



भारतीय सुदूर संवेदन संस्थान
Indian Institute of Remote Sensing
देहरादून Dehradun

iirs

Placement
Brochure **2026**

➤ M.Sc.

➤ PGD

Vision

"Achieve excellence and remain in the forefront for capacity building in Remote Sensing & Geoinformatics and their applications"



Mission

"Transfer technology through capacity building and research in the field of Remote Sensing and Geoinformatics for sustainable development"

DIRECTOR'S DESK



Indian Institute of Remote Sensing (IIRS) under Indian Space Research Organisation (ISRO), Department of Space, Govt. of India is a premier training and educational Institute established in 1966 and committed to prepare Professionals in the field of Remote sensing, Geoinformatics and GPS Technology for Natural Resources, Environment and Disaster Management. The Institute also hosts Centre for Space Science & Technology Education in Asia and Pacific (affiliated to United Nations) and conducts International Training Programmes. The training and education programmes conducted by the Institute include: i) M.Sc. and P.G.D. (Geoinformatics) courses conducted in collaboration with the Faculty of Geo-information Science & Earth Observation (ITC) of the University of Twente (UT), The Netherlands ii) Post-graduate Diploma (PGD) in Remote Sensing and GIS in nine disciplines. The Institute also conducts various other courses, namely i) Certificate programmes (including NNRMS-ISRO sponsored programme for University faculty) ii) Special on demand/tailor-made courses. The Institute has so far trained 16,457 professionals representing 116 countries from the Asia, Africa and South America.

Under the Outreach Programmes, the Institute conducts several courses for working professionals, researchers and students through state-of-the-art studio and e-learning concept. Currently, 4476 Institutes/Organizations spread across India are networked with IIRS. More than 15.70 lakh participants have benefitted so far from IIRS Outreach Programmes.

The Placement Brochure of 2026 includes the skills acquired by IIRS students through training/education and project work that they have carried out as a part of their Course Curricula. I am sure that the Placement Brochure shall be helpful to the Geospatial Industry, Academia and other Institutions to pick the talent and also provide opportunity to the course participants for their placement.

I wish very bright future and steady career for our students.

A handwritten signature in blue ink, which appears to read 'Raghavendra Pratap Singh'. The signature is stylized and written in a cursive-like font.

Dr. Raghavendra Pratap Singh
Director, Indian Institute of Remote Sensing

Contents

Director's Desk

PAGE

1

Profile of the
Institute

PAGE

2\$

P.G.D. (Geoinformatics)
Profile of the Batch 2024-2025

PAGE

2

Training, Education &
Capacity Building Programmes

PAGE

&&

Picture Gallery

PAGE

4

P.G.D. (RS & GIS)
Profile of the Batch 2024-2025

PAGE

27

Contributor Team

PAGE

%

M.Sc
Profile of the Batch 2023-2025

PROFILE OF THE INSTITUTE

The Indian Institute of Remote Sensing (IIRS) is a constituent unit of Indian Space Research Organisation (ISRO), Department of Space, Govt. of India. Since its establishment in 1966, IIRS is a key player for training and capacity building in geospatial technologies and its applications through training, education and research in Southeast Asia. The training, education and capacity building programmes of the Institute are designed to meet the requirements of Professionals at working levels, fresh graduates, researchers, academia, and decision makers. IIRS is also one of the most sought after Institute for conducting specially designed courses for the officers from Central and State Government Ministries and stakeholder departments for the effective utilization of Earth Observation (EO) data. About 40 courses are conducted every year and 16,457 professionals and students have been trained/educated, so far.

To widen its outreach, IIRS has started live and interactive Distance Learning Programme (DLP) since 2007. As on date, 4476 Institutes/Organizations are networked with IIRS and more than 15.70 Lakh participants have attended various basic and advanced courses conducted by the Institute. IIRS has also launched e-learning course on Remote Sensing and Geo-information Science.

The Institute has a strong, multi-disciplinary and solution-oriented research agenda that focuses on developing improved methods/ techniques for processing, visualization and dissemination of EO data & Geo-information for various societal applications and better understanding of Earth's system processes. Microwave, hyperspectral and high-resolution EO data processing and their applications is the main research focus, currently. State-of-the-art laboratory and field-based instrumentation and observatories network help meeting the research goals and objectives.

IIRS hosts headquarters of Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP), affiliated to the United Nations and provides support in conducting the Remote Sensing and GIS training and education programmes. IIRS also plays a key role in the activities of Indian Society of Remote Sensing (ISRS), which is one of the largest non-governmental Scientific Societies in the country.

Training, Education & Capacity Building Programmes

The training and capacity building programmes of the Institute are designed to meet the requirements of various target/user groups, i.e., for professionals at working, middle and supervisory levels, fresh graduates, researchers, academia and decision makers. The duration of courses ranges from one-week to two-years. The programmes are meticulously designed by the domain experts, and are then approved by the Board of Studies (BoS) and Academic Council (AC) consisting of eminent subject experts. A team of sixty-six dedicated scientists at IIRS contribute in delivering the course contents. Guest faculties from reputed organizations Institutes in the country and abroad are regularly invited to share their knowledge and experience with the course participants. The training and education programmes conducted by the Institute include:

1. M.Sc. and PG Diploma (PGD) in

Geoinformatics conducted in collaboration with the Faculty of Geoinformation Science & Earth Observation (ITC) of the University of Twente (UT), The Netherlands.

2. PGD in Remote Sensing and GIS in nine disciplines,

The Institute also conducts various other courses, namely i) Certificate programmes (including NNRMS-ISRO sponsored programme for University faculty), ii) Special on-demand/tailor-made courses. The Institute has so far trained 16,457 professionals representing 116 countries from the Asia, Africa and South America.

Under the Outreach Programmes, the Institute conducts several courses for working professionals, researchers and students through state-of-the-art studio and e-learning concept. Various institutions and organisations spread across India are networked with IIRS.

More than 15.70 lakh participant have benefitted so far from IIRS Outreach Programmes.

The Institute also provides opportunities to external students to pursue their research under the guidance of IIRS faculty. IIRS is a recognized centre for carrying out research leading to PhD by Forest Research Institute (Deemed University), University of Pune, Doon University, Kumaon University, Uttarakhand Technical University and IIT, Roorkee. About 60 researchers who have worked under IIRS faculty have received Ph.D. degrees till date from different universities. External Post-graduate/ Graduate students are also given opportunity to conduct their project work under the guidance of IIRS faculty.

For further details please visit IIRS website at <https://www.iirs.gov.in>

A vibrant, futuristic space scene. In the upper right, a satellite with blue solar panels and a yellow body orbits. The background is a colorful nebula with red, orange, and blue hues. Several planets of various sizes and colors (grey, blue, green) are scattered throughout. In the lower half, a large ringed planet with a bright yellow ring system is visible. The overall atmosphere is one of deep space exploration.

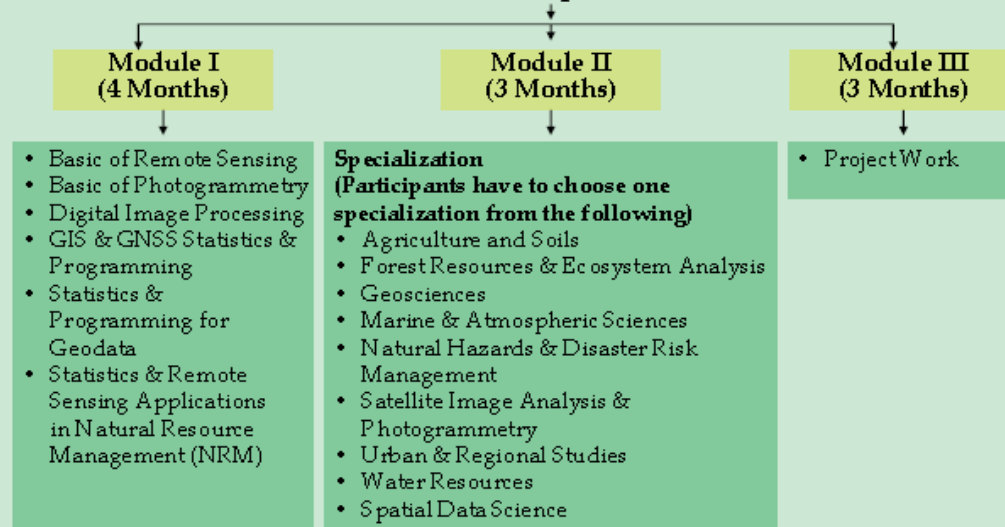
Brief profile of final year students

Long-term courses: PGD (2025-26) & M.Sc (2024-26)

The PG Diploma programme aims to provide in-depth understanding of remote sensing, satellite image analysis, GIS and GNSS technologies and their applications in various fields viz., Agriculture & Soils, Forestry & Ecology, Geosciences, Water Resources, Marine and Atmospheric Sciences, Urban and Regional Studies, Large-scale Mapping, Disaster Management Studies, etc. The PG Diploma course is modular in structure. First module covers basics of geospatial technologies, second module deals with thematic disciplines, and third module contains pilot project work. The PG Diploma programme is conducted in following disciplines:

- Agriculture and Soils
- Forest Resources & Ecosystem Analysis
- Geoinformatics
- Geosciences
- Marine & Atmospheric Sciences
- Natural Hazards & Disaster Risk Management (NHDRM)
- Satellite Image Analysis & Photogrammetry
- Urban & Regional Studies
- Water Resources
- Spatial Data Science

P.G. Diploma



| Core paper under each specialization in module II of PGD | | | |
|--|--|--|--|
| Agriculture & Soils Land Use & Soil Resource Assessment Agri-informatics Environmental Soil Science Satellite Agrometeorology | Forest Resources & Ecosystem Analysis Forest Mapping & Monitoring Forest Inventory Forest Informatics Forest Eco-System Analysis | Marine & Atmospheric Sciences Satellite Oceanography Satellite Meteorology Coastal Processes and Marine Ecology Atmospheric and Ocean Dynamics | Geoinformatics Spatial Data Quality Programming Skills Development for Geo-Processing Spatial Database Handling, Modelling & GIS Implementing Architectures Geo-Statistics |
| Geosciences Earth Science and Planetary Geology Data Processing and Analysis for Geosciences Applied and Tectonic Geomorphology Engineering Geology and Groundwater | Satellite Image Analysis & Photogrammetry Emerging Sensors and Data Processing Image Processing Algorithms Digital Photogrammetry and Mapping Mathematical Computing for Geospatial data analysis | Natural Hazards & Disaster Risk Management (NHDRM) Natural Hazards and Disaster Management Concepts & Overview Image Interpretation and Analysis for Natural Hazards Assessment Application of Geoinformatics to Environment Hazards Application of Geoinformatics to Geological Hazards Application of Geoinformatics to Hydro-meteorological Hazards | Water Resources Satellite Hydrology Watershed Hydrology and Conservation Planning Water Resources Development Water Resources Planning Management |
| | Urban & Regional Studies Fundamentals of Urban and Regional Planning Geospatial Technologies for Urban & Regional Area Analysis Urban Resources, Services and Facilities Analysis Advanced Geospatial Technologies for Urban and Regional Studies | Spatial Data Science Big Data Analysis Machine Learning Programming for Geodata Processing Spatial Modelling and Data Assimilation | |

mandalmridula15@gmail.com



Ms. MRIDULA MANDAL

Qualifications

PGD in Remote Sensing & GIS (Specialization: Marine & Atmospheric Sciences) M.Sc in Environmental Science and Technology, B. Sc. (Chemistry,

Area of Interest

Climate Change Studies, Numerical Weather Prediction and Forecasting, Climate Modelling, Applications of Remote Sensing & GIS, Air Pollution, Aerosols, Meteorology and Monsoon Studies, Extreme Weather Events.

Software Skills

ArcGIS, QGIS, SNAP, ENVI, ERDAS Imagine, Google Earth Pro, GrADS, Python, R.

dasari.met@gmail.com



Mr. DASARI CHIRANJEEVI

Qualifications

PGD in Remote Sensing & GIS (Specialization: Marine & Atmospheric Sciences), M.Tech in Atmospheric Science and Technology, B.Tech. in Civil Engineering.

Area of Interest

weather and climate extremes, climate and infectious diseases, weather and climate risks, climate impacts, Regional and global chemistry transport modeling for air quality and process level chemistry, Remote sensing of tropospheric trace gases and satellite data assimilation for emission inventory. Air quality impact on health and ecosystem.

Software Skills

Python, R, MATLAB, FORTRAN, Shell Script | GrADS, Ferret, CDO, NCL | WRF, ICTP RegCM | QGIS, ERDAS Imagine | Microsoft Office | Data Science, Machine Learning, Deep Learning.

yuvrajtn12@gmail.com



Mr. YUVRAJ TANDON

Qualifications

PGD in Remote Sensing & GIS (Specialization: Geosciences), M.Sc. Applied Geology (Petroleum Geosciences), B.Sc. (Geology, Physics, Mathematics).

Area of Interest

Application of Remote Sensing and GIS in Hydrocarbon and Mineral Exploration, Microwave Remote Sensing, Hyperspectral Remote Sensing, Geomorphology, Planetary data analysis, Geomorphology of Moon and Mars, Petroleum geology, Well logging, Geophysics, GNSS, Digital Image Processing.

Software Skills

QGIS, Arc GIS Pro, ERDAS Imagine, ILWIS, ENVI, SNAP, Google Earth Pro, Google Earth Engine, RStudio, Python, HTML, MS Office.

vinatisirkeckirs@gmail.com



Ms. VINATI SIRKECK

Qualifications

PGD in Remote Sensing & GIS (Specialization: Forest Resources & Ecosystem Analysis), BSc. (Hons) Forestry.

Area of Interest

Vegetation Mapping and Monitoring, Forest Resource Inventory, Ecosystem Analysis, Conservation Planning

Software Skills

QGIS, Google Earth Engine, RStudio, ERDAS, MaxEnt, SNAP, ArcGIS, Python.

utkarshdubeyiirs@gmail.com



Mr. UTKARSH DUBEY

Qualifications

PGD in Remote Sensing & GIS (Specialization: Forest Resources & Ecosystem Analysis), MSc. (Environment Science).

Area of Interest

Vegetation mapping and monitoring, conservation planning, ecosystem analysis, forest inventory, Wildlife Habitat Suitability : Corridor, LULC change detection, Species Distribution Modelling

Software Skills

GEE, QGIS, R, ERDAS, MaxEnt, Excel, MS Office, Python

skshibhatt432@gmail.com



Ms. SAKSHI BHATT

Qualifications

PGD in Remote Sensing & GIS (Specialization: Water Resources), B.Tech -Civil Engineering.

Area of Interest

Integration of Remote Sensing & GIS with Civil Engineering, Geospatial Analysis for Infrastructure Planning, Watershed Management & Hydrological Modeling, Flood Risk Assessment & Disaster Management, Urban & Regional Planning using Geospatial Tools, Surveying & Terrain Analysis, Environmental Impact Assessment, Sustainable Infrastructure Development.

Software Skills

ArcGIS, QGIS, ERDAS Imagine, ENVI, HEC-RAS, HEC-HMS, AutoCAD (Basic), Google Earth Pro, SNAP (Basic), Basic DEM & GIS-based Analysis Tools.

kishangowdgiirs@gmail.com



Mr. KISHAN GOWDA G C

Qualifications

PGD in Remote Sensing & GIS (Specialization: Forest Resources & Ecosystem Analysis), BSc. (Hons) Forestry.

Area of Interest

Carbon modelling (process-based and semiempirical), Wildlife Habitat Suitability Analysis, Ecosystem Analysis, Forest Fire Monitoring and Mitigation, Carbon Credits, VCM, Forest Management, Forest Certification and Agroforestry.

Software Skills

Python, R, Google Earth Engine, 3D Forest, QGIS and ArcGIS.

Jupadhaya645@gmail.com



Ms. JYOTI

Qualifications

PGD in Remote Sensing & GIS (Specialization: Natural Hazards & Disaster Risk Management), BSc forestry.

Area of Interest

Forest and wildlife management, GIS and remote sensing analysis, climate change and carbon management, environmental impact assessment, Agroforestry, and disaster management.

Software Skills

QGIS, Python, ARC GIS pro, ERDAS, ArcGIS, MS Office.

vijaydataofficial@gmail.com



Mr. VIJAYKANTH V

Qualifications

PGD in Remote Sensing & GIS (Specialization: Satellite Image Analysis & Photogrammetry), B.E. in Computer Science and Engineering, M.Tech in Information Technology.

Area of Interest

Satellite Image Analysis, AI/ML for Earth & Planetary Observation, Full Stack Developer, Photogrammetry, SAR Remote Sensing, Subsurface Lunar Analysis using SAR Data (XSpaceGo Algorithm), Space Applications.

Software Skills

Python, Machine Learning, Deep Learning, Computer Vision, GIS, Remote Sensing, Photogrammetry, ArcGIS, QGIS, ENVI, ERDAS Imagine, SNAP, Google Earth Engine, PostgreSQL, eCognition, MATLAB, Raster & Vector Analysis.

karuna.prashant0149@gmail.com



Dr. KARUNA CHAUDHARY

Qualifications

PGD in Remote Sensing & GIS (Specialization: Urban & Regional Studies), Ph.D.

Area of Interest

Population Grid Application in Regional and Urban development, Spatial planning, Urban Growth Analysis.

Software Skills

ArcGIS pro, QGIS, Google Earth Engine (GEE), ERDAS Imagine, Python (Basic), R studio, MS Excel, Remote Sensing and GIS Tools, GPS Survey tools, eCognition.

nandiniambikaiirs@gmail.com



Ms. AMBIKA NANDINI R MENON

Qualifications

PGD in Remote Sensing & GIS (Specialization: Forest Resources & Ecosystem Analysis), Integrated MSc.

Area of Interest

Wildlife Conservation and Management, Ecological niche modelling, climate change, change detection

Software Skills

ArcGIS, QGIS, ERDAS, R studio, Python, Google earth engine

molugubhanprabhas@gmail.com



Mr. MOLUGU BHANU PRABHAS

Qualifications

PGD in Remote Sensing & GIS (Specialization: Forest Resources & Ecosystem Analysis), B.Sc. (Hons) Forestry.

Area of Interest

Ecology, Ecosystem analysis, Biodiversity conservation and management, wild life, animal telemetry, habitat planning and conservation, Wildlife photography.

Software Skills

ARCGIS, QGIS, ERDAS, R Studio, Google Earth Engine, Chat GPT.

anuragborah06@gmail.com



Mr. ANURAG BORAH

Qualifications

PGD in Remote Sensing & GIS
(Specialization: Spatial Data Science),
M.Sc. in Physics.

Area of Interest

Physics, Atmospheric Physics, Remote Sensing, Data Science, SAR, Quantum Computing, Microwave Electronics.

Software Skills

Python, ArcGIS Pro, QGIS, ERDAS Imagine, PostgreSQL, NoSQL, MongoDB, GEE, Google Earth Pro, ENVI, SNAP, C++, MATLAB, HFSS, Linux/Ubuntu, Machine Learning, Deep Learning, GeoAI, GDAL, OGR, Rstudio, Parallel Programming, Distributed Computing.

pranathichalavadi2003@gmail.com



Ms. CHALAVADI SAI PRANATHI

Qualifications

PGD in Remote Sensing & GIS
(Specialization: Agriculture & Soils),
B.Sc. Agriculture.

Area of Interest

Precision farming for Sustainability, Soil Health and Carbon Sequestration, Land Use Land Cover (LULC) Analysis, Crop Modelling and Yield Prediction and Soil Mapping.

Software Skills

QGIS, ERDAS imagine, ENVI, ArcGIS, SNAP, Google Earth engine, Excel, Python, Programming.

magdum1003@gmail.com



Mr. SOMESH SANJAY MAGDUM

Qualifications

PGD in Remote Sensing & GIS
(Specialization: Agriculture & Soils),
B. Tech in Agricultural Engineering

Area of Interest

Soil Mapping, Digitization, Crop Health Study, Crop Growth Modelling by Empirical & ML, Soil Degradation & Erosion Prediction and Mapping, Flood Mapping & Impact Estimation, Soil Conservation Management, Site Suitability Analysis, Multi Sensor Data Analysis, Temporal Data Analysis, Atmospheric and Geometric Correction.

Software Skills

ERDAS, AUTO CAD, QGIS, ArcGIS, Google Earth Engine, ENVI, R-studio, SNAP, Google Earth Pro

isha.iirs2025@gmail.com



Dr. ISHA VERMA

Qualifications

Ph.D in EVS, NET/JRF in EVS, PGD in Remote Sensing & GIS
(Specialization: Natural Hazards & Disaster Risk Management)

Area of Interest

Mapping, Monitoring & Modelling of Saline (Problematic) Soil with RS&GIS, Disaster Management with RS and GIS,.

Software Skills

QGIS, ArcGIS pro, ERDAS IMAGINE, Python.

zahidurhasanalom@gmail.com



Mr. ZAHIDUR HASAN ALOM

Qualifications

PGD in Remote Sensing & GIS (Specialization: Agriculture & Soils), M.Sc. in Agricultural Meteorology, B.Sc. (Hons.) in Agriculture

Area of Interest

Climate Change Studies in Agriculture, Sustainable Agriculture, Precision Agriculture, Artificial Intelligence in Agriculture, UAV-based Remote Sensing, Crop Growth Monitoring, Biophysical Parameter Retrieval for Vegetation, Crop-Weather Relationship, Evapotranspiration, Agricultural Drought, Crop Modelling, Yield Estimation.

Software Skills

Python, R, ENVI, ERDAS Imagine, SNAP, ArcGIS, QGIS, Google Earth Engine, DSSAT, Weather Cock, IBM SPSS, XLSTAT, Microsoft Office

pdbarma01@gmail.com



Mr. PIRSA DEBBARMA

Qualifications

PGD in Remote Sensing & GIS (Specialization: Satellite Image Analysis & Photogrammetry), B. Tech in Computer Science & Engineering.)

Area of Interest

Satellite Image Analysis & Digital Image Processing, Intelligent Land-Cover Classification & Semantic Segmentation, LiDAR Analytics & Computational Photogrammetry-3D Reconstruction, Applied Machine Learning for Remote Sensing, Automated Geospatial Workflows & Model Building.

Software Skills

Python, C/C++, R, SQL, Numpy, Matplotlib, HTML5, CSS3, React.js, OpenCV, Git, GitHub, QGIS, ArcGIS, ERDAS Imagine, ENVI, Google Earth Engine (GEE), Ecognition, Meshroom, Pix4Dmapper, CloudCompare, Blender, VS Code, Jupyter Notebooks, Linux/Ubuntu, Google Colab.

saritagbora@gmail.com.



Ms. SARITA BORA

Qualifications

PGD in Remote Sensing & GIS (Specialization: Forest Resources & Ecosystem Analysis), M.Sc. in Microbiology.

Area of Interest

Remote Sensing and GIS application in Ecotoxicological and Environmental Monitoring, Forest health assessment, Biodiversity Analysis, Ecological Modelling and Habitat Mapping.

Software Skills

Arc-GIS, QGIS, ERDAS, Google Earth Engine, RStudio.

himan002q1234@gmail.com



Mr. HIMANSHU KUMAR

Qualifications

PGD in Remote Sensing & GIS (Specialization: Agriculture & Soils), B.Sc. in Agriculture.

Area of Interest

Precision agriculture, crop monitoring and management, IS consulting for horticulture projects.

Software Skills

Python, QGIS, ArcGIS, ERDAS imagine, Google Earth engine.

sankeerthanaponnoju03@gmail.com



Ms. PONNOJU SANKEERTHANA

Qualifications

PGD in Remote Sensing & GIS (Specialization: Urban & Regional Studies), Bachelor's in Architecture.

Area of Interest

UAV/Drone-based Urban Monitoring, OBIA with AI/ML, Digital Twin Cities, Sponge Cities, 3D Base Maps and GIS, Urban Growth and Land Use Change Assessment, LIDAR-based Mapping, Urban corridor analysis, Urban Physics, Watershed.

Software Skills

Adobe InDesign, Adobe Photoshop, Adobe Illustrator, AutoCAD, Revit, Sketchup, 3DS Max, V-Ray for Max, QGIS, ArcGIS Pro, Snap, Enscape, Erdas Imagine, R studio, eCognition, ENVI, Civil 3D, GEE.

anishamazumdar2@gmail.com



Ms. ANISHA MAZUMDAR

Qualifications

PGD in Remote Sensing & GIS (Specialization: Forest Resources & Ecosystem Analysis), M.Sc. in Zoology; B.Sc. in Zoology.

Area of Interest

Wildlife Habitat Suitability and Corridor Mapping, Environment Impact Assessment, Land Use Land Cover Mapping and Change Detection, Biodiversity Assessment and Conservation Planning, Human-Wildlife Conflict Analysis, Species Distribution Modelling for Wildlife Conservation.

Software Skills

QGIS, Arc GIS, ERDAS Imagine, Google Earth Pro, Google Earth Engine, RStudio, Python, MS Office, Fragstats, AutoCad, MaxEnt.

iirs.shahu@gmail.com



Mr. SHAHU UDARAM PATIL

Qualifications

PGD in Remote Sensing & GIS (Specialization: Satellite Image Analysis & Photogrammetry), BE-Civil and Infrastructure Engineering.

Area of Interest

Modern Surveying Techniques
GNSS / DGPS-Based Surveying and Mapping
Photogrammetry and Stereo Image Processing
3D Modelling and DEM / Terrain Modelling
GIS-Based Spatial Analysis and Mapping
Urban and Infrastructure Planning using GIS
Water Resources Assessment and Management
Dam Breach Modelling and Flood Inundation Simulation
Geospatial Applications for Sustainable Development,

Software Skills

AutoCAD
Revit (Basic)
ETABS (Basic)
QGIS
ArcGIS
ERDAS IMAGINE
Google Earth Pro
HEC-RAS
Pix4D
Cloud Compare
MS Office Suite.

gayatrisalunkhe083@gmail.com



Ms. GAYATRI DADASO SALUNKHE

Qualifications

PGD in Remote Sensing & GIS (Specialization: Satellite Image Analysis & Photogrammetry), B.Tech electronic and telecommunications.

Area of Interest

Satellite image analysis and photogrammetry.

Software Skills

ERDAS IMAGINE, ENVI (Environment for Visualizing Images), SNAP (Sentinel Application Platform), Pix4D Mapper, eCognition, QGIS, MATLAB + Simulink, Proteus, basic python.

sharmadeeksha1972@gmail.com



Ms. DEEKSHA SHARMA

Qualifications

PGD in Remote Sensing & GIS
(Specialization: Water Resources),
B.Tech-Civil Engineering.

Area of Interest

Watershed Management and Hydrological Modelling, Site Suitability, Water Quality, Dam Safety Monitoring and assessment, Sedimentation and Erosion Studies, Flood Inundation, Mapping and Risk Assessment, Reservoir Optimization, and Environmental Flow Assessment and Management in Hydroelectric Projects and Pumped Storage Projects;

Water Resources Planning and Allocation; GNSS Hydrogeodesy.

Software Skills

ArcGIS pro, QGIS, HEC-RAS, HEC- HMS, ENVI, Google Earth Pro, ILWIS, AutoCAD, ERDAS Imagine, SNAP, Python, Google Earth Engine and Microsoft office.

iirs2055@gmail.com



Mr. RAVI DHANKAR

Qualifications

PGD in Remote Sensing & GIS
(Specialization: Geosciences), M.Sc. in Geology.

Area of Interest

Groundwater resource assessment
Mineral Exploration
Geohazard Mapping
Hydrology and Watershed Management
Cryosphere Studies
Atmospheric Sciences & Climate Studies
Satellite Image Processing and Analysis
Climate Change Impact Assessment
Coastal & Ocean Application of Remote Sensing
Cartography
GPS, GPR,
ERT, MASW

Software Skills

QGIS, ArcGIS
ERDAS Imagine
Google Earth Engine
Google Earth Pro
RStudio, Python
ENVI, ILWIS, SNAP, ERDAS IMAGINE

sdas251201@gmail.com



Ms. SWAPNA DAS

Qualifications

PGD in Remote Sensing & GIS
(Specialization: Geosciences),
M.Sc. in Geology.

Area of Interest

Geological Mapping, Mineral Exploration, Terrain Mapping, Natural Resource Assessment.

Software Skills

ArcGIS, ArcGIS Pro, QGIS, AutoCAD, ERDAS IMAGINE, Python, Google Earth Engine, SNAP.

bharatbhusanapat419@gmail.com



Mr. BHARAT B S APAT

Qualifications

PGD in Remote Sensing & GIS
(Specialization: Geosciences), M.Sc. in Geology.

Area of Interest

My interests include mineral exploration, groundwater assessment, geohazard analysis, GPS, Lidar, Environmental geology, and glaciological studies using remote sensing and GIS.

Software Skills

QGIS, ArcGIS, AutoCAD, ERDAS Imagine, ENVI, R studio, Snap, Python, Google Earth pro, GEE.

diljeethsanthosh@gmail.com



Mr. DILJEETH SANTHOSH

Qualifications

PGD in Remote Sensing & GIS
(Specialization: Spatial Data Science),
MSc Physics.

Area of Interest

Quantum Computing, Quantum ML and
Quantum Technologies, Machine
Learning and AI in Earth Sciences,
Climate Modelling and Weather
Prediction, Remote sensing and
geospatial analysis, Data
Science, Satellite Image Processing and
Interpretation, Spatial Statistics and Geo-
statistics, Hyperspectral and
Multispectral Image Analysis, Solar
Physics and Plasma Physics, Space
Science and Technology, Atomic and
Molecular Physics.

Software Skills

Coding (Python, R), QGIS, ArcGIS,
GEE, QuTIP, LTSpice, LATEX, DASK and
RASTERFRAMES (APACHE SPARK), Scikit-
learn & Pandas, R & RStudio, Jupyter
Notebooks, Spyder, Kaggle (cloud), SNAP,
ENVI, ERDAS IMAGINE, OpenCV, SAR
Data Processing, Docker &
Git/GitHub TensorFlow/ PyTorch Mongo
DB, PostgreSQL (PgAdmin).

Chennugayathriirs@gmail.com



Ms. CHENNU GAYATHRI

Qualifications

PGD in Remote Sensing & GIS
(Specialization: Spatial Data Science),
B.Tech in AI and Data science.

Area of Interest

GeoAI (Geospatial Artificial Intelligence),
Artificial Intelligence, Spatial Data Science,
Machine Learning and Deep Learning, Remote
sensing, GIS and Cloud GIS, Urban Planning and
Smart Cities, Forestry and Environmental
Monitoring, Space Technology, Satellite Data
Analysis, Earth Observation, Climate Change
Analysis, and Disaster Management.

Software Skills

MongoDB, MySQL, Java, Python,
PostgreSQL, PgAdmin, ERDAS, ARCGIS,
QGIS, SNAP, DASK, Excel, Machine
Learning, Deep Learning, Computer
Vision, Photogrammetry, ENVI, Google
Earth Engine, HTML, CSS, Java Script, C, R,
MATLAB, GDAL, Geo AI.

aryakrishnanmaya@gmail.com



Ms. ARYA KRISHNAN

Qualifications

PGD in Remote Sensing & GIS
(Specialization: Geosciences), M.Sc.
Geology.

Area of Interest

Geoinformatics, Remote Sensing & GIS,
Geochemical studies, Climate Change
Analysis, Disaster Risk Management and
Environmental Studies.

Software Skills

ARC GIS, QGIS, ilwis, Arc gis pro, ERDAS,
Google earth engine, Python
programming language, cartography,
SNAP, microsoft word and excel,
Geophysical methods (GPR, ERT).

manisankar1059@gmail.com



Dr. MANISANKAR G

Qualifications

PGD in Remote Sensing and GIS
(Specialization: Agriculture & Soils),
Ph.D. in Agronomy.

Area of interest

Rice agronomy, Advanced weed science,
Nano/micro enabled agrochemical delivery
systems, Precision agriculture and crop
monitoring, Climate change on crop-weed
interactions, Advanced satellite data
analysis, Change detection, Land use and
land cover mapping, Crop monitoring and
yield assessment, Agricultural drought
monitoring, Soil health and digital soil
mapping.

Software skills

ArcGIS Pro, QGIS, ERDAS Imagine, ENVI,
SNAP, Google Earth Engine (GEE), Python,
R Studio, MS Excel, MS Word, MS Power
Point.

harshichadha777@gmail.com



Ms. HARSHIL CHADHA

Qualifications

PGD in Remote Sensing & GIS (Specialization: Satellite Image Analysis & Photogrammetry), BE (ELECTRONICS & COMMUNICATION).

Area of Interest

Digital Image Processing, Geospatial Data Analysis, and Synthetic Aperture Radar (SAR) Data Processing, Photogrammetry, Remote Sensing, and Geographic Information Systems (GIS), DEM/DTM generation, orthorectification, and accuracy assessment.

UAV/drone-based photogrammetry for high-resolution mapping applications.

Software Skills

Python, MATLAB, R Studio, ERDAS Imagine, QGIS, ArcGIS, Pix4D, ENVI, Ecognition & C.

sachinkardam777@gmail.com



Mr. SACHIN KARDAM

Qualifications

PGD in Remote Sensing & GIS (Specialization: Satellite Image Analysis & Photogrammetry), B.Tech-Civil Engineering.

Area of Interest

PHOTOGRAMMETRY, UAV DRONES, AERIAL SURVEYS, TOPOGRAPHICAL SURVEYS, 3D MODELING, GAUSSIAN SPLAT, LIDAR SURVEY, GNSS, DGPS, BATHYMETRY, ERT, GPR ETC.

Software Skills

ARCGIS, AGISOFT METASHAPE, PIX4D, GLOBAL MAPPER, AUTOCAD, QGIS, MAP PILOT PRO, LITCHI, DRONE DEPLOY, BLUEFIRE, QBASE 3D, DASHWARE, ADOBE PREMIERE PRO, ERDAS IMAGINE in learning, ARCGIS PRO, AUTODESK RECAP PRO, STADD PRO, REVIT 3D, CD FLY, CLOUD COMPARE, GOOGLE EARTH, GOOGLE EARTH ENGINE in learning, MS OFFICE, ENVI in learning, SNAP in learning.

shuklaashwani474@gmail.com



Mr. ASHWANI SHUKLA

Qualifications

PGD in Remote Sensing & GIS (Specialization: Geosciences), M.Sc. Geology, B.Sc. Geology.

Area of Interest

Planetary Geology, Structural Geology, Petrology, Geochemistry, Mineral Exploration, Landslide and Earthquake induced geological hazards studies, Climate change, Microwave Remote Sensing (SAR) & Hyperspectral Remote sensing, GNSS, GPR, Geophysics, Machine Learning applications in Geoscience.

Software Skills

ArcGIS Pro, Google Earth Engine, Google Earth Pro, ILWIS, QGIS, Python, R Studio, ENVI, SNAP.

malabikasutradhar.iirs@gmail.com



Ms. MALABIKA SUTRADHAR

Qualifications

PGD in Remote Sensing & GIS (Specialization: Water Resources), B.Tech-Civil Engineering

Area of Interest

Remote Sensing and GIS in Water Resources Planning and Management, River Meandering, Stochastic Hydrology, Groundwater and containment Hydrology, Rainwater harvesting, Reservoir operation and optimization, Flood Risk Management, Rainfall-Runoff Modeling, Dam break studies, Climate Change Assessment, GPS, LIDAR, Cartography, Site Suitability SAR & Hyper-spectral Remote Sensing.

Software Skills

ArcGIS Pro, ArcMap, QGIS, ERDAS Imagine, Google Earth Engine, AutoCAD, Revit, ETABS, SketchUp, HEC-HMS, HEC-RAS, Python, Microsoft Project

abhishekrajirs2026asd@gmail.com



Mr. VINUKONDA ABHISHEK RAJ

Qualifications

PGD in Remote Sensing & GIS (Specialization: Agriculture & Soils), M.Sc. Soil Science and Agricultural Chemistry, B.Sc. Agriculture.

Area of Interest

Geospatial Analyst (Agriculture), Remote Sensing Specialist (GeoAI / ML for Soil & Crop Analysis), Soil GIS Analyst(Digital Soil Mapping & Soil Health GIS), Crop Modeling Analyst (Crop Yield Forecasting using RS + GIS), Precision Agriculture Analyst (Precision Agriculture & Crop Monitoring), Climate Risk Analyst (Climate-Smart Agriculture) and Soil & Land Degradation Analyst.

Software Skills

ArcGIS Pro, R-Studio, QGIS, Google Earth Engine, Python (Rasterio, Geopandas), SNAP, ENVI and GeoAI / ML techniques.

vats.riya307@gmail.com



Ms. RIYA KUMARI

Qualifications

PGD in Remote Sensing & GIS (Specialization: Forest Resources & Ecosystem Analysis), M.Sc (Environmental Sciences)

Area of Interest

Forestry and Environmental Sciences

Software Skills

R studio, QGIS

yashasvi.iirs74@gmail.com



Ms. YASHASVI SINGH

Qualifications

PGD in Remote Sensing & GIS (Specialization: Urban & Regional Studies), Msc(Geography-2022), M.Plan(Urban Planning-2025).

Area of Interest

Urban and Regional Planning, Spatial Planning, GIS and Geospatial Analysis.

Software Skills

Microsoft 365, QGIS, Arc GIS, ArcGIS Pro, ERDAS Imagine, SNAP, R programming, Python, Google Earth Pro, Google Earth Engine, Photoshop, Cad, SketchUp.

Richakhaskalam.26@gmail.com



Mrs. RICHA KHASKALAM

Qualifications

PGD in Remote Sensing & GIS (Specialization: Urban & Regional Studies), M.Plan (Urban and Regional) B.Tech-Civil Engineering

Area of Interest

Application of GIS, Urban Planning, Regional Planning, Master Plan, Construction, Building Materials, Building Design.

Software Skills

QGIS, ArcGIS Pro, Erdas Imagine, Google Earth Pro, Google Earth Engine, eCognition, AutoCAD, STAAD.Pro, Canva

hk.chetangowda@gmail.com



Mr. CHETAN GOWDA H K

Qualifications

PGD in Remote Sensing & GIS (Specialization: Forest Resources & Ecosystem Analysis), BSc. (Hons) Forestry.

Area of Interest

Carbon dynamics, sustainable natural resource management using RS & GIS, AI/ML tools to study ecosystem patterns, biodiversity monitoring and forest inventory assessment.

Software Skills

QGIS, ArcGIS Pro, Google Earth Engine, ERDAS Imagine, SNAP, Python, R Studio.

gunwantnivedita@gmail.com



Ms. NIVEDITA GUNWANT

Qualifications

PGD in Remote Sensing & GIS (Specialization: Satellite Image Analysis & Photogrammetry), B.Tech (Electronics and Communication Engineering)

Area of Interest

Photogrammetry, Remote Sensing, Geographic Information Systems (GIS), Digital Image Processing, Web GIS, Cartography, Surveying ,LiDAR Remote Sensing , 3D Modelling, and Digital Mapping, Hyperspectral data processing and Classification, Feature Extraction, Deep Learning.

Software Skills

Python, QGIS, Arduino, Erdas Imagine ,PIX4D Mapper ,ENVI , eCognition ,ArcGIS, Google Earth Engine,MS-Excel, Snap

chaudhari.vedant2718@gmail.com



Mr. VEDANT MAHESH CHAUDHARI

Qualifications

PGD in Remote Sensing & GIS (Specialization: Satellite Image Analysis & Photogrammetry), B.Tech in Data Science.

Area of Interest

GIS Analyst, SAR Remote Sensing, Aerial and Satellite Data Interpretation, 3D Modelling, LiDAR, Point Cloud Data Processing, GeoAI, Hyperspectral Data Processing, Image Processing, Research (In Multi-sensor data fusion (Optical + SAR + LiDAR) and Planetary science), Spatial Visualization and Mapping, Spatial Data Analysis, Planetary Science (Exo-world & Exoplanet), Data Science, Machine Learning, Artificial Intelligence, Deep Learning, Database Management System, Data Visualization.

Software Skills

Python, R, MATLAB, SQL, Tableau/Power BI, Flask App, HTML, CSS, AWS Cloud, QGIS, ArcGIS, Google Earth Engine, Google Earth Engine Pro, Cloud Compare, ERDAS IMAGINE, ENVI, SNAP, eCognition, Pix4D Mapper, 3D Modelling.

shubhamiirs.ursd@gmail.com



Mr. SHUBHAM PANDAY

Qualifications

PGD in Remote Sensing & GIS (Specialization: Urban & Regional Studies), Integrated B.Tech + M.Tech in Civil Engineering with Specialization in Structural Engineering.

Area of Interest

Machine Learning, UAV/Drone-based Urban Monitoring, OBIA with AI/ML, 3D Base Maps and GIS, Urban Growth and Land Use Change Assessment, Solar Energy Potential Mapping, Nighttime Light Analysis, LiDAR-based Mapping, Digital Twin Cities and Sponge Cities, Urban Green Spaces, Surface Urban Heat Island Intensity (SUHII).

Software Skills

ArcGIS Pro, GEE, QGIS, Python, R Studio, C/C++, SNAP, ERDAS Imagine, PolSAR, ENVI, CityEngine, eCognition, PostgreSQL, Prabhat, ETags, Staad.Pro, Ms Excel.

ashishbareth2001@gmail.com



Mr. ASHISH BARETH

Qualifications

PGD in Remote Sensing & GIS (Specialization: Natural Hazards & Disaster Risk Management), M.Sc. in Environmental Science & Management, BSc Forestry.

Area of Interest

Application of Remote Sensing and GIS in Forestry Applications, Natural Resource Management, Biodiversity Conservation and Habitat Suitability Assessment, Species Distribution Modelling and Ecological Niche Prediction, Climate Change Studies & Disaster Management, Hydrological Modelling and Watershed Management.

Software Skills

ArcGIS, ArcGIS Pro, QGIS, Google Earth Engine, Erdas Imagine, R Studio, SNAP, SPSS, maxEnt, SWAT.

Josnamurmu15@gmail.com



Dr. JOSNA MURMU

Qualifications

PGD in Remote Sensing & GIS (Specialization: Water Resources), PhD (Land Atmosphere Interaction specialization in Evapotranspiration)

Area of Interest

Hydrological modelling using remote sensing, Evapotranspiration studies, Evapotranspiration estimation using RS, Impact of climatic variables on ET, land surface modelling, hydrological modelling, water resource management.

Software Skills

ARCGIS, Python, R studio, Qgis, ERDAS IMAGINE, Origin, GEE, ENVI, SWAT, Microsoft Office. Autocad, stad Pro, C /C++, DBMS, Linux (Grads, CDO), WRF , HPC, ILWIS, HEC RAS, HEC HMS, SWAT, SRM, BRAT, SNAP.

shrabani03iirs@gmail.com



Ms. SHRABANI SAHA

Qualifications

PGD in Remote Sensing & GIS (Specialization: Natural Hazards & Disaster Risk Management), M.Sc. in Geography.

Area of Interest

Monitoring Extreme Climatic Events (Flood, Drought) with the help of RS and GIS.

Software Skills

ERDAS, Qgis, Arc GIS Pro, Python, Google Earth Engine.

abhiheetnikam898@gmail.com



Mr. ABHIJEET NIKAM

Qualifications

PGD in Remote Sensing & GIS (Specialization: Water Resources), B.Tech-Civil Engineering.

Area of Interest

Water Resources Management, Watershed Management, Water Resources conservation and planning, Environmental Impact Assessment, Water resources planning and Development, Ground water management, Hydrological Modelling, Glacial Lake monitoring, Ground water Quality assessment, Site suitability for various water structures as dams, Flood hydrological modelling and assessment, urban flooding and risk assessment, Evapotranspiration.

Software Skills

ILWIS, CROPWAT, ARC GIS, QUANTUM GIS, SNAP, R- studios, Python, Google Earth Engine, Google Earth Pro, ERDAS, ENVI, HEC-RAS, HEC-HMS, ARC-MAP, GRASS GIS, AutoCAD, Revit architecture, tabs, vastu, Staad Pro, MS office.

muskan.ms108@gmail.com



Ms. MUSKAN SHARMA

Qualifications

PGD in Remote Sensing & GIS (Specialization: Geosciences), M.Sc. Applied Geology., B.Sc. (Hons) Geology.

Area of Interest

Remote sensing and GIS and its applications in Glaciology (cryosphere), Economic (Mineral exploration) and Petroleum Geology, Engineering and Environmental Geology, Climatology, geomorphology.

Software Skills

Microsoft 365, QGIS, Arc GIS, ArcGIS Pro, ERDAS Imagine, SNAP, R programming, Python, Google Earth Pro, Google Earth Engine, ILWIS and ENVI.

madhurivaishnav00@gmail.com



Ms. MADHURI VAISHNAV

Qualifications

PGD in Remote Sensing & GIS (Specialization: Marine & Atmospheric Sciences), M.Sc. in Atmospheric Science, B.Sc. (Physics, Chemistry, Mathematics)

Area of Interest

GIS, Application of Remote Sensing, Air Monitoring, Climate Change, Monsoon, Drought Assessment, Tropical Meteorology, Extreme Weather Events, Climate Projection, Numerical Weather Prediction. Tropical Dynamics.

Software Skills

ArcGIS, ArcMap, QGIS, ERDAS Imagine, ENVI, SNAP, FORTRAN, Python, GrADS, R Studio, Giovanni Portal, Google EE, MS Office, DrinC, SDSM.

Ayush_prsd@iirsddn.ac.in



Mr. AYUSH SHARMA

Qualifications

PGD in Remote sensing and GIS (Specialization: Satellite Image Analysis & Photogrammetry), BTech in Electronics and Communication Engineering.

Area of Interest

Aerospace and defense, Precision Agriculture, Smart Cities, Satellite Photogrammetry, SAR data processing, Signal Processing, Antenna Designing, Hyperspectral Data Processing.

Software Skills

ERDAS, QGIS, ARC GIS, ENVI, eCOGNITION, SNAP, PyTHON, MATLAB, MICROCAP, ANSYS HFSS, PIX4D, GEE, R, ARDUINO, ML, NISAR Data Processing

monikathakur5031@gmail.com



Ms. MONIKA KUMARI

Qualifications

PGD in Remote Sensing & GIS (Specialization: Forest Resources & Ecosystem Analysis), MSc. Botany.

Area of Interest

Taxonomy, ecosystem analysis, forest resource inventory, vegetation mapping and monitoring, conservation planning.

Software Skills

Microsoft, QGIS, Arc GIS, Google Earth engine, RStudio, ERDAS imagine, Python programming, SNAP, Google Earth pro, ArcGIS pro.

The Master of Science (M.Sc.) in Geo-information Science and Earth Observation (specialisation/ domain: Geoinformatics) is offered within the framework of Joint Education Programme (JEP) of IIRS and the Faculty of Geo-information Science and Earth Observation (ITC) of the University of Twente (UT), The Netherlands.

The course is of two year duration having eight quartiles. Students follow part of the course at IIRS and a part at the Faculty ITC, The Netherlands. Upon successful completion of the course students receive a Master’s degree from UT-ITC. The UT-ITC degree has the name ‘Master of Science degree in Geo-Information Science and Earth Observation’. The broad structure of the course is:

| Year | Quartile | Course | Location |
|------|----------|--|----------|
| 1 | Q1 | Core | IIRS |
| | | Academic Skills | IIRS |
| 1 | Q2 | Scientific Geocomputing | IIRS |
| | | Acquisition and Exploration of Geospatial Data | IIRS |
| | | Academic Skills | IIRS |
| 1 | Q3 | Elective Course | IIRS |
| | | Extraction, Analysis and Dissemination of Geospatial Information | IIRS |
| | | Academic Skills | IIRS |
| 1 | Q4 | Elective Course | IIRS |
| | | Global Challenges, Local Action | IIRS |
| | | Academic Skills | IIRS |
| 2 | Q5-6 | MSc Research (proposal), Individual study programme & MSc Research | ITC |
| 2 | Q7-8 | Internship, MSc Research and Thesis Defence | IIRS |

Swarna21102@gmail.com



Ms. SWARNA KAVYA KUSUMA

Qualifications

M.Sc. in Geo-information Science and Earth Observation
(Specialisation: Geo-informatics)

B.Tech. in Geo-Informatics Andhra University

Area of Interest

Remote Sensing & Geospatial Analytics, Urban Carbon Emission & Climate Modelling, Machine Learning for Earth Observation

Software Skills

ArcGIS, QGIS, Google Earth Engine, Python, RStudio, Erdas Imagine, INVEST, Blender, M S Excel, PowerPoint, Word

Thesis

Integrating Remote Sensing Proxies and Socio-Economic Data for Fine-Scale Urban Carbon Emission Mapping

Abstract

This study introduces a scalable, multi-sensor framework for estimating urban CO₂ emissions by fusing satellite observations with socio-economic indicators. Night-time light (NTL) data from SDGSAT-1 serve as a robust proxy for human activity and energy consumption, complemented by atmospheric CO₂ measurements from OCO-2/3 for independent validation. Machine learning algorithms integrate these diverse datasets to derive city-scale emissions, which are subsequently downscaled to high-resolution grids via advanced spatial allocation methods. This approach unveils fine-grained intra-urban emission hotspots, empowering evidence-based urban planning and targeted climate mitigation strategies.

shreyasingha627@gmail.com



Ms. SHREYA SINGHA

Qualifications

M.Sc. in Geo-Informatics (University of Twente – Indian Institute of Remote Sensing)

MSc. in Applied Geology, Calcutta University

MSc. in Geology, Calcutta University

Area of Interest

Earth Science and Environmental changes, Hazard monitoring, 3D Modelling, Resource Extraction and Management, Machine Learning

Software Skills

QGIS, ArcGIS, SNAP, HECRAS, CloudCompare, PostGIS, Python, BIM

Thesis

Assessment of Land Deformation in Kolkata Using InSAR Technique

Abstract

This study assesses land deformation in Kolkata using the Small Baseline Subset InSAR (SBAS-InSAR) technique applied to multi-temporal satellite data. The research aims to generate a detailed subsidence map and analyze spatial-temporal ground displacement patterns across the Kolkata Municipal Area. It also evaluates interferometric parameter optimization under varying baseline conditions and correlates satellite-derived deformation with in-situ measurements to support operational monitoring and hazard mitigation strategies.

exousiajosephine7@gmail.com



Ms. EXOUSIA JOSEPHINE J

Qualifications

M.Sc. in Geo-Informatics (University of Twente – Indian Institute of Remote Sensing, ISRO)

B.E. in Geo-Informatics Engineering, Anna University

Area of Interest

Remote Sensing, Environmental GIS, Agroforestry & Agriculture Applications, Disaster Management & Risk changes, Cyclone Modelling, AI/ML Applications in Geospatial Analysis, Web GIS(Basic), Radiative Transfer Modelling, Soft Computing (Fuzzy Logic), Time Series Analysis (TIMESAT), Flood & Landslide Modelling (FASTFLOOD, FASTSLIDE)

Software Skills

QGIS, ArcGIS, ENVI, GeoDa, SNAP, Photomod, Google Earth Engine, TIMESAT, FASTFLOOD, FASTSLIDE, Risk Changes, MATLAB, RStudio, PostgreSQL, HTML, CSS, Fuzzy Classifier

Thesis

Rice Crop Type Analytics Using a Fuzzy Model with Multi-Sensor Temporal Remote Sensing Data

Abstract

This study integrates multi-temporal PlanetScope optical imagery and Sentinel-1 SAR backscatter data within a fuzzy logic-based classification framework to discriminate Direct Seeded Rice (DSR) and Transplanted Rice (TPR) across heterogeneous crops. Temporal spectral indices and SAR-derived metrics are analysed to characterise rice phenology and improve crop-type separability. Field surveys to collect data for training the classifier, GPS-based ground-truth data, and farmer interviews are used to calibrate and validate the classification results. The framework further enables detection of flood-affected paddy fields .

PGD in Geo-information Science and Earth Observation (specialisation/ domain: Geoinformatics) is offered within the framework of Joint Education Programme (JEP) of the IIRS and the Faculty of Geo-information Science and Earth Observation (ITC) of the University of Twente (UT), The Netherlands. Upon successful completion of the course, the participants receive the Postgraduate Diploma in “Geo-information Science and Earth Observation (Geoinformatics)” awarded jointly by the Faculty ITC/ University of Twente and IIRS.

The course is of one year duration having four quartiles. Students follow the course at IIRS. The broad structure is

| Quartile | Course |
|----------|--|
| Q1 | Core Academic Skills |
| Q2 | Scientific Geocomputing Acquisition and Exploration of Geospatial Data Academic Skills |
| Q3 | Elective Course Extraction, Analysis and Dissemination of Geospatial Information Academic Skills |
| Q4 | Elective Course Individual Project, Report Writing, Evaluation Academic Skill |

singhpranul22@gmail.com



Mr. PRANJUL

Qualifications

PG-Diploma in
Geo-information Science and
Earth Observation
Specialization: Geoinformatics,
B.Tech Civil Engineering

Area of Interest

Aerial photogrammetry, LiDAR, Heritage
Conservation, Structural Health
Monitoring, Surveying, 3D mapping,
Digital Image Processing, Site Suitability

Software Skills

Civil 3D, Hypack, TMC, QGIS,
Google Earth Engine, ERDAS
Imagine, Python, R Studio

Vaibhavrankhambе2001@gmail.com



Mr. VAIBHAV SUNIL

Qualifications

PG-Diploma in
Geo-information Science and
Earth Observation
Specialization: Geoinformatics,
B.Sc Agriculture

Area of Interest

Remote Sensing & GIS Application in
Agriculture, Digital Image Processing,
Site Suitability

Software Skills

QGIS, Google Earth Engine, ERDAS
Imagine, Familiar with Python,
R Studio, ArcGIS, NetLogo

Sports Facilities at IIRS Campus



Badminton Court



Outdoor Gym



TT/ Billiards



Volleyball Court

The Golden Jubilee Hostel



The Golden Jubilee Hostel (GJH)



All Weather Swimming Pool (GJH)



Exhibition Area (GJH)



Indoor Gym (GJH)

Various Other Hostels at IIRS



Vikram Sarabhai Hostel



Godavari Hostel

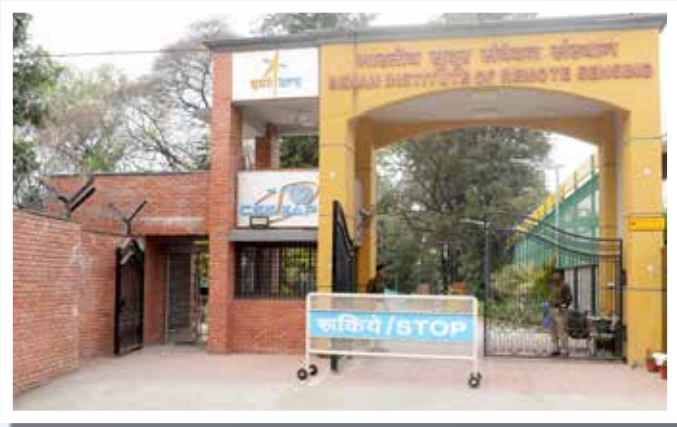


Alaknanda Hostel



Yamuna Hostel

View of IIRS Campus



Main Gate (Outside View)



Main Gate (Inside View)



Security Gate



Main Building Entrance

Major Supporting Facilities at IIRS



Central Dining Facility at IIRS Campus



IIRS Library



Aryabhata Lecture Theatre



IIRS Auditorium

Concept and Compiled by:



Dr. Swati Swaroop
Scientist / Engineer,
RPMD/ PPEG, IIRS
Email: swati@iirs.gov.in
Phone: (0135) 252 4108



Dr. Puneet Swaroop
Head, BPMD, PPEG, IIRS
Email: punitwarup@iirs.gov.in
Phone: (0135) 252 4107



Dr. Hari Shanker Srivastava
Group Head, PPEG, IIRS
Email: ppeg@iirs.gov.in,
Phone: (0135) 252 4105/06/09

Student Volunteers:



Mr. Dasari Chiranjeevi
For PGD



Ms. Exousia Josephine John Gnanaraj
For M.Sc.



Mr. Pranjul Singh
For PGD-GI

N.B. :

- *Credentials and Abstract details about students in this placement brochures are self declared by the respective student only.*
- *PPEG has initiated preparing the Placement Brochure and posting it on website for open access so as to enable direct access by companies for the respective students. Placement exercises are very subjective & based upon T&Cs, agreeable to students & employer as applicable.*



अधिक जानकारी हेतु, कृपया संपर्क करें:

कार्यक्रम, नियोजन एवं मूल्यांकन समूह (का.नि.मू.स.),
भारतीय अंतरिक्ष अनुसंधान संगठन (इसरो), अंतरिक्ष विभाग,
4 कालिदास मार्ग, देहरादून-248001



For further information/details, please contact:

Programme, Planning and Evaluation Group (PPEG),
Indian Institute of Remote Sensing (IIRS),
Indian Space Research Organisation (ISRO),
Department of Space, 4 Kalidas Road, Dehradun-248001