAIBHAV Cell,
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   **Signature of VAIBHAV Fellow with date**

Name: **Name:**

Designation: **Designation:**

CONSENT LETTER FROM HEAD OF THE HOST INSTITUTION

It is certified that

1) The institution agrees to implement the proposed research work in discussion with VAIBHAV Fellow and shall facilitate the VAIBHAV Fellow during his stay in India.

2) In the event of the Indian Principal Investigator (PI) leaving the Institute due to retirement or otherwise, the PI may suggest another PI from the same Institute for the project or the Institute may select other PI of the same field in the Institution and the substitute PI shall be responsible for completing the project and submitting the periodic progress report and financial statements;

3) The institution shall provide infrastructure & available facilities as mentioned above, for implementing the project;

4) The institution assumes to undertake management of financial & other management responsibilities for part of the project work to be carried out in this institution;

5) All necessary formalities as per government guidelines have been completed.

(Signature and seal of the Head of the institution)

Consent Letter / No-Objection letter / Forwarding letter from the Parent Institute

(On Institute letter head)

To,

Head VAIBHAV Cell,
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

DEPARTMENT OF SCIENCE AND TECHNOLOGY

POLICY ON CONFLICT OF INTEREST

FOR REVIEWER & COMMITTEE MEMBER or APPLICANT or DST OFFICER ASSOCIATED/ DEALING WITH THE SCHEME/ PROGRAM OF DST

Issues of Conflicts of Interest and ethics in scientific research and research management have assumed greater prominence, given the larger share of Government funding in the country's R & D scenario. The following policy pertaining to general aspects of Conflicts of Interest and code of ethics, are objective measures that is intended to protect the integrity of the decision-making processes and minimize biasness. The policy aims to sustain transparency, increase accountability in funding mechanisms and provide assurance to the general public that processes followed in award of grants are fair and non-discriminatory. The Policy aims to avoid all forms of bias by following a system that is fair, transparent and free from all influence/ unprejudiced dealings, prior to, during and subsequent to the currency of the programme to be entered into with a view to enable public to abstain from bribing or any corrupt practice in order to secure the award by providing assurance to them that their competitors will also refrain from bribing and other corrupt practice and the decision makers will commit to prevent corruption, in any form, by their officials by following transparent procedures. This will also ensure a global acceptance of the decision-making process adopted by DST.

Definition of Conflict of Interest:

Conflict of Interest means "any interest which could significantly prejudice an individual's objectivity in the decision-making process, thereby creating an unfair competitive advantage for the individual or to the organization which he/she represents". The Conflict of Interest also encompasses situations where an individual, in contravention to the accepted norms and ethics, could exploit his/her obligatory duties for personal benefits.

1. **Coverage of the Policy**:
   a) The provisions of the policy shall be followed by persons applying for and receiving funding from DST, Reviewers of the proposal and Members of Expert Committees and Programme Advisory Committees. The provisions of the policy will also be applicable on all individuals including Officers of DST connected directly or indirectly or through intermediaries and Committees involved in evaluation of proposals and subsequent decision-making process.

   b) This policy aims to minimize aspects that may constitute actual Conflict of Interests, apparent Conflict of Interests and potential Conflict of Interests in the funding mechanisms that are presently being operated by DST. The policy also aims to cover, although not limited to, Conflict of interests that are Financial (gains from the outcomes of the proposal or award), Personal (association of relative / Family members) and Institutional (Colleagues, Collaborators,

Employer, persons associated in a professional career of an individual such as Ph.D. supervisor etc.)

2. **Specifications as to what constitutes Conflict of Interest**.

Any of the following specifications (non-exhaustive list) imply Conflict of Interest if,

(i)   Due to any reason by which the Reviewer/Committee Member cannot deliver fair and objective assessment of the proposal.

(ii)   The applicant is a directly relative# or family member (including but not limited to spouse, child, sibling, parent) or personal friend of the individual involved in the decision-making process or alternatively, if any relative of an Officer directly involved in any decision making process / has influenced interest/ stake in the applicant's form etc.

(iii)   The applicant for the grant/award is an employee or employer of an individual involved in the process as a Reviewer or Committee Member; or if the applicant to the grant/award has had an employer-employee relationship in the past three years with that individual.

(iv)   The applicant to the grant/award belongs to the same Department as that of the Reviewer/Committee Member.

(v)   The Reviewer/Committee Member is a Head of an Organization from where the applicant is employed.

(vi)   The Reviewer /Committee Member is or was, associated in the professional career of the applicant (such as Ph.D. supervisor, Mentor, present Collaborator etc.)

(vii)   The Reviewer/Committee Member is involved in the preparation of the research proposal submitted by the applicant.

(viii) The applicant has joint research publications with the Reviewer/Committee Member in the last three years.

(ix)   The applicant/Reviewer/Committee Member, in contravention to the accepted norms and ethics followed in scientific research has a direct/indirect financial interest in the outcomes of the proposal.

(x)   The Reviewer/Committee Member stands to gain personally should the submitted proposal be accepted or rejected.

The Term "Relative" for this purpose would be referred in section 6 of Companies Act , 1956.

3. **Regulation**:
The DST shall strive to avoid conflict of interest in its funding mechanisms to the maximum extent possible. Self-regulatory mode is however recommended for stake holders involved in scientific research and research management, on issues pertaining to Conflict of Interest and scientific ethics. Any disclosure pertaining to the same must be made voluntarily by the applicant/Reviewer/Committee Member.

4. **Confidentiality**:
The Reviewers and the Members of the Committee shall safeguard the confidentiality of all discussions and decisions taken during the process and shall refrain from discussing the same with any applicant or a third party, unless the Committee recommends otherwise and records for doing so.

5. **Code of Conduct**

5.1 To be followed by Reviewers/Committee Members:

(a) All reviewers shall submit a conflict of interest statement, declaring the presence or absence of any form of conflict of interest.

(b) The reviewers shall refrain from evaluating the proposals if the conflict of interest is established or if it is apparent.

(c) All discussions and decisions pertaining to conflict of interest shall be recorded in the minutes of the meeting.

(d) The Chairman of the Committee shall decide on all aspects pertaining to conflict of interests.

(e) The Chairman of the Committee shall request that all members disclose if they have any conflict of interest in the items of the agenda scheduled for discussion.

(f) The Committee Members shall refrain from participating in the decision making process and leave the room with respect to the specific item where the conflict of interest is established or is apparent.

(g) If the Chairman himself/herself has conflict of interest, the Committee may choose a Chairman from among the remaining members, and the decision shall be made in consultation with Member Secretary of the Committee.

(h) It is expected that a Committee member including the Chair-person will not seek funding from a Committee in which he/she is a member. If any member applies for grant, such proposals will be evaluated separately outside the Committee in which he/she is a member.

5.2 To be followed by the Applicant to the Grant/Award:

(a) The applicant must refrain from suggesting referees with potential Conflict of Interest that may arise due to the factors mentioned in the specifications described above in Point No. 2.

(b) The applicant may mention the names of individuals to whom the submitted proposal should not be sent for refereeing, clearly indicating the reasons for the same.

5.3 To be followed by the Officers dealing with Programs in DST:

While it is mandatory for the program officers to maintain confidentiality as detailed in point no. 6 above, they should declare, in advance, if they are dealing with grant applications of a relative or family member (including but not limited to spouse, child, sibling, parent) or thesis/ post-doctoral mentor or stands to benefit financially if the applicant proposal is funded. In such cases, DST will allot the grant applications to the other program officer.

6. Sanction for violation

6.1 <u>For a) Host b) Applicant</u>

Any breach of the code of conduct will invite action as decided by the Committee.

6.2 <u>For Officers dealing with Program in DST</u>

Any breach of the code of conduct will invite action under present provision of CCS (conduct Rules), 1964.

7. **<u>Final Appellate authority</u>**:
Secretary, DST shall be the appellate authority in issues pertaining to conflict of interest and issues concerning the decision-making process. The decision of Secretary, DST in these issues shall be final and binding.

8. <u>Declaration</u>
I have read the above "Policy on Conflict of Interest" of the DST applicable to the Applicant/ Host and agree to abide by provisions thereof.

I hereby declare that I have no conflict of interest of any form pertaining to the proposed grant * I hereby declare that I have conflict of interest of any form pertaining to the proposed grant *

<u>Name of the Applicant/Host</u>

(Strike out whichever is not applicable)

(**Signature with date**)