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EDUCATION

- | | |
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| 08/02-02/06 | PhD: Michigan State University, East Lansing, MI, USA.
Major: Transportation/Traffic Engineering. |
| 01/01-08/02 | MS: Michigan State University, East Lansing, MI, USA.
Major: Transportation/Traffic Engineering |
| 03/95-08/99 | BS: Baluchistan University of Engineering & Technology, Khuzdar, Pakistan.
Major: Civil Engineering |

CERTIFICATION

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| • TRANSCAD Training/Certification, Caliper, Inc. Boston, MA, USA | January 2010 |
| • VISSIM & VISUM Training/Certification, PTV America, San Francisco, CA, USA | September 2006 |
| • Traffic Signal Operations Specialist, Institute of Transportation Engineers, USA | October 2006 |
| • Eagle Traffic Control Systems, Carrier & Gable, Inc. Farmington Hills, MI, USA | March 2005 |
| • SYNCHRO/CORSIM, Michigan State University, East Lansing, MI, USA | February 2004 |

DISSERTATION

Macroscopic Modeling of Delay Induced by Downstream Traffic Disturbances at Signalized Intersections

WORK EXPERIENCE

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| 08/09-to-date | <i>Assistant Professor with University of UAE, Al Ain, UAE.</i>
Teaching graduate and undergraduate Transportation Engineering courses in Department of Civil & Environmental Engineering. |
| 04/09-03/11 | <i>Intelligent Transportation System Expert with IDC Pakistan and Sheladia, USA.</i>
Working as the ITS expert to perform feasibility study for ITS Technologies for highways in Pakistan. |
| 09/08-to-03/11 | <i>Transportation Expert with IRG, USA</i>
Working as Transportation sector expert to develop Integrated Energy Model. |
| 12/11-to-date | <i>Traffic Engineering Expert with Architectural & Civil Engineering Service (ACES), Pakistan</i>
Working as Traffic Engineering Expert for remodeling and designing of two signalized intersection. Perform Simulation and Economic Impact Analysis for different Alternatives. |
| 02/07-to-07/09 | <i>Assistant Professor with National University of Sciences & Technology, Pakistan.</i>
Teaching Civil/Transportation Engineering courses in School of Civil & Environmental Engineering, a constituent school of National University of Sciences & Technology, Pakistan |
| 07/05-01/07 | <i>Traffic Engineer with Parsons Transportation Group, MI, USA.</i>
Worked on number of traffic operations and Signal design projects |
| 01/05-to 07/05 | <i>Research Assistant with MSU and Michigan Department of Transportation</i>
Working on "Pedestrian countdown signals" with Dr. Maleck and Dr. Ghassan. |

SELECTED RESEARCH AND CONSULTANCY PROJECTS WORKED ON

YEAR(S)	PROJECT I.D.	PROJECT DESCRIPTION AND ACTIVITY
2011 - 2013	Decision Support Tool for Evaluating Law Enforcement Strategies to Improve Driver Behavior in the UAE Emirate Foundation (200,000 AED)	Principal Investigator (PI) – The main objective of this research project is to develop a dynamic simulation model to replicate and simulate behavior of driver in the UAE. The Decision Support Tool will be used to evaluate impact of law enforcement strategies on behavior of drivers.
2010 - 2012	Calibration and Validation of Roundabout Capacity Analysis Parameters for local Conditions in UAE UAE University (30,000 AED)	PI – This research project is an effort to calibrate and validate capacity analysis models according to local traffic conditions and drivers' behavior in UAE. The output of this research will provide more appropriate methodology and models to evaluate the roundabout performance.
2009- 2010	Studying the Performance levels of Traffic safety for school buses of Emirates Transport Emirates Transport, UAE	Transportation Expert – Collect and analysis accident and operation data for school buses of Emirate Transport from Abu Dhabi, Dubai, and Al Ain. Also evaluate the performance of bus service by comparing it with other developed countries.
2009-2010	Assessment of Public Bus Operation and Services in the Emirate of Abu Dhabi. Abu Dhabi Department of Transport	Transportation Expert - Evaluate the public bus operation and service in the Emirate of Abu Dhabi. Total 12 bus routes were evaluated in the city of Abu Dhabi and 8 routes in Al Ain city. Extensive data related to route logs, ridership and user observation were collected and evaluated.
2009 - 2010	Policy Reforms and Institutional Strengthening of National Highway Authority, Pakistan Sheladia Associates, USA	Intelligent Highway Specialist – Undertake a feasibility study proposing solutions for various sections of highways and motorways for implementation of Intelligent Highways Systems in view of prevailing and projected traffic conditions. Develop and prepare plans for conversion of existing roadways into intelligent highways. Training of local staff in operation of ITS through a pilot project.
2008 - 2009	Pakistan Integrated Energy Model (Pak-IEM) ADB TA-4982 PAK International Resource Group (IRG), USA	Transportation Sector Expert – Collect, Evaluate and Analysis data related to Transportation sector in Pakistan for last five years. The Transportation sector includes all forms of transport for passengers and freight. Also, Determine the future travel demand.
2005-2007	Detroit River International Crossing; Detroit, Michigan The Corradino Group/ Michigan Department of Transportation, USA	Traffic Engineer – Involved in traffic capacity analysis and traffic simulation (VISSIM) portions of Environmental Impact Statement (EIS), and project development for location and design studies involving a new border crossing between Detroit, Michigan, and Windsor, Ontario. This includes all associated access to and from the crossing, associated plaza, and the existing freeway system. An engineering report to document the engineering work for the practical and preferred alternatives will be prepared. HCM procedures used to analyze base and year 2035 conditions.

SELECTED PUBLICATIONS AND PRESENTATIONS

- **Ahmed, K;** Abu-Lebdeh, G; & Al –Omari. B (2013) “Estimation of Delay Induced By Downstream Operations at Signalized Intersections Over Extended Control Time”. In Journal of American Society for Civil Engineering (ASCE) Transportation Engineering, Vol. 139, No. 1, pp. 8-19.
- Hassan, M; Hawas, Y; & **Ahmed, K** (2013) “A Multi-Dimensional Framework for Evaluating the Transit Service Performance”. In Journal of Transportation Research Part A: Policy and Practice, Vol. 50, pp. 47-61
- **Ahmed, K;** Zoubi, K & Zanelidin, E (2013) “Evaluation of Effectiveness of Portable Variable Message Signs in Reducing Speed on Rural Highway in Abu Dhabi Emirate”. In proceedings of the 93rd Annual Transportation Research Board meeting, DC, USA
- Mauga, T; Ghanma, M; & **Ahmed, K** (2013) “Roadside Clearance Limit on Horizontal Curves with Transition Arcs Sites with Circular Arcs Shorter than Sight Distance”. In proceedings of the 93rd Annual Transportation Research Board meeting, DC, USA
- Abu-Lebdeh, G & **Ahmed, K** (2013) “Performance Comparison of AIMSUN2 and CORSIM for Congested and Uncongested Freeway Traffic Conditions”. In the proceeding of 3rd IASTED Asian Conference on Modeling, Identification, and Control (AsiaMIC 2013)
- Ghanim, M; Abu-Lebdeh, G; & **Ahmed, K** (2013) “Modeling Historical Traffic Data using Artificial Neural Networks”. In proceedings of the 5th International Conference on Modeling, Simulation and Applied Optimization (ICMSAO 2013), Hammamet, Tunisia
- Ghanim, M; Abu-Lebdeh, G; & **Ahmed, K** (2013) “Microscopic Simulation Study of Transit Signal Priority Implementation Along an Arterial Corridor”. In proceedings of the 5th International Conference on Modeling, Simulation and Applied Optimization (ICMSAO 2013), Hammamet, Tunisia
- Abu-Lebdeh, G; Al –Omari. B; **Ahmed, K;** & Long. D (2012) “Modeling the Impact of Winter Maintenance on Pavement Marking Retroreflectivity”, International Conference on Advances Science and Contemporary Engineering (ICASCE), Procedia Engineering, Jakarta, Indonesia, Volume 50, Pages 942–956
- **Ahmed, K.** (2011) “Evaluation of Low Cost Technique Indirect Right Turns to Reduce Congestion at Urbanized Signalized Intersection in Developing Countries”, 6th ISHC World Congress, Procedia Social and Behavioral Sciences 16. pp 568–577
- Khan, M, Hawas, Y, Basu, N & **Ahmed, K** (2011) “A Logical Approach for Geo-coding and Minimizing Noise in the Spatial Data of Public Bus Services in Urban Areas”, proceedings of 17th International Conference on Urban Transport and the Environment, 6 - 8 June 2011, Pisa, Italy
- **Ahmed, K;** Abu-Lebdeh, G & Chen, H (2008): Estimation of Delay Induced By Downstream Operations At Signalized Intersections Over Extended Control Time. In proceedings of the 87th annual Transportation Research Board meeting, DC, USA
- **Ahmed, K.** (2008): Managing Traffic. In proceeding of the International Seminar on “Traffic Management for Safety and Security”, Islamabad, Pakistan
- **Ahmed, K.** (2008): Traffic safety and Management in Pakistan. In proceeding of the International Seminar on “Traffic Management”, at NED University, Karachi, Pakistan
- **Ahmed, K;** Abu-Lebdeh, G. & Lyles, R.W. (2006): Prediction of Pavement Distress Index with Limited Data on Causal Factors: An Autoregression Approach. In International Journal of Pavement Engineering, vol. 7, no 1, pp 23-35
- **Ahmed, K.** & Abu-Lebdeh, G & Chen, H. (2006): Development of Models to Estimate Delay Induced by Downstream Operations at Signalized Intersections Over Extended Control Time. 5th International Symposium on Highway Capacity and Quality of Service, volume 2, pp 509-516, Yokohama, Japan, July
- **Ahmed, K.** & Abu-Lebdeh, G. (2005): "Modeling of Signalized Intersection Delay Induced by Downstream Traffic Disturbances". In Journal of the Transportation Research Board, No. 1920, pp 106-117,

COURSES TAUGHT

Undergrad Courses

- Transportation Engineering
- Geometric and Highway Design
- Traffic Engineering
- Special Topics in Transportation Engineering
- Highway Engineering

Graduate Courses

- Advance Traffic Engineering & Management
- Design of Transportation Facilities
- Transportation Planning

THESIS SUPERVISED

- Evaluation of Portable Variable Message Signs to Improve Safety for Motorists and Workers at Construction Zones in Abu Dhabi” Thesis for Master of Civil Engineering, to be submitted to Civil & Environmental Engineering, UAEU, Al Ain, UAE by Khalid Al Zoubi, Fall 2012
- Methodology to Calibrate and Evaluate Microscopic Simulation Models for Pakistan, Thesis for Master of Science, to be submitted to School of Civil & Environmental Engineering, National University of Science and Technology, by Mr. Shahid Sultan, Spring 2009.
- Evaluation of Different Alternatives by using Microscopic Simulation Models, A case Study at Katchery Chowk Rawalpindi, Pakistan, Thesis for Master of Science, to be submitted to School of Civil & Environmental Engineering, National University of Science and Technology, by Mr. Fawad Nazir, Spring 2009.
- Effect of Truck Load Variations on Road Performance and Optimum Limit of Truck Factor, Thesis for Master of Science, to be submitted to School of Civil & Environmental Engineering, National University of Science and Technology, by Mrs. Rabia, Fall 2007.
- Strategy Analysis of NHA Road Network Using “Highway Development And Management” Module (HDM-4), Thesis for Master of Science, to be submitted to School of Civil & Environmental Engineering, National University of Science and Technology, by Mr. Shahid Nawaz, Summer 2008.
- Accident Analysis and Identification of Black Spot on Motorway Section from Peshawar to Islamabad, Thesis for Master of Science, to be submitted to School of Civil & Environmental Engineering, National University of Science and Technology, by Mr. Munwar, Summer 2009.
- Evaluating Indirect Right Turn Treatments at Congested Intersections, Thesis for Master of Science, to be submitted to School of Civil & Environmental Engineering, National University of Science and Technology, by Mr. Bilal, Fall 2009.

PROFESSIONAL MEMBERSHIP AND HONORS

- Member, Institute of Transportation Engineers, Michigan State University Chapter
- Best Student paper award for ITE Michigan section, 2005
- Nominated for the best student award in Dept. of Civil & Environmental Engineering, MSU, 2005
- Presented Research paper in TRB Doctoral Student Dissertation Seminar, 2005
- Dissertation Completion Fellowship, Michigan State University College of Engineering, Fall 2004
- Best student paper award for ITE Michigan section and District 3, 2003
- Graduate Fellowship, Michigan State University, Fall 2003

COMPUTER SKILLS

Engineering: CORSIM-5.1 , AIMSUN, VISSIM, SYNCHRO, SIMTRAFFIC, HCS-2000, ITE trip generation software (Tgen), TRANSYT 7F, Traffix, PASSER IV, AutoCAD, Microstation

Others: SPSS 12, MINTAB, MS office, Endnote 7