HIMAL BHANDARI

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SUMMARY

A Civil Engineering graduate with research interests in geotechnical engineering and geo-hazards. Experienced in applying GIS, statistical analysis, and data-driven methods to soil erosion, landslides, and earthquake-induced hazards. Seeking a PhD in Geotechnical Engineering to pursue advanced research in geotechnical engineering and hazard-resilient infrastructure.

Interests: shallow and deep foundations, liquefaction, Rock mechanics, landslides, and geotechnical earthquake engineering.

EDUCATION

Bachelor of Civil Engineering CGPA: 2.71/4.0

Madan Bhandari College of Engineering (affiliated to Pokhara University), Morang. January,2025

Project: "*Soil Loss and Erosion Susceptibility Prediction using USLE and RUSLE Models: Evidence from Miklajung Siwalik Hills, Nepal Himalaya"*

Higher Secondary School CGPA: 3.08/4.0

Oxford Secondary School (affiliated to NEB), Nawalpur. 2020

PUBLICATION

Poudel, S.; Adhikari, G. M.; Poudel, P.; **Bhandari, H**. Forecasting Land Surface Temperature in Kathmandu Using Univariate and Multivariate Time Series Models. Preprints 2024, 2024101562. https://doi.org/10.20944/preprints202410.1562.v1 *(preprint)*

- *Reviewed existing literature on land surface temperature trends and time-series forecasting methods.*
- *Cross-validated machine-learning results against physics-based equations to ensure physical consistency and reliability.*

RESEARCH EXPERIENCE

Predicting Large Earthquakes from Small Earthquakes in Nepal Himalaya using Machine Learning Techniques (ongoing).

- *Developed a data-driven methodology integrating seismic feature extraction with supervised machine-learning models.*
- *Collected, cleaned, and curated regional earthquake catalog data to ensure consistency and reliability for analysis.*
- *Contributed to structuring, writing, and revising the research manuscript for publication.*

Soil Loss and Erosion Susceptibility Prediction using RUSLE Model: Evidence from Miklajung Siwalik Hills, Nepal Himalaya (ongoing).

- *Led field sampling and coordinated laboratory testing to support soil-erosion assessment and model parameterization.*
- *Implemented RUSLE-based erosion and susceptibility analysis using GIS and Google Earth Engine (GEE).*
- *Led the research team and contributed to data integration, analysis, and manuscript writing for publication.*

GIS-Based Statistical Landslide Susceptibility Modeling for Hazard Mitigation Planning in the Mai-Khola Watershed, Nepal Himalaya (ongoing).

- *Collected, compiled, and preprocessed landslide inventory, topographic, geological, and environmental datasets for susceptibility analysis.*
- *Implemented GIS-based statistical landslide susceptibility models using spatial analysis and terrain-derivative mapping techniques.*
- *Performed model validation, map generation, and result interpretation to support hazard mitigation planning.*

WORK EXPERIENCES

Part-Time Tuition Teacher February,2023 – March,2024

ABC Institute, Morang

- *Mentored grades 9–11 students in Mathematics and Science with a focus on conceptual learning and exam preparation.*
- *Conducted examinations, evaluated student performance, and provided targeted academic support to underperforming students.*

SKILLS AND COMPETENCIES

Technical & Computational Skills: ArcGIS, GEE, MATLAB, ETABS, and Autodesk AutoCAD. ***Research Skills***: LaTeX, Python, literature review. ***Laboratory skills***: Hydrometer, sieve analysis, Atterberg limits, compaction, direct shear, CBR tests, and concrete technology. ***Language skills***: Nepali (native), English (fluent) and Hindi (fluent).

LEADERSHIP SKILLS

- ***Team Lead (Aagaman Engineering Exhibition)****:* Led a team of juniors and peers to develop a physical-scale model of the Terai-Madhesh Fast Track, highlighting complex bridge, tunnel, and river training works; received the Best Explainer award.
- ***Research Team Lead***: Led two research teams (6 members each) working on soil erosion susceptibility analysis using the RUSLE model and statistical landslide susceptibility modeling, coordinating data collection, analysis, and manuscript preparation.

REFERENCES

Available upon request.

I hereby certify that the above information is being duly filled by me and is correct to the best of my knowledge. I can provide evidence of the above-mentioned information if required.