



Ashmeera Dahal

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WORK EXPERIENCE

Survey Officer

Ministry of Land Management, Cooperatives and Poverty Alleviation, Government of Nepal [15 Sep 2022 – Current]

City: Singhadurbar, Kathmandu | **Country:** Nepal

- Formulating policies related to scientific land management, geospatial technology, and surveying practices (Land Bank, Spatial Data Infrastructure, Land Use Policy, Survey Licensing).
- Coordinating and providing technical assistance to governmental agencies such as the Land Issue Resolving Commission established to provide settlements to the slum.
- Monitoring geospatial projects and activities led by institutions such as the National Mapping Agency, and District level Survey Offices.
- Developing a system to assess the value of properties such as houses and land in Nepal with the use of advanced geospatial technology.
- Collecting data from relevant ministries for the development of the Federal Land Use Plan.
- Facilitating and managing budget allocation for conducting geospatial projects such as LIDAR, and Cadastral Mapping using UAV.
- Collaborating with various governmental organizations, NGOs, and INGOs on a range of land-related and geospatial projects.

Geomatics Instructor

Metropolitan Polytechnic Institute [27 Jul 2022 – 14 Sep 2022]

City: Biratnagar | **Country:** Nepal

- Delivered lectures on GIS, Cartography, and Remote Sensing theory classes for diploma-level Geomatics students.
- Supervised practical lab sessions, offering practical training on software tools particularly GIS and spatial data analysis.
- Developed course manuals and study notes aligned with the course's curriculum.
- Supervised the final-year projects, focusing on research design, methodology, data collection, analysis, and documentation.

She leads She Inspires Program Fellow

The Open Mapping Hub Asia Pacific, Humanitarian OpenStreetMap Team (HOTOSM) [1 Jan 2022 – 30 Jun 2022]

- Led local open mapping projects in the Asia-Pacific region as OSM community leader focusing on disaster response, health, inclusion, and gender equity.
- Gained experience in geospatial data and technologies, digital leadership, and project planning in community development.
- Submitted proposal on "Mapping public transportation route in Kathmandu" to the Open Mapping Hub Asia Pacific, Humanitarian OpenStreetMap Team (HOTOSM).

GIS Analyst Intern

Center for Space Science and Geomatics Studies, Pashchimanchal Campus [1 Jan 2020 – 31 Mar 2020]

City: Pokhara | Country: Nepal

- Developed the periodic plan for Annapurna Rural Municipality.
- Conducted Land Consolidation Project across districts in Gandaki Province under the Ministry of Land Management, Agriculture and Co-Operative, Gandaki Province, Nepal
- Designed resource map for Siklesh and Taprang in Madi Rural Municipality, Kaski District.
- Collaborated with different governmental and non-governmental organizations.

EDUCATION AND TRAINING

Bachelor in Geomatics Engineering

Pashchimanchal Campus, Institute of Engineering, Tribhuvan University [2016 – 2021]

City: Pokhara | Country: Nepal | Website: <https://ioepas.edu.np/> | Final grade: 80.26 % (Distinction)

Geographic Information System (GIS), Photogrammetry, Cartography, Remote Sensing, Geodesy, GNSS, Surveying, Cadastre, Python

Secondary Education

St. Xavier's College [2014 – 2016]

City: Kathmandu | Country: Nepal | Website: <https://www.sxc.edu.np/> | Final grade: 80.20 % (Distinction)

Physics, Mathematics, Biology

School Leaving Certificate

Reliance International Academy [2010 – 2014]

City: Kathmandu | Country: Nepal | Website: <https://riaschool.edu.np/> | Final grade: 90.88 % (Distinction)

Trainings and Conference

1. The International Federation of Surveyors (FIG) Regional Conference 2024 (14-16 November, 2024).
2. The Role of three-tier Government in Implementing Sustainable Development Goals (SDGs) Program (22-23 June, 2024)
3. Gender and Macroeconomics Training conducted by the International Labor Organization and UN Women (2-4 May, 2023)
4. Master Class on Land Management: Integration and Decentralization by the Land Management Training Centre (15 Feb 2023)
5. Orientation Training for newly recruited survey officers conducted by the Land Management Training Centre (25 Sept 2022 - 29 Dec 2022)
6. A month-long mapathon campaign in mapping Raksirang and Kailash Rural Municipality focusing on the development of Chepang Community (11 April 2021 - 20 May 2021)
7. Four weeks "Do-It-Yourself Geo Apps" MOOC conducted by ESRI, 2020.
8. 12th edition of Geomundus Conference From 27th to 28th November 2020
9. ArcGIS Training conducted by Geomatics Engineering Student's Association of Nepal (22 - 30 July 2018)
10. Map Literacy Program by Geomatics Engineering Student's Association of Nepal (30 Dec 2018 - Jan 1 2019)
11. Empowering Women in Geospatial Information Technology, ICIMOD Headquarters, Kathmandu, Nepal (25-28 June 2018)
12. 8 days ArcGIS Training on How to prepare a Topographic Map by Geomatics Engineering Student's Association of Nepal (June 2017)
13. OpenStreetMap Training in Paschimanchal Campus (25-26 May 2017)

Courses

Coursera: Fundamentals of GIS, Using Python to Access Web Data, GIS Data Formats, Design and Quality, Programming for Everybody (Getting Started with Python), Python Data Structures, Spatial Analysis and Satellite Imagery in a GIS

Great Learning: Introduction to R

PROJECTS AND PUBLICATIONS

Publication: Assessment of Solar Photovoltaic Potential of Building Rooftops Using Photogrammetry and GIS, 2021.

- Developed a GIS-based approach to estimate solar radiation on rooftops for approximate evaluation of solar photovoltaic potential.
- Utilized photogrammetry techniques to assess the solar energy feasibility for efficient renewable energy planning on campus-wide scale.
- Awarded research grant from the Research Management Unit (RMU) of Paschimanchal Campus, Tribhuvan University on 2021-09-03.

Link: <https://doi.org/10.3126/tgb.v8i01.43467>

Publication: Assessment of Agricultural Land Pooling Using GNSS Technologies and GIS Software in Gandaki Province, Nepal, 2020.

- Introduced a land pooling technique aimed at modernizing the agricultural system to improve the lives of farmers in Nepal.
- Leveraged GNSS and UAV technologies for rapid and accurate mapping.
- Analyzed the effectiveness of replacing traditional land surveying with GNSS, UAVs, and mobile applications to enhance the reliability of geospatial data.
- Presented and published paper at Geomundus, 2020.

Link: <https://geomundus.org/2020/docs/papers/KshitijRajSharma.pdf>

[2024 – Current]

Ongoing Research Work: Assessing Completeness of open building dataset across municipalities in Jhapa District, Nepal.

- Evaluating the completeness and spatial variability of four open building datasets (Google Open Buildings, Microsoft Global Building Footprints, OpenStreetMap, and Overture Map Data) across municipalities in Jhapa, Nepal for effective land use planning and disaster management.

PROFESSIONAL ACTIVITIES

Management and Leadership Activities

- 1. Organizer for the International Federation of Surveyors (FIG) Regional Conference 2024, conducted on November 14-16, 2024.
- 2. Organizer for Stakeholder Consultation Program on Nepal's Spatial Data Infrastructure Policy, 2024, conducted on January 14, 2024.
- 3. Organizer for Stakeholder Consultation Program on Nepa's Land Use Program Implementation Directives, 2024 of Nepal, held on December 8, 2023.
- 4. Volunteer at Nepal Geomatics Meet (NEPGEOM) 2023.
- 5. Vice-President (2019-2020) for Nepal Engineering Student's Society, Pashchimanchal Campus, TU.
- 6. Treasurer (2018-2019) for Geomatics Engineering Student's Association of Nepal, Pashchimanchal Campus, TU.
- 7. Registered Engineer under Nepal Engineering Council.
- 8. Member, Nepal Engineers Association.
- 9. Individual Member, The International Society for Photogrammetry and Remote Sensing (2024)

Program Trainer

- Conducted Google Earth Engine training for Geomatics Engineering Students on Open Data Day, 2020.
- Administered and delivered GIS training (26th September 2021- 1st October 2021) for IT Officers of Gandaki Province, Organized by Gandaki Academy in support of Provincial and Local Governance Support Program (PLGSP)

HONORS AND AWARDS

Bachelor Degree Scholarship (2016-2020)

- Awarded a full scholarship for a Bachelor's Degree in Geomatics Engineering from the Institute of Engineering (IOE), Tribhuvan University, Nepal.

Poster Presentation Winner

- Secured a first position in a poster presentation competition titled "Digital soil Mapping in the Bara District of Nepal using GIS " conducted by the Geomatics Engineering Student's Association of Nepal, Pashchimanchal Campus, Nepal, 2019-01-13

Other

- Ranked top female candidate in the Gazetted Third Class Survey Officer Examination, conducted by the Public Service Commission (PSC) in 2022.
- Graduated with second position in the Bachelor's Degree in Geomatics Engineering (2016-2021).
- Ranked as the girl's topper and overall second position in the School Leaving Certificate (SLC) at Reliance International Academy.

LANGUAGE SKILLS

Mother tongue(s): Nepali

Other language(s):

English

LISTENING C2 READING B2 WRITING B2
SPOKEN PRODUCTION B2 SPOKEN INTERACTION B2

Hindi

LISTENING C2 READING C2 WRITING C2
SPOKEN PRODUCTION C2 SPOKEN INTERACTION C2

SKILLS

Communication and Interpersonal skills

- Public Speaking Skills, Coordination Skills, Mentoring Skills, Analytical Skills, Problem-Solving Skills, and Teamwork and Collaboration

Digital skills

- GIS & Remote Sensing: ArcGIS, QGIS, Google Earth Engine, ERDAS Imagine, ENVI
- Surveying & Mapping: Total Station, DGPS, Drone, GPS
- Drone Data Collection & Processing: Pix4D Mapper, Aghisoft Metashape, Drone Deploy
- Applications: JOSM, Ecognition Developer, HEC-RAS, MS Word, MS PowerPoint, MS Excel Programming
Language: Python, LATEX
- DBMS: PostgreSQL

RESEARCH AND INTERESTS

- UAV application for developing smart villages and conserving the environment.
- Integration of Open Source, Remote Sensing, GIS, and IOT for sustainable development.

REFERENCES

- Ganesh Prasad Bhatta, Joint Secretary, Ministry of Land Management, Cooperatives and Poverty Alleviation, Singhadurbar, Kathmandu, Nepal, Contact: (+977)9851143200, Email: gpbhatta@gmail.com
- Er. Bikash Sherchan, Lecturer, Department of Geomatics Engineering, Pashchimanchal Campus, IOE, Tribhuvan University, Pokhara, Nepal, Contact: (+977) 9843696104, Email: bikash.sherchan@gmail.com

I hereby declare that the above information provided is all correct and I authorize you to verify the information provided in this CV.

Kathmandu, Nepal, 4 Jan 2025



Ashmeera Dahal