

# PRADEEP LAMICHHANE

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## EDUCATION

### Tribhuvan University

Bachelor of Engineering in Civil Engineering  
Kathmandu Engineering College  
Aggregate: 79.06%  
Overall Rank: 2<sup>th</sup> in a class of 92 students

Dec 2019-April 2024

- Relevant Coursework: Transportation Engineering I & II, Engineering Mathematics I-III, Probability & Statistics, Time Series Analysis, Numerical Methods, Computer Programming with C.

## TECHNICAL SKILLS

**Programming:** C and Python.

**Software and Libraries:** Pandas, NumPy, Matplotlib, AutoCAD, Microsoft Package, LaTeX.

**Traffic Simulators:** SIDRA Intersection.

## RESEARCH EXPERIENCE

### Undergraduate Research Project:

April 2023-March 2024

"Performance Evaluation of an Intersection and Enhancement Measures: A Case Study of Durbar Marg Intersection of Kathmandu District." *Supervisor: Prof. Dr. Pradip Kumar Shrestha* [Report](#)

- Led a team of 5 to conduct traffic volume data analysis of a signalized intersection.
- Develop calibrated traffic flow simulations using SIDRA Intersection, optimizing traffic signal timing and lane configurations to improve roadway performance using MOEs such as delay, LOS and queue length.
- ~20% decrease in intersection delay with lane reconfiguration with optimized signal timing under restrained width condition.

## CONFERENCE PRESENTATION

[C.1](2023, December). Performance Evaluation of an Intersection and Enhancement Measures: A Case Study of Durbar Marg Intersection of Kathmandu District. *Presented in:* Office of KEC Research and Publications (OKRP) Conference 2023, Kathmandu.  
*Awards:* Outstanding Paper Presentation.

## INDUSTRY EXPERIENCE

### Construction Cost Estimator

Feb 2025-Present

*Client: Costsegrx, Sarasota, Florida*

- Conducted quantity takeoffs and cost estimates for wood-framed residential, PEMB/steel, and commercial buildings using RSMeans data and internal cost libraries.
- Delivered 135+ cost segregation engineering studies spanning ~\$28.6M in total construction value, covering assets from single-family residences to retail, commercial, and light-industrial/manufacturing facilities.
- Analyzed and interpreted construction documents—including shop drawings, fixed-asset schedules, and home inspection reports—to perform accurate quantity takeoffs and cost estimates.
- Designed a scalable estimation database from scratch and expanded it daily, improving speed, accuracy, and standardization across studies.
- Increased production capacity from a ~1 study/day baseline to 2–3 studies/day, representing a 100–200% throughput improvement within 8 months.
- Developed and deployed automation scripts (Python/VBA) for high-frequency cost estimation tasks.
- Pioneered AI integration for cost estimation workflows, including custom LLM/GPT model development for metadata extraction, classification and reporting.
- Delivered workflow improvements generating ~\$5K/year in recurring savings and initiated additional automation projected to unlock ~\$20K/year by April 2026.

### Civil Engineer

April 2024-Jan 2025

*DL Energy Concern Pvt Ltd*

- Managed tender bidding via the PPMO website and prepared BOQs from running bills to final bills.
- Prepared tender and contract documents, including but not limited to: bid notice, minute for bid bond, bid application, Bill of Quantities (BOQ), and bid letter, and assisted on site inspection, verification, and materials procurement.

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- Supervised and collaborated with engineers in ensuring day to day activities of the company.
- Designed detailed technical drawings for hydropower components, including penstocks and surge tanks, using AutoCAD.
- Prepared layouts, schematics, and as-built drawings using AutoCAD.

## Traffic Engineer

June 2024- July 2024

*Client: Department of Roads, Government of Nepal*

- Performed **traffic performance analysis using Measure of Effectiveness (MOE) such as delay, LOS and queue length** for an intersection on a highway expansion project, analyzing future demand scenarios over 10 and 20 years using microsimulation techniques on SIDRA Intersection under *Prof. Dr. Pradip Kumar Shrestha*.
- Achieved an 87% reduction in delay and a 94% reduction in queue length of the calibrated model of the intersection.
- Further reduced delay by 83% and queue length by 94% after implementing an underpass, addressing unique site constraints.

## HONORS AND AWARDS

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Merit Scholarship for 1st Rank, 6th Semester | Kathmandu Engineering College

March 2023

Merit Scholarship for 3rd Rank, 7th Semester | Kathmandu Engineering College

September 2023

## REFERENCES

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- Prof. Dr. Pradeep Kumar Shrestha  
Assistant Professor  
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