Anand Asokan (EIT)

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Traffic Engineer

- Traffic modeler at Parsons International, Muscat with 5 years experience in the transportation sector with an in-depth knowledge in developing and running VISSIM models for transport projects.
- VISSIM modeling using Microstation macros to convert Microstation objects to VISSIM objects cutting down on modeling time.
- Excellent computer programmer with expertise in VBA and C# with experience in Microstation VBA, VISSIM COM, and Excel VBA.

Skills

- PTV VISSIM Modeling
- PTV VISUM modeling
- Parking Studies
- VISSIM COM Interface
- Microstation/AutoCAD
- PTV Vistro modeling (for TIAs)
- Design Visualization in 3DMax using VISSIM Traffic
- Transportation Planning Studies
- Excel, VBA, C#
- Traffic Report Preparation

Professional Experience

PARSONS INTERNATIONAL , MUSCAT , Oman – *A leading internationally recognized civil engineering design consultant*

Traffic Modeler, Jan 2012 to Present

Responsible for traffic engineering analysis and studies at the Muscat office. Typical workflow involves developing VISSIM models using the collected traffic data and advising the Highway design team regarding the adequacy of the proposed design.

Responsibilities:

- Traffic simulation in VISSIM: Develop and run calibrated VISSIM models to test and analyze various scenarios related to transport projects.
- Traffic report generation: Generate traffic analysis reports based on the data collected from the VISSIM analysis
- Design visualization in 3Ds Max: Import VISSIM traffic into the 3D model created by the 3D team for the purpose of design visualization
- Traffic impact studies: Carry out traffic impact studies using analysis tools like PTV Vistro, VISUM and Excel, based on Dubai Trip Generation Manual, ITE Manual.

Projects:

- Simulation
    - Simulation of Bausher signalized intersection and Al Ghubrah interchange
    - Simulation of underpasses and flyovers from Darsait to Wadi Kabir to identify critical weaving areas between closely spaced interchanges
    - Simulation of diamond interchanges on IC-08 Link Road to calculate expected LOS of the proposed interchanges
    - Simulation of parking entry gate for National Bank of Oman head quarters TIA using VISSIM COM to control the gates.
    - Signalized intersections associated with the Muscat Mega Mall Traffic Impact Study
    - Simulation of Bank Muscat Interchange and Airport Interchange to study the effects of closely spaced diamond interchanges.

  - Simulation of Al Azaibah interchange to analyze and improve the current signal timings and phasing schemes.
- Traffic Impact Studies
  - Traffic Impact Study for Barka Resort
  - Traffic Impact Study for Muscat Mega Mall
  - Traffic Impact Study for National Bank of Oman HQ
  - Traffic Impact Study for Nizwa Grand Mall
- Transportation Planning Studies
  - Ghala industrial area redevelopment study - Developed a transportation model in VISUM for informing the design of the road network in Ghala industrial area redevelopment project.
- Project Feasibility Studies
  - Conducted a preliminary traffic study to assess the feasibility of a third corridor connecting Bausher and Ruwi.
- Application Development
  - VBA - Macro for converting Microstation Objects to VISSIM Links, VISSIM COM interface applications, Macros for processing VISSIM output files, Timesheet macro in excel to track work time of employees.
  - C# - Application to read geotags from project site photos, convert them to UTM coordinates and embed the photo at the correct locations in a CAD file.

INDIAN INSTITUTE OF TECHNOLOGY, Chennai, INDIA – *One of the top university and research center in India*

Project Officer, Feb 2011 to Jan 2012

Project Officer at the center of excellence in urban transportation laboratory under the transportation department IITM, Chennai.

Projects:

- Modeling and simulation of heterogeneous traffic flow – Project involved developing a tool (using VC#) for modeling heterogeneous traffic flow.
- Advanced Traveler Information Systems Project – The project aimed to develop ITS solutions for Indian cities. Mainly dealt with GPS data analysis to extract travel times.

TURNER FAIRBANKS HIGHWAY RESEARCH CENTER OF FHWA, McLean, VA, USA – *One of the leading highway research centers in the US run by the Federal Highway Administration*

Research Assistant, Jan 2009 to May 2010

Research Assistant to Dr. Joe Bared and worked on highway operations and safety.

Projects:

- FHWA Summary Report on Low-Cost Crash Impact of Smooth Lane Narrowing with Rumble Strips at Two-Lane Rural Stop Controlled Intersections – Measured the effectives of lane narrowing at two lane Rural Stop Controlled Intersections on safety using an Empirical Bayes method.
- Alternative Intersection Selection Tool – Poster presented at the 2010 TRB Conference. Reference: Asokan, A. Bared, J. et al, Alternative Intersection Selection Tool, Proceedings of the Transportation Research Board 89th Annual Meeting, Washington DC, 2010 – This tool gives a planning level capacity for alternative intersection layouts like median U-turn intersection, R-CUT intersection etc., using the critical lane volume method.

- Olarte R., Bared J., Sutherland L., Asokan, A; Density models and safety analysis for rural unsignalized restricted crossing U-turn intersections. Presented at 6th ISHC World Congress, conducted by TRB in Sweden.
- Modeled and Simulated Mini-Roundabouts using VISSIM and generated traffic capacity charts for 24 ft and 36 ft wide intersection approaches.

LARSEN AND TOUBRO - ROADS AND RUNWAYS, Chennai, India – *India's largest construction company*

Graduate Engineer Trainee, Jul 2007 to Jul 2008

Graduate level trainee working as a quantity surveyor and cost estimator in the tendering department of roads and runways division, L&T

Responsibilities:

- Primary responsibility was quantity surveyor and cost estimator. Also was part of the resource management team for ongoing projects and coordinated the activities of the various sites from a central location.

Publications

- Alternative Intersection Selection Tool - Poster presentation for TRB 2010 - Link.
- Low-Cost Crash Impact of Smooth Lane Narrowing with Rumble Strips at Two-Lane Rural Stop Controlled Intersections – FHWA Summary report - Link.
- Density models and safety analysis for rural unsignalized restricted crossing U-turn intersections – Presented at 6th ISHC World Congress, conducted by TRB in Sweden - Link.

Technology

Software:	PTV VISSIM 5.4 & 6, PTV VISUM, PTV Vistro, HCS 2010, MS Office, aaSidra, Synchro, 3DsMax, Microstation, Inroads, AutoCAD, Civil 3D, PhotoShop, InkScape.
Programming	VBA, C#, Java (beginner)

Education

Virginia Polytechnic Institute And State University (Virginia Tech), Blacksburg, VA,USA
Master of Science, May 2010

- Major: Transportation Systems Engineering
- GPA: 3.6/4
- Final Project: Movement of empty vehicles in a demand responsive transit system and its impact on cost and fleet size

National Institute of Technology, Calicut, India
Bachelor of Technology, July 2007

- Major: Civil Engineering
- GPA: 7.8/10
- Project: Planning and design of a parking structure for Calicut City
- Internship: 3 month Internship at Delhi Metro Rail Project

Helsinki Summer School 2009, University of Helsinki, Finland

PTV Vision Introductory course on VISUM conducted at Dubai

Writing Sample on Request ● Available for Relocation