A capacity building initiative of the National Geospatial Program (NGP), Department of Science and Technology, Government of India

Summer / Winter Schools in Geospatial Science and Technology

CALL FOR PROPOSALS (2021-2023)

Government of India
Department of Science & Technology

In India's recent journey of sustainable economic growth, knowledge has been identified as one of the key drivers. In this odyssey, India has adopted a new information regime through its 'Digital India' program to support good governance, sustainable development goals and empowerment of its citizens. The challenges of this developmental path are inclusiveness, transparency, efficiency and productivity while balancing economic growth and sustainable development. Over the last three decades, geospatial technologies have proven to be an effective enabler to meet these challenges.

In India's evolving geospatial ecosystem, the current focus in on improving the publicness in the provision of geospatial data and information through institutional strengthening for enhancing the performance of organizations. In this context, developing technical capacity at the individual level, remains the key factor for the success of this change process.

Capacity refers to the ability of individuals and organizations to make and implement decisions and perform functions in an effective, efficient and sustainable manner. Capacity building is an ongoing process and involves changing attitudes, imparting technical knowledge and developing skills while maximizing the benefits of participation, knowledge exchange and ownership.

Capacity building initiatives of the National Geospatial Program (NGP) erstwhile NRDMS, Department of Science and Technology, Government of India

Recognizing the above needs, the goal of the National Geospatial Program of the Department of Science and Technology, Government of India is to develop national capacity for geospatial science and technology development through diverse programs in collaboration with various partner organizations across the country.

Initiated in 1982, the erstwhile Natural Resources Data Management System (NRDMS) has successfully demonstrated utilities of geospatial technologies in decision making and developed capacity for geospatial data and information management at state, district and local levels at a pilot scale. The proof of concept phase being over, NRDMS has evolved into the National Geospatial Programme (NGP) with the following vision, mission and objectives:

Vision
Catalyzing the National Geospatial Ecosystem.

Mission
Promoting geospatial science and technology, policy, solution, capacity building, entrepreneurship and international cooperation for sustainable socio-economic development at all levels of governance.

Objectives
- Promotion of R&D in emerging areas of geospatial science and technology.
- Development of geospatial solutions for sustainable socio-economic growth in alignment with Sustainable Development Goals (SDGs) and national developmental priorities.
- Build knowledge and adaptation capacity of geospatial technologies at various levels of governance in collaboration with academia and user agencies.

NGP has instituted a capacity building program, the goals and objectives of which are outlined below.

Goal

To build knowledge and adaptation capacity of geospatial science and technology at various levels.

Objectives

- Capacity building in teaching, research, development and use of geospatial technologies.
- Promote the use of open source geospatial technologies.
- To encourage and nurture innovation among the youth of our country through the Geo Innovation Challenge.
- Promote networking of government, academic, research and industrial organizations.

Courses	21 day summer/winter schools in geospatial science and technology (Level-1)	21 day advanced summer/winter schools in geospatial science and technology (Level-2)	Three day Geo Innovation Challenge
Aim	To build capacities in teaching, research, development as well as use of geospatial technologies using open source software among the participants.	To build capacities in specific sectoral areas eg: water, energy, biodiversity, health, infrastructure and development planning, disaster risk reduction and management, sustainable development goals, etc., through a hands on approach/ open source software.	To recognize, encourage and nurture innovation for national socio-economic developmental processes among the youth of our country.
Who can apply?	Faculty members, scientists, technologists in permanent positions from organizations that include post graduate colleges, UGC recognized universities, national institutions of research and research management, that have requisite faculty, lab infrastructure and expertise in geospatial science and technology preferably with knowledge of open source geospatial software are eligible to apply. **A special call for SC/ ST category has been initiated.** For consideration under this category **either Coordinator and/or more than 30-60% of the participants should be from SC/ST category.**	Same as Level 1. Preference will be given to coordinators who have already conducted at least two Level-1 or equivalent courses and mentioning clearly the detailed content including hands on sessions with open source software building upon the Level 1 program.	Same as Level 1. In addition NGOs, startups in collaboration with a Knowledge Institution and S&T enabled NGOs having experience in geospatial domain can also apply. The proposal can also be submitted in partnership with a Co-PI from another organization/ startup clearly mentioning the main and supporting organization. The funds will be given to the main organization only who can budget for expenses of the partner organization.
Financial support	*Recommended budget breakup* Boarding / lodging Rs.5.00 Lakh GPS/ Other hardware Rs.1.00 Lakh Training Kit Rs.0.50 Lakh Travel cost Rs.1.00 Lakh Honorarium to experts Rs.1.00 Lakh Contingencies Rs.0.50 Lakh Overheads Rs.1.00 Lakh **Total** **Rs.10.00 lakh**	*Recommended budget breakup* Boarding / lodging Rs.5.00 Lakh GPS/ Other hardware Rs.1.00 Lakh Training Kit Rs.0.50 Lakh Travel cost Rs.2.00 Lakh Honorarium to experts Rs.1.00 Lakh Contingencies Rs.0.50 Lakh Overheads Rs.1.00 Lakh **Total** **Rs.11.00 lakh**	*Recommended budget breakup* Boarding / lodging Rs.1.00 Lakh Travel cost Rs.0.75 Lakh Honorarium to experts Rs.0.50 Lakh Contingencies/Awards/ Training kit Rs.0.50 Lakh Overheads Rs.0.25 Lakh **Total** **Rs.3.00 lakh**

How to apply?

Interested coordinators can submit their proposals in the requisite format (provided on page 7 of this brochure) along with their biodata on or before the date mentioned in the Call For Proposals.

The proposals should be submitted at https://onlinedst.gov.in/ in proper format following the guidelines and duly forwarded by Head of the Institute / University as mentioned in the digital brochure at https://dst.gov.in/callforproposals and IGET portal (https://dst-iget.in). Non-governmental organization (Deemed and private universities and research and development organization) should be registered at the ngodarpan.gov.in portal of the Government of India.

For any other query and submission of proposal kindly contact:

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Email: ddutta@nic.in / shubha.p@nic.in

NOTE: The e-version of the proposal duly endorsed from the Head of the organization should be submitted as a single pdf document under Capacity Building in Geospatial Science and Technology scheme of National Geospatial Programme Division (erstwhile NRDMS) at https://onlinedst.gov.in/**.**

Knowledge support	Implementation Support
A specialized portal (http://dst-iget.in) as a one stop knowledge resource has been developed jointly by the DST - NGP and Institute of Environment Education and Research, Bharati Vidyapeeth University (BVIEER). The man features of this portal are :	Monitoring and assessment are key components of a successful program. In order to ensure uniformity in implementation, assessment and evaluation as well as enable the development of a national database of trainees, the portal provides the following tools:

Knowledge support

- Structured curriculum with a tentative program schedule. The course curriculum followed for the three week program includes: theory, practical (hands on sessions) with open source geospatial software, field work, interactive sessions with experts and project work.
- Open source geospatial software
- Tutorials with data
- Teaching and learning resources

Implementation Support

- Common application form for participants
- Pre-assessment knowledge assessment tool
- Post program knowledge and skill assessment tool
- Online feedback form

Criteria for selection

- The PI must have proven expertise in the field of geospatial science and technology evidenced by publications / patents, experience in working with youth and conducting national level seminars and capacity building programs in same field and should hold a permanent position in the organization.
- Institutions must have at least 4 in-house faculty with required specialization for conducting ~ 70% of the course content, have high teacher/ student ratio for hands on practice.
- Must have strong infrastructure with reference to the inhouse guest house, well equipped facilities for hands-on training etc. All of the hands-on sessions must be conducted in the institutional laboratory only and not with laptops of participants. Kindly mention clearly if institutional laboratory will be available for use of participants during the course.
- Coordinators should be prepared for the residential course, however in view of current COVID-19 scenario, should be agreeable for shifting to online mode if needed.

Expectations from the coordinators

- It is mandatory for the PIs to attend a two day orientation program at the Institute of Environment Education and Research, Bharati Vidyapeeth, Pune prior to conducting the capacity building program. This may be conducted in online mode due to the present situation.
- Brochures of their proposed training program need to be uploaded on the http://dst-iget.in portal ATLEAST TWO MONTHS prior to conducting the program for wide publicity.
- PIs MUST take efforts to publicize the program within their states widely and make special efforts to get participants from government organizations, NGOs from interior areas within their states.
- PIs are expected to follow the course curriculum outlined in the portal for Level 1 and conduct the hands on session with open source geospatial software ONLY.
- PIs conducting a Level 2 program should clearly develop a set of hands on sessions with open source software only, building upon the curriculum of Level 1 in the proposal.
- All PIs of Level 1 and Level 2 must facilitate the implementation of a mini project by the participant. This is an integral part of the program content. All mini projects in designated format must be included with the final report.
- PIs conducting Level 2 programs must prepare four tutorials using open source software only in the chosen theme for upload on the portal. This is a pre requisite for final settlement of the grant.
- Pre and post assessment and feedback must be conducted by the PIs through the http://dst-iget.in portal.
- There must be a minimum of 25 and maximum of 30 participants for the program for all three programs.
- Research scholars from host and other institutions and representatives from NGOs should not exceed twenty percent respectively of the total participant strength in a particular program.

Expected participant profile of the 21 day summer/winter school in geospatial science and technology. (Level 1)

- Faculty of colleges and universities.

- State and central government officials.

- Personnel from research institutions.

- School teachers.

- Research Scholars*

- NGOs registered with the DARPAN portal*

(*Numbers of NGOs and Research Scholars are limited to not more than twenty percent of the total participant strength in a program).

Expected participant profile of the 21 day summer/winter school in geospatial science and technology. (Level 2)

- Same as Level 1

- The participants should have prior experience of working with geospatial software as this is an advanced course.

Expected participant profile of the three day Geo Innovation Challenge

- Young professionals under the age of 35 years with a doctoral degree from any recognized University and at least with one paper published in SCOPUS/Web of Science indexed journals.

- Individuals with industry or field experience and innovative original ideas without the required degree will also be considered.

Application Format

All proposals must be in the following format:

1. Name of the Principal Investigator

2. Designation   (also kindly indicate if it is a permanent position)

3. Date of Birth

4. Gender

5. Category (*SC / ST/ General*)

6. CV in the following format

Highest qualification	Subject area expertise	Teaching experience in years	Research experience in years	Research projects completed	Funding secured till date	No. of research publication including books, etc. (last five years)

7. Name of the Institution

8. Type of Institution (*Government / Private)*

9. Address of Institution

10. Website of Institution

11. Please indicate level of Summer/Winter School program to be conducted: *Level 1/ Level 2/ Geo Innovation Challenge*

12. Status of present infrastructure (kindly include photographs of labs, classrooms)
    a. Number of computers with configuration that will be available to the participants:
    b. Availability of licensed geospatial software with numbers:
    c. Availability of handheld navigation systems:
    d. Availability of internet with bandwidth

11. Particulars of courses being offered / training programs conducted by the organization in the last three years in the following format

S. No.	Dates of Training program conducted	Venue	Focus area of training program	Participant profile (teachers, govt. employees, other)	Number of participants

12. Names of the internal faculty with relevant qualification who WILL BE INVOVLED in the Summer /Winter school in Geospatial Science and Technology (Attach CV)

13. Particulars of facilities available with the institute for boarding and lodging of participants and external resource persons. Kindly make sure that this will be available to the participants. (Kindly include photographs of lodging facilities that will be made available to the participants).

14. Account details for fund transfer viz. Account holder name, Savings Bank Account Number, Name of the Branch, Branch Address, IFSC Code and MICR Code.

15. Proposal should be duly forwarded by the Head of the organization as well as endorsement from the PI (only soft copy).

16. Attach Any other information that may be deemed necessary by the organization (soft copy only).

17. The PI should access the website (http://dst-iget.in) prior to preparation of the proposal.

Endorsement from the Head of the Institution (only soft copy is needed).

A. Certified that the Institute welcomes of Prof./Dr._____ as coordinator for conducting the Summer /Winter school in Geospatial Science and Technology (Level ___) submitted to the Department of Science & Technology, Government of India.

B. Certified that the Institute will provide all the required technical, administrative and physical infrastructures facilities for conducting the Summer /Winter school in Geospatial Science and Technology submitted by the coordinator.

C. The Institute assumes the financial and other management responsibilities for conducting the Summer /Winter school in Geospatial Science and Technology submitted by coordinator.

Certificate from the Investigator

A. I agree to abide by the terms and conditions of the DST grant for conducting the Summer /Winter school in Geospatial Science and Technology.

B. I undertake to submit technical reports, statement of accounts, utilization certificates etc., for the sanctioned Summer /Winter school in Geospatial Science and Technology as prescribed by the DST.

C. I have enclosed the following materials as a **single pdf** alongwith the endorsement from the head of the institution on letterhead, duly signed and stamped.

Items
Endorsement from the head of the Institution (on letter head) duly signed and stamped.
Proposal as per the format

Name and signature of PI

Date:
Place: