Divyeshkumar Rana

WORK EXPERIENCE

Vienna University of Technology (TU Wien) – Vienna, Austria

Name of unit or department: Department of Geodesy and Geoinformation

Visiting Research Scientist

[15/05/2025 – 15/07/2025]

- Soil moisture retrieval using multi-frequency, multi-temporal, and multi-resolution Synthetic Aperture Radar (SAR) data

Vienna University of Technology (TU Wien) – Vienna, Austria

Address: Karlsplatz 5, 1040 Vienna (Austria) | **Name of unit or department:** Department of Geodesy and Geoinformation

Visiting Research Scientist

[01/04/2024 – 31/07/2024]

- Soil moisture retrieval using multi-frequency, multi-temporal, and multi-resolution Synthetic Aperture Radar (SAR) data
    • Implement the First Order Radiative Transfer algorithm (RT1) on Multi-frequency SAR data

PentaShield Technologies Pvt. Ltd. – Gandhinagar,, India

GIS/Remote Sensing Team Lead

[01/06/2021 – 31/08/2022]

- Remote sensing applies to real-world Defence problems
- Time series analysis using Multi-spectral and SAR data
- GeoINT
- UI/UX designer for Front-end GIS software
- Build, develop, and maintain a GIS server for disseminating the geospatial data
- Geospatial database management
- ETL data pipeline
- Design of object-relational database in PostgreSQL and Oracle
- Open-source GIS (Leaflet, Geoserver, Open layer, GDAL)

National Forensic Sciences University – New Delhi, India

GIS Developer

[01/06/2020 – 31/05/2021]

- Experienced in Remote sensing Techniques such as Multi-Spectral, SAR, and Hyperspectral Imagery from various sensors
- Design of object-relational database in PostgreSQL and Oracle
- Open-source GIS (Leaflet, Geoserver, Open layer, GDAL)
- Geospatial Intelligence (GeoINT)
- UI/UX designer for Front-end GIS Software
- Build, develop, and maintain a GIS server for disseminating the Geospatial data
- Geospatial database management

- ETL data pipeline
- 3D modeling software such as CityEngine
- Designing an enterprise-level C2 Architect for software deployment
- Agile methodology (Jira)
- LiDAR data acquisition and processing
- Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4/ISR)

🏛 *Center for Applied Geomatics, CEPT University* – Ahmedabad, India

Research Assistant

[01/01/2020 – 30/04/2020]

- Data Standards of Slums for 3D Modelling - Using CityGML, 3D Model of the slum with standard attribute structure of various amenities provided to the slum. Cesium-based Decision Support System (DSS) for ULB/Govt. as a Master's Thesis 2020 in Geomatics, CEPT University.

🏛 *Center for Applied Geomatics, CEPT University* – Ahmedabad, India

Research Assistant

[01/04/2019 – 31/07/2019]

- Hyperspectral image analysis and classification of urban features for Ahmedabad city
- Rule-Based and Example-Based classification using ENVI software
- Segmentation analysis

🏛 *Ajay Infrastructure* – Surat,, India

Summer Internship

[01/05/2017 – 30/06/2017]

- Supervise Bridge site
- Learned about various processes and practices
- Inspection and testing reports
- Quality management plans

EDUCATION AND TRAINING

Doctor of Philosophy (Ph.D.)
Sapienza University of Rome [01/11/2022 – Current]

City: Rome | **Country:** Italy | **Field(s) of study:** Earth Observation | **Thesis:** Exploiting the Potential of Multi-Frequency Satellite Synthetic Aperture Radar Data for Ground Deformation and Soil Moisture Monitoring of Unstable Ground

Master of Technology (M.Tech)
CEPT University [01/06/2018 – 31/05/2020]

City: Ahmedabad | **Country:** India | **Field(s) of study:** Geomatics | **Final grade:** 3.8/5.0 | **Thesis:** Data Standards of Slums for 3D Modelling

Research Project – Data Standards of Slums for 3D Modelling - Using CityGML, 3D Model of the slum with standard attribute structure of various amenities provided to slum. Cesium-based Decision Support System (DSS) for ULB/ Govt. as a Master's Thesis 2020 in Geomatics, CEPT University

Bachelor of Engineering (B.E.)
Dr. S. & S. S. Ghandhy Government Engineering College [01/06/2015 – 31/05/2018]

City: Surat | **Country:** India | **Field(s) of study:** Civil Engineering | **Final grade:** 9.03/10

Diploma in Engineering (D. Eng)

Dr. S.&S.S. Ghandhy College of Engineering and Technology [01/06/2012 – 31/05/2015]

City: Surat | **Country:** India | **Field(s) of study:** Civil Engineering | **Final grade:** 9.05/10

LANGUAGE SKILLS

Mother tongue(s): Gujarati

Other language(s):

Hindi	**English**
LISTENING C2 **READING** C2 **WRITING** C2	**LISTENING** C2 **READING** C2 **WRITING** C2
SPOKEN PRODUCTION C2 **SPOKEN INTERACTION** C2	**SPOKEN PRODUCTION** C2 **SPOKEN INTERACTION** C2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

SKILLS

Remote Sensing / GIS / ARCGIS / QGIS / SAGA GIS / SARPROZ / SNAP / FME / ERDAS Imagine / Google Earth Engine / Microsoft Office / LaTeX / Python / R / HTML / CSS / Git / MATLAB / PostgreSQL / Oracle19c / Docker / Leaflet / Openlayers / Cesium Ion / Big Data