



Sherif El-Badawy, Ph.D.

Professor of Highway Engineering,
Public Works Engineering Dept., Faculty of Engineering, Mansoura University,
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EDUCATION

- | | |
|-----------------------|---|
| May 2002 – May 2006 | <p>Ph.D. in Civil and Environmental Engineering, Arizona State University, Tempe, Arizona, USA GPA 4.0/4.0</p> <p>Dissertation: "Development of a Mechanistic Constitutive Model for the Repeated Load Permanent Deformation Behavior of Subgrade Pavement Materials"</p> <p>Research Committee: Matthew Witczak (Chair), Edward Kavazangian, Kamil Kaloush, and Mick Mamlouk</p> <p>Major: Pavement Engineering; Minor: Geotechnical Engineering</p> |
| Jan 1996 – June 1999 | <p>M.Sc. in Public Works Engineering, Mansoura University, Mansoura, Egypt.</p> <p>Thesis: "The Effect of Soil and Environmental Conditions on Creep Characteristics of Geosynthetics"</p> <p>Major: Pavement Engineering; Minor: Geotechnical Engineering</p> |
| Sept 1990 – June 1995 | <p>B.Sc. in Civil Engineering, Mansoura University, Mansoura, Egypt, Grade: Very Good with Honor's Degree (Ranked Second)</p> |

ACADEMIC EMPLOYMENT HISTORY

- Nov. 2018 - Present **Mansoura University, Egypt**
Professor of Highway Engineering
Public Works Engineering Department
Duties include teaching different graduate and undergraduate courses, supervising MSc and PhD graduate students, share in different department and faculty committees.
- Nov. 2013 – Nov. 2018 **Mansoura University, Egypt**
Associate Professor
Public Works Engineering Department
Duties include teaching different graduate and undergraduate courses, supervising MSc and PhD graduate students, share in different department and faculty committees.
- Sep. 2007 – Nov. 2013 **Mansoura University, Egypt**
Assistant Professor
Public Works Engineering Department
Duties include teaching different graduate and undergraduate courses, supervising MSc and PhD graduate students, share in different department and faculty committees.
- 2013 - Current **Delta University**
Visiting Professor
Duties include teaching different undergraduate courses such as the Senior Graduation project, Introduction to Road Engineering, Pavement Design, Ports and Airports, Transportation Planning and Traffic Engineering
- Sept. 2013 – July 2014 **Delta Higher Institute for Engineering and Technology University**
Visiting Professor
Duties include teaching different undergraduate courses such as the Senior Graduation project, and Highway and Airport Design.
- 2012 –Current **Misr Higher Institute for Engineering and Technology University**
Visiting Professor
Duties include teaching different undergraduate courses such as the Senior Graduation project, and Transportation and Traffic Engineering, Highway and Airport Design, Soil Mechanics I, Soil Mechanics II, Airport Engineering, and Superpave Mix Design
- Jan. 2012 – Jan. 2015 **University of Idaho, USA**
Adjunct Faculty

Department of Civil Engineering

Duties include supervising Master's and Ph.D. Students at the University of Idaho, Moscow, Idaho, USA.

Dec 2009 – Jan 2012 **University of Idaho, USA**

Research Fellow

National Institute for Advanced Transportation Technology (NIATT)

Duties included conducting research work with Idaho Transportation Department (ITD), assisted Prof. Fouad Bayomy in teaching undergraduate and graduate courses in the pavement area, and supervised two graduate students.

May 2006 - Aug 2007 **Arizona State University, USA**

Postdoctoral Research Associate:

Department of Civil and Environmental Engineering, Ira Fulton School of Engineering

Duties included:

- Conducting research work related to NCHRP 1-40D (MEPDG) and NCHRP 9-22 Projects.
- Assisted Prof. Matt. Witczak in instructing the following courses:
 - CEE 353: Civil Engineering Materials (Spring 2007)
 - CEE 598: Statistical Applications in Highway Engineering (Fall 2006)

May 2002 – May 2006 **Arizona State University, USA**

Research Associate:

Department of Civil and Environmental Engineering, Ira Fulton School of Engineering

Duties included conducting research work related to several international projects with the National Science Foundation (NSF) and Arizona Department of Transportation (ADOT).

June 1999 - May 2002 **Mansoura University, Egypt**

Teaching Associate:

Public Works Eng. Dept., Faculty of Engineering

Duties included conducting research work and tutoring the following undergraduate courses: Highway Geometric Design, Pavement Analysis and Design, Soil Mechanics, Geology, Statistics.

Sep 1995 - June 1999 **Mansoura University, Egypt**

Teaching Assistant

Public Works Eng. Dept., Faculty of Engineering

Duties included conducting research work and tutoring the following undergraduate courses: Engineering Survey, Highway Geometric Design, Pavement Analysis and Design, Soil Mechanics, Geology, Statistics, Railway Engineering.

ADMINISTRATIVE POSITIONS HISTORY

- August, 2019 - Present **Mansoura University, Egypt**
Vice Dean of Postgraduate Studies and Research
Faculty of Engineering
- November, 2018 – July, 2019 **Mansoura University, Egypt**
Director of the Center of Engineering Studies and Consultation
Faculty of Engineering
- August 2016 – November, 2018 **Mansoura University, Egypt**
Director of the Center of Scientific, Experimental, and Technical Services
Faculty of Engineering
- Sep. 2012 – Present **Mansoura University, Egypt**
Director of the Highway and Airport Engineering Laboratory
Public Works Engineering Department, Faculty of Engineering
- Feb. 2013 – Feb. 2016 **Mansoura University, Egypt**
Deputy Vice Dean for Graduate Studies and Research
Faculty of Engineering
- April 2012 – Aug. 2016 **Mansoura University, Egypt**
Vice Director of the Center of Scientific, Experimental, and Technical Services
Faculty of Engineering

UNIVERSITY SERVICE

- Faculty Council Member, Mansoura University, Mansoura, Egypt, September 2018 to Present.
- Education and Student Affairs Committee, Faculty of Engineering, Mansoura University, Egypt, September 2017 - Present.
- Graduate Studies Committee, Faculty of Engineering, Mansoura University, Egypt, September 2014 - September 2016.
- Executive Steering Committee, Education Quality Assurance Unit, Faculty of Engineering, Mansoura University, Egypt, March 2014 - March 2016.
- Public Works Engineering Department Coordinator, Education Quality Assurance Unit, Mansoura University, February 2012- November 2014.
- Executive Director of the Project for Upgrading the Highway and Airport Engineering Laboratory to Obtain ISO Accreditation, Faculty of Engineering, Mansoura University, Egypt, July 2013 – September 2016.
- Accreditation Committee, Faculty of Engineering, Mansoura University, November 2007- June 2012.

- Participated in preparing the proposal for the Continuing Improvement and Quality Assurance Project (CIQAP) for the Faculty of Engineering
- Participated in coordinating visits and submitting deliverables for the National Accreditation Commission
- Deputy of Public Works Engineering Department Head, Faculty of Engineering, Mansoura University, Egypt, 2015 – Present.
- Public Works Engineering Department Coordinator, Education Quality Assurance Unit, Mansoura University, April 2008- November 2009.
- Academic Standards for Graduate Programs Committee Chair, Faculty of Engineering, Mansoura University, November 2007- Present.
- Supervised the Development of the latest Curriculum for 11 Graduate Programs based on Credit Hour System, Faculty of Engineering, Mansoura University, November 2012- January 2014.
- Strategic Planning Committee, Faculty of Engineering, Mansoura University, Egypt, September 2014 – Present.
- Cultural Affairs Committee, Faculty of Engineering, Mansoura University, Egypt, February 2012 – September 2012.
- Scheduling Committee, Public Works Engineering Department, Faculty of Engineering, Mansoura University, November 2007- Present.
- Member of the Center for Consultation and Engineering Studies, Faculty of Engineering, Mansoura University, Egypt, November 2007- Present.
- Education and Student Affairs Committee, Faculty of Engineering, Mansoura University, Egypt, September 2007-September 2008.

RESEARCH EXPERIENCE

Mansoura University *(July 2007 – Current)*

Research Focus Areas:

- Pavement Material Characterization and Modeling
- Recycled Materials and By-Products for Pavement Applications
- Nano-and polymer Modified Asphalt binders and Mixtures
- Warm and Cold Asphalt Mixes
- Bio-Polymers for Subgrade Stabilization
- Long Term Pavement Performance
- Pavement Management Systems
- Traffic Characterization
- Mechanistic-Empirical Pavement Design
- Young Driver Behavior and Accident Modeling

Specific Research Projects

Master Thesis Advisor (In progress):

1. Khaled Bahnasy, "Viscoelastic-Viscoplastic-Viscodamage Properties of Asphalt Concrete Mixtures"
2. Mohamed Younis "Effect of Climatic Condition and Traffic Characteristics on Pavement Performance" Tanta University"
3. Mena Mekhael "Performance of Warm Mix Asphalt (WMA) Modified with Nanomaterials" Tanta University
4. Manar Nasef "Laboratory Investigation on Asphalt Mixtures Containing Byproducts and Agricultural Waste"
5. Amira Elshourbagy "Potential Use of Industrial Waste Oil as a Rejuvenator for the Reclaimed Asphalt Pavement"
6. Bahaa Eltantawy "Effect of Aging on the Physical, Chemical, and Rheological Properties of Neat and Modified Asphalt Cement from Different Suppliers"
7. Mohamed Elsemary "Impact of Bitumen Source on the Performance of Superpave Mixtures"
8. Mohamed Hamza "Effect of Adding Different Polymer Types on the Performance of Superpave Mixes"

Master Thesis Advisor (Completed):

1. Marwa El-Haroun, Development of Mode Choice Model for Mansoura City, July 2019
2. Samar Taha, Modelling California Bearing Ratio Using Engineering Properties, July, 2019
3. Rabah Mousa, "Resilient Modulus Characterization of Biopolymer Treated Subgrade Soils and Unbound Granular Base Materials", Mansoura University, April, 2019
4. Eman Wagdy, Performance Characteristics and Economic Study of Bituminous Concrete using Different Industrial Wastes as Filler, Mansoura University, March, 2019
5. Ahmed Alashwah "Development of a Simplified Mechanistic-Empirical Pavement Design Method for Moderate to Hot Climates", Mansoura University, December, 2018
6. Mohammed Sheha "Laboratory Characterization of Asphalt Mixtures Containing Steel Slag", Mansoura University, May 2018.
7. Dina El-Tahan "Evaluation of Recycled Concrete Aggregate Materials in Pavement Construction", Mansoura University, April 2018.
8. Hossam Saber "Evaluation of Pavement Performance using LTPP Database" Tanta University, Tanta University, April, 2018.
9. Eman Mousa "Performance of RAP as Base Course for Paved and Unpaved Roads in Egypt," Mansoura University, October, 2017
10. Nader El-Badawy "Modeling of International Roughness Index for Flexible Pavements", Tanta University. May, 2017.
11. Ahmed Shoaib "Economic Impact of Urban Traffic Congestion," Mansoura University, graduated April, 2017.
12. Aly Arisha, Evaluation of Recycled Clay Masonry Blends in Pavement Construction," Mansoura University, graduated April, 2017
13. Rafiq Alabbasy "Characterization of Polymer and Wax Modified Asphalt Mixtures," February 2017.
14. Ibrahim Amin "A Laboratory Investigation on the Performance of Asphalt Mixtures Containing Nano Materials", October, 2016.

15. Gamal El-Gendy "Steel Slag as a Coarse Aggregate for Sustainable Concrete Structures and Rigid Pavement" September, 2016.
16. Helal Ezzat "Performance of Asphalt Binder Enhanced with Nanomaterials" Graduated June, 2016.
17. Ahmed Khattab "Dynamic Modulus Predictive Models for Superpave Asphalt Concrete Mixtures", graduated in November, 2015.
18. Ahmed Naguib "International Roughness Index as a Criterion in Design of Rigid Pavement", graduated in August 2015.
19. Eman Magdy "Use of Geogrids in Pavement Reinforcement" graduated in June 2015.
20. Sanya Elagamy "Modeling of Noise Pollution Due to Road Traffic" graduated in July 2015.
21. Maha Elshayeb "Climatic Characterization and its Influence upon Flexible Pavement Performance in Egypt Using the Mechanistic Empirical Pavement Design Guide", graduated in March 2015.
22. Eman Kamel "Behavior of Young Drivers", Mansoura University, graduated in December, 2014.
23. Jasem Alkandari "Using Reclaimed Asphalt Pavement Materials in Kuwait" Mansoura University, graduated in June, 2011.
24. Aref Alotaiby "Recycling of Asphalt Pavement Materials", Mansoura University, graduated in July, 2010.

Ph.D. Dissertation Advisor:

1. Emad Hashish "Comparative Geotechnical Study on Some Egyptian Rocks" Faculty of Science, Mansoura University, (**Completed, 2018**).
2. Ahmed Mwafaq "Performance Evaluation of Warm Asphalt Mixtures"
3. Sanya Riad "Traffic Safety Models Transferability from Developed Countries to Egypt"
4. Helal Ezzat "Fatigue Life Assessment of Asphalt Pavements Using Uniaxial Tension-Compression Test"
5. Maha Elshayeb "Hot Mix Asphalt Performance Evaluation using Advanced Laboratory Testing"
6. Eman Kamel "A Probabilistic Based Approach for Highway Geometric Design in Egypt"
7. Eman Magdy "Pavement Maintenance Management System for Flexible Pavements Using Evolutionary Algorithms"
8. Amr El-Hadidy "Optimizing Pavement Maintenance Strategies using an Evolutionary-based Technique"

Examination Committee Member (Master's Thesis):

1. Marwa El-Haroun, Development of Mode Choice Model for Mansoura City, **Mansoura University**, July 2019
2. Samar Taha, Modelling California Bearing Ratio Using Engineering Properties, **Mansoura University**, July, 2019
3. Rabah Mousa, "Resilient Modulus Characterization of Biopolymer Treated Subgrade Soils and Unbound Granular Base Materials", **Mansoura University**, April, 2019
4. Eman Wagdy, Performance Characteristics and Economic Study of Bituminous Concrete using Different Industrial Wastes as Filler, **Mansoura University**, March, 2019

5. Ahmed Alashwah "Development of a Simplified Mechanistic-Empirical Pavement Design Method for Moderate to Hot Climates", **Mansoura University**, December, 2018
6. Mohamed Ashmawy, Quantitative Assessment of Highway Concrete and Asphalt Pavements for Using Multi-Criteria Decision Making, **Cairo University**, November 2018.
7. Ahmed Elshamly, Factors Affecting Crash Accidents amongst Truck Drivers in Egypt, **Tanta University**, September, 2018
8. Mohamed Ashour, Investigation of Rubberized Concrete Pavement Reinforced with Hybrid Fibers, **Assiut University**, August, 2018
9. Mohammed Sheha "Laboratory Characterization of Asphalt Mixtures Containing Steel Slag", **Mansoura University**, May 2018.
10. Dina El-Tahan "Evaluation of Recycled Concrete Aggregate Materials in Pavement Construction", **Mansoura University**, April 2018.
11. Hossam Saber "Evaluation of Pavement Performance using LTPP Database" Tanta University, **Tanta University**, April, 2018.
12. Abdel Rahman Darwish, Using Nano-Based Waste Materials to Improve Performance of Rigid Pavement, **Fayoum University**, 2017
13. Eman Mousa "Performance of RAP as Base Course for Paved and Unpaved Roads in Egypt," **Mansoura University**, October, 2017
14. Eman Soliman "Calibration of a Simulation Model of Parking Lot Entry in a Complex Traffic Situation," **Alexandria University**, April, 2017
15. Ahmed Shoaib "Economic Impact of Urban Traffic Congestion," **Mansoura University**, April, 2017
16. Aly Arisha, Evaluation of Recycled Clay Masonry Blends in Pavement Construction," **Mansoura University**, April, 2017
17. Rafiq Alabbasy "Characterization of Polymer and Wax Modified Asphalt Mixtures," **Mansoura University**, February 2017.
18. Hala Hashem "Evaluation of Using Reclaimed Asphalt Pavement to Develop Warm Asphalt Mix" **Helwan University**, January, 2017.
19. Ibrahim Amin "A Laboratory Investigation on the Performance of Asphalt Mixtures Containing Nano Materials", **Mansoura University**, October, 2016.
20. Hendawi Abutawila "Determination of Stresses in the Ballasted Railroads using Different Methods" **Tanta University**, July 2016.
21. Islam ELmetwally "Effect of Water Sludge on the Properties of Mixes designed using Marshall Method" **Mansoura University**, 2016
22. Gamal El-Gendy "Steel Slag as a Coarse Aggregate for Sustainable Concrete Structures and Rigid Pavement" **Mansoura University**, September, 2016.
23. Helal Ezzat "Performance of Asphalt Binder Enhanced with Nanomaterials" **Mansoura University**, Graduated 2016
24. Mohamed Al Salamony, Comparison between Computer Programs to Solve Signalized Intersections, **Tanta University**, January 2016.
25. Ahmed Darwish, Simulation of Railway Networks, **Alexandria University**, October 2015.
26. Ahmed Khattab" Dynamic Modulus Predictive Models for Superpave Asphalt Concrete Mixtures", **Mansoura University**, graduated in November, 2015.
27. Ahmed Naguib "International Roughness Index as a Criterion in Design of Rigid Pavement", **Mansoura University**, graduated in August 2015.

28. Eman Magdy "Use of Geogrids in Pavement Reinforcement" **Mansoura University** graduated in June 2015.
29. Sanya Elagamy "Modeling of Noise Pollution Due to Road Traffic" **Mansoura University** graduated in July 2015.
30. Maha Elshayeb "Climatic Characterization and its Influence upon Flexible Pavement Performance in Egypt Using the Mechanistic Empirical Pavement Design Guide", **Mansoura University**, graduated in March 2015.
31. Eman Kamel "Behavior of Young Drivers", **Mansoura University**, Mansoura University, graduated in December, 2014.

Research Grants

1. Multi-field Coupling Evolution Characteristics and Durability of Rubberized Asphalt Rejuvenated RAP on Desert Conditions, Academy of Scientific Research and Technology, ASRT bilateral research proposals with the National Natural Science Foundation of China, 300,000 LE, Granted December, 2018,
2. Development of Database and Model for Advanced Characterization of Unbound Granular Materials for Pavement Structural Design in Egypt, Egyptian National Institute of Transport (ENIT)-Ministry of Transport, August 2017 to August 2018, 200,000 LE, PI.
3. Upgrading Mansoura University Engineering Laboratory for Highways and Airports Towards Accreditation, Higher Education Institutes Labs Accreditation Project, 7th Cycle. (June 2013-June 2015), 1.47 million EGP, Executive Director.
4. Tempus European Project: Building Information Modeling: Integrated Design, Environment for Engineering Education, Project ID: 543923 – TEMPUS – 1 – 2013 – 1 – EG – TEMPUS – JPCR, December 2013- December 2017. The Project aimed at enhancing mutual cooperation in the field of higher education between European Community Countries and different partner countries in Mediterranean Region.
5. Analysis of Waste Quantities and Composition in Selected Governorates- Egypt: GIZ (100,000 LE), (January 2013 to October 2013) Co-PI.

University of Idaho, USA (Dec. 2009 to January 2011)

National Institute of Advanced Transportation Technology (NIATT)

Research Projects through Thesis Advising:

Master's Thesis Advisor (Completed):

1. Ahmed Muftah "Performance Evaluation of Asphalt Mixtures with High RAP Content" University of Idaho, graduated in November, 2013.
2. Ahmed Awed "Material Characterization of HMA for MEPDG Implementation in Idaho" University of Idaho, graduated in October, 2010.

Research Grants

1. **NIATT KLK559:** Study of the Effectiveness of ITD's Pavement Design Method. (\$96,752) Co-PI.
http://www.webpages.uidaho.edu/niatt/research/Final_Reports/CLK558_Final.pdf
2. **NIATT KLK 557:** Implementation of the MEPDG for Flexible Pavements in Idaho. (\$186,000) Co-PI.
http://www.webpages.uidaho.edu/niatt/research/Final_Reports/CLK557_Final.pdf

Arizona State University, USA (May 2006 to July 2007)

Key Personnel on the following Funded Research Projects

1. **NCHRP 9-22:** Beta Testing and Validation of HMA PRS. (\$1,500,000)
2. **NCHRP 1-37A:** Development of the 2002 Guide for the Design of New and Rehabilitated Pavement Structures. (\$5,000,000)
3. **NCHRP 1-40D:** Technical Assistance to NCHRP and NCHRP Project 1-40A: Version 0.9 of the M-E Pavement Design Software. (\$398,298).
4. **NCHRP 9-23:** Environmental Effects in Pavement Mix and Structural Design Systems. (\$487,000).
5. **ADOT SPR#402 ASU-ADOT Research Program:** Development of Performance Related Specifications for Asphalt Pavements in the State of Arizona. (\$1,000,000).

RESEARCH COLLABORATIONS

I have collaborated with scientists affiliated with the following institutions for conducting various research investigations focusing mainly on pavement material characterization and nanotechnology in pavement applications.

Academic Institutions

- *American University in Cairo*
- *Egyptian National Institute of Transport (ENIT)*
- *Center of Environmental Research and Studies, Cairo University*
- *Ain Shams University, Cairo, Egypt*
- *Tanta University, Tanta, Egypt*
- *Menufya University, Egypt*
- *Faculty of Science, Damanhour University, Egypt*
- *Chalmers University, Gothenburg, Sweden*
- *Leeds Beckett University, Leeds, England*
- *Twente University, Enscheda, Netherlands.*
- *Sharja University*
- *Elsherouk Academy, Egypt*
- *German University, Egypt*
- *Minya Univeristy, Egypt*
- *Bani Swaif University, Egypt*

Government

- *National Science Foundation (NSF), USA*
- *National Cooperative Highway Research Program (NCHRP), USA*
- *Idaho Transportation Department (ITD), USA*
- *Arizona Department of Transportation (ADOT), USA*
- *General Authority for Roads Bridges, and Land Transport (GARBLT), Egypt*
- *Ministry of Transportation*
- *Dakahlia Governorate*
- *Egyptian Environmental Affairs Agency*

Industry

- *Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.*

PUBLICATIONS

According to Google Scholar (as of 24/8/2019)

- *Total number of citations: 392*
- *h-index: 13*
- *ith-index: 14*

Research Gate Score 18.68

Refereed Journal Publications

1. Azam , A., and **El-Badawy, S. M. and Alabbase, R.**, Evaluation of Asphalt Mixtures Modified with Polymer and Wax, *Innovative Infrastructure Solutions* (2019) 4:43, <https://doi.org/10.1007/s41062-019-0230-3>.
2. Mosbeh R. Kaloop, Alaa R. Gabr, **Sherif M. El-Badawy**, Ali Arisha, Sayed Shwally, Jong Wan Hu. Predicting Resilient Modulus of Recycled Concrete And Clay Masonry Blends for Pavement Applications Using Soft Computing Techniques [J]. *Front. Struct. Civ. Eng.*, doi: 10.1007/s11709-019-0562-2, 2019
3. Amro El-Hadidy, **El-Badawy, S.**, and Elbeltagi, E., A Simplified Pavement Condition Index Regression Model for Pavement Evaluation, *International Journal of Pavement Engineering, Taylor & Francis*, <https://doi.org/10.1080/10298436.2019.1633579>, July 2019.
4. Amria, M., Gabr, A., **El-Badawy, S.**, Investigation of Waste Oils as Rejuvenators of Aged Bitumen for Sustainable Pavement, *Construction and Building Materials*, **Volume 220**, 30 September 2019, Pages 228-237 <https://doi.org/10.1016/j.conbuildmat.2019.05.180>
5. Taha, S., Gabr, A. & **El-Badawy, S.**, Regression and Neural Network Models for California Bearing Ratio Prediction of Typical Granular Materials in Egypt, *Arab J Sci Eng* (2019). <https://doi.org/10.1007/s13369-019-03803-z>
6. El-Ashwah, A., Awed, A., **El-Badawy S.**, and Gabr, A. An Innovative Approach for Developing Resilient Modulus Master Surface to Characterize Granular Pavement Materials and Subgrade Soils, *Construction and Building Materials*, Volume 194, 10 January 2019, Pages 372-385, <https://doi.org/10.1016/j.conbuildmat.2018.10.212>.
7. Arab, M. G, Mousa, R. A., Gabr, A. R, Azam , A. M., **El-Badawy, S. M.**, and Hassan A. F. (2019) Resilient Behavior of Sodium Alginate Treated Cohesive Soils for Pavement Applications, *ASCE's Journal of Materials in Civil Engineering*, V31:1, DOI: [10.1061/\(ASCE\)MT.1943-5533.0002565](https://doi.org/10.1061/(ASCE)MT.1943-5533.0002565).
8. Wagdy, E., Azam , A., and **El-Badawy, S. M.** Waste Materials and By Products as Mineral Fillers in Asphalt Mixtures, *Innovative Infrastructure Solutions* (2019) 4:5, <https://doi.org/10.1007/s41062-018-0190-z>.

9. Elharoun, M., Elrawy, U. S., **El-Badawy, S. M.** Developing A Mode Choice Model For Mansoura City In Egypt, *International Journal for Traffic and Transport Engineering*, DOI: [DOI: 10.7708/ijtte.2018.8\(4\).10](https://doi.org/10.7708/ijtte.2018.8(4).10), 2018.8(4).10, pp. 528-524.
10. Abd El-Raof, S., Abd El-Hakim, R., **El-Badawy, S.**, and Afify, H. (2018) A Simplified Closed-Form Procedure for Network-level Determination of Pavement Layers Moduli from Falling Weight Deflectometer Data, *J. Transp. Eng., Part B: Pavements*, 2018, 144(4): 04018052, DOI: 10.1061/JPEODX.0000080.
11. Ezzat, H., **El-Badawy, S. M.**, Gabr, A., Zaki, S., & Breakah, T. (2018) Predicted Performance of Hot Mix Asphalt Modified with Nano-montmorillonite and Nanosilicon Dioxide based on Egyptian Conditions, *International Journal of Pavement Engineering, Taylor & Francis*, DOI: 10.1080/10298436.2018.1502437
12. Abd El-Raof, S., Abd El-Hakim, R., **El-Badawy, S.**, and Afify, H. (2018) Structural Number Prediction for Flexible Pavements Using the Long Term Pavement Performance Data, *International Journal of Pavement Engineering, Taylor & Francis*, DOI: 10.1080/10298436.2018.1511786.
13. Gabr, Al, Shoaib, A., and **El-Badawy, S.** (2018) Economic Impact of Urban Traffic Congestion on the Main Routes in Mansoura City, Egypt, *Journal of Traffic and Transportation Engineering (English Edition)*, (2): 148 – 165. DOI: [http://dx.doi.org/10.7708/ijtte.2018.8\(2\).01](http://dx.doi.org/10.7708/ijtte.2018.8(2).01)
14. **El-Badawy, S.**, Abdel Hakim, R., and Awed, A. (2018) Comparing Artificial Neural Networks with Regression Models for Hot Mix Asphalt Dynamic Modulus (E*) Prediction, *ASCE's Journal of Materials in Civil Engineering*, 30(7): 04018128, DOI: 10.1061/(ASCE)MT.1943-5533.0002282
15. Abdelaziz, N., Abd El-Hakim, R., **El-Badawy, S.**, and Afify, H. (2018) International Roughness Index Prediction Model for Flexible Pavements, *International Journal of Pavement Engineering, Taylor & Francis*, DOI: 10.1080/10298436.2018.1441414.
16. El-Tahan, D., Gabr, A., **El-Badawy, S.**, and Shetawy, M. (2018) Evaluation of Recycled Concrete Aggregate in Asphalt Mixes *Innovative Infrastructure Solutions* 3:20 DOI: 10.1007/s41062-018-0126-7.
17. Arisha, A., Gabr, A., **El-Badawy, S.**, and Shwally, S. (2018) Performance Evaluation of Construction and Demolition Waste Materials for Pavement Construction in Egypt, *ASCE's Journal of Materials in Civil Engineering*, V(30) 2, doi: 10.1061/(ASCE)MT.1943-5533.0002127 .
18. Omar A. Hegaba, **Sherif M. El- Badawy**, and Emad Y. Hashish (2017) Geological and Geotechnical Assessment of Gabal Ataqa Dolostones for Pavement Construction in Egypt” *International Journal of Sciences: Basic and Applied Research (IJSBAR)* Volume 36, No 4, pp 56-73.
19. Ibrahim, E.M., **El-Badawy, S.M.**, Ibrahim, M.H. Gabr, A.R, and Azam, A. M., (2017) Effect of Geogrid Reinforcement on Flexible Pavements,” *Innovative Infrastructure Solutions*, 2: 54. doi.org/10.1007/s41062-017-0102-7.
20. Elshayeb, M., **El-Badawy, S.**, and Shawaly, A. (2017) Comparison of AASHTO 1993 and MEPDG Considering the Egyptian Climatic Conditions,” *Innovative Infrastructure Solutions*, 2:18, DOI: 10.1007/s41062-017-0067-6.

21. Mousa, E., Azam, A. M., El-Shabrawy, M., and **El-Badawy, S. M.**, (2017) Laboratory Characterization of Reclaimed Asphalt Pavement for Road Construction in Egypt. Canadian Journal of Civil Engineering, 44 (6), pp 417-425. doi: 10.1139/cjce-2016-0435.
22. Arisha, A., Gabr, A., **El-Badawy, S.**, and Shwally, S., (2016) Blends of Construction & Demolition Waste Materials and Recycled Clay Masonry Brick in Pavement. Procedia Engineering, Volume 143, pp 1317-1324, <https://doi.org/10.1016/j.proeng.2016.06.148>.
23. Ezzat, H., **El-Badawy, S.**, and Gabr, A., Zakai, E., and Breakah, T., (2016) Evaluation of Asphalt Binders Modified with Nanoclay and Nanosilica," Procedia Engineering, Volume 143, pp 1260-1267, doi: 10.1016/j.proeng.2016.06.119
24. Ezzat, H., **El-Badawy, S.**, Alaa G., Zaki S.I. (2016) Evaluation of Asphalt Enhanced with Locally Made Nanomaterials. Nanotechnologies in Construction, Vol. 8, no. 4, pp. 42–67. DOI: dx.doi.org/10.15828/2075- 8545-2016-8-4-42-67.
25. Shoaeb, A., **El-Badawy, S. M.**, Gabr, A. (2016) Direct Costs of Urban Traffic Congestion, Case Study: Main Corridors of Mansoura City, Int'l Journal of Computing, Communications & Instrumentation Engineering (IJCCIE) Vol. 3, Issue 2 (2016) ISSN 2349-1469 EISSN 2349-1477.
26. Amin, I., **El-Badawy, S. M.**, Breakah, T., & Ibrahim, M. H. Z. (2016). Laboratory Evaluation of Asphalt Binder Modified with Carbon Nanotubes for Egyptian Climate, Construction and Building Materials, Volume 121, 15, Pages 361–372. doi:10.1016/j.conbuildmat.2016.05.168
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Peer Reviewed Conference Papers

1. Hafez, M., Mousa, R., Awed, A., and **El-Badawy Sherif** Soil Reinforcement Using Recycled Plastic Waste for Sustainable Pavements, Sustainable Solutions for Railways and Transportation Engineering, Sherif El-Badawy and Jan Valentin Eds, Proceedings of the 2nd GeoMEast International Congress and Exhibition on Sustainable Civil Infrastructures, Egypt 2018.
2. Abd El-Raof, S., Abd El-Hakim, R., **El-Badawy, S.**, and Afify, H. Structural Number Prediction for Flexible Pavements Based on Falling Weight Deflectometer Data, Transportation Research Board 97th Annual Meeting, Paper# 18-00878, Transportation Research Board, 2018.
3. **El-Badawy S.**, El-Hakim R.A. Application of Artificial Neural Networks for Hot Mix Asphalt Dynamic Modulus (E*) Prediction. In: Mohammad L. (eds) Advancement in the Design and Performance of Sustainable Asphalt Pavements. GeoMEast 2017. Sustainable Civil Infrastructures. Springer, 2017.
4. Khattab, A., **El-Badawy, S.**, Elmwafi, M., and Al Hazmi, A., "Comparison of Witczak NCHRP 1-40D & Hirsh dynamic modulus models based on different binder characterization methods: A case study, "Proceedings of the International Conference on Advances in Sustainable Construction Materials & Civil Engineering Systems (ASCMCES-17), Sharjah, United Arab Emirates, April 18 – 20, 2017.
5. Rabah Mousa, Alaa Gabr, Mohamed G. Arab, Abdelhalim Azam, and Sherif El-Badawy, Resilient Modulus for Unbound Granular Materials and Subgrade Soils in Egypt, Proceedings of the International Conference on Advances in Sustainable Construction Materials & Civil Engineering Systems (ASCMCES-17), Sharjah, United Arab Emirates, DOI: 10.1051/mateconf/201712006009 April 18 – 20, 2017.
6. Abdelaziz, N., Abd El-Hakim, R., **El-Badawy, S.**, and Afify, H., Validation and Improvement of Pavement ME Flexible Pavement Roughness Prediction Model Using Extended LTPP Database, Transportation Research Board 96th Annual Meeting, Paper# 17- 02203, Transportation Research Board, 2017.
7. Arisha, A., Gabr, A., **El-Badawy, S.**, and Shwally, S., "Using Blends of Construction & Demolition Waste Materials and Recycled Clay Masonry Brick in Pavement the 3rd International Conference in Transportation Geotechnics, Guimarães (Portugal), 4 to 7 September 2016.
8. Ezzat, H., **El-Badawy, S.**, and Gabr, A., Zakai, E., and Breakah, T., "Evaluation of Asphalt Binders Modified with Nanoclay and Nanosilica," the 3rd International Conference in Transportation Geotechnics, Guimarães (Portugal), 4 to 7 September 2016.
9. Shoaib, A., **El-Badawy, S.**, and Gabr, A., "Direct Costs of Urban Traffic Congestion, Case Study: Main Corridors in Mansoura City," Proceedings of 2016 International Conference on Urban planning, Transport and Construction Engineering (ICUPTCE 2016), Istanbul (Turkey), May 30-31, 2016.

10. Ezzat, H., **El-Badawy, S.**, Gabr, A., and Zaki, E., "Evaluation of Asphalt Enhanced with Locally Made Nanomaterials," 8th International Conference on Nano Technology in Construction (NTC 2016), Sharm El-Sheikh, Egypt from March 12 to 16, 2016.
11. **El-Badawy, S.**, Khattab, A., and Al Hazmi, A. (2016) Using Artificial Neural Networks (ANNs) for Hot Mix Asphalt E* Predictions. *Geo-China 2016*: pp. 83-91. doi: 10.1061/9780784480076.010
12. Abdel Hakim, R., **El-Badawy, S. M.**, Gabr, A. G., Azam, A.M., Influence of MEPDG Unbound Material Type and Material Characterization Input Level on Pavement Performance, Accepted for Presentation at the 95th Annual Meeting of the Transportation Research Board, Washington D.C., USA, January 10-14, 2016.
13. Shiha, M., A., Gabr, and **El-Badawy, S.**, "Laboratory Characterization of Asphalt Mixtures Containing Steel Slag", the 8th Internationals Engineering Conference, Mansoura-Sharm Elshikh, 17-22 November, 2015.
14. Elgendy, G., Elagamy, A., Sherif, M., and **El-Badawy, S.**, "Laboratory Evaluation of Green Concrete Mixes Containing High Percentages of Steel Slab Coarse Aggregate", the 8th Internationals Engineering Conference, Mansoura-Sharm Elshikh, 17-22 November, 2015.
15. Amin, I., Alabassy, R., Azam, A., **El-Badawy, S.**, and Gabr, A., "Evaluation of Polymer Modified Asphalt Mixtures in Pavement Construction", the 8th Internationals Engineering Conference, Mansoura-Sharm Elshikh, 17-22 November, 2015.
16. Shahda, U., A., El-Shabrawy, M., **El-Badawy, S.**, and Gabr, A. and Azam, M. "Comparing the Performance of Non-Standard 4-leg Intersection with Stop-Controlled and Signalized Intersections", the 8th International Engineering Conference, Mansoura-Sharm Elshikh, 17-22 November, 2015.
17. Kamel, A., **El-Badawy, S.**, and Shawaly, A. "Probability of Crash Occurrence of Educated Young Drivers in Mansoura City", the 8th Internationals Engineering Conference, Mansoura-Sharm Elshikh, 17-22 November, 2015.
18. Mousa, R., **El-Badawy, S.**, Azam, A., Gabr, A., and Arab. M. "Resilient Modulus Characterization for Granular Base Material in Egypt" the 8th Internationals Engineering Conference, Mansoura-Sharm Elshikh, 17-22 November, 2015.
19. Abd Elhakim, R., **El-Badawy, S.**, Gabr, A., and Azam, A., "Influence of Unbound Materials Input Level on Pavement Performance using MEPDG" the 8th Internationals Engineering Conference, Mansoura-Sharm Elshikh, 17-22 November, 2015.
20. Elshayeb, M., **El-Badawy, S.**, and Shawaly, A. "Comparison of AASHTO 1993 and MEPDG Using the Egyptian Climatic Data the 8th Internationals Engineering Conference, Mansoura-Sharm Elshikh, 17-22 November, 2015.
21. Taha S., **El-Badawy S.**, Gabr A., Azam A., and Shahdah U. "Modeling of California Bearing Ratio using Basic Engineering Properties," the 8th Internationals Engineering Conference, Mansoura-Sharm Elshikh, 17-22 November, 2015.

22. Khattab, A., **El-Badawy, S.**, Al Hazmi, A., and Elmwafi, M. " Comparing Witczak NCHRP 1-40D with Hirsh E* Predictive Models for kingdom of Saudi Arabia Asphalt Mixtures," 3rd Middle East Society of Asphalt Technologists (MEAST): Sustainable Asphalt Pavements in the Middle East, American University of Dubai, United Arab Emirates, April 2015.
23. Taha, S., **El-Badawy, S.**, and Ali, A. "Determination of California Bearing Ratio through Material Index Properties", Published and Presented at the Fourth Jordan International Conference and Exhibition for Roads and Transport, Amman, Jordan, 12-13 March 2013.
24. **El-Badawy, S.**, Bayomy, F., and Santi, M., "Mechanistic–Empirical Pavement Design Guide Implementation - Idaho Experience", The 2nd Middle East Society of Asphalt technologists (MEAST): Sustainable Asphalt Pavements in the Middle East, American University of Sharja, United Arab Emirates, 5-7 February 2013.
25. **El-Badawy, S.**, Bayomy, F., and Santi, M., "Regional Calibration of the MEPDG Rutting Models – Idaho Case Study", 10th International Congress on Advances in Civil Engineering, Middle East Technical University, Ankara, Turkey, 17-19 October 2012.
26. **El-Badawy, S.**, Bayomy F., and Fugit S., "Traffic Characteristics and Their Impact on Pavement Performance for the Implementation of the Mechanistic-Empirical Pavement Design Guide in Idaho", Paper No. 12-1886, Presented at the 91th Annual Meeting of the Transportation Research Board and published in the Annual Meeting DVD, Washington, DC, January 2012.
27. Awed, A., **El-Badawy, S.** and Bayomy F., "Influence of the MEPDG Binder Characterization Input Level on the Predicted Dynamic Modulus for Idaho Asphalt Concrete Mixtures", Paper No. 11-1268, Presented at the 90th Annual Meeting of the Transportation Research Board and Published in the Annual Meeting DVD, Washington, DC, January 2011.
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29. **El-Badawy, S.**, Bayomy, F., Santi, M., and Clawson, C., "Comparison of Idaho Pavement Design Procedure with AASHTO 1993 and MEPDG Methods", Proceedings of the First Integrated Transportation and Development Institute Congress, Al-Qadi, I., and Murrell, S., Eds., Published by the American Society of Civil Engineers, Chicago, Illinois, USA, 13-16 March, 2011, pp 586-595.
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- International Engineering Conference, Vol.(1) Civil and Architecture Engineering, Mansoura-Sharm Elshekh, Egypt 18-23 March, 2010, pp. 688-700.
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 33. **El-Badawy, S.** and Witczak M., "Development of a Universal Permanent Strain Model for Subgrade Pavement Materials", Paper No. 07-2318, Presented at the 86th Annual Meeting of the Transportation Research Board and published in the Annual Meeting DVD, Washington, DC, January 2007.
 34. El-Mudhaf, H., El-Shabrawy, M., Sadek, A., and **El-Badawy, S.**, "Mathematical Models Relating Creep Characteristics of Geosynthetics Under Different Conditions," Geotechnical and Geoenvironmental Engineering in Arid Lands, Proceedings of the Second International Conference, Riyadh, Saudi Arabia, 6-9 October 2002.

Research Reports

1. Reframing The Urban Transport Structure In Mansoura City – Pre-Feasibility Study, Data Collection, March 2019
2. Abo-Hashima, M., and **EL-Badawy S.** Development of Database and Model for Advanced Characterization of Unbound Granular Materials for Pavement Structural Design in Egypt, Egyptian National Institute of Transport (ENIT)–Ministry of Transport, 2018.
3. Arab, M. and **El-Badawy, S.** "Municipal Solid Waste Quantities and Composition in Kafr El-Sheikh Governorate," Published by: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH, German Development Cooperation, National Solid Waste Management Programme, Cairo, Egypt 2013
4. Bayomy, F., **El-Badawy, S.**, and Awed, A., "Implementation of the MEPDG for Flexible Pavements in Idaho", ITD project RP 194, NIATT Project KLK557, National Institute for Advanced Transportation Technology, University of Idaho, Moscow, Idaho, December, 2011.
5. Bayomy, F., and **El-Badawy, S.**, "Study of the Effectiveness of ITD's Pavement Design Method", ITD project RP 199, NIATT Project KLK558, National Institute for Advanced Transportation Technology, University of Idaho, Moscow, Idaho, November, 2011.
6. Witczak, M., El-Basyouny M., Jeong, M. G., and **El-Badawy S.**, "Final Revised Section Calibration Data for Asphalt Surfaced Pavement Recalibration under NCHRP 1-40D", NCHRP 1-40D Final Report. Arizona State University, Tempe, AZ, January 2007.
7. Witczak, M., **El-Badawy S.**, and El-Basyouny M., "Incorporation of the New (2005) E* Predictive Model in the MEPDG", NCHRP 1-40D Final Report. Arizona State University, Tempe, AZ, December 2006.
8. Witczak, M., **El-Badawy S.**, and El-Basyouny M., "Incorporation of Fatigue Endurance Limit into the MEPDG Analysis", NCHRP 1-40D Final Report. Arizona State University, Tempe, AZ, December 2006.

9. Witczak, M., **El-Badawy S.**, and El-Basyouny M., “MEPDG Predictive Cracking Model Adjustment”, NCHRP 1-40D Final Report. Arizona State University, Tempe, AZ, December 2006.
10. Witczak, M., El-Basyouny M., and **El-Badawy S.**, “Incorporation of NCHRP 1-40B HMA Permanent Deformation Model into NCHRP 1-40D”, NCHRP 1-40D Final Report. Arizona State University, Tempe, AZ, December 2006.
11. Witczak, M., Patni, A., and **El-Badawy S.**, “Development of a Rational Methodology to assess Performance Related Pay Factors for Asphalt Pavements”, ASU-ADOT Research Project, Arizona State University, Tempe, AZ, November 2006.
12. Witczak, M. **El-Badawy S.** and Jeong, M., “Development of a Rational Methodology to Access Performance Related Pay Factors for Load Associated Alligator Fatigue Cracking”, NCHRP 9-22 Project Interim Status Report No. 3 , Arizona State University, Tempe, AZ, September 2006.
13. Witczak, M. and **El-Badawy S.**, “ADOT Unbound Materials Permanent Deformation Database and Development of Universal Permanent Strain Model”, Development of Performance Related Specifications for Asphalt Pavements in the State of Arizona, Project No. 9, Arizona State University, Tempe, AZ, March 2006.
14. Witczak, M., **El-Badawy S.**, and Patni, A., “Development of a Spreadsheet Solution to Evaluate AC Mixtures using E* as a SPT for Fatigue”, NCHRP 9-22 Project Interim Status Report No. 2, Arizona State University, Tempe, AZ, November 2005.
15. Witczak, M. and **El-Badawy S.**, “Development of a Spreadsheet Solution to Evaluate AC Mixtures using E* as a SPT for Fatigue”, NCHRP 9-22 Project Interim Status Report No. 1, Arizona State University, Tempe, AZ, September 2005.
16. Witczak M. W., Sotil A., and **El-Badawy S.**, “U.S. Study (with 2002 DG) of PG Binder – AC Rutting”. Inter-Team Technical Report. NCHRP 1-37A Project: Development of the New 2002 Design Guide for New and Rehabilitated Pavements. Arizona State University, Tempe, AZ, May 2004.
17. Witczak, M., El-Basyouny M., and **El-Badawy S.**, “Appendix II-2: Sensitivity Analysis for Asphalt Concrete Fatigue Alligator Cracking”, Guide for Mechanistic-Empirical Design of New and Rehabilitated Pavement Structures, NCHRP, February 2004.
18. Witczak, M., El-Basyouny M., and **El-Badawy S.**, “Appendix II-3: Sensitivity Analysis for Asphalt Concrete Fatigue Longitudinal Surface Cracking”, Guide for Mechanistic-Empirical Design of New and Rehabilitated Pavement Structures, NCHRP, February 2004.
19. Witczak, M., El-Basyouny M., and **El-Badawy S.**, “Appendix GG-2: Sensitivity Analysis for Permanent Deformation for Flexible Pavements”, Guide for Mechanistic-Empirical Design of New and Rehabilitated Pavement Structures, NCHRP, February 2004.
20. Witczak M. W., **El-Badawy S.**, “Shear Strength of Selected ADOT Unbound Materials’ Project No. 9, Development of Performance Related Specifications for Asphalt Pavements in the State of Arizona, ASU-ADOT Research Program, Arizona State University, November 2003.

Articles in International Magazines

Darter, M.I., Mallela, J., Titus-Glover, L., Rao, C., Larson, G., Gotlig, A., Von Quintus, H., Khazanovich, L., Witczak, M., El-Basyouny, M., **El-Badawy, S.**, Zborowski, A. and Zapata, C.

(2006). Research Results Digest 308: Changes to the Mechanistic-Empirical Pavement Design Guide Software through Version 0.900, National Cooperative Highway Research Program, Transportation Research Board of the National Academies, September 2006, 22 pages. <http://www.trb.org/Main/Blurbs/158283.aspx>

Invited Book Chapters

El Badawy, S. Gaber, A., and Abdel Hakim, R. Recycled Materials and By-products in Pavement Construction, (2018) Handbook of Ecomaterials: Leticia Myriam Torres Martínez Oxana Vasilievna Kharissova, and Boris Ildusovich Kharisov (Eds), Springer Nature, ISBN 978-3-319-68254-9, <http://www.springer.com/gp/book/9783319682549>

BOOKS

- Prepared the solution manual for the “Materials for Civil and Construction Engineers” 2nd Edition, by Mamlouk, M.S. and Zaniewski, J.P., Prentice Hall, 2005.
- Lecture Notes in Highway and Airport Engineering, Mansoura University Press.
- Soil Mechanics for Civil Engineering Students, Mansoura University Press.
- Soil Mechanics and Foundation Design for Architecture Students, Mansoura University Press.
- Construction Equipment and Methods, Mansoura University Press.
- Pavement Materials and Design, Mansoura University Press.

PRESENTATIONS

Conference Presentations

1. “Comparing Witczak NCHRP 1-40D with Hirsh E* Predictive Models for the kingdom of Saudi Arabia Asphalt Mixtures”, The 3rd Middle East Society of Asphalt Technologists (MEAST) Conference: Sustainable Asphalt Pavements in the Middle East, American University of Dubai, United Arab Emirates, 6th-8th April 2015. **Session Chair**
2. “Determination of California Bearing Ratio Through Material Index Properties”, The Fourth Jordan International Conference and Exhibition for Roads and Transport: High Priority Issues in Future Transport, University of Amman, Amman, Jordan, 12-13 March 2014. **Session Chair**
3. “Mechanistic-Empirical Pavement Design Guide Implementation – Idaho Experience”, 2nd Middle East Society of Asphalt Technologists (MESAT) Conference on Sustainable Pavements in the Middle East, American University of Sharjah, United Arab Emirates, February 5-7, 2013. **Session Chair**
4. 10th International Congress on Advances in Civil Engineering, Ankara, Turkey, 17-19 October 2012.
5. TRB 90th Annual Meeting, Washington DC, January 23-27, 2011
6. 51st Idaho Asphalt Conference (IAC), Moscow, Idaho, USA, October 27, 2011
7. The First Integrated Transportation and Development Institute Congress, Sponsored by the Transportation & Development Institute (T&DI) of the American Society of Civil Engineers, Chicago, Illinois, 13-16 March, 2011.

8. TRB 88th Annual Meeting, Washington DC, January 11-15, 2009
9. The 6th International Engineering Conference, Sharm El-sheikh, Egypt, March 18-23, 2008.
10. TRB 85th Annual Meeting, Washington DC, January 22-26, 2006.

Invited Presentations

1. Misr Higher Institute for Engineering and Technology “Development of Database and Model for Advanced Characterization of Unbound Granular Materials for Pavement Structural Design in Egypt” 2nd Annual Scientific Civil Engineering Science Confereee, 6 March 2019.
2. Mansoura International Airport: Gamsa or Shawa, Vision and Decision, Egyptian Engineering Syndicate, November 2015.
3. “ITD, AASHTO 1993, and MEPDG, A Comparison” Washington State University (WSU), Pullman, Washington, United States, Fall, 2011.
4. “ITD, AASHTO 1993, and MEPDG, A Comparison” 51st Idaho Pavement Conference, Moscow, Idaho, United States, October 27, 2011.
5. “ITD Implementation Plan for MEPDG” 50th Idaho Pavement Conference, Moscow, Idaho, United States, October 28, 2010.

Attended Conferences, Seminars, And Workshops

1. STEM Teacher Education and School Strengthen Activity, STESSA Project Workshops, US Aid-Egypt, Cairo, December, 18-19, 2018
2. TEMPUS BimIDE3 - Training the Trainers, 13-17 September 2017, Chalmers Technical University, Gothenburg, Sweden.
3. GeoMEast International Congress and Exhibition, Cairo, Egypt from November 24 to 28, 2018.
4. GeoMEast 2017 International Congress and Exhibition "Sustainable Civil Infrastructures: Innovative Infrastructure Geotechnology, Sharm Elsheikh, Egypt from July 15 to 19, 2017.
5. Beyond Smart Cities: Towards Wise Cities, Harnessing the Power of IOT, Big Data, Open Data, Open Service Innovation Models, Organized by: Egyptian National Transport Institute, SETES North Africa, and Cairo University, October, 26, 2016, Ministry of Transport, Cairo, Egypt.
6. Egypt Transport Infrastructure Summit, 26-27 January 2016, Intercontinental Citystars Cairo, Egypt.
7. TEMPUS BimIDE3 - Training the Trainers, 10-15 January 2016, Chalmers Technical University, Gothenburg, Sweden.
8. Future North African Transportation Summit, InterContinental City stars Cairo, 7-9 September 2015.
9. TEMPUS BimIDE3 - Training the Trainers, 19-21 August 2015, Twente University, Enscheda, Netherlands.
10. “Educate the Educators: A Geosynthetics Program for Professors”, 28-29 July 2015, University of Texas Austin, USA.
11. Future Rail & Metro Conference on the 14th-15th of April at the Intercontinental City Stars, Cairo, 2015.

12. The 3rd Middle East Society of Asphalt Technologists (MEAST) Conference: Sustainable Asphalt Pavements in the Middle East, American University of Dubai, United Arab Emirates, 6th-8th April 2015.
13. Airport Development and Modernization 10-11 February 2015, Fairmont Heliopolis & Towers, Cairo, Egypt.
14. Traffic Challenges in Egyptian Cities: Towards a Sustainable Traffic System, February 7th, 2015, Automobile and Turing Club of Egypt, Cairo, Egypt.
15. Egypt Transport Infrastructure Summit, 27-28 January, 2015, Intercontinental Citystars, Cairo, Egypt.
16. Increasing Road Safety in Egypt - A Decade of Action on Road Safety Workshop by Tony Pearce, and Developing a sustainable multimodal transport system: The way forward, by Dr. Khaled Abbas, 29 January, 2015, Intercontinental Citystars, Cairo, Egypt.
17. GreenBIM Brining the Two Concepts Together Conference, WSP, Leeds, UK, December 3rd, 2014.
18. TEMPUS BimIDE3 - Training the Trainers – Construction IT - December 2014, Leeds Beckett University, Leeds, UK.
19. The Second Egyptian Solid Waste Management Forum, 24th to 25th November, 2014, Cairo, Egypt.
20. PaveXpress/A Simplified, Online Pavement Design Tool Webinar, October 1, 2014, Asphalt Pavement Alliance (APA) Webinar.
21. Improving Sustainability of Asphalt Roads through Durability, Recycling, and Surface Texture Workshop, University of Amman, Amman, Jordan, 10 March 2014.
22. Latest Advancements in Transportation Engineering Workshop, University of Amman, Amman, Jordan, 11 March 2014.
23. The Fourth Jordan International Conference and Exhibition for Roads and Transport: High Priority Issues in Future Transport, University of Amman, Amman, Jordan, 12-13 March 2014.
24. Internal Auditing “ISC/IEC 17025: 2005” March 8-9, 2015. Experts Quality and Marketing.
25. Quality Control Charts and Proficiency Test (PT), “ISC/IEC 17025: 2005” September 22, 2014. Experts Quality and Marketing.
26. Universal Testing Machine: UTS005: Flow Test, UTS006: Dynamic Modulus, UTS039: Unbound Materials Resilient Modulus, IPC Global Australia, July, 22-24, 2014.
27. Estimation of Uncertainty of Measurements, “ISC/IEC 17025: 2005” June 3, 2014. Experts Quality and Marketing.
28. General Requirements for the Competence of the Testing Laboratories, “ISC/IEC 17025: 2005” December 13, 2013. Experts Quality and Marketing.
29. The First Egyptian Solid Waste Management Forum, 26-27 November 2013, Cairo, Egypt
30. 2nd Middle East Society of Asphalt Technologists (MESAT) Conference on Sustainable Pavements in the Middle East, American University of Sharjah, United Arab Emirates, February 5-7, 2013.

31. Road Materials and Pavement Design Annual Seminar, American University of Sharjah, United Arab Emirates, February 4, 2013.
32. Airport Pavement Design and Analysis Workshop, USA Federal Aviation Administration (FAA), American University of Sharjah, United Arab Emirates, February 7, 2013.
33. 10th International Congress on Advances in Civil Engineering, Ankara, Turkey, 17-19 October 2012.
34. Introduction to Nanotechnology, Nanotechnology Center, Mansoura University, 1-2, and 8 July 2012 (12 hours).
35. A Road Map for Successful Grant Proposals, Faculty of Science, Mansoura University, May, 2012.
36. 51st Idaho Asphalt Conference (IAC), Moscow, Idaho, USA, October 27, 2011
37. LTPP* Dynamic Modulus Prediction Software, LTPP Webinar, Mr. Jason Puccinelli, October 6, 2011.
38. History and Future Plans for LTPP. LTPP Webinar, FHWA, Thursday, September, 8, 2011.
39. Pavement-Vehicle Interaction: Role of Pavement Deflection Webinar. MIT Sustainability Hub, Thursday, September, 8, 2011.
40. Understanding the Multiple-Stress-Creep-Recovery (MSCR) Test and its Use in the PG Asphalt Binder Specification. Asphalt Academy Webinar, by Mike Anderson, August 31, 2011.
41. "Warm Mix Asphalt," Presented by Matt Corrigan, FHWA, Boise, Idaho, April 28, 2011.
42. "Pervious Pavement Installation, Performance & Maintenance," American Society of Civil Engineers, Spokane, Washington, March 24, 2011.
43. The First Integrated Transportation and Development Institute Congress, Sponsored by the Transportation & Development Institute (T&DI) of the American Society of Civil Engineers, Chicago, Illinois, 13-16 March, 2011.
44. TRB 90th Annual Meeting, Washington DC, January 23-27, 2011
45. 50th Idaho Asphalt Conference (IAC), Moscow, Idaho, USA, October 27-28, 2010
46. Responsible Conduct of Research Training, University of Idaho, October 2010
47. Writing a Successful Grant Proposal Workshop, University of Idaho, Summer, 2010
48. Geo/Transportation Engineering Seminar, NSF ADVANCE Funded PACE Project: Lecture 1, Healing in Asphalt Pavements, Lecture 2: Problems Encountered in Stabilizing High Sulfate Soils, Dr. Dallas Little, Washington State University, Pullman, Washington, 21-22 January 2010.
49. 17th International Conference on Soil Mechanics & Geotechnical Engineering, Alexandria, Egypt, 5-9 October 2009.
50. TRB 88th Annual Meeting, Washington DC, January 11-15, 2009
51. The 6th International Engineering Conference, Sharm El-sheikh, Egypt, March 18-23, 2008.
52. TRB 86th Annual Meeting, Washington DC, January 21-25, 2007
53. AAPT Annual Meeting, San Antonio, TX, March 12-14, 2007

54. FHWA Asphalt Fundamental Properties and Advanced Modeling Expert Task Group, Phoenix, AZ, February, 7-8, 2007.
55. TRB 85th Annual Meeting, Washington DC, January 22-26, 2006.
56. Arizona Pavements/Materials Conference, April 25-26, 2006, Tempe, Arizona
57. Arizona Pavements/Materials Conference, December 13-14, 2004, Tempe, Arizona.
58. Arizona Pavements/Materials Conference, December 13-14, 2002, Tempe, Arizona.
59. Principles and Practice of Asphalt Rubber, June 18, 2002, Tempe, Arizona

CONFERENCE COMMITTEE MEMBER

1. 2018 MESAT, 4th Conference of the Middle East Society of Asphalt Technologists, July 4-6, 2018, Beirut, Lebanon.
2. 2017 International Conference on Mechanics, Civil Engineering and Building Material (MCEBM2017). <http://www.mcebm2017.org/?op=committee>
3. 2016 International Conference on Building Materials and Civil Engineering (BMCE2016), December 10-11, 2016 in Wuhan, China, <http://www.bmce2016.org/committee.html>.
4. International Conference on Innovative Engineering and Technology Applications (IEATA 2016), Shenzhen, China December, 23 – 25.
5. International Conference on Advances in Sustainable Construction Materials & Civil Engineering Systems (ASCMCES-17), April 18th – 20th, 2017.
6. 3rd Middle East Society of Asphalt technologists (MEAST): Sustainable Asphalt Pavements in the Middle East, American University of Dubai, United Arab Emirates, 6th to 8th of April 2015.
7. The 3rd International Conference on Civil Engineering and Urban Planning (CEPU 2014), June 20-22, 2014. Wuhan, China,
<http://www.ceupconf.org/TechnicProgrammeCommittee.html>
8. 51st Idaho Pavement Conference, Moscow, Idaho, United States, October 27, 2011.

EDITOR OF CONFERENCE PROCEEDINGS

1. Chief Editor of ASCE GPS of GeoChina 2016 International Conference on Sustainable Civil Infrastructures: Innovative Technologies for Severe Weathers and Climate Changes, Shandong, China July 25-27, 2016.
2. Recent Developments in Pavement Design, Modeling and Performance Proceedings of the 2nd GeoMEast International Congress and Exhibition on Sustainable Civil Infrastructures, Egypt 2018 The Official International Congress of the Soil-Structure Interaction Group in Egypt (SSIGE), Editors: **El-Badawy**, Sherif, **Abd El-Hakim**, Ragaa (Eds.)
3. Sustainable Solutions for Railways and Transportation Engineering, Proceedings of the 2nd GeoMEast International Congress and Exhibition on Sustainable Civil Infrastructures, Egypt 2018 – The Official International Congress of the Soil-Structure Interaction Group in Egypt (SSIGE), Editors: **El-Badawy**, Sherif, **Valentin**, Jan (Eds.)

PROFESSIONAL ACTIVITIES AND SERVICE

Led a project for the Highway and Airport Laboratory to get accreditation. The lab was accredited according to ISO/IEC 17025:2005 in March 2017.

Conference Session Chair

1. GeoMEast 2017 International Congress and Exhibition "Sustainable Civil Infrastructures: Innovative Infrastructure Geotechnology, Sharm Elsheikh, Egypt from July 15 to 19, 2017. **Session Chair**
2. The 3rd Middle East Society of Asphalt Technologists (MEAST) Conference: Sustainable Asphalt Pavements in the Middle East, American University of Dubai, United Arab Emirates, 6th-8th April 2015. **Session Chair**
3. The Fourth Jordan International Conference and Exhibition for Roads and Transport: High Priority Issues in Future Transport, University of Amman, Amman, Jordan, 12-13 March 2014. **Session Chair**
4. 2nd Middle East Society of Asphalt Technologists (MESAT) Conference on Sustainable Pavements in the Middle East, American University of Sharjah, United Arab Emirates, February 5-7, 2013. **Session Chair**

Journal Refereeing

1. Transportation Research Record
2. Journal of Materials in Civil Engineering, American Society of Civil Engineers
3. Journal of Transportation Engineering, American Society of Civil Engineers
4. Journal of Testing and Evaluation
5. Innovative Infrastructure Solutions
6. Sustainable Civil Infrastructures
7. Journal of Traffic and Transportation Engineering (English Edition)
8. ACTA Geotechnica Slovenica
9. American Association of Asphalt Pavement Technologists
10. Transportation in Developing Economics
11. Alexandria Engineering Journal
12. Construction and Building Materials Journal

Grant Refereeing

- Reviewed research proposals for the Central Finance and Contracting Agency, EU
- Reviewed research proposals for the Louisiana EPSCoR, National Science Foundation, US
- Reviewed grants proposals for the American University of Beirut, Lebanon

Leadership

- President of the Idaho Mosque, 2011-2012.
- First Advisor of the International Civil Engineers (ICE) Student Chapter at Mansoura University, 2014 to Present.

Professional Affiliations

- Egyptian Code of Practice, Part 9: Requirements for the Construction of Urban and Rural Roads, Housing and Building Research Center.
- Egyptian Code of Practice, Part 6: Structural Design of Roads, Housing and Building Research Center.
- Egyptian Code of Practice, Editorial Committee, Housing and Building Research Center.

- International Society for Development and Sustainability (ISDS)
- International Association of Computer Science and Information Technology (IACSIT): IACSIT Transportation and Traffic Society (TTS) from December 2013.
- Elected Board Member, Middle East Society of Asphalt Technologists, February 2013 to date.
- TRB Committee Member on Flexible Pavement Design (AFD60) for the term 4/15/2012 to 4/14/2015, the term 4/15/2015 to 4/14/2018, and the term 4/15/2018 to date.
- TRB Committee Friend on Flexible Pavement Design (AFD60) 1/25/2006 to 4/14/2012
- Syndicate of Engineers, Cairo, Egypt
- Association of Asphalt Paving Technologists (AAPT)
- Friend of FHWA Asphalt Modeling
- International Geosynthetic Society (IGS)
- Chi-Epsilon Honor Society

Journal Editorial Board Member

- International Journal of Pavement Research and Technology (IJPRT)
- Journal of World Architecture (JWA)
- Journal of Construction and Building Materials (Lawrence press)

TEACHING EXPERIENCE

Mansoura University

Responsible for all aspects of development, instruction, and assessment for the following courses:

#	Courses Taught	Course #	Level	Number of Semesters
1	Highway and Airport Engineering	PWE 8413	Undergraduate	8
2	Construction Equipment and Methods	NTSE 24	Undergraduate	8
3	New Trends in Hot Mix Asphalt Design	PWE 8416	Undergraduate	2
4	Transportation Planning and Traffic Engineering	NPWE 5	Undergraduate	3
5	Pavement Design	STE 425E	Undergraduate	5
6	Introduction to Highway Engineering	ENVE 323	Undergraduate	2
7	Road Engineering	STE 313	Undergraduate	2
8	Ports and Airports	STE 315E	Undergraduate	3
9	Soil Mechanics I		Undergraduate	3
10	Soil Mechanics II		Undergraduate	2
11	Highway Engineering	CIW 341	Undergraduate	5
12	Highway and Airport Engineering Graduation Project		Undergraduate	1
13	Computer Applications	PWE 502	Graduate	2
14	Technical Writing		Graduate	2
15	Transport Economics and Policies	PWE 514	Graduate	1
16	Seminar	PWE 518	Graduate	8
17	Pavement Materials (I)	PWE 521	Graduate	8
18	Highway Structural Design (I)	PWE 525	Graduate	8
19	Bituminous Materials and Mixtures	PWE 526	Graduate	3

#	Courses Taught	Course #	Level	Number of Semesters
20	Highway and Airport Construction Equipment and Technology	PWE 527/615	Graduate	6
21	Pavement Design and Maintenance	PWE 530	Graduate	3
22	Pavement Materials II	PWE 613	Graduate	3
23	Pavement Management Systems	PWE 617/713	Graduate	3
24	Pavement Maintenance	PWE 618	Graduate	2
25	Pavement Structural Design for Airports	PWE 620	Graduate	2
26	Statistical Applications in Highway Engineering	PWE 709	Graduate	4
27	Advanced Topics in Highway and Airport Engineering	PWE 717	Graduate	4
28	Advanced Pavement Materials (III)	PWE 718	Graduate	4

University of Idaho, USA

Responsible for all aspects of development, instruction, and assessment for the following courses:

#	Courses Taught	Course #	Level	Semester
1	Properties of Construction Materials Lab	CE 357	Undergraduate	Fall 2011

Arizona State University, USA

Assisted Prof. Matt. Witczak in instructing the following courses:

#	Courses Taught	Course #	Level	Semester
1	Civil Engineering Materials	CEE 353	Undergraduate	Spring 2007
2	Statistical Applications in Highway Engineering	CEE 598	Graduate	Fall 2006

Delta University; Mansoura College Academy; Delta Higher Institute for Engineering and technology, and Misr Higher Institute for Engineering

As Visiting Professor, I developed, instructed, and assessed the following courses:

1. Transportation and Traffic Engineering
2. Highway Engineering
3. Airport Engineering
4. Soil Mechanics
5. Advanced Soil Mechanics
6. Superpave Mix Design
7. Highway Geometric Design
8. Ports and Airports
9. Pavement Design
10. Highway and Airport Graduation Project

PREPARATION IN PEDAGO

GY AND ADVISING

Completed the following training workshops:

- **Preparation and Design of Electronic Exams**, Faculty and Leadership Development Program, University Development Center, Mansoura University, Egypt, May 21-22, 2017
- **Strategic Planning**, Faculty and Leadership Development Program, University Development Center, Mansoura University, Egypt, March 26-27, 2017
- **Design and Peer Review of Research Team**, Faculty and Leadership Development Program, University Development Center, Mansoura University, Egypt, Dec. 12-13, 2016
- **Educate the Educators**, “Educate the Educators: A Geosynthetics Program for Professors”, 28-29 July 2015, University of Texas Austin, USA. *Topics included: Geosynthetic types, Soil Reinforcement with Geosynthetics, Geosynthetics in Pavement Applications, Mechanically Stabilized Earth Walls, Geosynthetics in Geotechnical Applications.*
- **Leading and Managing Research Team**, Faculty and Leadership Development Program, University Development Center, Mansoura University, Egypt, Sep. 7-8, 2014
- **Academic Standards in Educational Programs**, Faculty and Leadership Development Program, University Development Center, Mansoura University, Egypt, Sep. 9-11, 2012
- **Exam Systems and Assessment of Students**, Faculty and Leadership Development Program, University Development Center, Mansoura University, Egypt, March 11-13, 2012
- **NCAT Professor Training Course**, A two-week training course at the National Center for Asphalt Technology (NCAT), June 21-30, 2011, Auburn, Alabama, US. *Topics included: Pavement distresses, Flexible Pavement Design, Physical Properties of Aggregate, Aggregate Sources and Crushing Operations, Binder Properties-Grading-and Testing, Laboratory Compaction of Asphalt Mixes, Asphalt Mixes Volumetric Properties, Performance Tests, Superpave Mix Design Method, Accelerated Pavement Testing, Plant Operations, Placement and Delivery of HMA mixes, Field Compaction, Economics of HMA Construction, Warm Mix Asphalts, HMA Maintenance and Rehabilitation System, Asphalt Pavement Recycling. The program included three tours for ASTEC, Roadtec, and Heatec Plants.*
- **Responsible Conduct of Research Training**, University of Idaho, Oct. 2010
- **Writing a Successful Grant Proposal Workshop**, University of Idaho, Summer, 2010
- **Local and International Competitive Research Projects**, Faculty and Leadership Development Program, University Development Center, Mansoura University, Egypt, Jul. 5-7, 2009
- **Financial and Legal Aspects of University Work**, Faculty and Leadership Development Program, University Development Center, Mansoura University, Egypt, Feb. 8-10, 2009
- **Managing Time and Meetings**, Faculty and Leadership Development Program, University Development Center, Mansoura University, Egypt, Apr. 20-22, 2008
- **Scientific Publications**, Faculty and Leadership Development Program, University Development Center, Mansoura University, Egypt, Dec. 9-11, 2007
- **Credit Hour System**, Faculty and Leadership Development Program, University Development Center, Mansoura University, Egypt, Sep. 9-11, 2007

- **Communication Skills in Teaching**, Faculty and Leadership Development Program, University Development Center, Mansoura University, Egypt, Aug. 26-28, 2007
- **Using Technology in Teaching**, Faculty and Leadership Development Program, University Development Center, Mansoura University, Egypt, Sep. 2-4, 2007
- **Effective Presentation**, Faculty and Leadership Development Program, University Development Center, Mansoura University, Egypt, Aug. 19-21, 2007
- **Training Course for Faculty Preparation**, Faculty of Education, Mansoura University, Mansoura, Egypt, July 2001 to August 2001

AWARDS

- Scientific Publication Award, Mansoura University, 2016
- Scientific Publication Award, Mansoura University, 2010
- Best Graduate Student Paper Award, Institute of Transportation Engineers (ITE), Arizona Section 04/2006
- Arizona State University Graduate Assistantship 05/02 – 05/06
- Egyptian Government Academic Scholarship 05/02 – 05/06
- Scholarship for outstanding undergraduate students 19991-1995

AWARDS FOR MY UNDERGRADUATE STUDENTS

1. My Students' Highway and Airport Engineering Senior Design Projects earned the first place in the National Engineering Syndicate Competition in 2015.
2. My Student's Highway and Airport Engineering Senior Design Projects earned the second place in the National Engineering Syndicate Competition in 2016.
3. My Students' Poster earned the second place in the GeoMEast International Congress and Exhibition, July 15-19, 2017.

TRAINING COURSES AND WORKSHOPS

Developed the following training and workshops. The audience included civil, construction, and road engineers as well as technicians from various countries (e.g., Egypt, UAE, Jordan, Oman, India, Philippine, Afghanistan, Kuwait, and Russia) responsible for the provision, approval, design, maintenance and rehabilitation and quality control of road pavements.

- 1) HMA Mix Design using Marshal Method, 13-17 January 2019 GARBELT, Cairo, Egypt.
- 2) Asphalt Pavement Recycling, a 2-day training course for Kuwait Union of Asphalt Producers, supported by Kuwait Foundation for the Advancement in Science, 29-30 December, 2018.
- 3) Pavement Construction from Production to Compaction, a 2-day training course for Kuwait Union of Asphalt Producers, supported by Kuwait Foundation for the Advancement in Science, 15-16 August, 2018.
- 4) Modified Binders, a 2-day training course for Kuwait Union of Asphalt Producers, supported by Kuwait Foundation for the Advancement in Science, 21-22 July, 2018.
- 5) Superpave Mix Design, a 1-day training workshop, Galfar, Kuwait, July, 2018

- 6) Polymer Modified Asphalt, A 1-day course (GARBELT, Cairo, Egypt), October, 2017.
- 7) Geometric Design of Urban and Rural Roads using Civil 3D, Training Unit, Center of Technical, scientific, and Laboratory Services, Faculty of Engineering, Mansoura University, February, 2017.
- 8) Pavement Structural Design Using AASHTO 1993, a 1-day course, (GARBLT, Cairo, Egypt) January, 2017.
- 9) Mechanistic-Empirical Pavement Design Guide, *is it the solution for our deteriorated roads?* A one-day Workshop, 7, December, 2016, Egyptian National Institute of Transport (ENIT)-Ministry of Transport
- 10) Road Pavement Design and Maintenance: A 5-day course, (Duabi, UAE) 6-10 March, 2016.
- 11) Superpave Binder Characterization and Mix Design: a 6-day course, (GARBLT, Cairo, Egypt) March, 2016.
- 12) Superpave Binder Characterization and Mix Design: a 6-day course, (Mansoura University, Egypt) January, 2016.
- 13) Advanced Tests on Modified Binders: a 4-day Course (Dubai Central Laboratories), 14-17, September, 2015.
- 14) Geometric and Structural Design of Roads, a 5-day course (GARBLT, Cairo, Egypt)
- 15) Pavement Material and Structural Design of Pavement, A 2 –day course (GARBLT, Cairo, Egypt).
- 16) Road Pavement Design and Maintenance: a 5-day course, (Abu Dhabi, UAE) 21-25 September, 2014.
- 17) Geometric Design of Urban and Rural Roads: a 5-day course, (Istanbul, Turkey). 2-7 August, 2014
- 18) Asphalt Mix Design Using Marshal Method: a 4-day course (Mansoura University, Egypt).
- 19) Superpave Mix Design: A 4-day course (Mansoura University, Egypt).

PROFESSIONAL EXPERIENCE AND CONSULTING

- One of the team members under Prof. Mathew Witczak in the NCHRP 1-37A and NCHRP 1-40D: “Development of the Mechanistic-Empirical Pavement Design Guide” Now Called “DARWin-ME”
- Pavement Structural Design of Port Said Tunnels Under Suez Canal Road Project, Arab Contactors, December, 2018.
- Rigid Pavement Design of Damietta Port Entrance and Exit Roads, Contractor: Gamal Bahria, October, 2018.
- Flexible and Rigid Pavement Design for Faizabad-Eshkashim Road Project, (108km Baharak-Eshkashim Section, Afghanistan, Asian Development Bank (ADB), Project Management Office (PMO), Transport Network Development Investment Program Tranch 4, May, 2018.
- Design of Kafr Hegazy Road and Mahalet Abu Ali including Retaining Walls and Box Culvert, February, 2018
- Developed Superpave Mix Design using Polymer Modified Asphalt for three different Projects in Kuwait, (October 2017– November 2017)

- Shop Drawings and Design Verification of RC Concrete Bridge in Dakahlia Governorate, November, 2017.
- Stability of Side Slopes for Alhigra District, Makka, Kingdome of Saudi Arabia, (April 2017).
- Geometric and Structure Design of Road No. 26, Gamasa, Dakahlia, Egypt, March, 2016.
- Geometric and Structure Design of one of the National Housing Projects in 6 October City, Egypt, December, 2015.
- Consultant to the Middle Northern Coast Development Authority through Assaf Group for the roads in Fayoum Governorate (June 2015 to July 2017).
- Traffic Study and Enhancement of the Major Intersections on the Main Corridors of Alobour City, Egypt, 2015.
- Structural and Geometric Design of Alalmeen – Wady Alnatron Service roads (45 km), 2016.
- Structural Design of Alalmeen – Wady Alnatron Main Road (45 km), 2015.
- Consultant to Mukhtar Ibrahim for the road network of the New Sohag City Project (32 Acres), Sohag, Egypt, January 2015 to present.
- Consultant to Mukhtar Ibrahim for the road network of the New Sohag City Project (214 Acres), Sohag, Egypt, January 2015 to present.
- Consultant to the Middle Northern Coast Development Authority through Assaf Group for the roads in six governorates: Al-Dakahlia, Alexandria, Al-Menofia, Kafr El sheikh, Al-Behira, Al-Gharbya from February 2014 to date.
- Pavement condition survey and evaluation of the road connecting Damietta port to New Damietta City, 2014.
- Pavement condition survey and evaluation of Alalmeen – Wady Alnatron road (45 km), 2014.
- Consultant to Moukhtar Ibrahim for the Construction and Enhancement of the Internal Roads in Damitta Governorate, from February 2014 under the Supervision of the Sainai Development Authority.
- Geometric, structure design, and preparation of the tender documents of the road network for New Qena City, Qena, Egypt.
- Design of Baltim Highway with all infra structures (4 RC concrete culvers, retaining walls, and pipelines).
- Geometric, structure design, and preparation of the tender documents for the internal roads of Horus University, New Damietta City, Damietta, Egypt
- Geometric, structure design, and preparation of the tender documents for the internal roads of Damietta University, Damietta Egypt
- Geometric, structure design, and preparation of the tender documents of the road network for “The Nation House Project” 256 Acres in New Menea City, Al-Menea, Egypt
- Geometric, structure design, and preparation of the tender documents of the internal roads of Kafr Elshekh University.
- Design of the internal roads for a Recycling Factory and dump site in Lagos.
- Consultant to Farouk Abel Wahab Company for the Cairo-Alexandria Desert Road, Stage 6.
- Pavement condition survey and evaluation of Cairo – Alexandria road stage 6 (10 km), 2013.

- Geometric and structure design of Belbais – Alasher Highway, 9 km, Arab Contractors.
- Design of the access road to Methanex Termina, Damietta Port, Damietta, Egypt.
- Geometric and structure design of Abu-Khalifa Industrial Area,
- Geometric and structure design of Rafed Almansoura– Gamasa Highway, 25 km, Mukhtar Ibrahim.
- Improvement of the Railway Crossings Project in Dakahlia, Kafr El-shekh, and Damietta, with Cairo University Center of Consultation.
- Calibration of the batch plant owned by the Egyptian Contractors Company (Mokhtar Ibrahim) in Balteem, Kafr El-shekh, Egypt.
- Almashaya street (5 km) (geometric and structure design), Mansoura, Egypt.
- Re-Planning of the major intersections in Mansoura City, Dakahlia to reduce the traffic congestions.
- Pavement Condition Survey for Alglaa Street in Damietta, Egypt.
- Geometric design of Al-kassem Bridge in Kingdome of Saudi Arabia.
- Local streets (geometric and structure design) for new cities in the New Damitta, and 6th of October city, Egypt.
- Geometric, structure design, and preparation of the tender documents for the following projects:
 - 3 km of infrastructure (Roads, telephone lines, and Gas) in kera, Libya
 - 10,000 acres, New Akhmem, Egypt
 - 400 acres in New Menea, Egypt (Build your Own House Project).
 - 140 acres in New Menea, Egypt (Build your Own House Project).
 - 45 acres in New Menea, Egypt (Build your Own House Project).
 - Employees Housing Project (Sahl Hashis), Red Sea, Egypt.
- Other consultation work: One of the team members under Prof. Witczak to Evaluate the Failure of the Salwa International Road in KSA (100 km length).

SCHOLARSHIPS AND HONORS

- Recognized in the 2014 Marquis Who's Who in America.
- Scientific Publication Award, Mansoura University, 2016
- Scientific Publication Award, Mansoura University, 2012
- Scientific Publication Award, Mansoura University, 2010
- Best Graduate Student Paper Award, Institute of Transportation Engineers (ITE), Arizona Section
04/2006
- Arizona State University Graduate Assistantship 05/02 – 05/06
- Egyptian Government Academic Scholarship 05/02 – 05/06
- Scholarship for outstanding undergraduate students 19991-1995
- Scholarship for Outstanding Undergraduate Student, Mansoura University, 1991-1995