

# Suraj Tharu Chaudhary

Computer Engineering Professional | Educator | Researcher

📍 Ramgram-18, Nawalparasi West, Nepal ✉ suraj.tharu@example.com 🌐 surajtharu.com

## PROFESSIONAL SUMMARY

Highly motivated Computer Engineering professional, educator, and researcher with a Master's degree in Information System Engineering. Extensive experience in technical education, curriculum implementation, and ICT integration. Proven research capabilities in Geographic Information Systems (GIS), Remote Sensing, Land Use and Land Cover (LULC) Change Detection, and Machine Learning applications utilizing Google Earth Engine and Random Forest classification. Adept at coordinating technical programs and delivering comprehensive computer engineering education.

## EDUCATION

### Master of Science (M.Sc.) in Information System Engineering

Purbanchal University

### Bachelor of Engineering (B.E.) in Computer Engineering

Mid-West University

## PROFESSIONAL EXPERIENCE

### Senior Instructor

Current

Shree Tri Shaheed Model Secondary School, Andhikhola-1, Syangja

- Deliver technical and computer engineering education to students.
- Lead curriculum implementation and actively integrate Information and Communication Technology (ICT) into the educational framework.
- Coordinate technical programs and facilitate hands-on learning experiences.

### Instructor

2 Years

Shree Buddhi Bikash Secondary School and Additional Technical School, Ratamata-6, Rolpa

- Delivered comprehensive technical and vocational computer engineering education.
- Developed and executed practical lesson plans to enhance student engagement and technical proficiency.

### Professional Intern

6 Months

Nepal Telecom

- Gained practical, hands-on experience in telecommunications systems.
- Assisted in managing and maintaining information technology infrastructure.

## RESEARCH EXPERIENCE

## Land Use and Land Cover Analysis of Birendranagar Municipality, Surkhet Using Random Forest Algorithm

Analyzed spatial and temporal land use/land cover patterns within Birendranagar Municipality using satellite imagery and the Random Forest machine learning algorithm. The study evaluated changes in urban areas, forests, agricultural land, and water bodies to support sustainable planning and resource management.

## Decadal Land Use/Land Cover Dynamics in the Nepal Terai: A Multi-Temporal Sentinel-2 and Random Forest Analysis of Nawalparasi West (2016–2026)

Investigated ten years of land use and land cover changes in Nawalparasi West using multi-temporal Sentinel-2 satellite imagery and Random Forest classification techniques. Examined urban expansion, agricultural transformation, forest dynamics, and environmental changes to provide insights for sustainable development and land management in the Nepal Terai region.

## KEY QUALIFICATIONS & SKILLS

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### Technical Domains

- Information Systems Engineering
- Geographic Information Systems (GIS)
- Remote Sensing & Satellite Image Processing
- Mobile and Web Technologies

### Tools & Algorithms

- Machine Learning (Random Forest Classification)
- Google Earth Engine (GEE)
- QGIS / ArcGIS
- Python for Geospatial Analysis