Hassan Tahsin Abdelwahab

Professor, Public Works Department, Faculty of Engineering, Cairo University

Academic Positions

•	Present	Professor, Public Works Department, Faculty of Engineering, Cairo
		University.
•	2011- April 2018	Associate Professor, Public Works Department, Faculty of Engineering,
		Cairo University.
•	2005-2011	Assistant Professor, Public Works Department, Faculty of Engineering,
		Cairo University.
•	1998-2002	Teaching and Research Assistant, Civil and Environmental Engineering,
		College of Engineering, University of Central Florida, FL, USA
•	1997-1998	Assistant Lecturer, Public Works Department, Faculty of Engineering,
		Cairo University.
•	1993-1997	Teaching and Research Assistant, Public Works Department, Faculty of
		Engineering, Cairo University

Education

- DBA, ongoing, Faculty of Commerce and Business Administration, Helwan University
- MBA, 2017 Arab Academy for Banking and Financial Sciences
- PhD in Civil Engineering 2002 University of Central Florida, USA.
- Master of Science 1997 Cairo University.
- Bachelor of Science in Civil Engineering 1993 Cairo University.

Membership in Professional Societies

- USA Registration Professional Engineer
 - Kentucky
 - Indiana
 - Florida
- PMI Project Management Institute USA
 - Project Management Professional (PMP) certified
 - Project Risk Management Professional (RMP) certified
- Egyptian Engineers Syndicate Egypt

Awards

- The 2001 Outstanding Student of the Center of Advanced Transportation Systems Simulation, US Department of Transportation.
- The 2001 best student paper, Florida ITEM Chapter.
- The Center for Advanced Transportation Systems Simulation Scholarship (2000, 2001)
- The UCF Assistantship Enhancement Fellowship (1999, 2000, 2001)
- The UCF College of Engineering Scholarship (1999,2001)
- The UCF Bookstore Scholarship (2001)
- The American Society of Highway Engineers (1999, 2001)

Experience

Present

2011 – April 2018

2005 - 2011

2002 - 2005

Professor – Cairo University, College of Engineering, Public Works
Department, Highway, Airport, and Traffic Engineering
Associate Professor – Cairo University, College of Engineering, Public
Works Department, Highway, Airport, and Traffic Engineering
Assistant Professor – Cairo University, College of Engineering, Public
Works Department, Highway, Airport, and Traffic Engineering
Transportation Engineer - Morley and Associates, Inc., Evansville, IN.
Responsible for detailed analysis for highway geometric design, profiles, cross sections, signs, intersection grading, earthwork modeling, erosion control plans, and traffic signal plans.

• Civil and Roadway Design

Land Development: design and drafting of construction drawings, drainage reports, erosion control reports, site plans, grading plans, vertical and horizontal alignment computations, intersection details and grading, and quantity takeoffs. Design of the Road Network of the following projects

- Red Bank Road Improvements and traffic signal work for the new Wal-Mart Super Center, Evansville, IN.
- Waterside Resort Community (8600 acre), St. Clair, IL. Waterside Resort Community.
- Carrington Meadows Residential Subdivision (107 Acres), Evansville, IN.
- Cayman Ridge Residential Subdivision (75 Acres), Evansville, IN.
- Engelbrecht Place Commercial and Residential Subdivision (54 Acres), Newburgh, IN.

• Traffic Impact Studies

- Westside Wal-Mart Super Center (gross SF = 205,226) and Murphy Oil Gas Station on Red Bank Road, Evansville, IN
- North side Wal-Mart Super Center (gross SF = 203,091), Murphy Oil Gas Station, and Vocational School on Lynch Rd, Evansville, IN
- Road Warriors: Navigating The Lloyd Expressway, http://www.14wfie.com/Global/story.asp?s=%20%201884804, Project: Simulation of a new Single Point Urban Interchange (SPUI) in Evansville, IN.
- Super Target Store, Evansville, IN
- Holiday World & Splashin' Safari, Santa Claus, IN. http://www.holidayworld.com/

1998 - 2002

Graduate Research Assistant, Civil Engineering Department

- University of Central Florida (UCF), FL.
- Developed a crash simulation package for traffic safety analysis.
- Applied GIS for collision avoidance.
- Conducted a traffic impact study for the UCF campus
- Developed a universal logit mode-choice model for state of Florida

- Supervised an Origin-Destination travel survey of the Orlando Orange County Expressway Authority system.
- Designed road network of the University of Central Florida Main Campus.

Publications

- Abou-Sennaa, H., Radwan, E., Navarro, A, and Abdelwahab, H, (2018), Integrating transportation systems management and operations into the project life cycle from planning to construction: A synthesis of best practices, Journal of Traffic and Transportation Engineering.
- Abdelwahab, H., and Mahgoub H., (2017), A Proposed Traffic Safety Index for Macro-level Assessment of Local Rural Roads, IRF Middle East & North Africa Regional Congress & Exhibition, Mobility Solution for the 21st Century, Dubai, UAE.
- Abdelwahab, H., and Mahgoub H., (2017), Evaluation of Various Partial- Depth Repair Materials for Rigid Pavement, IRF Middle East & North Africa Regional Congress & Exhibition, Mobility Solution for the 21st Century, Dubai, UAE.
- Abdelwahab, H., (2017), Intelligent Design (4D, 5D and Beyond) for Road Design and Construction Projects: Two Case Studies, IRF Examiner, Volume 12, Value Engineering, International Road Federation.
- Abdelwahab, H., (2016), Development of A Microscopic Traffic Simulation for Design and Operational Analysis of Toll Stations, Malaysian Journal of Civil Engineering, Vol. (in press), ISSN 1823-7843.
- Sharaf, M., and Abdelwahab, H., (2015), Analysis of Risk Factors for Highway Construction Projects in Egypt, Journal of Civil Engineering and Architecture, Vol. 9, pp. 526-533.
- Abdelwahab, H., (2014), Simulation of the Road's International Roughness Index (IRI) of Different Tolerances in Surface Levels, Journal of Engineering and Applied Science, Vol. 61-2, College of Engineering, Cairo University.
- Abdelwahab, H., (2014), Stochastic Macroscopic Traffic Simulation Modeling for Impacts of Traffic Chaos of Microbuses, Journal of Engineering and Applied Science, Vol. 61-1, College of Engineering, Cairo University.
- Sobhy, A., Abdelwahab, H., Houzayen, H., and Radwan, L., (2013), Effect of Pavement Layer Properties on Deflection and The Back-calculated Moduli, 17th IRF World Meeting & Exhibition.
- Salah, M., and Abdelwahab, H., (2012), Global Positioning System (GPS) As A Useful Tool In Travel Time Studies In Urban Areas in Greater Cairo, Al-Azhar Engineering Twelfth International Conference.
- Khafagy, M., and Abdelwahab, H., (2012), Investigate Effect of Asphalt Mixture Components on the Recovered Asphalt Content and Aggregate Gradation, Al-Azhar Engineering Twelfth International Conference.

- Abdelwahab, H., and Fahmy, K., (2010), Numerical Analysis of Highway Bridge Approach Settlement and Proposed Improvements for Weak Foundation Soils, Transportation Research Board Annual Meeting 2010 Paper #10-2454.
- Abdelwahab, H., (2010), Transport Model for Upgrading of Cairo Ring Road to an Integrated Transport Corridor, Al-Azhar Engineering Eleventh International Conference.
- Abdelwahab, H., Radwan, L., El-Demary, I., (2010), Investigation of Surface Friction and Rutting Resistance of Highway Pavement, Al-Azhar Engineering Eleventh International Conference.
- Abdelwahab, H., Noureldin, M., Ghaly, N., and Alfa, M., (2010), Treatment of Syrian Natural Asphalt by Using Rejuvenating Agents, Al-Azhar Engineering Eleventh International Conference.
- Abdelwahab, H., Fahmy, K., and A. Kiefa, M., (2010), Parametric Study for Investigation of Highway Bridge Approach Settlement, Al-Azhar Engineering Eleventh International Conference.
- Abdelwahab, H., and Salah, M. (2009), Evolution of Travel Time in Greater Cairo from Year 1997 to Year 2009 Using Travel Time Data for Three Major Arterials, Journal of Arab Roads.
- Abdelwahab, H., and Aty, A. Aty, (2007), Nested Logit Choice Models using Full Information Weighted Exogenous Maximum Likelihood, Al-Azhar Engineering Ninth International Conference.
- Alfa, M., Abdelwahab, H., Ghaly, N., and Noureldin, M., (2007), Utilization of Syrian Natural Asphalt in Hot-Mix Concrete Mixtures, Al-Azhar Engineering Ninth International Conference.
- El-Demary, I., Radwan, L., and Abdelwahab, H., (2007), Effect of Aggregate Type and Gradation on Surface Friction of Asphalt Pavement under Different Environmental Conditions, Al-Azhar Engineering Ninth International Conference.
- Abdelwahab H. and Brown T. (2006) A traffic simulation for drive-thru facilities, *ITE Journal*, forthcoming.
- Abdelwahab H. and Abdel-Aty M. (2004) Investigating the effect of LTV percentages on Rear-End fatal crashes (Part I), ASCE Journal of Transportation Engineering, Vol.130, No. 4.
- Abdelwahab H. and Abdel-Aty M. (2004) Investigating the effect of LTV percentages on head-on fatal traffic crashes (Part II), *ASCE Journal of Transportation Engineering*, Vol. 130, No. 4.
- Abdel-Aty M. and Abdelwahab H. (2004) Analysis and Prediction of Traffic Fatalities Resulting from Angle Collisions Including the Effect of Vehicles' Configuration and Compatibility, *Accident Analysis and Prevention*, Volume 36, Issue 3, pp 457-469.

- Abdel-Aty M. and Abdelwahab H. (2004) Predicting Injury Severity Levels in Traffic Crashes: A Modeling Comparison, *ASCE Journal of Transportation Engineering*, Vol 130, No.2.
- Abdel-Aty M. and Abdelwahab H. (2004) Modeling Rear-End Collisions Including the Role of Drivers Visibility and Light Truck Vehicles Using a Nested Logit Structure, *Accident Analysis and Prevention*, Volume 36, Issue 3, pp 447-456.
- Abdel-Aty M. and Abdelwahab H. (2003) Configuration Analysis of Two-Vehicle Rear-End Crashes, *Journal of the Transportation Research Board* No. 1840, pp. 140-147.
- Abdelwahab H. and Abdel-Aty M. (2003), Use of Internet to Enhance Transportation Data Collection, *ITE 2003 Annual Meeting and Exhibit program*, Seattle, Washington.
- Abdelwahab H. and Abdel-Aty M. (2002). Investigating Driver Injury Severity in Traffic Accidents Using Fuzzy ARTMAP, Journal of *Computer-Aided Civil and Infrastructure Engineering* 17, pp. 396-408.
- Abdelwahab H. and Abdel-Aty M. (2002). Traffic Safety Analysis for Toll Plazas using Artificial Neural Networks and Logit Models, *Journal of the Transportation Research* Board, Vol 1784.
- Abdelwahab H. and Abdel-Aty M. (2002). Investigating the Travel and User Characteristics
 of Toll Roads Based on a Travel Survey of the Central Florida Expressway System, *Journal*of the Transportation Research Board, Vol. 1807.
- Abdel-Aty, M., Aiouche, H., Abdelwahab, H. (2001), Investigating Vehicle Occupancy Rates on Toll Roads: Empirical Results From an Origin-Destination Study and its Implication on Air Quality, *The 2001 Annual Conference & Exhibition, Air & Waste Management Association*, Orlando, Florida.
- Abdel-Aty M. and Abdelwahab H. (2000). Exploring the Relationship between Alcohol and the Driver Characteristics in Motor Vehicle Accidents, *Accident Analysis & Prevention Journal*, Vol. 32, No. 4, pp. 473-482.
- Abdelwahab, H. and Abdel-Aty, M., (2000), Log-Linear Analysis of the Relationship Between Alcohol Involvement and Driver Characteristics in Traffic Crashes, *Proceedings of the 3rd Transportation Specialty Conference*, Canadian Society of Civil Engineers, Ontario, Canada.
- Abdel-Aty, M. and Abdelwahab, H., (2000), Application of Differential GPS for Collision Avoidance in a Wireless Environment, *Proceedings of the 10th Annual Meeting of ITS America*, Boston.
- Abdel-Aty, M., Abdelwahab, H., Aiouche, H., and Huang, Y., (2000), Origin/Destination Survey for the Central Florida Expressway System, *Florida Transportation Modeling Applications Conference*, The Florida Model Task Force, Florida Department of Transportation.

- Abdel-Aty, M. and Abdelwahab H. (2001). A toll Road O-D Travel Survey: Internet and Mail-back Response Analysis and the Implications for Future Surveys, *Journal of the Transportation Research Board*, Vol. 1768.
- Abdelwahab H. and Abdel-Aty M. (2001). Development of Artificial Neural Networks Models to Predict Driver Injury Severity in Traffic Accidents at Signalized Intersections, Journal of the Transportation Research Board, Vol. 1746.
- Abdelwahab, H., and Abdel-Aty, M., (2001), Applying Fuzzy ARTMAP Neural Networks to Predict Driver Injury Severity in Traffic Accidents, *The 9th WCTR Conference*, The Korea Transport Institute.
- Abdelwahab, H., (2001), Analysis of Injury Severity for Drivers Involved in Traffic Accidents Using Artificial Neural Networks, the International Conference on Computers and Industrial Engineering (ICC&IE) 2001 Joint Meeting, Orlando, Florida.
- Abdel-Aty, M. and Abdelwahab, H., (2001), The Design and Administration of an Origin/Destination Survey for the Central Florida Expressway System, The 9th WCTR Conference, The Korea Transport Institute.
- Abdelwahab H. and Abdel-Aty M. (2000) Applying MLP Neural Networks to Predict Driver's Injury Severity in Traffic Accidents, Al-Azhar University Engineering Journal (Special Issue), Vol. 4, pp.607-615.

