

Tejendra Budhamagar

Graduate Geomatics Engineer | GIS Specialist, UAV and Remote Sensing Expert |

Rolpa Pariwartan Rural Municipality 04 Sallabot Pachhabang, Nepal

Email: tejendrabudhamagar002@gmail.com | LinkedIn:

<https://www.linkedin.com/in/tejendra77/> | Contact: 9813709079

Objective

Passionate and dedicated Geomatics Engineer with extensive expertise in Surveying, Mapping, Geospatial Technologies, UAV technology, Remote Sensing, GeoAI, GIS and community engagement. To drive youth empowerment, implement community projects, and utilize technology for regional development. Committed to promoting youth initiatives, environmental awareness, and technological advancement

Education

Bachelor's in Geomatics Engineering

Himalayan College of geomatics engineering and land resource management, Thapathali
kathamnadu

Graduation: 2023

Intermediate/ Higher Secondary study

Saurya International School, Gaigau sinamangal

NEB: Science with major subject Biology and mathematics

Technical Skills

- **Programming Languages:** R, Python, JavaScript
- **GIS Tools:** QGIS, ArcGIS, Google Earth Engine
- **Remote Sensing:** UAV-based data acquisition, thermal anomaly detection
- **Software:** Microsoft application (e.g.: Word, excel, PowerPoint), RStudio, Python libraries (e.g., pandas), ArcGIS, QGIS, Google Earth Engine
- **Data Formats:** .las files, raster TIFF files
- **Web GIS:** OSM, Web-based GIS applications

- **Other:** Network Analysis (ArcGIS), Photovoltaic Panel Monitoring, Tree Height Estimation
-

Professional Experience

Research Assistant

Photovoltaic Panel (Solar Energy) Monitoring through Automated Thermal Anomaly Detection

- Utilized thermal anomaly detection to improve the efficiency of solar energy systems.
- Worked with QGIS and Python for data analysis and visualization.

Geospatial Analysis and UAV-based Tree Height Estimation

Research publish 2023

- Led a project on UAV-based tree height extraction and crown delineation using remote sensing technologies.
 - Analyzed and processed data using QGIS and RStudio for forest management and environmental monitoring.
-

Projects

- **Individual Tree Height Extraction from .las Files and UAV products :** Utilized RStudio to process and extract tree height data from LiDAR data.
 - **Network Analysis using ArcGIS:** Conducted spatial network analysis for urban planning and infrastructure development.
 - **Earth Observation Systems (EOS) in Nepal:** Explored the application of EOS technologies for environmental monitoring and disaster management in Nepal. Fire and flood mapping at different region in 2024
-

Publications & Presentations

- **Research Paper on UAV-based Tree Height Estimation**
 - Presented at research lab of survey department, 2024.
- **Paper on Photovoltaic Panel Monitoring**

- Published in Himalayan journal vol.4, 2024.

Certifications

Public Speaking training session – Inspire Training Academy, Nepal - 2022

Languages

- Nepali: Native
- English: Proficient