GENERAL INFORMATION AND FORMAT

Call for proposals

to establish

Regional Centres for Geodesy (RCG)

National Centre for Geodesy

(www.iitk.ac.in/ncg)

Indian Institute of Technology Kanpur

Supported by

सत्यमेव जयते

Department of Science & Technology, Government of India

GENERAL INFORMATION

About NCG

The Department of Science and Technology (DST) identified Geodesy as one of the areas where well qualified technical manpower, research activities and geodetic infrastructure needs to be developed at the national level in order to keep pace with the fast-developing infrastructure requirements for the nation building. Hence, in September 2019, India observed the inauguration of the National Centre for Geodesy (NCG) at IIT Kanpur with support from DST. With the mandate of producing well-trained human resources and providing state-of-the-art facilities, NCG is actively involved in organizing training and research activities in the field of Geodesy. For details on NCG, please visit (www.iitk.ac.in/ncg).

BACKGROUND

Geodesy, the discipline of measuring and representing the Earth's surface, is one of the oldest sciences, which forms the fundamental basis for any Earth related studies including its atmosphere, oceans and biosphere. However, knowledge in this subject of basic science has been below par in this country due to many inexplicable reasons. In order to popularize this subject of scientific importance, a National Centre for Geodesy (NCG) has been set up at IIT Kanpur with approval and funding support from the Department of Science and Technology (DST), Government of India.

The objective of the NCG is to nucleate and strengthen education, capacity building, and R&D activities in the field of Geodesy, by conducting state-of-the-art research and development activities, organizing outreach activities, and by acting as the National Centre for extensive support to students and researchers working in the area of Geodesy through regular training programmes, fellowships, etc. In this regard, NCG organizes workshops, seminars, and training courses/schools on a routine basis, by inviting experts from abroad and India to impart Geodesy related knowledge to students and working professionals. It also extends training, laboratory and resource support for students and researchers from other universities and institutions, and also advises state/central government departments on various Geodesy related issues.

It is noticed that many institutions in India offer and award master and doctoral degrees in GIS and Remote Sensing. However, Geodesy, which is considered to be the foundation for all the geospatial technologies, is not covered in depth at most of these institutions, due to the lack of trained personnel and availability of latest geodetic equipment. This issue has been widely discussed at various forums where experts in the area of Geodesy have emphasized the need to develop adequately trained human resources and standardized course syllabus to expose the subject of Geodesy to the professionals, teachers, and students.

NCG has initiated activities on geodetic infrastructure developments, research and development, short- and long-term training programs, and establishment of Geodesy consortium. However, to bring changes at the national and international scale, active participation and support from other national institutions working in Geodesy and relevant disciplines is inevitable.

With this as the background, DST invites proposals for setting up regional centres for Geodesy (RCG) at institutions working in the area of Geodesy and relevant disciplines. The established RCGs will be working in tandem with NCG to spread Geodesy education and R&D in India and contribute towards the growth of geodetic infrastructure in India. Some initial handholding in terms of training students, researchers and faculty members in Geodesy will be provided by the NCG. Later on, the centers are expected to be self-sustaining of achieving its objectives and supporting other institutions.

WHO CAN SUBMIT PROPOSALS?

The proposal on Regional Centres for Geodesy (RCG) could be submitted for financial support by universities fulfilling the required conditions. Financial support is provided only for temporary staff salaries, domestic travel and other miscellaneous items. Support towards basic infrastructure and building shall be the responsibility of the university/institute.

OBJECTIVES OF RCG

The primary objectives of the RCG will be to work in tandem with the National Centre for Geodesy towards spreading education on the subject of Geodesy, capacity building, conducting state-of-the-art research and development activities, organizing outreach activities, establishing geodetic infrastructure, and supporting students and researchers working in the area of Geodesy through regular training programmes, fellowships, and resources.

DURATION AND EXTENT OF SUPPORT

The Centres will be supported in a time-bound manner normally for duration of 5 years depending upon the annual performance and the funding support will be up to a maximum extent of Rs. 3 crores.

MONITORING OF THE RCG

The functioning of the RCG will be monitored regularly through Progress Reports, Financial Statements and Committee of Experts in Group review meetings and onsite as well.

HOW TO SUBMIT THE PROPOSAL?

The proposals should be submitted as a single pdf document at **ncg@iitk.ac.in**. The format of submitting proposals for establishment of RCG is shown below:

Proposal to establish

Regional Centre for Geodesy

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1. BACKGROUND

Background on Geodesy, its applications and requirement.

(*Maximum one-page*)

2. ORIGIN OF THE PROPOSAL

Maximum one-page on how the idea originated.

3. OBJECTIVE

Planned objectives for setting up a regional centre for Geodesy.

4. ORGANIZATIONAL SET UP

Coordination committee at Institute level, their roles and responsibilities.

4.1 List of planned activities

Proposition of new courses, organization of training programs, joint degree programs and research projects.

4.2 Likely Societal Impacts

One-page writeup highlighting societal benefits.

4.3 Expectations for project to become self-sustaining

Brief explanation of plans and support towards self-sustainability of the local centre.

4.4 Deliverables

Proposed deliverables from the regional centre.

5. REVIEW OF THE STATUS

International and national status of Geodesy education and research.

6. STRENGTH OF THE INSTITUTE IN THE AREA OF GEODESY

Existing programs and courses, hardware and software resources, manpower available, etc.

7. BUDGETARY REQUIREMENTS

Budget required for establishment and maintenance of the regional centre with suitable justification.

8. SUPPORT IN KIND FROM THE INSTITUTE

Apart from the support expected from DST, institute support towards the setup of the centre must be specified. This may include allocation of building space and its maintenance administrative support to the Centre (including Finance & Accounts, Academics and Research), accommodation for students and staff, faculty and staff man hours, travel of faculty and researchers, access to existing institute facilities. The following table with indicative information can be used to submit this.

Table Indicative list highlighting support in kind by participating institute

Sr. no.	Item	Remark	Approx. value (Rs.)
1.	**Building space** Office space for staff, additional students, laboratory, equipment storage, meetings/seminars		
2.	Maintenance of building space		
3.	Administrative support for the Centre (including Finance & Accounts, Academics and Research)		
4.	Suitable accommodation for students and staff		
5.	Faculty man hours		
6.	Technical staff man hours		
7.	PhD students		
8.	Access to use of existing labs and institute facilities (e.g., HPC and Library)		

9. SUMMARY

Summary of the proposal (*maximum one page*)

APPENDICES

(Information to be provided in relevant areas only)

a) *Existing academic programs (UG/PG)*
b) *Available resources*
c) *List of PhD and Master's theses in Geodesy and relevant disciplines.*
d) *List of undertaken research and consulting projects*
e) *Outreach Activities/Short Term Courses*
f) *List of Publications (Last 5 Years)*

Timeline for proposal submission

Last date to submit the proposal: 31.08.2021