

# Geographic Information Science in Higher Education: The Kumaun University's Interventions



The Department of Geography, Kumaun University, SSJ Campus Almora started the development of Geographic Information System infrastructure for its applications in governance, education, and research in the Uttarakhand State in 2002 by Setting up a Natural Resources Data Management System (NRDMS) Centre and Creation of Digital Data for District Almora with the technical and financial support of the NRDMS Division, Department of Science and Technology (DST), New Delhi. Through this Centre, the GIS infrastructure for district Almora has been developed in association with different line departments as per their own needs.

In 2008, Kumaun University was identified for setting up the Centre of Excellence for NRDMS in Uttarakhand (COE NRDMS). Hi-tech laboratories of GIS Technologies, viz., GIS, GPS, Remote Sensing, and Computer Cartography have been established in the COE NRDMS.

The objectives of this Centre are to:

1. To develop and demonstrate methods and techniques for managing geospatial datasets in Uttarakhand in a better way.
2. To build the capacity of concerned stakeholders to support the provision and use of up-to-date Geographic Information Science for decentralized planning in the State; and
3. To conduct regular education, training and research programs in Geographic Information Science.



## GIS Capacity Building Initiatives of COE NRDMS

To fulfill the third objective of COE NRDMS and for producing skilled human resources in Uttarakhand, in particular, and India, in general, the COE NRDMS designed a M.Sc. Remote Sensing and GIS program which was started in 2008.

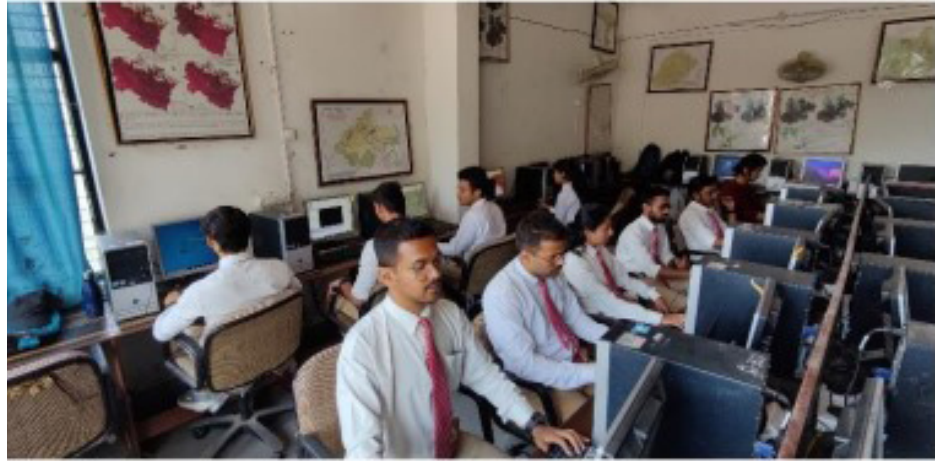
# कुमाऊँ विश्वविद्यालय

स्लीपी हॉलो, नैनीताल-263001, उत्तराखण्ड



# Kumaun University

(Accredited Grade "A" by NAAC)



The M.Sc. Remote Sensing and GIS program is a four-semester course spread over two years, that aims to impart state-of-the-art knowledge of Geographic Information Science to meet the emerging demands of geospatial knowledge in different sectors of development. The Centre has produced more than 300 students and professionals skilled in Geographic Information Science Technologies, i.e., Remote Sensing, GIS, Web GIS, GPS, DGPS, and Digital Cartography to date.

In view of the rising need of skilled human resources in Geographic Information Science in our country, the COE NRDMS has also designed Ph.D., Diploma Courses, and Certificate Courses in Geographic Information Science. It also has a vision to induct Geographic Information Science at undergraduate and secondary school levels in the near future. COE NRDMS also organizes Capacity Building Training for district and state level planners/administrators, teachers, researchers and students on the development, updating, and applications of Geographic Information Science in governance.

“Teaching students GIS is not just about preparing them for future careers; it's about equipping them with the spatial thinking skills needed to address complex environmental and societal challenges in an interconnected world. India needs skilled human resources and advanced research in GI Science Technologies, i.e., Remote Sensing, Geographic Information Systems, Artificial Intelligence, GPS, and DGPS. With the support of the NRDMS Division of DST, Government of India, the COE NRDMS in Uttarakhand is playing a crucial role in fulfilling this need through its varied programs in GIS.”

- Prof. J.S. Rawat, COE NRDMS, Uttarakhand

