

## Curriculum Vitae

### **MUAMER ABUZWIDAH, Ph.D., MSEM**

Assistant Professor in Transportation / Traffic Safety  
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[http://www.sharjah.ac.ae/en/academics/Colleges/eng/dept/ced/Pages/ppl\\_detail.aspx?mcid=36](http://www.sharjah.ac.ae/en/academics/Colleges/eng/dept/ced/Pages/ppl_detail.aspx?mcid=36)

### **Research Interests:**

Traffic safety analysis, modeling drivers' behavior, Intelligent Transportation Systems, traffic simulation, statistical and econometrics applications in Transportation Engineering Systems, and Calibrating the Highway Safety Manual. Highway-Safety Evaluation, Roads Maintenance, and Traffic Management System.

### **Education**

#### **Degrees Programs**

★ Ph.D. in Civil Engineering	(2014)	Univ. of Central Florida,	FL / USA
★ Master of Science in Civil Eng.	(2011)	Univ. of Central Florida,	FL / USA
★ Master of Science in Eng. Management.	(2015)	Univ. of Central Florida,	FL / USA
★ Bachelor of Science in Civil Eng.	(2005)	Univ. of Tripoli.	Tripoli/ Libya

#### **Certificates Programs**

★ Innovation Management Certificate.	(2017)	University of Sharjah	Sharjah/ UAE
★ Leadership in Higher Education	(2015)	University of Sharjah	Sharjah/ UAE
★ SAS Data Mining Certificate	(2012)	Univ. of Central Florida,	Florida / USA
★ Transportation Engineering Certificate	(2012)	Univ. of Central Florida,	Florida / USA
★ Preparing tomorrow's Faculty Certificate	(2011)	Univ. of Central Florida,	Florida / USA
★ Graduate Teaching Assistant Certificate	(2011)	Univ. of Central Florida,	Florida / USA
★ Project Engineering Certificate	(2014- present)	Univ. of Central Florida,	Florida / USA
★ Safer Roads by Design Workshop	(2012)	International Road Federation,	Florida / USA

### **Professional Profile**

- Seven years of statistics related experience in research and applications.
- Have a solid understanding of data mining and statistics modeling.
- Advanced skills in statistics Software,
- Knowledgeable in transportation engineering, traffic safety, highway geometric design.
- Confident in learning and applying new knowledge, following the new development of technologies.

- Work efficiently in a team or independently.
- President of American Society of Highway Engineers (ASHE) – UCF Chapter, 2014- 2015.
- Worked on multiple research projects that addressed Intelligent Transportation Systems, Calibrating the Highway Safety Manual, and traffic safety issues.
- Experienced in teaching Transportation Safety course; as well as transportation related courses.
- Accomplished extensive industry experience regarding the geometric design and the structural designs of Highway elements.
- Worked as a consulting in Highway Maintenance.
- Worked as a project engineer in Highway Maintenance.
- Attended and presented research papers at several conferences that related to the transportation engineering.
- Results-oriented, with strong trouble-shooting skills to meet deadlines

## Work Experience

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- **Assistant Professor (Civil & Enviro. Eng. Dep.) (Sep 2015- present) *University of Sharjah / UAE***
  - Post-Doctoral Associate (Civil Eng. Dep.) (Jan 2015-Aug 2015) *Univ. of Central Florida, FL / USA*  
Teaching, supervising graduate students, working on research projects, writing research papers, technical reports and research proposals, also reviewing research papers for different journals.
  - Simulation Laboratory Director (Aug 2014- June 2015) *Univ. of Central Florida, Florida / USA*
  - President of American Society of Highway Engineers at UCF (2014- May 2015) Florida / USA
  - Graduate Teaching Assistant (Civil Eng. Dep.) (2012-2014) *Univ. of Central Florida, Florida / USA*
  - Graduate Research Assistant, (Civil Eng. Dep.) (2010-2014) *Univ. of Central Florida, Florida / USA*
    - Work on multiple research projects that addressed traffic safety analysis.
    - Calibrate the Highway Safety Manual (HSM, 2010) using Florida Data.
    - Work on traffic safety assessment of different toll collection systems on expressways using multiple analytical techniques.
    - Evaluate multiple transportation treatments and suggested solutions for the traffic safety problems.
    - Collect data using different sourcing and techniques to come up with the most accurate and complete data for the analysis.
    - Study multiple analysis techniques by enrolling in most statistics courses.
    - Department along with all transportation courses that offered by the Civil Eng. Dep.
    - Study engineering management techniques by enrolling in the M.S. Degree in Engineering Management, and applying that in the research projects.
  - Transportation Laboratory Manager, (May 2012-Aug 2014) *Univ. of Central Florida, Florida / USA*
  - Transportation Laboratory Supervisor, (May 2010-April 2014) *Univ. of Central Florida, Florida/ USA*
  - Project Engineer (Jun 2006-Aug 2008) *Libyan Malaysian Comp. for Roads & Const. Tripoli/ Libya*
  - Chief Executive Officer (CEO) (2006-2009) *Alburj Aljadid Company Tripoli/ Libya*
  - Consulting Engineer (2005-2006) *Al-Inma Comp. and the Bonyan Consulting Eng. Tripoli/ Libya*
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## Academic Honors and Awards

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- ★ Leadership in Higher Education Certificate, University of Sharjah, Sharjah- UAE, 2015.
- ★ Award of Excellence in Teaching Assistant, College of Engineering and Computer Science, University of Central Florida, 2015
- ★ The Civil Department Award for Outstanding Graduate Teaching Assistant, Faculty of Engineering, University of Central Florida, USA, 2014.
- ★ The Civil Department Award for completing the B.Sc. Civil Engineering degree with honors (Faculty of Engineering, University of Tripoli, Libya /2005).
- ★ International Road Federation (IRF) Award (Dec, 2012 Orlando, Florida)
  - The University of Central Florida, Grad Presentation Fellowship Award (September **2014**).
  - The University of Central Florida, Grad Presentation Fellowship Award (January **2014**).
  - The University of Central Florida, Grad Presentation Fellowship Award (January **2013**).
  - The UCF Student Government Association Grad Presentation Travel Award (**2013**).
  - The UCF Student Government Association Grad Presentation Travel Award (**2012**).

## Teaching Experience

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★ **University of Sharjah** (Sep 2015 – present) **Sharjah/ UAE**

CEE 526: Highway Safety Analysis *Graduate Course*.

CEE 524: Intelligent Transportation System. *Graduate Course*.

CEE 529: Advanced Topics in Transportation Engineering. *Graduate Course*.

CEE 426: Highway Design. Undergraduate Course.

CEE301: Engineering Economics. Undergraduate Course.

CEE491: Senior Design Project I. Undergraduate Course.

CEE499: Senior Design Project II. Undergraduate Course.

★ **University of Central Florida** **Florida/ USA**

TTE 6315 Transportation Safety Analysis. (Teaching when instructor on travel). Spring 2015

CGN3700C - Civil Engineering Measurements and Surveying. (2012 – 2014). Teaching regular class lecture when instructor on travel. Also fully responsible on the lab section in this class such as teaching the lab lectures indoor and supervising the outdoor training sessions as follows:

- Fall 2012 - Five lab sessions per week
- Spring 2013 - Five lab sessions per week
- Fall 2013 - Four lab sessions per week
- Spring 2014 - Four lab sessions per week

## Committees and Professional Memberships

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Activity	Role	Date
➤ Road Safety Committee	Member	Spring 2017- present
➤ Sustainable Civil Infrastructure Systems (SCIS) Research Group	Member	2015- present
➤ UAE level: Scientific Review Committee of the “Think Science”	Judge	April 2017
➤ Student Activities	Co-Coordinators	2016- present
➤ ASCMCES-17 – Organizing Committee	Member	Spring 2017
➤ Community Service & Outreach Committee	Member	2016- present
➤ Students on Probation or at Risk	Member	2016- present
➤ UAE level: Scientific Review Committee of the “Think Science” competition.	Judge	April 2016
➤ A radio talk about pedestrian safety	Gust	April 2017
➤ A radio talk about Traffic Safety Education	Gust	April 2016
➤ Gulf Traffic Week Events	Supervisor	2016/2017
➤ Department Undergraduate Program Committee	Member	2015/2016
➤ ABET Re-Accreditation Committee	Member	2015/2016
➤ Department Annual Plan Committee	Member	2015/2016
➤ The American Society of Highway Engineers (UCF Chapter)		
• <b>President</b>		(2014– May 2015)
• Treasurer		(2012 –2013)
• Risk Management		(2010 –2011)
➤ The Institute of Transportation Engineers (Ite),		
• Member		(2010 – 2015)
➤ The International Road Federation		
• Member (UCF membership)		(2010 – 2015)
➤ The American Society of Civil Engineers (ASCE)		
• Member		(2012 – 2015)

## Funded research projects

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### PI:

- Evaluation of the Roads and Parking Design to Improve Traffic Safety and Operation in the University City of Sharjah. Sharjah/UAE 2016.

### Researcher:

- Validation and Application of Highway Safety Manual (part C & D) in Florida. Phase I.
- Validation and Application of Highway Safety Manual (part C & D) in Florida. Phase II.
- Synthesis of Visibility Detection Systems.
- Operational and Safety-Based Analysis of Varied Toll Lane Configurations.

## Selected Journal Publications

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1. **Abuzwidah, M.**, Abdel-Aty, M. “Crash Risk Analysis of Different Designs of Toll Plazas “*Journal of Safety Science*.2018. Vol. 107, Pages 77-84.
2. **Abuzwidah, M.**, Abdel-Aty, M. “Traffic Safety Assessment of the High Occupancy Toll lanes System” *Journal of Accident Analysis and Prevention (Under Review)*. AAP-D-2017-00589.
3. **Abuzwidah, M.**, Abdel-Aty, M. “Safety Assessment of the Conversion of Toll Plazas to All-Electronic Toll Collection System” in *Journal of Accident Analysis and Prevention*.2015. Vol. 80, pp. 153–161/ 2015
4. **Abuzwidah, M.**, Abdel-Aty, M., and Ahmed, M. “Safety Evaluation of Hybrid Mainline Toll Plazas”. *Journal of the Transportation Research Board, in press*. No.2435 DC: 2014, pp.53-60, DDI: 10.3141/2435-07, 2014.
5. Ahmed, M., Abdel-Aty, M., Qi, S., **Abuzwidah, M.** “Synthesis of State-of-the-Art in Visibility Detection Systems' Applications and Research” in *Journal of Transportation Safety & Security* 01/2014; 6(3). DOI: 10.1080/19439962.2013.824055, 2014.
6. **Abuzwidah, M.**, Abdel-Aty, M. “Safety Evaluation of the Open Road Tolling System” in *Libyan Journal of Traffic Safety*, 2014. Pp.30-36.

## Selected Conference Publications

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1. **Abuzwidah, M.**, Abdel-Aty, M. “Effects of Using High Occupancy Toll Lanes on Safety Performance of Freeways” presented in 96th Transportation Research Board Conference, No 17-06894\_IN01.2017.
2. **Abuzwidah, M.**, Abdel-Aty, M. “Modelling of Traffic Safety of Traditional Mainline Toll Plazas”. Presented at The International Conference on Advances in Sustainable Construction Materials & Civil Engineering Systems (ASCMCES-17). Sharjah, UAE, 2017.
3. Mariam, A., **Abuzwidah, M.**, Hamad, K., “Road Users' Opinion about Pedestrian Safety in the Emirate of Sharjah, UAE- Survey Results”. Presented at The International Conference on Advances in Sustainable Construction Materials & Civil Engineering Systems (ASCMCES-17). Sharjah, UAE, 2017.
4. Venkatachalam, S., Hamad, K., Abu Dabous, S., **Abuzwidah, M.**, “An Investigative Study on the Student Performance on Multiple Choice Exams with Multiple Versions in Engineering Economics Course”. Presented at the International Forum on Engineering Education. Sharjah, UAE, 2017.
5. **Abuzwidah, M.**, Abdel-Aty, M. “Traffic Safety Assessment of Traditional Mainline Toll Plazas on Expressways” in the 2015 Road Safety & Simulation International Conference. October, 2015.
6. **Abuzwidah, M.**, Abdel-Aty, M. “Safety Evaluation of All-Electronic Toll Collection System” in Conference: 94th Transportation Research Board, No 15-2700, 2015.
7. **Abuzwidah, M.**, Abdel-Aty, M. “Traffic Safety Evaluation and Modeling of Toll Collection Systems” in Conference: 94th Transportation Research Board, No 15-2711, 2015.

8. **Abuzwidah, M.**, Abdel-Aty, M. “Safety Evaluation of the Open Road Tolling System” in 2ed Libyan Conference of Traffic Safety, 2014.
9. **Abuzwidah, M.**, Abdel-Aty, M., and Ahmed, M. “Safety Evaluation of Hybrid Open Road Tolling Plazas” in Conference: 92nd Transportation Research Board, No 14-3788, 2014.
10. Ahmed, M., Abdel-Aty, M., Qi, S., **Abuzwidah, M.** “Synthesis of State-of-the-Art in Visibility Detection Systems' Applications and Research, “in Conference: 92nd Transportation Research Board, No 13-0832, 2013.

### PH.D. Dissertation:

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#### Civil Engineering (Transportation Track)

- ★ **Abuzwidah, M.** “Traffic Safety Assessment of Different Toll Collection Systems on Expressways Using Multiple Analytical Techniques.” Ph.D. Dissertation. Orlando, University of Central Florida., 2014.

### Master Thesis:

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#### Civil Engineering (Transportation Track)

- ★ **Abuzwidah, M.** “Evaluation and Modeling of the Safety of Open Road Tolling System” M.S. Thesis. Orlando, University of Central Florida., 2011.

### Selected Research Publications (Technical Reports):

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- 1- **Project Report 1:** Evaluating Toll Plazas and Visibility Conditions Using Driving ( April 2015).
- 2- **Project Report 2:** Validation and application of highway safety manual in Florida (May 2014).
- 3- **Project Report 3:** Synthesis of Visibility Detection Systems (October 2012).

### Selected Presentations

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- Presentations in the Gulf Traffic Events at the University of Sharjah - 2015/2016 and 2016/2017.
- Toll Road Safety Experience in Florida: Seminar with visitor scholar from University of Cypress and the University of Central Florida, Orlando January 2015.
- Operational and Safety-Based Analysis of Varied Toll Lane Configurations Using Florida data:
- Safer-Sim Symposium on Traffic Safety at the University of Massachusetts Amherst, 2014.
- Effect of Traffic safety on the society and the economy: Seminar with American Society of Highway Engineers (UCF Chapter), September 2014.
- Effect of driver age on traffic safety of expressway: Seminar with American Society of Highway Engineers (UCF Chapter), Orlando 2014.
- Benefit of devolving specific Florida’s Highway Safety Manual using Florida data: Seminar with traffic safety office at Florida Department of Transportation, at the University of Central Florida, 2014.

- Safety Evaluation of Open Toll Roads: Seminar with visitor scholar from Ajou University, South Korea at the University of Central Florida, January 2014.
- Validation and Application of the Highway Safety Manual using Florida data: Seminar with visitor scholar from Tongji University, China, at the University of Central Florida, 2014.

### **FACULTY DEVELOPMENT**

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<b>Activity</b>	<b>Type</b>	<b>Date</b>
➤ Attended several Faculty Development Programs in the Continuous Education Center and Professional Development (UOS)	Certificates	2016/2017
	Certificates	2015/2016
➤ Attending several seminars and presentations	Presentations	2015/2016
➤ Contributing in Online Webinars	Webinars	2015/2016

### **Reviewer for Multiple Scientific Journals**

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I am serving as a reviewer for different scientific journals, including but not limited to, Accident Analysis and Prevention, Journal of Transportation Research Record, Journal of Safety Science, and the Journal of Safety Research. As well as a reviewer for multiple transportation-related conferences.

Thank you