

Hesham Mohamed Taha Elmasry

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EDUCATION

Doctor of Philosophy (PhD), University of Alberta (UoA), Edmonton, Canada	[2023-Present]
- Department: Civil and Environmental Engineering - Major: Transportation Engineering	
Master of Science (M.Sc.), Ain Shams University (ASU), Cairo, Egypt	[2018-2022]
- Department: Civil - Major: Public Works – Traffic Engineering and Transportation Planning	
- Thesis: Introduction of Small Vehicles to Urban Road Networks: Concept and Traffic Impact	
Bachelor of Engineering, Ain Shams University (ASU), Cairo, Egypt	[2012-2017]
- Department: Civil - Major: Public Works - Grade: Excellent (Class rank: 1)	
- Graduation Project: Highways and Airports	
General Certificate of Secondary Education (GCSE), Al-Farouk Islamic School, Cairo, Egypt	[2010-2012]
- Grade: 99%	

WORK EXPERIENCE

Teaching Assistant, Faculty of Engineering, University of Alberta (UoA), Edmonton, Canada	[2024-Present]
<ul style="list-style-type: none">Tutoring the Transportation Engineering course (CIV315) to students enrolled in the Civil Engineering ProgramFormulating comprehensive lesson plans and generating supplementary materials studentsDesigning assignments, providing assistance with inquiries, and evaluating examinations	
Graduate Research Assistant, Faculty of Engineering, University of Alberta (UoA), Edmonton, Canada	[2023-Present]
<ul style="list-style-type: none">Taking a leadership position within the research group, providing support to my supervisor and fellow studentsActively participating in transportation engineering research projects	
Teaching Assistant, Faculty of Engineering, Ain Shams University (ASU), Cairo, Egypt	[2018-2022]
<ul style="list-style-type: none">Tutored Traffic Engineering and Transportation Planning courses for students of Civil Engineering ProgramTutored AutoCAD Lab course for Freshmen studentsPrepared lesson outlines and creating worksheets for teachers to hand out to studentsDeveloped quizzes, monitoring tests, answering questions as needed and grading tests	
Research Assistant, Center of Mobility Research (CMOR), Faculty of Engineering (ASU) Cairo, Egypt.	[2020-2022]
<ul style="list-style-type: none">Contributed to research projects related to traffic safetyParticipated in publishing research papers in prominent conferences	
Design Review Engineer, General Authority for Roads, Bridges and Land Transport (GARBLT), Cairo, Egypt	[2021-2022]
<ul style="list-style-type: none">Reviewing and giving approvals for highway projects and traffic studies in Egypt	
Highway Design Engineer, Khatib and Alami (K&A), Cairo, Egypt	[2018-2021]
<ul style="list-style-type: none">Planned and designed interchanges at various freeway projects in KSA, UAE and KuwaitCreated designs for new development and the upgrade of existing highway structuresDesigned urban sites (rough grading and intersection grading) at Housing Projects in KSA and QatarGenerated design reports of flexible pavementContributed to making of traffic signs and pavement markings for various projects in Qatar	
Highway and Airport Design Engineer, Consultant office - Prof.: Khaled Kandil (KK), Cairo, Egypt	[2017]
<ul style="list-style-type: none">Designed urban roads including their intersections (urban networks) in new urban communities in EgyptGenerated calculation sheets and design reports of flexible and rigid pavement of rural highwaysPlanned and designed interchanges at the New Administrative CapitalContributed to the smooth grading design of parts of runways and taxiways of civil airportsWorked on quantity surveying for roads projectsCreated shop drawings for various freeway and highway projects	

ADDITIONAL WORK EXPERIENCE

Volunteer, Conversation Club, English Language School, UoA, Edmonton, Canada	[2023-Present]
<ul style="list-style-type: none">Helping English-Second-Language students to practice and improve their listening and speaking skillsProviding chance to explore international students' cultures, and develop new communication skills	
Volunteer, Resala, Cairo, Egypt	[2012-2019]
<ul style="list-style-type: none">Took part in the organization of clothes fairsParticipated in the finishing works of mosques and schools with Emaar team in Egyptian villagesContributed to Math teaching lessons for preparatory stage students	
HR member, Brain Storm student activity, Cairo, Egypt	[2013-2014]
<ul style="list-style-type: none">Participated in organizing different events related to enhancing undergraduate students soft skillsContributed to evaluating and motivating the activity's membersTook part in leading group discussion interviews for accepting participants	

COMPUTER SOFTWARE PROGRAMS

AutoCAD Civil 3D

- Achieved certification from Autodesk in 2016 through CAD Masters Training Center
- Applied expertise in AutoCAD Civil 3D for my graduation project
- Depend on this software for the design of highways and airports in my professional role

Vissim

- Using it in microsimulation analysis in Master of Science Thesis

Visum

- Basic knowledge for trip assignment and evaluating road network

InfraWorks

- Used it in 3D modelling of highway projects through my work at K&A

Statistical programs

- Proficient in utilizing statistical software packages such as SPSS and SAS for my Master's thesis and diverse research initiatives

FAARFIELD

- Basic knowledge in designing rigid pavement of airports through my work at consultant office KK

Other

- Basic knowledge to QGIS, Python, and MS office (excel, power point and word)

PEER-REVIEWED PUBLICATIONS

- Elmasry, H; El Esawey, M; Osama, A. An Evaluation of the Safety and Environmental Impacts of Microcars. Presented at 104th Annual Meeting of the Transportation Research Board, Washington, D.C., 2024.
- Abohassan, A; Contini, L; Elmasry, H; El-Basyouny, K. (2024). Assessing the effectiveness of speed limit reduction in Edmonton: A case study analysis. Accident Analysis & Prevention, 195, 107379.
<https://doi.org/10.1016/j.aap.2023.107379>
- El Masry, H; El Esawey, M; El-Araby, K.; Osama, A. (2022). Operational Impact of Microcars On Urban And Suburban Road Corridors. Transportation research record, 2676(6), 488-502.
<https://doi.org/10.1177/03611981221075022>
- El Masry, H; El Esawey, M; Osama, A; El-Araby, K. Investigating the Willingness to Purchase and Use Small Vehicles: An Empirical Study Through Internet-Based Survey. Presented at 100th Annual Meeting of the Transportation Research Board, Washington, D.C., 2021.
- Osama, A; El Masry, H; Farrag, M; Telima, M. Street Guards: A Tool for Crowdsourcing Road Safety and Security Data in Developing Countries. Presented at 101st Annual Meeting of the Transportation Research Board, Washington, D.C., 2022.

CONFERENCES AND INTERNSHIPS

- Life After University Conference, UoA, Edmonton, Canada** [2023]
 - Engaged in sessions focused on enhancing financial acumen
 - Cultivating professional competencies essential for post-graduation career readiness
- 100th Annual Meeting of the Transportation Research Board (TRB) held virtually in Washington, D.C.** [2021]
 - Made significant contributions to the preparation and presentation of our research paper
 - Assisted in the creation of a poster and effectively communicating the key concepts to the audience
- Intern, Arab Contractors, Cairo, Egypt** [2016]
 - Explored the field construction of Rod El-Farag Corridor and its foundations in the River Nile.
- Trainee, Armed Forces Engineering Authority, Cairo, Egypt** [2016]
 - Visited the new Administrative Capital and Galala Plateau construction sites
- Intern, Oрасom, Cairo, Egypt.** [2015]
 - Attended the process of maintenance of runway (05L-23R) and taxiway at Cairo International Airport
 - Visited the lab and observed quality control tests
- Intern, Wadi El-Nil, Cairo, Egypt** [2015]
 - Followed bored piles construction process of Azhar University stocks
- Intern, Engineering Consultants Group (ECG), Cairo, Egypt** [2014]
 - Attended four sessions and one-day site visit to Madinaty
 - Learned some basics of SAP2000 software and its applications
- Trainee, GARBLT, Cairo, Egypt** [2014]
 - Identified different labs used in quality control of highway construction

LANGUAGE

Arabic: Mother tongue, **English:** Fluent, **French:** Basic

OTHER HOBBIES AND INTERESTS

- Sports and exercise (Soccer football, Running, Gym and Swimming).
- Exploration of different destinations through travel and creation of documentary YouTube videos.
- Enjoyment of American films and animated movies as a form of leisure entertainment.