# NIRAJ DAS

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# **SUMMARY OF QUALIFICATIONS**

- Graduated in Master of Engineering from Ryerson University, specialization in Transportation Engineering
- Professional Engineers Ontario (PEO)'s application under review for EIT
- Monitored and tracked time-based schedules for the construction works on MS Project
- Simulated, optimized and modeled network analysis on transportation infrastructure using PTV Vissim
- Attained knowledge of traffic signal, geometric design of road network with, MTO Standards, Ontario Traffic Manual, and TAC
- Excellent team player, self-driven, organized, detailed and result oriented
- Proven communication skills and ability to learn new applications
- Valid Ontario Driving license and owns a vehicle

# **TECHNICAL SKILLS**

- Experienced with AutoCAD designing and drafting along with structural design with STAAD Pro
- Expertise in Transportation software's HCS, Synchro, Sim Traffic and modeling with Vissim, and QGIS
- Skilled programmer in Python and C
- Proficient in MS Office and Google Suite

## **WORK EXPERIENCE**

# BUILDING ENGINEER

JAN 2017 - AUG 2017

#### INSTITUTION FOR SUITABLE ACTION FOR PROSPERITY

**NEPAL** 

- Prepared a detailed estimate of community building using MS EXCEL, presented slides for the pitch and secured funding from Peace Wind Japan to construct four community buildings with a budget of around 120,000 CAD which was utilized by 400 families in the affected community
- Designed and analyzed on STAAD Pro for critical structures effected by earthquake which was approved for the new development by the City Building Commission of Nepal
- Developed a curriculum according to the guidelines of HELVETAS for the construction of buildings designed for earthquake by leading a team of over 100 construction workers
- Prepared a detailed report for Peace Wind Japan according to the Nepal Building Code 105 design and impactions for the project

#### **CIVIL SITE ENGINEER**

MAY 2015 - DEC 2016

#### MINISTRY OF URBAN DEVELOPMENT AND BUILDING CONSTRUCTION

**NEPAL** 

- Prepared detailing of reconstruction framework and budgeted for the Village Development Committee which
  was submitted to the Department of Urban Development and Building Construction
- Assisted and provided technical guidance for the safe demolition of buildings which was damaged during the 2015 earthquakes
- Insured the on-going construction met specification of the project and released allocated funding

 Maintained a technical project completion report on monthly basis which was submitted to the Government of Nepal and International Donors to monitor the reconstruction work for the Village Development Committee

### **EDUCATION**

# MASTER OF ENGINEERING

**DEC 2018** 

#### RYERSON UNIVERSITY

**Modules Taken:** Transportation Planning, Traffic Operations and Management, Pavement Design, Advanced Highway Geometric Design, Urban Transport Systems, Road Safety, Construction Project Management and Administration, and Quantitative Statistical Methods

**Project and Research:** Optimization of Network by Changing Signal Timing and Restricting any Physical Change, Multi Modal Choice Based Modeling using Python-BIOGEME, debated on the Construction of "Downtown Relief Line", Land Change Classification of City of Toronto using Satellite Image

#### **BACHELOR OF ENGINEERING**

**APRIL 2015** 

#### JAWAHAR LAL NEHRU TECHNOLOGICAL UNIVERSITY

Final Year Project: Partial Replacement of Course Aggregates in Concrete by Recycled Aggregate

- Examined the sustainability of recycled construction material by reducing the excavation of natural resources
- Determined a positive result with little to no deterioration in strength of concrete up to 30% replacement by performing compressive strength test
- Generated results indicated that course aggregate can replace 50% by volume when the casting is excluded for structural component and indicated the increase in water absorption by 5-10% with an attained workability

## **VOLUNTEERING AND ACTIVITIES**

- Attended Metrolinx Masterclass for Ryerson University Student hosted on 27<sup>th</sup> March 2019
- Volunteered for Intelligent Transportation System Society of Canada Conference "Mobility 2030: Bridging Innovation and Green Future"
- Volunteered for the Mobility and Resources for the Construction of Temporary Shelter after the Earthquake of Nepal 2015

## **MEMBERSHIPS**

- Young Professional in Transportation (YPT)
- International Transportation Engineer (ITE)
- Canadian Institute of Transportation Engineer (CITE)