

# *M.Tech. in Remote Sensing & GIS*

**At Indian Institute of Remote Sensing (IIRS)  
(A Joint Program of Andhra University & IIRS)**

## *Our Institute*

The Indian Institute of Remote Sensing is a premier national institution under National Remote Sensing Agency, Department of Space, Government of India for education and training in the field of Remote Sensing and Geographical Information Systems applications. The institute was formerly known as Indian Photo-interpretation Institute and was set up under Survey of India in 1966. In 1976 this institute was merged with National Remote Sensing Agency and was renamed as "Indian Institute of Remote Sensing (IIRS)" in 1983.



## *Our Aim*

The main area of the function of our institute is capacity building in the area of remote sensing, photogrammetry, GIS, GPS and all associated geospatial through technology transfer among user community and education at post-graduate level.

## *Our Infrastructure & Facilities*

Our institute has excellent infrastructure state of the art computer facilities to conduct several training programs pertaining to the techniques of aerial photo interpretation and remote sensing. This institute offers several courses of different duration with the course contents suiting the needs of the user. IIRS has two technology divisions, which deal with Photogrammetry, Remote Sensing and Geoinformatics. The other six divisions are looking after the application part in - agriculture and soil; forestry and ecology; geosciences; human settlement analysis; marine science; water resources. We have a team of around fifty scientists imparting training on the application of remote sensing and geoinformatics.

## *Our Alumni*

We have trained around 5700 persons in this field which includes more than 500 foreign participants from the 45 countries of the Asia Pacific Region and Africa.

## *Our Courses*

A brief list of our courses are presented here: Remote Sensing and GIS & Monitoring of Natural Resources, Geoinformatics Technology and Applications, Environmental Assessment and Disaster Management, (EADM), Remote Sensing Applications: Theme Specific Certificate Course, Decision Makers Course, International Programs, NNRMS-ISRO sponsored courses for University Faculty. More details and updates are available on our web site [www.iirs-nrsa.gov.in](http://www.iirs-nrsa.gov.in).

## ***M.Tech. in Remote Sensing & GIS***

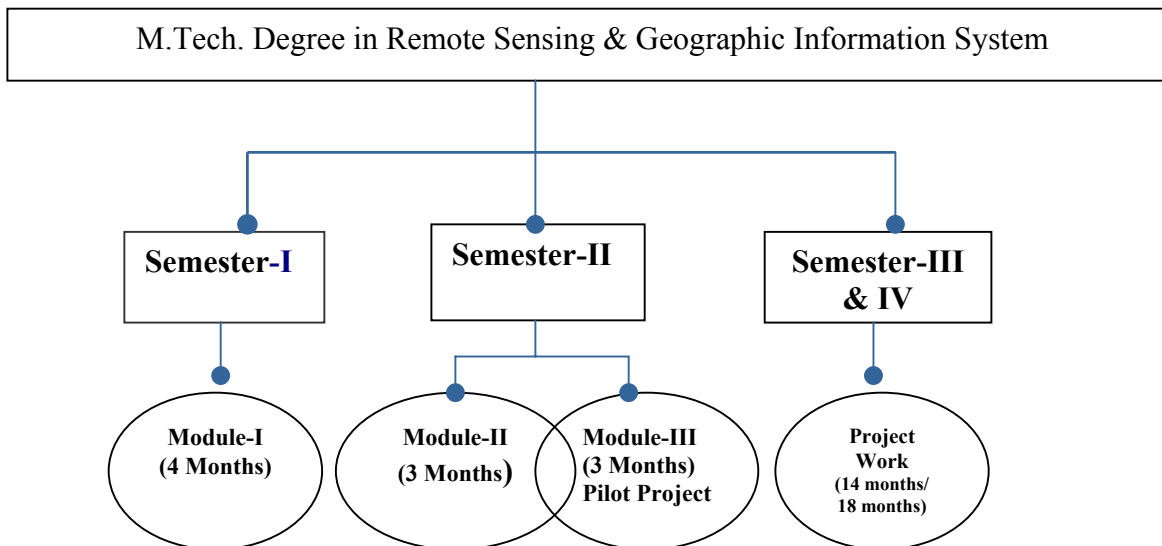
The M.Tech. program, affiliated to Andhra University, Visakhapatnam, was initiated in April, 2001 & up to now 14 students of first batch IIRS have received M.Tech. Degrees. The M.Tech. program consists of four Semesters. The total duration of the program is 24 months for self sponsored candidates and 28 months for government sponsored candidates (those who do M.Tech. as a part time). The successful candidates on completion of Semester-I and II will be admitted to the M. Tech degree program for the continuation of project work (14 months duration for self sponsored/18 months duration for government sponsored) towards the award of M. Tech degree. On successful completion, the candidates will be awarded M.Tech degree by Andhra University.

### ***Admission Requirement***

The applicants for M. Tech courses are required to have passed, at least in second class with not less than 55% marks in any one of the following subjects presented in table 1

<b>M. Sc/M. Tech Degree</b>	<b>B.E/B. Tech Degree</b>
Physics, Mathematics, Applied Mathematics, Statistics, Geophysics, Meteorology, Oceanography, Geology, Geography, Urban and Regional Planning, Master's in Urban Planning/City Planning/Physical Planning/Regional Planning Any Natural /Environmental Science discipline, Environmental Management	Civil Engineering, Electrical Engineering Computer Science, Computer Engineering, Electronics, Agriculture Engineering, Urban and Regional Planning, B.Arch./M.Arch./B.Physical Planning or B.Sc Agriculture or Forestry (4 years)

**Table1: Required qualification for admission**



**Figure 1 : Course Structure of M. Tech Degree**

## Examination Pattern

The written examinations will be held during the first two semesters. Examinations will be held at two levels: semester end examination and internal assessment. The candidate is required to secure 50% of marks in the internal examination in order to qualify to appear the semester examination in that subject failing which the candidate is required to repeat the internal examination. Candidates who have secured not less than at least 40% in any of the theory papers and not less than 50% in total maximum marks of the theory paper and internal put together shall be declared to have passed the examination in that subject. In case of subjects in which no written examination is prescribed, candidates should secure 50% of marks allotted to each of these subjects. The semester end examinations, pilot project and project evaluation will be external.

## Course Syllabus

Semester I consists of module I, in which basics of remote sensing, photogrammetry, image interpretation, advanced topics on remote sensing and geographical information system etc. are covered. The duration of Module-I is 4 months. The Semester-II covers the different specialized themes that are being taught in IIRS:

- |                           |                              |
|---------------------------|------------------------------|
| <a> Agriculture and Soils | <d>Human settlement Analysis |
| <b> Forestry and Ecology  | <e>Marine science            |
| <c> Geosciences           | <f>Water resources           |

The Semester-II consists of two modules: Module-II and Module-III. The Module-II covers the theory and practical aspects of each specialized discipline. The duration of Module-II is three months. In Module-III the candidate has to do a dissertation work in his or her own specialized discipline. The duration of Module-III is three months. The semester III & IV is of 14 months duration for self sponsored candidates and 18 months for government sponsored candidates respectively.

## Course Fee

The prevailing course fees for M. Tech. Degree is Rs.1,44,000 (subject to change as per IIRS Rules). The self-sponsored candidates should send the Demand Draft payable to "The Accounts Officer, IIRS" at Dehra Dun along with the application form. There is no course fee for Central Government, State Government and University-sponsored candidates. (However, all the M.Tech. candidates have to deposit Rs.3800/- as registration fee to Andhra University during M.Tech defence seminar.) The sponsoring authority in the University should not be less than the rank of Vice-Chancellor, Registrar and Dean of Studies. **The sponsored candidates must be holding permanent position in the University/Institute from which they are being sponsored.** Self-Financed candidates have to deposit/remit one month prior to the commencement of the course a security deposit of Rs.6000/-; failing which seats would be offered to waitlisted candidates. The sponsored candidates have to carry out one year research project in their parent organization.

## ***Other Expenses***

Monthly living expenses towards boarding in the IIRS Hostel come to about Rs.2000/-. The sponsoring agencies are expected to bear the personal expenses (travel allowances, daily allowances, and stationary coast for bringing out project report which may cost about Rs.6000/- for M.Tech. Degree, approximately) of the candidates for field work, short visits and project work. We recommend that an additional expenditure of Rs. 3000/- may be provided by the sponsors for purchase of essential books and other course material.

## ***Time Schedule***

This program is scheduled to start from first week of March every year. The completed application form should reach IIRS during end of January. The selected candidates will be informed one month before the commencement of the course. If necessary, the selection process could include an interview/written examination at Dehradun. The applicants will have to meet their own expenses for appearing before the selection committee.