

Rabina Poudyal

Geomatics Engineer

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EDUCATION

Kathmandu University
B.E. in Geomatics Engineering
– CGPA: 3.59/4.00

Dhulikhel, Nepal
2019–2024

WORK EXPERIENCE

GIS Engineer
Kathmandu Metropolitan City

Jan 2025 - Current
Kamaladi, Kathmandu

- Working in “Road Naming and Mapping Project” under Kathmandu Metropolitan City.
- Research in “Household Survey and Data Collection”.

Geomatics Engineer
Genesis Consultancy Pvt Ltd.

Aug-Dec 2024
Kathmandu, Nepal

- Working on Water and Sanitation Hygiene [WASH] project in Birendranagar for Data Integration for Integrated Municipal Information System [IMIS].
- Working into PHP Language and Web-GIS for Spatial Data Integration.

Geospatial Data Analyst Intern
Kathmandu Living Labs (KLL)

March-May 2024
Kathmandu, Nepal

- Focused on Cartography, Map Styles, EV Analysis(Python and GIS)

She Leads She Inspires Champion
Humanitarian OpenStreetMap Team

January-July 2022
Asia-Pacific Region

- Implemented Women Mapping: Women friendly Point of Interest Project,
- Performed Needs identification and Decision making,
- Applied an Advanced Remote Sensing and GIS techniques.

Digital Mapper Intern
Kathmandu Living Labs (KLL)

2021
Kathmandu, Nepal

- Contributed in OpenStreetMap Road Mapping of Pakistan.
- Enhanced advanced mapping skills.

EXPERIENCE

State Of The Map 2024.

Participant (Selected)

September, 2024

Nairobi, Kenya

- Presented the “Usability of the OSM in Nepal” on topic OSM Spectrum.

2024 International GeoInformatics Summer School (IGSS).

Participant (Selected)

June, 2024

Wuhan University, China

- Presented the sustainable approach to the Impact of Urban Expansion on Forest Cover using LULC Maps, NDVI, and NDBI.

CLImbing for CLImate GEOspatial School (CLIGEOS-2024).

Participant (Selected)

April, 2024

Lumle, Nepal

- Participated in CLIGEOS-24 organized by ISPRS, LJ University, Universita Degli Studi Di Udine and CSSGS.

Workshop and Mapathon on Map Roads: Make your Way.

Instructor (Trainer)

Nov, 2023

Dhulikhel, Nepal

- Trained around 50 people about basic OSM.
- Mentored 5 days-Mapathon.

NEPGEOM-23, An annual event of GES.

Vice-coordinator

April, 2023

Dhulikhel, Nepal

Geomatics Engineering Society (GES).

Executive Member

2021-2022

Dhulikhel, Nepal

- Counted Map-Literacy in 6 schools.
- Involved in different OSM Training Programs.

Workshop of Advanced Training of OSM “Training of Trainee”.

Participant (Selected)

June, 2022

Dhulikhel, Nepal

- 2 Days Residential Workshop on Training of OSM.
- Became an official Trainer of OSM.

PUBLICATIONS

- **Assessing the Impact of Urban Expansion on Forest Cover using LULC Maps, NDVI, and NDBI: A Case Study of Kathmandu District.**

May 2024

- Concluded that Urbanization in Kathmandu District increased rapidly from 2013 to 2021, having an adverse effect on the Forest Area. [Link to Paper](#)

PROJECTS

- **Assessing Coral Reef Changes through Supervised Classification and correlating it with SST and Chlorophyll-A: A Remote Sensing Approach.** May 2024
 - Three machine learning algorithms were examined using Supervised Image Classification (SVC), Random Forest (RF) Classification and Regression Task (CART), and Support Vector Machine (SVM).
 - Created a sea surface temperature prediction model with the ARIMA model, resulted negative correlation with sea surface temperature and weak positive correlation with chlorophyll-A.
- **SOIL EROSION ESTIMATION USING RUSLE MODEL**
 - **A Case Study of Kavrepalanchowk District.** Dec 2022
 - RUSLE Model was used, along with it's all parameters computed to determine the soil erosion rate of the location.
- **Suitability Analysis for the appropriate Dumpsite on Palpa District using MCDA analysis in GIS.** May 2022
 - The Analytic Hierarchy Process (AHP) Method was used in conjunction with Multi-Criteria Decision Analysis(MCDA) in GIS software to determine the best location while taking various considerations.

CERTIFICATE AND AWARDS

- Scholarship of 1200 Euro Grant Awarded in Global State of The Map September 2024
- Scholarship of 9000 CNY Grant Awarded in 2024-International GeoInformatics Summer School June 2024
- 35% Government(LMTC) Scholarship in Undergraduate Program 2019-2024
- Women Mapping Emerging Star Of Year March, 2024
- Empowering Women in Geospatial Information Technology June, 2023
 - Attended 3 days training of Empowering women in geospatial technology program. organized by ICIMOD
- Most Creative Idea in the Hackathon for Field Mapping Task-Splitting Algorithm. May 2023
 - Hackathon for Field Mapping Task-Splitting Algorithm organized by NAXA, KLL, NGES, HOT, Open Mapping AP-HUB.
- International Geoinformatics Summer School, Wuhan University. Aug, 2022
- 2 Days workshop of Advanced Training of OSM "Training of Trainee". June, 2022
- "She Leads She Inspires Champion". Jan-June, 2022
- Open Street Map and Humanitarian mapping by United Nations Global Centre. April, 2022
- Webinar envisioning spatial analysis through SuperMap: A new era of Geospatial Science May, 2021

SKILLS

- **Surveying:** UAV Survey, DGPS, Stake-out, Cadastral Survey, Road Survey, Bridge and Hydropower Survey
- **Geospatial and Visualization tools:** QGIS, ENVI, Postgresql, Web-GIS, JOSM, Google Earth Engine
- **Programming:** C, C++, JAVA, Python
- **Typesetting:** Latex

LANGUAGES

- **English:** Fluent
- **Nepali:** Native
- **Hindi:** Conversational