

Arun Karthik Chanda Ravichandran

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EDUCATIONAL BACKGROUND

University at Buffalo, State University of New York, Buffalo, NY, USA.

Master of Science in Civil Engineering – Conferral, February 2019

Anna University, Valliammai Engineering College, Tamil Nadu, India.

Bachelor of Engineering, Civil Engineering – Completed, May 2017

CONCEPTUAL SKILLS

- Statistical and Econometric Methods.
- Transportation Analytics.
- Travel Demand Forecasting.
- Geometrical design of Highways.
- Pavement Materials and Design.
- Traffic Operations and Design.
- Geography in Transportation.

JOB-SPECIFIC KNOWLEDGE:

- **SOFTWARE:** SYNCHRO/SimTraffic, PTV VISSIM, Microstation, CARLSON, AutoCAD, AutoTURN, ArcGIS.
- **GUIDELINES:** ITE guidelines, AASHTO, MUTCD, HCM.

WORK EXPERIENCE

Pedestrian Analysis Intern – The Port Authority of New York and New Jersey, New York, NY, USA.

June - August – 2018

- Collected field data for existing vehicle and pedestrian volumes for the intersections around Jersey City’s side of The Holland Tunnel.
- Forecasted future pedestrian and vehicular volume growth using the “ITE Manual for trip generation” and formulated suitable assumptions for trip direction.
- Performed Traffic Impact Analysis using the traffic signal inputs and data collected, using Synchro/SimTraffic, using which, obtained the vehicular queues and congestion levels in the intersections.
- Performed pedestrian walkability analysis using the concepts of Pedestrian Level of Service referring NYCDOT/NJDOT regulations.
- Suggested several mitigation strategies to overcome the future increase in pedestrians crossing these intersections as a result of potential real estate development in this location.

Civil Engineering Intern – NABARD and Rural Roads, Chengalpattu, Tamil Nadu, India.

June - August 2016

- Assisted in review of design drawings of a bridge of about 30 m as per the proposals.
- Performed quality control and site inspections with respect to the materials delivered.
- Communicated with the staff and delegated work including steel reinforcement construction as per IS standards.

Civil Engineering Intern – Chennai Metro Rail Ltd. (CMRL), Chennai, Tamil Nadu, India.

January - April – 2016

- Worked specifically in the Subsurface sites of the Chennai Metro Rail project construction.
- Supervised the construction of various structural elements such as; Diaphragm wall, Subsurface slabs, Plunge columns, etc.
- Inspected and maintained records of the materials hauled by the Tunnel Boring Machine (TBM).
- Studied and reviewed horizontal and vertical alignment plans of the tunnels.

ENGINEERING PROJECTS

- [GIS] Proposal for new metro rail line extensions for Buffalo’s NFTA Metro Rail using ArcGIS (Sept 2018)
- [TRAFFIC] Optimizing signal timings for Church St. corridor in Downtown Buffalo using VISSIM/SYNCHRO (Jan 2018)
- [HIGHWAY] Proposed a new Horizontal alignment for US-231 between SR-26 and US-52 in West Lafayette, IN (Jan 2018)
- [DATA ANALYSIS] Tobit Analysis of Secondary Crash Rates in Western New York Roadways. (Sept 2017)
- [PAVEMENT] Response of Flexible Pavement upon dynamic loading with and without Geogrid Reinforcement (Dec 2016)

OTHER ACTIVITIES

- Proficient in other civil engineering software such as; Revit Arc, Staad.pro, Quantity take-off, Primavera.
- Organized a national level technical symposium, “Construo ‘16” at Valliammai Engineering College, Kanchipuram, India.
- Ability to obtain EIT (Engineer in Training) certification within the next 2 months.