MAHMOUD OWAIS

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Status:

Full Name	: Mahmoud Mohamed Ahmed Owais
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Biographical Sketch

Mahmoud Owais is an Associate Professor in Transportation Planning and traffic engineering in the Civil Engineering Department, Faculty of Engineering, Assiut University. He was born on 1/10/1987, El-Mansoura, Egypt. He graduated from Assiut University - Faculty of Engineering in 2009. He obtained his M.S. in Transportation Planning from the University of Assiut in 2011. He undertook his Ph.D. in Transit Planning, from the same University in 2014. He published several studies in well-reputed journals regarding transit planning and traffic sensor problems besides nominating as a reviewer by IEEE Transaction on ITS, IEEE Access, and European Journal of Operational Research, in which he completed around one hundred reviews. He believes that public transportation is a vital means of reducing traffic problems. Therefore, He takes his major in public transportation planning. He developed a new methodology based on Meta-heuristic for Randomized Priority Search (Meta-RaPS) and Route Constructive Genetic Algorithm (RCGA) to solve the mass transit problem. Additionally, he is the first person to frame the Transit Network Design Problem entirely under the umbrella of the Genetic Algorithm (GA). Innovatively, he also merged the results of a simulation of passengers at bus stops into the classic transit assignment models to achieve a balance between the simplicity and the reality of his model results. He also expanded his work to incorporate Artificial Intelligence and Machine Learning in traffic flow prediction and traffic accidents analysis. He simultaneously gains academic and practical experience during his work years.

Credentials U.S. Degree Equivalency Evidence

https://badges.wes.org/Evidence?i=e62d9d7d-f8f0-44f0-9b89-4b09274e6b50&type=us

Academic Posts

Institution	Title	Period	FT/PT
Faculty of Engineering, Assiut Univ., Egypt	Associate Professor	2020 - until now	FT
College of Engineering – Majmaa Univ., KSA	Assistant Professor	2017– 2022	FT/on leave
Faculty of Engineering, Assiut Univ., Egypt	Assistant Professor	2014 - 2020	FT
Faculty of Engineering, Assiut Univ., Egypt	Assistant lecturer	2011-2014	FT
Faculty of Engineering, Assiut Univ., Egypt	Demonstrator	2009-2011	FT

Main Research Interest areas

Public Transportation - Transportation data modeling and simulation - Traffic Accidents analysis - Statistics and theory of probability - Combinatorial Optimization - Heuristics and Meta-heuristics - Artificial Intelligence& Machine Learning – Neural Networks and Deep Learning - Traffic Engineering Operation Management & Control – Pavement Design and Traffic Micro-Simulation.

Publications in Refereed Journals Starting from 2011

Contribution statement for all articles:

Dr. Mahmoud Owais: Conceptualization, methodology, software, validation, writing - Original draft.

- _**Owais, M.,**_ & Ahmed I. Shahin (2022). Exact and Heuristics Algorithms for Screen Line Problem in Large Size Networks: Shortest Path-Based Column Generation Approach, *IEEE Transactions on Intelligent Transportation Systems, In press.* https://doi.org/10.1109/TITS.2022.3189770.

- _**Owais, M.**_ (2022). Traffic Sensor Location Problem: Three Decades of Research, Journal of Expert Systems with Applications. *Expert Systems with Applications, In Press.* https://doi.org/10.1016/j.eswa.2022.118134.

- _**Owais, M.,**_ & Ahmed, A. S. (2022). Frequency Based Transit Assignment Models: Graph Formulation Study. *IEEE Access*, vol. 10, pp. 62991-63003, https://doi.org/10.1109/ACCESS.2022.3182046.

- Moussa, G. S., _**Owais, M.**_, & Dabbour, E. (2022). Variance-based global sensitivity analysis for rear-end crash investigation using deep learning. *Accident Analysis & Prevention*, *165*, 106514. https://doi.org/10.1016/j.aap.2021.106514.

- **_Owais, M.,_** & Matouk, A. E. (2021). A factorization scheme for observability analysis in transportation networks. *Expert Systems with Applications*, *174*, 114727. https://doi.org/10.1016/j.eswa.2021.114727.

- **_Owais, M.,_** Ahmed, A. S., Moussa, G. S., & Khalil, A. A. (2021). Integrating underground line design with existing public transportation systems to increase transit network connectivity: case study in greater cairo. *Expert Systems with Applications*, *167*, 114183.https://doi.org/10.1016/j.eswa.2020.114183

- Moussa, G. S., & **_Owais, M._** (2021). Modeling Hot-Mix asphalt dynamic modulus using deep residual neural Networks: Parametric and sensitivity analysis study. *Construction and Building Materials*, *294*, 123589. https://doi.org/10.1016/j.conbuildmat.2021.123589

- **_Owais, M.,_** & Alshehri, A. (2020). Pareto optimal path generation algorithm in stochastic transportation networks. *IEEE Access*, *8*, 58970-58981. https://doi.org/10.1109/ACCESS.2020.2983047

- **_Owais, M.,_** Moussa, G. S., & Hussain, K. F. (2020). Robust deep learning architecture for traffic flow estimation from a subset of link sensors. *Journal of Transportation Engineering, Part A: Systems*, *146*(1), 04019055. https://doi.org/10.1061/JTEPBS.0000290

- Moussa, G. S., & **_Owais, M._** (2020). Pre-trained deep learning for hot-mix asphalt dynamic modulus prediction with laboratory effort reduction. *Construction and Building Materials*, *265*, 120239. https://doi.org/10.1016/j.conbuildmat.2020.120239

- **_Owais, M._**, Ahmed, A. S., Moussa, G. S., & Khalil, A. A. (2020). An optimal metro design for transit networks in existing square cities based on non-demand criterion. *Sustainability*, *12*(22), 9566. https://doi.org/10.3390/su12229566

- **_Owais, M._**, Abulwafa, O., & Abbas, Y. A. (2020). When to decide to convert a roundabout to a signalized intersection: simulation approach for case studies in Jeddah and Al-Madinah. *Arabian Journal for Science and Engineering*, *45*(10), 7897-7914. https://doi.org/10.1007/s13369-020-04479-6

- **_Owais, M.,_** & Abbas, Y. A. (2020). Distributing portable excess speed detectors in AL riyadh city. *International Journal of Civil Engineering*, *18*(11), 1301-1314. https://doi.org/10.1007/s40999-020-00537-0

- **_Owais, M.,_** Ahmed, A. S., Moussa, G. S., & Khalil, A. A. (2021). Design scheme of multiple-subway lines for minimizing passengers transfers in mega-cities transit networks. *International Journal of Rail Transportation*, *9*(6), 540-563. https://doi.org/10.1080/23248378.2020.1846632

- **_Owais, M_**. (2019). Location strategy for traffic emission remote sensing monitors to capture the violated emissions. *Journal of Advanced Transportation*, *2019*. https://doi.org/10.1155/2019/6520818

- **_Owais, M._**, Moussa, G. S., & Hussain, K. F. (2019). Sensor location model for O/D estimation: Multi-criteria meta-heuristics approach. *Operations Research Perspectives*, *6*, 100100. https://doi.org/10.1016/j.orp.2019.100100

- **_Owais, M.,_** & Osman, M. K. (2018). Complete hierarchical multi-objective genetic algorithm for transit network design problem. ***Expert Systems with Applications***, *114*, 143-154. https://doi.org/10.1016/j.eswa.2018.07.033

- **_Owais, M.,_** & Hassan, T. (2018). Incorporating dynamic bus stop simulation into static transit assignment models. ***International Journal of Civil Engineering***, *16*(1), 67-77. http://dx.doi.org/10.1007/s40999-016-0064-8

- **_Owais, M.,_** Osman, M. K., & Moussa, G. (2015). Multi-objective transit route network design as set covering problem. ***IEEE Transactions on Intelligent Transportation Systems***, *17*(3), 670-679. https://doi.org/10.1109/TITS.2015.2480885

- **_Owais, M._** (2015). Issues related to transit network design problem. *International Journal of Computer Applications*, *975*, 8887. http://dx.doi.org/10.5120/21250-4073

- **_Owais, M._** (2015). *Investigating Optimal Bus Routes. Planning and Operation in Urban Areas.* GRIN Verlag. E-Book.2015, ISNB: 978-3-656-91344-3. http://dx.doi.org/10.13140/RG.2.1.2835.6643

- **_Owais, M.,_** Moussa, G., Abbas, Y., & El-Shabrawy, M. (2014). Simple and effective solution methodology for transit network design problem. *International Journal of Computer Applications*, *89*(14), 32-40.. http://dx.doi.org/10.5120/15702-4681

- **_Owais, M._** M., Moussa, G., Abbas, Y., & El-Shabrawy, M. (2013). Optimal frequency setting for circular bus routes in urban areas. *JES. Journal of Engineering Sciences*, *41*(5), 1796-1811. http://dx.doi.org/10.21608/JESAUN.2013.114910

- **_Owais, M._** M., Moussa, G. S., Abbas, Y. A., & El-Shabrawy, M. (2013). OPTIMAL CIRCULAR BUS ROUTES PLANNING FOR TRANSIT NETWORK DESIGN PROBLEM IN URBAN AREAS. *JES. Journal of Engineering Sciences*, *41*(4), 1447-1466. http://dx.doi.org/10.21608/JESAUN.2013.114867

- **_Owais, M.,_** Moussa, G. S., Enieb, M., & Abbas, Y. A. (2011). Evaluation and analysis of urban passengers transport modes operation performance & efficiency. *JES. Journal of Engineering Sciences*, *39*(2), 283-299. http://dx.doi.org/10.21608/JESAUN.2010.112515

Conference Articles:

- **_Owais, M._** (2022), Synchronizing Al Mashaaer Train Departure Times with Pilgrims Arrival to Minimize the Expected Waiting Times, The Fifth International Conference on Railway Technology: Research, Development and Maintenance, France – Elsevier.

- **_Owais, M.,_** Moussa, G. S. (2022), "Toward Mobility as a Service in Large Cities", 1st INTERNATIONAL ENGINEERING CONFERENCE ON RESEARCH AND IN-NOVATION, Delta University for Science and Technology, Egypt.

- **_Owais, M._** (2022), Toward Intelligent Transportation System in Mecca Area, 21th Scientific Forum of Hajj, Umrah and Madinah Visit Research Scientific Bulletin (1443H 2022).

- *__Owais, M.__* (2015), Transit Network Design Problem Issues and Problems, International Conference on Transportation and Highway Engineering, Rome, Italy.

- *__Owais, M.__* (2014), A Novel Solution Methodology for Transit Route Network Design Problem, International Conference on Transportation and Highway Engineering, Spain.

- *__Owais, M.__* (2013), Optimal Circular Bus Routes Planning for Transit Network Design Problem in Urban Areas". International Conference in Prospects of Engineering Solutions and Challenges of the Times 2013, Fayoum University, Egypt: presenting "

Under Submission Articles:

- Global Sensitivity Analysis for Studying Hot-Mix Asphalt Dynamic Modulus Input Parameters, Construction and Building Materials

- Priotrizing Rear-End Crash Explanatory Factors at Injury Severity Level Using Deep Learning and Sensitivity Analysis

Funded Projects

- Internal Grant from Majmaah University under project No. R. 1441-73 to present an approach for deciding when to convert a roundabout to a signalized intersection.

- Internal Grant from Majmaah University under project No. 1440-14 of (50,000 riyals) to design a methodology for solving the traffic sensors location problems.

- Internal Grant from Majmaah University under project No. 1439-53 of (50,000 riyals) to present an approach for intelligent transportation systems in the Makah area.

Completed Supervision

Doctorate degrees:

- Criteria for Integrating Surface and Underground Metro Passenger Transit Systems in big Cities, awarded 2020.

Master's degrees:

- Issues and challenges Related to signal timing of Intersections at Congested Transportation networks, awarded 2020.

- New Trends in Transportation Data: Acquisition Tools - Filtering Techniques and Analysis Methods, awarded 2020.

Senior Design projects:

- Evaluation and design of Roundabouts at Jalagel, Majmaah,KSA, awarded 2017.
- Unconventional Design of Tamir Road Intersections, KSA, , awarded 2018.
- Determining the Best Location Structure for Traffic Sensors in Majmaah City, awarded 2019.
- Evaluation and Re-design of Etisalat Roundabout, Majmaah, KSA, awarded 2020.
- Design A Transit Route Network in KSA Cities, awarded 2021.

Academic Experience Record

- Teaching undergraduate courses such as; Transportation Planning, Traffic Engineering Highways Engineering, Computer Applications in Civil Engineering, and Surveying courses levels *I & II* at the College of Engineering at Assiut University, Egypt.

- Teaching undergraduate courses such as; Urban Transportation Planning, Highways and Traffic Engineering, Railways Engineering at the College of Engineering at Majmaah University, Kingdom of Saudi Arabia.

- Teaching undergraduate courses such as; Linear Algebra and Differential equations at the College of Engineering at Sphinx University, New Assiut, Egypt.

- Teaching Post-graduate courses such as; Advanced Transportation planning; Computer Application in Transportation, Intelligent Transportation Systems, Engineering Statistics at College of Engineering at Assiut University, Egypt.

- Participation in writing the Self Study Report (SSR) of College of Engineering at Majmaah University, Kingdom of Saudi Arabia to be accredited by the National Center for Academic Accreditation and Evaluation (NCAAA) in 2020.

- Participation in attaining the ABET accreditation for the College of Engineering at Majmaah University, Kingdom of Saudi Arabia in 2017.

- Participation in developing the study plan for the College of Engineering at Majmaah University.

- Participation in preparing the proposal for transportation Master's Degree courses for the College of Engineering at Majmaah University.

- Publishing articles on internationally well-recognized journals, which lay on the quarter one and two of the top ISI journals.

- Lecturer at Education Development Center, Faculty of Engineering, Assiut University.

Journals Peer Review Contribution

Due to his knowledge and expertise in transportation planning and highway engineering, Dr. Owais has been regularly invited to conduct peer reviews for elite journals in the field, including:

- Transactions on Intelligent Transportation Systems Journal, *IEEE*.
- European Journal of Operational Research, Elsevier.
- Transportation Journal, Springer.
- Journal of Transportation Engineering, Part A: Systems, at *ASCE*.
- Transportation Research Board (TRB) annual meeting.
- Expert Systems with Applications, Elsevier.
- IEEE Access Journal.
- International Journal of Transportation Science and Technology, Elsevier.
- International Journal of Civil Engineering, Springer.
- Concurrency and Computation: Practice and Experience, Wiley.
- Archives of Computational Methods in Engineering, Springer.
- Arabian Journal for Science and Engineering, Springer.
- Discrete Dynamics in Nature and Society.
- Plos One, Elsevier.

*"Dr. Owais has completed **more than 100 peer reviews** to date"*

Funded Projects Review Contribution

- National Science and Technology Development Fund organization (STDF).
- Taibah University Scientific Dean for Research and Development.
- University of Hail Scientific Dean for R & D.

*"Dr. Owais has completed **more than 20 funded projects reviews** to date."*

Practical Experience Activities:

- Member of ENGINEERING CONSULTANT CENTRE, Faculty of Engineering, Assiut University, from 1/1/2015 to 5/2/2017.

- Supervising lots of primary delivery of new governmental constructed roads within Assiut city.

- Reviewing the laboratory tests of road construction materials lab in Assiut university to determine whether they conform to the Egyptian specifications for the construction of roads.

- Designing many flexible pavement mixes for different road construction projects.

- Participating with Jalagel Municipality in KSA in revising and redesigning the city roundabouts.

- Participating with Tamir Municipality in KSA in revising their intersections design.

- Proposing some unconventional design solutions for Majmaah city intersections in KSA.

- Supervising newly constructed or under-construction roads with field measurement to find out the different layers of foundation conformity to the specifications besides observing the procedures of collecting the samples to verify the thickness of the executed layer.

- Heading some committees for the primal approval of recently opened roads and the final route approval after one year.

- Participating in the inventory and monitoring traffic on the main traffic arteries in the city of Assiut, besides analyzing different data coming from different monitoring points.

- Reviewing the performance of traffic light signals at the main intersections and the flow of movement through them in Majmaah City.

- Providing the authorities of the Assiut governorate with many Traffic Operational recommendations.

Research Significance

Dr. Owais's citation record "***304 citations to date; h_{index}=12 & i_{index}=13***" indicates that he has had a major influence on other scholars' understanding of topics such as solving transit network design problems, optimizing traffic estimation results, and achieving dynamic traffic assignment.

At least **_9 of Dr. Owais's papers_** are among the most highly cited in the field of Engineering for their years of publication. In addition to being widely cited in general, many of Dr. Owais's papers have in fact been among the most highly cited in the field, indicating both the originality and significance of his methods and results:

- Dr. Owais's article, "Robust deep learning architecture for traffic flow estimation from a subset of link sensors," published in 2020 in the *Journal of Transportation Engineering, Part A: Systems*, has received **17 citations** to date. For all articles published in the category of Engineering in 2020, the average number of citations is only 0.55. This article is thus one of the **top 1.00%** **most-cited articles published in Engineering in 2020**.

- Dr. Owais's article, "When to decide to convert a roundabout to a signalized intersection: simulation approach for case studies in Jeddah and Al-Madinah", published in 2020 in the Arabian Journal for Science and Engineering, has received **16 citations** to date. For all articles published in the category of Engineering in 2020, the average number of citations is only 0.55. This article is thus one of the **top 1.00%** **most-cited articles published in Engineering in 2020**.

- Dr. Owais's article, "Integrating underground line design with existing public transportation systems to increase transit network connectivity: case study in greater cairo", published in 2021 in *Expert Systems with Applications*, has received **11 citations** to date. For all articles published in the category of Engineering in 2021, the average number of citations is only 0.17. This article is thus one of the **top 1.00%** **most-cited articles published in Engineering in 2020**.

- Dr. Owais's article, "Pre-trained deep learning for hot-mix asphalt dynamic modulus prediction with laboratory effort reduction", published in 2020 in Construction and Building Materials, has received **16 citations** to date. For all articles published in the category of Engineering in 2020, the average number of citations is only 0.55. This article is thus one of the **top 1.00%** **most-cited articles published in Engineering in 2020**.

- Dr. Owais's article, "Modeling Hot-Mix asphalt dynamic modulus using deep residual neural Networks: Parametric and sensitivity analysis study", published in 2021 in Construction and Building Materials, has received **9 citations** to date. For all articles published in the category of Engineering in 2020, the average number of citations is only 0.55. This article is thus one of the **top 1.00%** **most-cited articles published in Engineering in 2021**.

- Dr. Owais's article, "Pareto Optimal Path Generation Algorithm in Stochastic Transportation Networks," published in 2020 in *IEEE Access*, has received **11 citations** to date. For all articles published in the category of Engineering in 2020, the average number of citations is only 0.37. This article is thus one of the **top 1.00%** **most-cited articles published in Engineering in 2020**.

- Dr. Owais's article, "Complete hierarchical multi-objective genetic algorithm for transit network design problem," published in 2018 in *Expert Systems with Applications*, has received **68 citations** to date. For all articles published in the category of Engineering in 2018, the average number of citations is only 6.09. This article is thus one of the **top 10.00%** **most-cited articles published in Engineering in 2018**.

- Dr. Owais's article, "Multi-objective transit route network design as set covering problem," published in 2015 in *IEEE Transactions on Intelligent Transportation Systems*, has received **49 citations** to date. For all articles published in the category of Engineering in 2015, the average number of citations is only 12.29. This article is thus one of the **top 10.00%** most-cited articles published in Engineering in 2015.

- Dr. Owais's article, "Sensor location model for O/D estimation: Multi-criteria meta-heuristics approach," published in 2019 in *Operations Research Perspectives*, has received **20 citations** to date. For all articles published in the category of Engineering in 2019, the average number of citations is only 2.76. This article is thus one of the **top 10.00%** most-cited articles published in Engineering in 2019.

*Dr. Owais has thus authored at least **6 papers that rank among the top 1.00%, and 3 papers that ranks among the top 10.00%** most-cited articles across the entire field of Engineering for their respective years of publication*

Illustrative examples of how others in the field have directly benefited from Dr. Owais's research include:

- In a 2018 article published in ***IEEE Transactions on Intelligence Transportation Systems***, Nayeem et al. investigated a solution for the transit network design problem. They utilized Dr. Owais's multi-objective approach, discussing the benefits of his method and its usefulness in resolving the problem. Dr. Owais's research was thus recognized as a powerful approach to resolving this complex challenge.

- In a 2019 article published in ***Transportation Research Part C: Emerging Technologies***, Fu et al. presented a method for optimizing traffic count locations to understand travel demands. In this article, these researchers compared their methodology to Dr. Owais's, proving that his research is considered a benchmark in the study of traffic information.

- In a 2019 article published in ***Swarm and Evolutionary Computation***, Islam et al. presented their heuristic-aided stochastic beam search algorithm with the goal of solving the transit network design problem. These researchers relied on Dr. Owais's research as an essential resource for their work, specifically utilizing his two-stage approach for transit network design that he presented in his work. Further, they used his research as evidence to argue for their design and its validity. This reliance on Dr. Owais's research proves that his findings and methods are benchmarks in the field.

- In a 2019 article published in ***Transportation journal***, Bourbonnais et al. investigated the use of genetic algorithms for resolving the transit network design problem. In this article, they followed Dr. Owais's approach for developing a novel solution to this problem, relying on his method to successfully achieve their research goals. This utilization of Dr. Owais's research confirms that his research is highly useful for the scientific community.

- In a 2020 article published in ***IEEE Transactions on Intelligent Transportation Systems***, Wang et al. presented a method of quiet route planning for pedestrians. In this article, they cited Dr. Owais's research as a successful routing technique, highlighting the

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unique aspects of his research. This recognition of Dr. Owais's routing method confirms that his research is cutting-edge in the field of transit planning.

- In a 2020 article published in ***Expert Systems with Applications***, Liang et al. designed an urban transit network based on cooperative coevolutionary optimization. In this article, these researchers cited Dr. Owais to emphasize the capabilities of his design algorithm, highlighting the value of this algorithm. This citation confirms that Dr. Owais' research is of the highest caliber in his field.

- In a 2020 article published in the ***European Journal of Operational Research***, Duran-Micco et al. examined the consideration of emissions in transit network designs. In this article, they highlighted the fact that Dr. Owais's algorithm demonstrated excellent behavior and was a strong example of a powerful genetic or evolutionary algorithm. This citation confirms that Dr. Owais has conducted high-quality research in the field of transit planning.

- In a 2020 article published in the ***Journal of Advanced Transportation***, Sánchez-Cambronero et al. presented a new model for the locating of plate-recognition devices and estimating the impact of these devices on traffic estimation results. In this article, these researchers utilized Dr. Owais's findings in their study as an essential resource for their work, thereby confirming that Dr. Owais is conducting exemplary research in the field of transit planning.

- In a 2020 article published in ***IEEE Access***, Pan et al. presented a distributed assignment method to be used in dynamic traffic assignment. These researchers based their path generation method on Dr. Owais's approach, relying on his research as an essential resource for the success of their study and confirming that his research is a benchmark for further innovation in this field.

Awards and Acknowledgements

- Certification of appreciation for the participation in acquiring the ABET accreditation to the College of Engineering at Majmaah University, Kingdom of Saudi Arabia *at the level of the department.*

- Certification of appreciation for the participation in acquiring the ABET accreditation to College of Engineering at Majmaah University, Kingdom of Saudi Arabia *at the level of the college.*

- Certification of appreciation from *the Transactions on Intelligent Transportation Systems Journal, IEEE* for the valuable participation in the journal review process.

- Certification of appreciation from *the IEEE Access journal* for valuable participation in the journal review process.

- Certification of appreciation from *Springer journals manager* for valuable participation in one of its journal review process.

Committees

- The chair of the Engineering Practice committee at Civil Department, Faculty of Engineering, Assiut University, Egypt. 2015-2017

- The chair of the Electronic Learning committee at the College of Engineering at Majmaah University, Kingdom of Saudi Arabia, 2017-2022.

- The chair of the Engineering Practice committee at the College of Engineering at Majmaah University, Kingdom of Saudi Arabia, 2017-2022.

- The chair of the Student Activities Committee at the College of Engineering at Majmaah University, Kingdom of Saudi Arabia, 2017-2022.

- The chair of the Community services committee at the College of Engineering at Majmaa University, Kingdom of Saudi Arabia, 2018-2022.

Language and Computer Skills

- Professional at English academic usage, teaching in an ABET-accredited college since February 2017.

- Expert in Traffic simulation software.

- Having good knowledge of MATLAB and Primavera.

Training workshops

1. MATLAB & Simulink MENA Academic Forum 2022 - MATLAB & Simulink (mathworks.com).

- MATLAB in the Loop: A Mechatronics Approach (Prof. Jaradat, AUS).
- Solving Engineering Problems Using MATLAB (Dr. Naseer, NUST).
- Improving Human Life by Human-Centered Robotics Research (Prof. Awad, KU).
- MATLAB Grader Activities in Moodle (Prof. Aylaj, UH2C).

2. IEEE Authorship and Open Access Symposium 2022: Tips and Best Practices to Get Published from IEEE Editors

3. Critical Thinking - 2021.

4. Advanced E-learning - 2020.

5. Organizing Scientific Conferences - 2018.

6. Leading Research group - 2018.

7. Statistical analysis in Scientific research – 2017.

8. Credit hours Paradigm - 2016.

9. Scientific Research morals - 2015.

10. Quality criteria for the teaching process - 2014.

11. Managing time and meetings - 2013.

Dr. Mahmoud Owais, Associate Professor
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On leave from Assiut University, Faculty of Engineering.
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Researchgate: https://www.researchgate.net/profile/Mahmoud_Owais
Web of Science Researcher ID: U-2480-2019
ORCID: http://orcid.org/0000-0002-1639-2120
Scopus Author ID: 56893357000
Email: Maowais@aun.edu.eg; Maowais@yahoo.com
https://www.youracclaim.com/badges/13856ea4-0126-40ed-80d9-570fac5e6018