



Make a career with a difference

B V I E E R

Why choose a career in Geoinformatics?

Ministry of Human Resources Development (MHRD), Government of India has addressed the issue of capacity building and geospatial education in the country by setting up Task Force in 2010. This Task Force has determined that geospatial professionals required in the country at three levels.

Level 1 - Geospatial skilled work-force – a category of large number of human resources required for meeting the ‘pyramid-base’ as the large work-force for survey/mapping/GIS operators etc. According to the report this requirement can be met by professional training through special training programmes. **Presently between 15,000-20,000 are available while the estimated additional need by 2015 is approximately 20,000 (ie. 4000-5000 per year).**

Level 2- Technical Geospatial Professionals - large number of geospatial professionals who have specific training and knowledge for specific tasks. These form the ‘pyramid middle’ and graduates with a specific 3-12 months training in a special geospatial technology (GPS Surveying; Mapping and Photogrammetry; Data Capture from Images; Geo-spatial database creation; Applications maintenance; QA/QC pro-

cesses and so on). **Presently between 6000-10000 are available while the estimated additional need by 2015 is approximately 15000 (ie. 2000-3000 per year).**

Level 3- Geospatial experts -who have a graduate/ masters degree in geospatial technology and form the ‘pyramid top’ of the work-force. These would be the Project Managers who are educated and have knowledge for independent handling of geospatial project elements and make a career in geospatial technology. These are basically Masters in Geoinformatics from the University systems. **Presently between 800-1200 are available while the estimated additional need by 2015 is approximately 5000-8000 (ie. 1000-1500 per year).**

This data indicates the tremendous growth and the need for professionals.

MHRD set up a Task Force in 2010 to address geospatial education, giving the subject a special status.

The twelfth five year plan emphasizes geospatial planning at all levels.

Where is geoinformatics used?

Geoinformatics is the technology for decision support for management of resources and facilities. Due to the highly spatial nature of data handled by a GI system, it is able to provide outputs to facilitate visualization of choices made thus enabling quick and accurate decision making.

Geoinformatics is an extended branch of information technology and involves the use of remote sensing, digital image processing, GPS technology, programming, etc. to build a geospatial database that can be queried to get the relevant answers. Geoinformatics combines geospatial analysis and modeling, development of geospatial databases, information systems design. Geoinformatics uses geocomputation and geovisualization for analyzing geoinformation.

Many fields benefit from geoinformatics, including urban planning, land use management, in-car navigation systems, environmental modeling and analysis, military, transport network planning and management, agriculture, meteorology and climate change, oceanography, business location planning, telecommunications, crime simulation, aviation and maritime transport.

The importance of the spatial dimension in assessing, monitoring and modeling various issues and problems related to sustainable management of natural resources is recognized all over the world.

Geoinformatics becomes very important technology to decision-makers across a wide range of disciplines, industries, commercial sector, environmental agencies, local and national government, research, and academia, national survey and mapping organisations, International organisations, emergency services, public health and epidemiology, crime mapping, transportation and infrastructure, information technology industries, tourist industry, utility companies, market analysis and e-commerce, mineral exploration, etc.

Many government and non government agencies have started to use spatial data for managing their day to day activities.

Geoinformatics is today often said to be on the key hotspot careers of this decade.



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Nature of careers in geoinformatics

A career in geoinformatics will have a tremendous positive impact on the world. Geoinformatics can be applied in every imaginable discipline and highly paid opportunities exist in several sectors.

Career opportunities lie in the field of land resource management, integrated emergency management, water management, disaster management, risk assessment, transportation, urban planning, environment, hydrology, forestry, agriculture, military, mining, business, health, defence, space research, geology and several related fields.

India entered the space age in 1972 with the establishment of the Department of Space and is among the top ten countries of the world in this field.

In India we have Space Application Centre at Ahmedabad, the National Remote Sensing Agency in Hyderabad that are the hotbed of geoinformatics research. Besides this every state has a Regional Remote Sensing Centre. Post graduate holders in Geoinformatics can apply for the post of Jr. Scientist, Scientist, Project Coordinator, Project Scientist, Scientific /Technical Assistant, GIS Programmer, Research Scholar, etc.

Besides these the rapidly growing GIS industry with ESRI, Rolta, Intergraph, Wipro, TCS, Infosys, TomTom, Genesys and others recruit regularly where postgraduates can start work as Project Manager, Sr. System Executive, System Analyst, GIS Engineer, Image Analyst, GIS Programmer etc.

Jobs also exist in allied institutes working in the field of environment, biodiversity conservation, forestry, landscape studies, water management, health, etc. where geoinformatics is an indispensable tool.

There is also a huge demand for geoprofessionals from countries like Malaysia, Australia, Canada, France, Germany, Netherlands, China, etc.

This field has tremendous scope for entrepreneurship and with bank loans being easily available, for the enterprising individual the sky is the limit.

The salaries in these sectors range from Rs. 3.00 lakhs per annum to Rs. 7.00 lakhs per annum for a fresh graduate depending upon skills and expertise.



Why choose BVIEER?

Today there are a large number of Universities that offer a Masters/Doctoral program in Geoinformatics

However doing the course from a dedicated institute like the Institute of Environment Education and Research, Bharati Vidyapeeth University, Pune, (BVIEER) that have special expertise that translates into stronger courses and pedagogy helping students to jumpstart a geoinformatics career.

The BVIEER set up in 1994 is a premier institute part of the Bharati Vidyapeeth University (a fifty year old institution) which is a NAAC accredited 'A' grade (2004) and reaccredited 'A' grade (2011), UGC 'A' grade ranked University.

It is a unique educational and research institution with its innovative teaching program that supplements classroom teaching with field work, guest lectures, group discussions, projects and internships. It has worked with several live geoinformatics projects contributing to policy formations and furthered academic excellence through various collaborations with international Universities such as the University of Cologne, Germany, University of Maastricht, Netherlands and host of national institutions.

Its alumni are today well placed in national and international organizations of repute and are building satisfying careers.

Students joining BVIEER would have an opportunity to be a part of the multitude of projects implemented by the faculty providing them with hands-on experience even before passing the course. Through its collaborations, students have an opportunity to interact with prospective employers. Research at the BVIEER range from use of GIS in wildlife management, Protected Area management, landscape linkages, building of underpasses and overpasses in highway construction, setting India's first geospatial education and training portal, etc.

The BVIEER lab is state of art with latest software and hardware that enables students to acquire hands on skills.

Highlights of the BVIEER course

Choice based credit system

International internships

State of art laboratory

Highly qualified and expert faculty

For admission queries

Email: admission@bvieer.edu.in

Call : 08380846282
020-24375684
020-24362155

Common Entrance Test for admission to M.Sc. (Geoinformatics) on Saturday 4th June 2016

For more information log on to <http://ieer.bharativedyapeeth.edu>

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