

ABIRAL DULAL

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Experience

Project Assistant
School of Engineering, UNM
Albuquerque, NM

 Aug 2020 - May 2021

- Performed literature review on vehicular emissions, traffic signal design, FHWA, MUTCD, AASHTO, NACTO guidelines.
- Extracted data from public sources (e.g., US Census or NHTS).
- Prepared data for energy and emissions modeling using Python.
- Conducted descriptive statistical analysis (regression and t tests) using R.
- Generated basic plots and charts (e.g., histograms, scatter plots).
- Supported writing of reports and manuscripts (e.g., preparation of tables/figures, and formatting).

Graduate Engineer
IMC Worldwide, LTD, (Various Projects/roles)
Kathmandu Nepal

 Aug 2016 - Jul 2019

- Assisted the design team in the design of roadways (horizontal and vertical alignments)
- Prepared plans and section of the roadways
- Prepared cost estimates and specification of the road maintenance/construction works
- Prepared Maps of the roadways under the project using ArcGIS
- Collected Traffic count sample data to verify the existing traffic counts data
- Assist Project Team Leader in writing reports, evaluation of the work of the contractor
- Assist project team in preparation of contract document (bid document) for procurement of the works.
- Other roles and responsibilities includes condition survey of the roadways, lab testing and evaluation, inventory preparation and road asset management, supervision of road maintenance works, training the government official about road asset management and road maintenance works.

The projects are: APPIC-UKaid, MCC NEPAL TVS

Intern Engineer
IMC Worldwide, LTD, (Various Projects/roles)
Humla and Bajura, Nepal

 Feb 2016 - Jul 2016

- Supervised rural road construction and road maintenance work.
- Prepared plans and section of the roadway using AutoCAD.
- Alignment survey and selection of alternatives.
- learned about asset management of Rural Road Networks in Nepal.
- Prepared contract documents for works and services for the road work.
- Participated and conducted various training of local road maintenance and construction groups.
- Training of ArcGIS, AutoCAD, CIVIL3D

Education

MS in Civil Engineering
University of New Mexico (UNM)
GPA: 3.99
Graduation: May 2021

Thesis:

Exploring the Relationships between Vehicular Emissions and Traffic Operations at Isolated Signalized Intersections

Courseworks

- Transportation Planning
- Transportation Safety
- Transportation and Highway Engineering
- Pavement Design
- Intro. to ArcGIS for Graduate Student
- Project Delivery Method

Skills

- Transportation Planning
- Traffic Impact Studies
- Traffic Safety
- Highway Design
- Signal Design
- Road Design
- AutoCAD
- MicroStation
- Civil3D
- PTV Vistro
- PTV VISSIM
- Programming in Matlab, Python and R

License

- Fundamentals of Engineering (NCEES) July 20 2020