

CURRICULUM VITAE (2022)

MOSTAFA DEEB HASHEM

MOSTAFA DEEB HASHEM
Civil Engineering Department,
Faculty of Engineering,
El-Minia University,
El-Minia,
Egypt,
Tel: +20-86-353376
Mobile: +201090041927
Fax: +20-86-342601
E-mail: m_deep_2009@yahoo.com
E- mail: mostafa.deep@nub.edu.eg
Ph.D. Civil Engineering
M.Sc. Civil Engineering
B.Sc. Civil Engineering



Birth : 19.06.1961, Egypt
Mother tongue : Arabic
Second language : English
Marital status : married, four children

EDUCATION

Ph.D. Civil Engineering (1992-1996), Highway Laboratory in Bodenkultur Institute Vienna Austria and Soil Mechanics Laboratory, Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt.

Thesis: "Strengthening of soil material with geogrids and geotextiles".

The Ph.D. research consisted of three major parts. In the first part, an extension and pull-out tests on the geotextile material was employed. The second part of study is conducted to study the factors affecting road resistance to external loading. It is directed towards investigating the effect of using geotextiles embedded in coarse sand on its bearing capacity. The third part contains a study of the behaviour of different fabric reinforced subgrade soils. The machine used was the mould of centrifuge, which is connected to UPM60 machine.

M.Sc. Civil Engineering (1987-1991). Soil Mechanics Laboratory, Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt.

Thesis: "Strengthening of saturated low permeability, subgrade soil for unpaved roads ".

In this study, a laboratory investigation is carried out to study the effect of introducing a geogrid material on the behavior of soft subgrade soil in Soil-Fabric-Aggregate (SFA) system. The load tests carried out consist of placing subgrade soil, geogrid and granular material in a mold and loading the surface of such system with a static load.

B.Sc. Civil Engineering (1979-1984). Civil Engineering Department, Faculty of Engineering, Assiut University, Egypt. **Graduation Project:** "Railway Engineering", estimate "destination".

TEACHING

Head of Civil Engineering (9/2022 till now): Civil Engineering Department, Faculty of Engineering, Nahda University, Egypt.

Head of Civil Engineering (9/2019 till 9/2021): Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt.

Professor (February 2015): Professor of Highway Engineering, Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt.

Associate Professor (2010-2015): Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt.

Associate Professor (2004-2010): Civil Engineering Department, Faculty of Engineering, Omar El-Mokhtar University, Libya.

Assistant Professor (1996-2004): Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt.

Undergraduate courses : Highway and Airports Engineering, Transportation and Traffic Engineering, Airports Engineering, Descriptive Geometry, Railway Engineering,.

Postgraduate courses : Advanced Highway Engineering, Advanced Airport Engineering.

Assistant Lecturer (1991-1996): Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt.

Demonstrator (1987-1991): Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt.

Undergraduate courses: Highway and Airports Engineering, Transportation and Traffic Engineering, Railway Engineering, Descriptive Geometry, Transportation Engineering, Engineering Drawing.

Highway and Airports Engineering: geometric design of highway, horizontal alignment of highway, vertical alignment of highway, highway intersection, soil classification road construction materials and testing, pavement design, bituminous road construction, concrete pavements, classification of airports, airport size and site selection, airport surveys, airport grading and drainage, airport pavement design, design of airport runway, design of airport taxiway.

Transportation and Traffic Engineering: characteristics of the driver, pedestrian, vehicle and road, basic design control, traffic flow characteristics, traffic flow count, highway capacity and level of service, traffic system control, design of highway network.

Advanced Highway Engineering: history of roads, highway financing, economics and administration, highway planning, highway surveys and plans, design controls and criteria for highway design, hill roads, road construction materials and testing, low cost roads including stabilized soil roads, bituminous road construction, concrete pavements, preparation of highway project and estimates.

Advanced Airport Engineering: classification of airports, aircraft characteristics, airport terminology, airport regional planning, airport size and site selection, airport surveys, airport grading and drainage, airport geometric standards and layout, airport pavement design.

Highway Laboratory: Laboratory Compaction Tests - Plate Loading Test - California Bearing Ratio - Los Angeles abrasion test - Impact test - Crushing strength test – Specific Gravity and Absorption test for Aggregate - Penetration test - Flash point test - Ductility test - Softening Point Test (Ring and Ball) - Volatility test (Loss on Heating) - Solubility test - Specific gravity test - Viscosity test of Asphalt – Kinematic Viscosity of Asphalt – Concrete Asphalt hot mix test by Marshal.

Railway Engineering: Parts of railway, The Track, Timber Blocks, Concrete Blocks, Steel Blocks, Ballast, Railway Dynamics, Engineering planning of railway, Branches, Stations, Signs.

General Drawing: Drawing instrument - Parallel lines and tangents - Projections - Projections theory - Types of projections - First and third angle projections - Applications including Missing lines - Third projection drawing – Sectioning - complete section - half section - partial section.

Geometric Engineering: Point representation - Straight line representation - Plane representation - Helpful projection - Position Operations - Measurement Operations - Application on Geometric Engineering (More surfaces – circle – Sphere – cone – cylinder).

Mathematics 3: Linear Algebraic -Matrices Algebra - Square Matrices - Summation and Multiplication of Matrices - Transpose matrices – Inverse of matrices - Order of matrix - Rank of matrix - Hermitian matrix – Symmetric and unsymmetrical - Gauss method for solving linear equations - Vectors - Eigen values and Eigen vectors - Linear independence and linear dependence - Vector spaces – Linear subspaces - Cayley-Hamilton theorem - Gradient operator – Divergence – Curl.

Postgraduate courses: Advanced Highway Engineering - Transportation Planning - Transportation Planning and Traffic Engineering - Pavement Design - Highway materials - Transportation Engineering.

Advanced Highway Engineering: history of roads, highway financing, economics and administration, highway planning, highway surveys and plans, design controls and criteria for highway design, hill roads, road construction materials and testing, low cost roads including stabilized soil roads, bituminous road construction, concrete pavements, preparation of highway project and estimates.

Transportation Planning: Introduction – Concepts and definitions – Principles of Transportation Planning – Prediction of Demand – Transportation Supply – Data Base Preparing – Study Area and Zones of Transportation Areas – Data Collection – Trip Generation – Distribution of Trips Between Transportation Zones - Distribution of Trips Between Modes of Transportation - Distribution of Trips on Highway Network – Transportation Projects Evaluation.

Transportation Planning and Traffic Engineering : Introduction - Characteristics of Driver, Vehicles and Pedestrian – Studies of Main Traffic Elements (Speed Studies – Traffic volume Studies – Trip Duration Studies) – Relations between Speed, Volume and Density – Highway Capacity and Level of Service – Parking Characteristics – Traffic Control – Traffic Signals – Traffic Signs.

Pavement Design: Introduction – performance and failure criteria for pavement design – stresses in flexible pavements – vehicle and traffic considerations – design of flexible highway and airport pavements - design of rigid highway and airport pavements – overlay design.

Highway materials: Aggregate – Bituminous Materials - Asphalt Cement - Cutback and road oils liquid asphalt - Emulsified Asphalt - Coarse Aggregate Testing - Tests on Bituminous Materials - Types of Flexible Pavement Construction – Soil and base stabilization – subgrade classification – pavement distresses and maintenance.

Transportation Engineering: Introduction – Concepts and definitions – Principles of Transportation Planning – Transportation network - Prediction of Demand – Transportation Supply – Data Base Preparing – Study Area and Zones of Transportation Areas – Data Collection – Trip Generation – Distribution of Trips Between Transportation Zones - Distribution of Trips Between Modes of Transportation - Distribution of Trips on Highway Network – Transportation Projects Evaluation - Capacity and Level of service.

Geotechniques and Pavement Analysis: Basic soil properties and soil tests, Site investigation for highways, ground improvements for highways, Slope stability analysis and stabilization techniques, Earth retaining structures, Flexible pavement analysis, Rigid pavement analysis, Use of software for pavement analysis, and student Projects.

Undergraduate courses taught at Omar Al Mukhtar University in Libya: Highway and Airports Engineering, Transportation and Traffic Engineering, Railway Engineering, Descriptive Geometry, Transportation Engineering, Engineering Drawing, Survey 1 , Survey 2.

Undergraduate courses taught at Nahda University in Egypt: Highway and Airports Engineering, Transportation Engineering, Survey 1, Construction Engineering, Public Works Project Road Engineering – Management of Construction Projects – Principles of Construction Building Engineering - Structure and properties of building materials - Properties of Construction Materials for Architecture Engineering.

RESEARCH SUPERVISOR

(A) The Master's Theses that have been discussed:

1. (2000) for a master degree in Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt. Thesis title: "Behavior of Reinforced Roads Constructions Adjacent to Water Canals" by Aly Ahmed Aly.
2. (2014) for a master degree in Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt. Thesis title: "Investigation of Bumps at Bridge Approaches" by Beshoy Maher Hakeem.
3. (2015) for a master degree in Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt. Thesis title: "Investigation of aggregate characteristics on hot asphalt concrete mixtures" by Samir Azmy Abdalla.
4. (2016) for a master degree in Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt. Thesis title: "Stabilization of expansive subgrade soil by using additives" by Ahmed Awad Hag.
5. (2018) for a master degree in Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt. Thesis title: "Evaluation of Road Embankment Slope Deformation" by Israa Badr Omer.
6. (2022) A master degree in Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt. Thesis title: "Applicability of Optimized Numerical Models of Slope Stability of Road Embankments Adjacent to Water Channels under Traffic Load " by Amer Mansour.

B) PhD dissertations that have been discussed:

1. (2004) for Ph.D degree in Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt. Thesis title: "Utilization of Shredded Waste Tires in the Reinforcement of Unpaved Road over Soft Clay" by Aly Ahmed Aly.
2. (2020) for Ph.D degree in Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt. Thesis title: "Development of Pavement Deterioration Models for Egypt Main Roads Network" by Mostafa Mahmoud Yassen Radwan.
3. Ph.D degree in Civil Engineering Department, Faculty of Engineering, Aswan University, Egypt. Thesis title: "Utilization of Chemical Additives on Hot Mix Asphalt" by Samir Azmy Abdalla.

(C) The Master's Theses are not discussed yet: -

1. A master degree in Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt. Thesis title: "Development of Passenger Car Unit Equivalent for Intercity Roads in Egypt" by Dalia Mohamed.
2. A master degree in Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt. by Mohamed Abdel-Moez.
4. A master degree in Civil Engineering Department, Faculty of Engineering, Aswan University, Egypt. Thesis title: "Investigation the effect of Nano materials on physical and mechanical properties of Hot Mix Asphalt mixtures " by Mahmoud Helmy Othman.

BOOKS PUBLICATIONS

- 1- Highway Engineering Book.
- 2- Railway Engineering
- 3- Transport and Traffic Engineering
- 4- Airport Engineering

CONFERENCES

1. January 5–8,1997, attended and presented a paper in **International Conference on Geotechnical Engineering, Faculty of Engineering**, Cairo University.
2. March 14–16,1999, attended and presented a paper in El-Minia Engineering **1st International Conference For Advanced Trends In Engineering**, Cairo, Egypt.
3. June, 7-10, 1999, attended and presented a paper in **Twelfth European Conference on Soil Mechanics and Geotechnical Engineering** / Amsterdam / Netherlands.
4. April,11-13, 2000, attended and presented a paper in **El-Mansoura Third International Engineering Conference**, El-Mansoura, Egypt.

5. April,7-10, 2003, attended and presented a paper in **seventh International Engineering Conference**, Al-Azhar university, Egypt.
6. October, 2003, attended and presented a paper in First International Engineering Conference for Civil Engineering, Assiut University, Egypt.
7. May, 17-19, 2005, attended and presented a paper in **First International Conference on Waste Management and Recycling**, France,.
8. November, 9-10 , 2009, attended and presented a paper in **first International Engineering Conference** for road safety , Tarabulus , Libya.
9. December 12-14, 2012, attended and presented a paper in **International Conference in Transportation Planning & Implementation Methodologies for Developing Countries**, TPMDC 2012, Indian Institute of Technology Bombay, India,.
10. November, 17-22, 2015, attended and presented a paper in Eighth International Engineering Conference in Mansura University and Sharm El-Shehk, November 2015, Mansura University and Sharm El-Shehk, Egypt.

PUBLICATIONS

1. Fayek A.K. Hassona, M.K. El Rayes, **Mostafa D. Hashem**, "Strengthening of Saturated Low Permeability, Subgrade Soil for Unpaved Road", Engineering Research Bulletin, University of Helwan, Volume 3, March 1991.
2. Fayek A.K. Hassona, Mohamed A.Hassan, **Mostafa D. Hashem**, "Pullout Resistance of Geotextile", International Geotechnical Engineering, Conference Cairo University 5-8 January 1997.
3. Fayek A.K. Hassona, Mohamed A.Hassan, **Mostafa D. Hashem**" Fabric Reinforced Subgrade Clayey Soil", International Geotechnical Engineering, Conference Cairo University 5-8 January 1997.
4. Emad A.M. Osman, **Mostafa D. Hashem** and Salah G. Ahmed, "Sandy Soil Stabilization Using Fine Soil And Silca Fume", 1st Minia International Conference For Advanced Trends In Engineering, 14th –16th March 1999.
5. F.A.K. Hassona, M.A. Hassan and **M.D. Hashem**, "Shear Strength Characteristics of Reinforced Sand", Proceedings of the Twelfth European Conference on Soil Mechanics and Geotechnical Engineering / Amsterdam / Netherlands, 7-10 June 1999.
6. **Mostafa D. Hashem**, " Improvement of Bearing Capacity of Soft Subgrade Soil", Mansoura Third International Engineering Conference, El-Mansoura 11-13 April 2000.
7. **Deep M.Hashem**, Mahmoud Abdel Megeed A.G. Aly and Youness H. "Elasto-Plastic Finite Element Analysis of Pullout Resistance of Geosynthetics In Sandy Soil" Bulletin Of Faculty of Engineering, Assiut University, Vol.29, No. 1, January 2001.
8. Fayek A.K. Hassona, Mohamed A.Hassan, **Mostafa D. Hashem**, Aly A. Aly "Behaviour of Unpaved Road Reinforced With Geotextiles", Bulletin Of The Faculty of Engineering, Minia University, Vol.20, No.1, July, 2001.

9. Fayek A.K. Hassona, Mohamed A.Hassan, **Mostafa D. Hashem**, Aly A. Aly "Effect of Water Level Fluctuation In Canals On The Behaviour of Reinforced Embankment", Bulletin Of The Faculty of Engineering, Minia University, Vol.20, No.1, July, 2001.
10. **Mostafa D. Hashem**, "Investigating The Factors Affecting The Bituminous Road Surfacing Layer Cracks", Journal of Engineering Sciences, Assiut University, Vol.30, No.1, January 2002.
11. **MD Hashem**, KA Gwaad, "Stresses within Highway Structure Soil under the Effect of Heavy Vehicle Loads", Bulletin of the Faculty of Engineering, Minia University, Vol.20, No.2, January 2002, PP 93 - 105.
12. **M.D. Hashem**, "A Simplified Method for Flexible Pavement Economic Design Based On Elastic Layer Theory", Al-Azhar Engineering 7th International Conference 7-10 April, 2003.
13. M.D. Hashem, "A Simplified Method for Rigid Pavement Design Based on Analyses of Stresses and Strains", 1st International Conference of Civil Engineering Science in Assuit University, ICCES1, Vol. 1, October, 2003.
14. F.A. Hassona, M. A. Hassan, N. A. Marei, **M.D. Hashem**, "Shredded Waste Tires As A Stabilizing Material For Unpaved Roads", Mansoura Engineering Journal, (MEJ), Vol.31, No.1, March 2003, PP 47 - 57.
15. F. A. Hassona , M. A. Hassan ,**M.D. Hashem** N. E. Marei , A.A. Aly , "Numerical Analysis Of Reinforced Unpaved Road", Bulletin Of The Faculty of Engineering, Minia University, Vol.25, No.2, July, 2006, PP 12 – 27.
16. FA Hassona, MA Hassan, **MD Hashem**, NA Marei, AA Aly, "Improvement of soft clay characteristics using sand cushion reinforced with shredded waste tire", Proceedings of the 1st International Conference on Engineering for Waste Treatment, Beneficial Use of Waste and by-Products, 17-18 May , 2005.
17. **M.D. Hashem**, A.J. Ibrahim , O. R. Elzarok , " Analysis of Traffic Accidents in Libya", first International Conference for road safety , 9-10 November, Tarblus, Libya, 2008.
18. **M.D. Hashem**, "Sag Vertical Curves Design under Overhead Structures", International Conference in Transportation Planning & Implementation Methodologies for Developing Countries", TPMDC 2012, Indian Institute of Technology Bombay, India, 12-14 December 2012.
19. **M.D. Hashem** "Simplified Approach For The Design Of Lateral Clearance Needs On Simple Horizontal Curves", Minia Journal of Engineering and Technology, (MJET) , July, 2012, Vol. 31, No 2, PP 56 - 62.
20. **M.D. Hashem**, "Simplified Charts for Overlay Design of Flexible Repaved Roads Structure (Sandwich Section)", Journal of Engineering Sciences, Assiut University, January 2013.

21. **M.D. Hashem**, Naglaa K. Rashwan "The Influence of Resin Modifiers on the Performance of Hot Asphalt Concrete Mixes", Journal of Engineering Sciences, Assiut University, January 2013, Vol.41, No.3, PP 867-885..
22. **Mostafa D. Hashem** and Ahmed Mosa Abu-Baker, "Numerical Modeling of Flexible Pavement Constructed On Expansive Soils", European International Journal of Science and Technology, Vol. 2, No.10, December 2013, PP 19-34.
23. Fayek A. Hassona , **Mostafa D. Hashem**, Remon I. Abdelmalak and Beshoy M. Hakeem ' "Finite Element Modeling Of Bumps At Bridge Approaches", Minia Journal of Engineering and Technology, (MJET), July, 2014.
24. Hassan Youness Ahmed, **Mostafa Deep Hashem**, Naglaa Kamal Rashwan, Samir Azmy Abdalla , "Investigation Of Aggregate Particles Shape On Characteristics Of Hot Mix Asphalt", Journal of Engineering Sciences, Assiut University, November 2014, Vol.42, No.6, PP 1349 – 1366.
25. Hassan Youness Ahmed, **Mostafa Deep Hashem**, Naglaa Kamal Rashwan, Samir Azmy Abdalla , " Effect Of Aggregate Type And Mineral Filler On Characteristics Of Hot Mix Asphalt", Eighth International Engineering Conference in Mansura University and Sharm El-Shehk, 17-22 November, 2015.
26. **Mostafa D. Hashem**, Afaf A. Mahmoud, Ahmed M. Abu Bakr, Ahmed A. Hag, "Stabilization of Expansive Subgrade Soil Using Additives", Journal of Engineering Sciences, Assiut University, PP 122-131, March 2016.
27. Hassona, Fayek; **Hashem, Mostafa D**; Abdelmalak, Remon I; Hakeem, Beshoy M, " Bumps at Bridge Approaches: Two Case Studies for Bridges at El-Minia Governorate, Egypt", International Congress and Exhibition " Sustainable Civil Infrastructures: Innovative Infrastructure Geotechnology", 15 may, 2017, pp. 265 – 280.
28. **Mostafa Deep Hashem** , Ahmed Mohamed Hassan , Ahmed Mousa ABO Baker , Esraa Bader Omer, "Evaluation Of Road Embankment Slope Deformation", Minia Journal of Engineering and Technology, (MJET), July, 2017.
29. **Mostafa D. Hashem** , Mostafa A. Abo-Hashema, and Hamdy P. Faheem, Mostafa M. Radwan, "Development of Distress Prediction Models for Flexible Pavements using LTPP for Main Roads in Egypt", 17th Annual International Conference on Asphalt, pavement Engineering & infrastructure 21-22 February 2018, Liverpool University.
30. **Mostafa D. Hashem** , Mostafa A. Abo-Hashema, and Hamdy P. Faheem, Mostafa M. Radwan, " Modeling Pavement Performance Using LTPP Database for Flexible Pavements", Teknik Dergi , July 2020, Paper 583 page 10127-10146.
31. **Mostafa D. Hashem** , Mostafa A. Abo-Hashema, and Hamdy P. Faheem, Mostafa M. Radwan, " ANN-based Fatigue and Rutting Prediction Models versus Regression-based Models for Flexible Pavements", International Congress and Exhibition "Sustainable Civil Infrastructures" GeoMEast November 2019: Recent Developments in Pavement Engineering pp 117-133.

32. Hassan Y. Ahmed, Ayman M. Osman, Mustafa D. Hashem, Samir Azmy Abdalla , “Investigating the Performance of Hot Mix Asphalt Modified with Chemical Additives”, Mansoura Engineering Journal, (Mej), Vol. 46, Issue 1, March 2021, pp 11- 18.
33. Hassan Y. Ahmed, Ayman M. Osman, Mustafa D. Hashem, Samir Azmy Abdalla , “Effect Of Chemical Additives On The Performance Of Asphalt Pavement Exposed To Wastewater ”, Journal of Engineering Sciences, Assiut University, Faculty of Engineering, Vol. 49, No. 1, March 2021 PP. 107 - 130
34. Mustafa El-Rawy, Ahmed A. Makhloof, Mostafa Deep Hashem, Mohamed Galal Eltarabily, “Groundwater management of quaternary aquifer of the Nile Valley under different recharge and discharge scenarios: A case study Assiut governorate, Egypt”, Ain Shams Engineering Journal , February 2021, journal homepage: www.sciencedirect.com.
35. Amr M. Rashad , **Mostafa D. Hashem** , Afaf M. Abdelhamed , Tarek Elsayed Mahmoud , “Optimized Numerical Models of Slope Stability of Roads Embankment Using Limit Equilibrium Method” , 2nd International Conference on Civil Engineering: Recent Applications and Future Challenges , ICCE2021 , 29-31 October, Assiut, Egypt.
36. Amr M. Rashad , **Mostafa D. Hashem** , Afaf M. Abdelhamed , Tarek Elsayed Mahmoud , “ The Effect Of Soil Nailing On Slope Stability Of Road Embankments Under Traffic Load Using The Optimised Lem”, Minia Journal of Engineering and Technology, (MJET), Under Review , 2022.
37. Mostafa M. Radwan , Aiman A. Rashed, Mostafa Deep. Hashem, “Reducing Carbon Emissions by Re-Planning Roads, (The Eastern Road, The Helwan Gate Area, As an Example)”, Minia International Conference on Environment and Engineering, July, 14-17, 2022 Hurghada, Egypt.
38. Ahmed A. Makhloof, Mustafa El-Rawy, and Mostafa Deep Hashem, “Simulation of Groundwater and Surface Water Interactions under Various Management Scenarios in the Nile Valley, Egypt”, Minia International Conference on Environment and Engineering, July, 14-17, 2022 Hurghada, Egypt.
39. Mostafa Deep Hashem, Afaf A. Mahmoud, Mohamed A. Abd El moez*, Hamdy B. Faheem, “Developing a Pavement Condition Monitoring System and Maintenance Decision Selection for Road Networks”, Minia International Conference on Environment and Engineering, July, 14-17, 2022 Hurghada, Egypt.

Scientific Research Arbitration

Journal of Engineering Sciences, Assiut University:

1. Utilization of Industrial Waste Material in Highway Construction. 5 – 1 – 2020.
2. Evaluation of Recycled Asphalt Mixture Technically and Economically. 16 – 1 – 2020.

KSCE Journal of Civil Engineering:

1. The inter-laminar shear and fatigue performance of pavement structure connected by the nail. KSCE-D-12-00325. 28-7-2012.
2. Research on Bitumen Absorption and Film Thickness in Bituminous Mixture with Basic Oxygen

- Furnace Slag. KSCE-D-12-00450 23-10-2012.
3. Development of High Performance Asphalt Mastic Using Fine Taconite Filler. KSCE-D-13-00207. 6-8-2013.
 4. Prediction of Swelling Pressure for Designing the Flexible Pavements: Tebessa city as case of study (Algeria). KSCE-D-13-00701KSCE-D-13-00701. 3-2-2014
 5. Evaluation Time-Temperature Sensitivity on Stiffness of Hot Asphalt Mixtures. KSCE-D-14-00093. 2-4-2014.
 6. Development of a Predictive Model for the Number of Potholes using a Harmony Search Algorithm and Multiple Regression Analysis. KSCE-D-14-00807. 22-12-2015
 7. Utilization of higher amount of Reclaimed Asphalt Pavement using suitable Rejuvenators-A step forward to Sustainable Development. KSCE-D-14-00709. 16-4-2015
 8. Evaluation of Pavement Subgrade Long-Term Equilibrium Moisture with Suction Potential. KSCE-D-17-01227. 31-8-2017
 9. Hydrological Performances on the Modified Permeable Pavement with Precast Hollow Cylinder Micro Detention Pond Structure. KSCE-D-18-02271R1. 24-4-2019

Thesis:

1. Utilization of Reclaimed Asphalt in Asphalt Mixture. Master Thesis Hadier Galal Abo-Elhussan. Aswan University April 2020.
2. Traffic accidents prediction model using fuzzy logic: Aswan desert road as a case of study. Master Thesis Mohamed Gaber Ibrahim. Aswan University April 2017.
3. Investigation of Bumps at Bridge Approaches Beshoy Maher Mina University 2014.
4. Investigation of aggregate characteristics on hot asphalt concrete mixtures. Samir Azmy Mina University 2015.
5. Stabilization of expansive subgrade soil by using additives. Ahmed Hag Awaad Mina University 2016.
6. Evaluation of Road Embankment Slope Deformation. Esra bader Omer Mina University 2018.
7. Development of Pavement Deterioration Models for Egypt Main Roads Network. Mostafa Mahmoud Yassen Mina University Feb. 2020.
8. Utilization of Chemical Additives on Hot Mix Asphalt Ph.D degree in Civil Engineering Department, Faculty of Engineering, Aswan University, Egypt. by Samir Azmy Abdalla, 2021
9. Applicability of Optimized Numerical Models of Slope Stability of Road Embankments Adjacent to Water Channels under Traffic Load , a master degree in Civil Engineering Department, Faculty of Engineering, El-Minia University, Egypt, by Amer Mansour, 2022.

AFFILIATIONS

- 1- Member in the syndicate of Egyptian Engineers since July 1984.
- 2- Member of the Advisory Unit, Faculty of Engineering, Minia University, since 1996.

PRACTICES

- Field density measurements for road layers in Industrial El-Minia City.

- California Bearing Ratio and compaction tests for subbase and base course.
- Laboratory measurements for asphalt material quality.
- Design of asphalt concrete mix.
- Supervise on road pavement in Industrial El-Minia City and El-Minia University.
- Supervise on road pavement in El-Minia City.
- Supervise on building structures in El-Minia University.
- Participate in the design and supervision of the implementation of the residential complex of Minya Governorate, Shalaby area west of the Faculty of Arts, Minia Governorate.
- Participate with the members of the department in the previews and preparation of technical reports on the state of enterprises, commissioned by the consultative unit of governmental and non-governmental bodies in Minia Governorate.
- Conduct external inspections to receive the roads and conduct field tests for this.
- Test work and writing technical reports on roads in the road lab at the Faculty of Engineering - Minia University (1996 - present) for various projects inside and outside the governorate.

The work of university development in the field of specialization in particular and civil engineering in general:

- 1) Participation in the preparation and establishment of the highway and airport laboratory.
- 2) Participation in the preparation and establishment of a computer lab
- 3) Writing a proposal and specifications for equipment of the highway engineering laboratory.
- 4) Develop an advisory system for students of the Department of Civil Engineering
- 5) Prepare the student guide and issue the periodic bulletin of education.
- 6) Develop a policy manual for the Department of Civil Engineering, which includes:
 - Policy for prioritization and decision-making
 - A system to develop the vision and mission of the department.
 - Policy for student evaluation system.
 - Policy to establish a student support system.
 - Policy for the selection of external arbitrators to evaluate the various components of the program
 - Complaints system
 - System for analyzing students' opinions (feedback)
 - System for developing the research plan of the program
 - System for graduation projects.

