Curriculum Vitae 2023-2024

Zainab Ahmed Abdulsattar Alkaissi

Mustansiriyah University- College of Engineering

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PERSONAL SUMMARY

- Academic Rank: Professor
- Language: Arabic, English
- Area of Interest: Highway and Transportation Engineering, Traffic Engineering, Transportation Planning, Pavement Structure and Modeling.

EDUCATION

- (1994-1995) Baccalaureate Degree (Scientific Section): Al-Qanat School for Girls, Baghdad, Iraq.
- ↓ (1996-1998) BSc. Civil Engineering Department, College of Engineering, AL-Nahrain University, Baghdad, Iraq.
- (1998-2001) MSc. Civil Engineering Department, Geotechnical Engineering, College of Engineering, AL-Nahrain University, Baghdad, Iraq.
- (2002-2006) Ph.D. Highway and Transportation Department, Transportation Engineering, College of Engineering, Mustansiriyah University, Baghdad, Iraq.

ACADEMIC AWARDS AND HONORS

- (75) Acknowledgment, Dean and Head of Mustansiriyah University.
- (22) Acknowledgment, Minister of Higher Education and Scientific Research.

ACADEMIC/ TEACHING EXPERIENCE

COURSES TAUGHT

Undergraduate Course	Higher Diploma Courses	MSc Course	PhD Courses
(3rd Class) هندسة المرور	أنظمة النقل الذكي	هندسة المرور المتقدم	محاكاة المرور
(4th Class) صيانة الطرق		تخطيط النقل المتقدم	نمذجة النقل

الإحصاء الهندسي	(4th Class) تخطیط النقل
تخطيط النقل/ مركز التخطيط	(2nd Class) تكنلوجيا الاسفلت
 الحضري والأقليمي	(4th Class) مواصلات

SUPERVISOR ON MSC THESIS

- 1. (2012) The Effect of Styrene Butadiene Styrene on the Properties of Asphalt and Hot Asphalt Mixture with References to Artificial Neural Networks.
- 2. (2013) Experimental and Numerical Investigation of Stabilized Unbound Granular Pavement Materials.
- 3. (2013) Modeling Fatigue Life and Fracture Parameters in HMA based on Experimental Work and Analytical Approach.
- 4. (2013) Evaluation of Tack Coat Applications and Bond Strength at Asphalt Concrete Layers Interface.
- 5. (2015) Effect of Hydraulic Properties of Granular Base Material on Pavement Performance.
- 6. (2015) Crack Propagation Modeling for Local Rigid Pavement.
- 7. (2015) Durability of Polymer Modified Open Graded HMA Mixtures Based on Experimental Work and Finite Element Modeling.
- 8. (2017) Assessment of Concrete Pavement Using Steel Fiber.
- 9. (2015) Experimental Study of Doweled Joints for Plain Concrete Pavement.
- 10. (2017) Experimental Study of Steel Fiber Reinforced Flexible Pavement.
- 11. (2018) Investigation of the Durability of Granular Base Material using Gyratory Compactor.
- 12. (2020) Analysis of traffic Operations at A Selected Roundabout in Baghdad City.
- 13.(2021) The Influence of Side Friction on Traffic Characteristics for Selected Major Urban Streets in Baghdad City.
- 14. (2021) Trip Production Characteristics and Modeling for Al-Adhmiyah District at Baghdad City based on Cross-Classification Technique.
- 15. (2019) Travel Time Modeling for Major Arterial Roads in Baghdad City and Traffic Congestion Management
- 16. (2020) Enhancement Characterization of Unbound Road bases by using Recycled Materials.
- 17. (2020) Effect of Travel Time Variability on Streets Accessibility in Baghdad City.
- 18. (2020) Empirical Study of Operating Speed in Urban Streets Based on Global Positioning System (GPS).
- 19. (2021) Improving Traffic Operation Performance of 14th Ramadan and Al-Rowad Intersections in Al-Mansour Region.
- 20. (2022) Traffic Operation Assessment of Urban Corridor using Performance Measures.

- 21. (2023) Design of Signals Timing for Multiple Coordinated Signalized Intersections.
- 22. (2024) Capacity Modeling of Urban Streets under Different Traffic Conditions.

SUPERVISOR ON PH.D. THESIS

- 1. (2015) Urban Growth and Transport Dynamic Modeling for Baqubah City.
- 2. (2020) Evaluating Rutting Potential of Local Warm Mix Asphalt.
- 3. (2023) Evaluating the Integration of Multimodal Transportation System and Land Use towards Sustainable Planning.
- 4. (2024) Development of a Comprehensive Public Transport Plan in Urban Areas.

PROFISSIONAL AFFILIATION

- 2014-2025 Head of Highway and Transportation Engineering Department.
- 2017-2018 Director Manager of Construction and Projects. Ministry of Higher Education.
- 2016-2019 Associate editor of the Journal of Engineering and Sustainable Development, College of Engineering, Mustansiriyah University.
- Member of Highway and Transportation Research Scientific Society.
- 2018-2021 Head of Highway and Transportation Engineering Department.

SCIENTIFIC BOOKS (5)

- الرقم الدولي:4-2-8547-9922-8547) الناشر مؤسسة ثائر العصامي الدولي:4-1-859-9922 الناشر مؤسسة ثائر العصامي
- الدولي: 3-0-9228537-9-9-ISBN:978. القمة للطباعة .
- المختصر المفيد في هندسة المرور، ٢٠٢٣، رقم الإيداع في دار الكتب والوثائق ببغداد (٣١٠٢) لسنة المختصر الدولي: 0-1-978-978-978. القمة للطباعة.
- الدولي: 4-3-9228537-9-9228537. القمة للطباعة. الدولي: 4-3-28537-9-9328537. الله الدولي: 4-3-3-938537-9-9-9328537. القمة للطباعة.
- الدولي: 6-9-9228537-9-978 رقم الإيداع في دار الكتب والوثائق ببغداد (٨٨٦) لسنة ٢٠٢٤، الرقم الدولي: 6-9-978-978. القمة للطباعة.

PUBLICATIONS:

SCIENTIFIC RESEARCH'S

1. "Finite Element Approach to Evaluate the Resistance to Plastic Flow in Asphalt Mixtures". Engineering and Development Journal, College of Engineering, Mustansiriyah University, 2010.

- 2. "Combined Effect of Wheel and Thermal Conditions on Stress Distribution in Flexible Pavement". Engineering and Technology Journal, University of Technology, Vol. 27, No. 12, 2009.
- 3. "Propagation Mechanisms for Surface Initiated Cracking in Composite Pavements". Al-Khwarizmi Engineering Journal, College of Engineering, University of Baghdad, Vol.5, No.3, 2009.
- 4. "Numerical Analysis of Controlled Modulus Column Foundation System Supported Embankments". Journal of Engineering, A Scientific Referred Journal Published by: College of Engineering /University of Baghdad. No.2, Volume 15, 2009.
- 5. "Analysis of Consolidation Behaviour of Subsoils under Cyclic Trapezoidal Loading". Engineering and Development Journal, Comprehensive Scientific Engineering Conference, Vol. 12, Part I, ISSN1813-7822, 2008.
- 6. "Analysis of Geotextile Embankment by ANSYS". Journal of Engineering, a College of Engineering/University of Baghdad, No.1, Vol.17, 2011.
- 7. "Deformation Analysis of Road Embankment Foundation Improvement with Fiber Glass" Engineering and Technology Journal, University of Technology, Vol. 30, No. 19, 2012.
- 8. "CBR Prediction Model with GIS Application Technique" International Journal of Structural and Civil Engineering Research, Vol. 2, No. 2, May 2013.
- 9. "The Effect of Styrene Butadiene Styrene on the Properties of Hot Asphalt Mixture." International Journal for Sciences and Technology, Vol. 7, No. 4, 2012.
- 10. "Stress Intensity Parameter and Crack Growth of Iraqi Hot Mix Asphalt Mixtures". Asian Journal of Engineering and Technology, Volume 01- Issue 05, 2013.
- 11. "Effect of Materials and Stabilizers Type on the Strength of Base Layer." Journal of Engineering and Development, College of Engineering, Mustansiriyah University, Vol. 18, No. 5, 2014.
- 12. "Urban Growth and Transportation Indicators for Sub-Urban Area." Journal of Engineering and Development, College of Engineering, Mustansiriyah University, Vol. 19, No.5, 2015.
- 13. "Cellular Automata -Dynamic Model for Urban Growth Baqubah City." Diyala Journal of Engineering Science, College of Engineering, University of Diyala, Vol. 09, No.03, 2016.
- 14. "Durability of Porous Asphalt Pavement." Journal of Engineering and Sustainable Development, Al-Mustansiriyah University, Vol.20, No.04, 2016.
- 15. "Determination of Fracture Characteristics for Local Rigid Pavement Materials in Iraq" Journal of Engineering and Sustainable Development, College of Engineering, Al-Mustansiriyah University, Vol. 21, No.2, 2017.
- 16. "Evaluation of the Performance of Treated Base Layers on Critical Responses of Flexible Pavement" Journal of Engineering and Sustainable Development, College of Engineering, Al-Mustansiriyah University, Vol. 20, No.5, 2016.
- 17. " Travel Time Prediction Models and Reliability Indices for Palestine Urban Road in Baghdad City", Al-Khwarizmi Engineering Journal, College of Engineering, University of Baghdad, Vol. 13, No. 3, PP: 120-130, 2017.
- 18. "Finite Element Modeling of Rutting for Flexible Pavement", Journal of Engineering and Sustainable Development, Mustansiriyah University, Vol. 22, No. 3, 2018.

- 19. "Experimental and Numerical Analysis of Steel Fiber Reinforced Concrete Pavement", Journal of Engineering and Sustainable Development, Mustansiriyah University, College of Engineering, Vol. 20, No.6, 2016.
- "Assessment of Sustainable Indicators for Road Transportation: A Case Study of Palestine Arterial Street", International Journal of Science and Research (IJSR), Vol. 6 Issue 4, 2017.
- 21. "Effect of Waste Foundry Sand on Indirect Tensile Strength of Asphaltic Mixture". Journal of Engineering and Sustainable Development, Mustansiriyah University, College of Engineering, Vol. 22, No. 4, 2018.
- 22. "Effect of High Temperature and Traffic Loading on Rutting Performance of Flexible Pavement". Journal of King Saud University-Engineering Sciences, Vol.32, No.1, 2018.
- 23. "Experimental Study on Doweled Expansion Joints on Behavior for Plain Concrete Pavement System". Al-Khwarizmi Engineering Journal, College of Engineering, University of Baghdad, Vol. 14, No. 3, 2018.
- 24. "Capacity Estimation of Urban Road in Baghdad City: A Case Study of Palestine Arterial Road". ARPN Journal of Engineering and Applied Sciences, Vol.13, No.21, 2018.
- 25. "Assessment of Laboratory Compaction methods for Granular Base Layer Stabilized with Sustainable Materials". Global Journal of Engineering Science and Research Management, Vol.5, No. 9, 2018.
- 26. "Numerical Study of Doweled Expansion Joints on Plain Concrete Pavement System" Journal of Engineering and Sustainable Development, Mustansiriyah University, College of Engineering, Vol. 22, No. 6, 2018.
- 27. "Theoretical Analysis on the Effect of Surface Horizontal Traction on Top-Down Cracking of Flexible Pavement". Association of Arab Universities Journal of Engineering Science, College of Engineering, University of Baghdad, VOl.26, No.1 (2019).
- 28. "Prediction Model of Elastic Modulus for Granular Road Bases". Sustainable Development Research Journal, ISSN 2690, Vol. 2, No. 1; 2020.
- 29. "Investigating the Rheological Properties of Asphalt Binder Incorporating Different Crumb Rubber Contents Based on a Response Surface Methodology". Journal of King Saud University-Engineering Sciences, Elsevier, 24 October 2020.
- 30. "Travel Speed Prediction Model for Urban Arterial Road and Traffic Management". Journal of Green Engineering, Vol.10, Issue 12, 2020.
- 31. "Physical, rheological and morphological characterization of modified asphalt binder with differing crumb rubber contents". Materials Today: Proceedings, 2021.
- 32. "Travel Time Reliability Indices for Urban Routes in Baghdad City". Sustainable Development Research Journal, ISSN 2520-0917, Vol. 25, No. 5; 2021.
- 33. "Improving the Rutting Resistance of Flexible Pavement Reinforced with Steel Fiber" Imperial Journal of Interdisciplinary Research (IJIR) Vol-3(Issue-12):2454-1362, 2017.
- 34. "Future Predicted Dynamic Model Urban Growth for Baqubah City" Diyala Journal of Engineering Sciences, Volume 8, Issue 4, Pages 157-171, 2015.

- 35. "Traffic simulation of continuous flow intersection with displaced left-turn: a case study" Journal of Engineering and Applied Science, 69, 39, 2022.
- 36. "Traffic Simulation of Urban Street to Estimate Capacity" Journal of Engineering and Applied Science, Journal of Engineering, Baghdad University, College of Engineering, Vol.28, No.4, 2022.
- 37. "Estimation of Traffic Volumes Distribution of Urban Streets in Baghdad City" Journal of Planner and Development, Vol. 26 No. 2, 2021.
- 38. "Modeling Critical Gap of Al Turkmani Roundabout in Baghdad City" Engineering and Technology Journal, Vol. 40, Issue 5, Pages 722-731, 2022.
- 39. "Effect of Signal Coordination of Traffic Operation of Urban Corridor" Tikrit Journal of Engineering Science, Vol.30, No.1, pp.12-24.
- 40. "Prediction Model of Lane Change Frequency based on Traffic Characteristics of Urban Street" Association of Arab Universities Journal of Engineering Sciences, Vol.30, No.2, pp.7-16.
- 41. "Traffic congestion evaluation of urban streets based on fuzzy inference system and GIS application" Ain Shams Engineering Journal, 102725, 2024.

CONFERENCE PROCEEDINGS

- 1. "Analytical Modeling of Thermal Cracking of Asphalt Pavement Based on Finite Element Method". 10th International Conference on Application of Advanced Technologies in Transportation. AATT 2008, Athens.
- 2. Development of Statistical Models for the Prediction of Marshal Stability and Flow for Asphaltic Paving Mixtures". WCSET 2009: World Congress on Science, Engineering and Technology Conference, Singapore.
- 3. "Modeling Fatigue Life and Fracture Parameters in HMA based on Experimental Work and Analytical Approach." Seventh International Conference on Advances in Engineering Materials (IMS-7), AUS, American University of Sharija, 2014.
- 4. "Durability of Stabilized Unbound Granular Pavement Materials." Seventh International Conference on Advances in Engineering Materials (IMS-7), AUS, American University of Sharija, 2014.
- 5. "Simulation of Bond Strength at Asphaltic Layers Interface using Finite Element Application." Seventh International Conference on Advances in Engineering Materials (IMS-7), AUS, American University of Sharija, 2014.
- "Moisture Damage Resistance of Asphalt Mixtures using Polyethylene and Silica Fume Additives", Third Women Conference, College of Science for Women, Baghdad University, 2016.
- "Impact Load Test on Conventional and Roller Compactor Steel Fiber Reinforced Concrete Pavement". International Congress and Exhibition" Sustainable Civil Infrastructures: Innovative Infrastructure Geotechnology, GeoMEast: Materials for Sustainable Infrastructure pp 96-120, 2017.

- "Analytical Study of Headway Time Distribution on Congested Arterial: A Case Study Palestine Road in Baghdad City". 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), pp 85-97, 2018.
- 9. Effect of Leaching Behavior on Granular Base Layer Stabilized Sustainable Materials. المؤتمر العلمي الهندسي الرابع والأول في الهندسي الجامعة المستنصرية (٢٠١٨).
- "Experimental and Theoretical Investigation on the Effect of Carbon Nanotubes on Flexible Pavement". IOP Conference Series: ICEAT 1st International Conference on Engineering and Advanced Technology, IOP Conference Series: Materials Science and Engineering, Vol. 870, 2020.
- 11. "Discharge Headway Time Distribution Model on Congested Signalized Intersections and their Operation Management: A Case Study in Baghdad City". IOP Conference Series: ICEAT 1st International Conference on Engineering and Advanced Technology, IOP Conference Series: Materials Science and Engineering, Vol. 870, 2020.
- "Delay Time Analysis and Modelling of Signalised Intersections using Global Positioning System (GPS) Receivers". IOP Conference Series: Materials Science and Engineering, IOP Conf. Series: Materials Science and Engineering, Vol. 671, 2020.
- 13. "Development a capacity model for Al-Turkmani roundabout". IOP Conference Series: Materials Science and Engineering, IOP Conf. Series: Materials Science and Engineering, Vol. 888, 2020.
- 14. "Effect of Geogrid Reinforcement on Behavior of Unpaved Roads". Second International Conference on Geotechnical Engineering-Iraq, 2021.
- 15. Influence of Roadside Impedance on Speed and Capacity of Urban Streets IOP Conference Series: Materials Science and Engineering, IOP Conf. Series: Materials Science and Engineering 1090 (2021) 012121.
- 16. Estimation of Trip Production Rates for Al Adhamiyah District in Baghdad city using Cross-Classification Technique, IOP Conf. Series: Materials Science and Engineering 1090 (2021) 012021.
- 17. Travel Time Prediction Models for Major Arterial Road in Baghdad City using Manufactured GPS device, IOP Conf. Series: Materials Science and Engineering 1090 (2021) 012021.
- 18. "Effect of Waste Materials on California Bearing Ratio on Granular Base and Subgrade Layer المؤتمر العلمي الافتراضي الثاني لطلبة الدراسات العليا , 2021.
- 19. "Assessment of travel speeds for urban streets using global positioning system". المؤتمر المناني الثاني لطلبة الدر اسات العليا
- 20. "Travel Time Analysis of Selected Urban Streets in Baghdad City". المؤتمر العلمي الثاني لطلبة الدراسات العليا
- 21. "Application of GIS to assess the accessibility of urban streets in Baghdad city". 2nd International Conference of Al-Esraa University College for Engineering Sciences (ICAUC_ES). Al-Esraa University College, Baghdad, Iraq on 3- 4 November 2022, IOP Conference Series: Earth and Environmental Science, 2022 (Online ISSN: 1755-1315, Print ISSN: 1755-130).
- 22. "Modeling of Crack Propagation in Flexible Pavement using X-FEM Method". 2nd International Conference of Al-Esraa University College for Engineering Sciences

- (ICAUC_ES), Al-Esraa University College, Baghdad, Iraq on 3-4 November 2022, IOP Conference Series: Earth and Environmental Science, 2022 (Online ISSN: 1755-1315, Print ISSN: 1755-130).
- 23. "Impact of Vehicle Speed and Loading Time on Permanent Deformations of Asphalt Pavement". International Conference on Geotechnical Engineering IRAQ, ICGECI 2022: Current Trends in Geotechnical Engineering and Construction pp 453–462.
- 24. "Numerical modeling of the effect of moving load on pavement response". CONFERENCE ON MATHEMATICAL SCIENCES AND APPLICATIONS IN ENGINEERING: CMSAE-2021, AIP Conference Proceedings 2787, 2023.
- 25. "Experimental study on the characteristics of unbound granular layer incorporated with recycled materials". AIP Conference Proceedings 2775, 060026 (2023), the Fourth International Conference on Civil and Environmental Engineering Technologies, Kufa, Iraq.
- 26. "Three Dimensional Finite Element Model of Railway Ballasted Track System under Dynamic Train Loading". Construction Technologies and Architecture, VOI.8, pp.11-21. 3rd International Conference of Engineering Science, (3rd ICES).
- 27. "Evaluating the performance of super street unconventional intersection", 3rd International Conference on Smart Cities and Sustainable Planning. AIP Conference Proceedings 2793, 070009 (2023).
- 28. "Prediction model for operating speed on urban roads in Baghdad city". 2nd Muthana International conference on engineering science and technology, AIP Conference Proceedings, 2806, 040006 (2023).
- 29. "The Effect of One-Way Urban Street on Traffic Operation Performance". E3S Web of Continues 427, 03018 (2023).
- 30. "OPERATION: A CASE STUDY COMPARISON OF SIDRA AND HCM". The 6th Applied Engineering and 3rd Sustainable Engineering Conference June 2023.

PROFESSIONAL DEVELOPMENT

- (27-5-2017) Certification of Participation for Women in Higher Education Leadership.
- 4 (June-Nov. 10) Academic Visitor Staff at Ruhr University-Bochum-Germany.

الاستاذ الدكتور معحمل هاشم معحمل رئيس قسم هندسة الطرق والنقل

السبيرة الذاتية

2023-2024

زينب احمد عبد الستار احمد القيسى

الجامعة المستنصرية - كلية الهندسة

Mobile: 07712207758

E-mail:dr.zainabalkaissi77@uomustansiriyah.edu.iq

ملخص تعريفي:

- ◄ اللقب العلمى: أستاذ
- ♣ اللغات: العربية، الانكليزية.
- ◄ مجال الاهتمام: هندسة المواصلات، هندسة المرور، محاكاة المرور، هندسة وتخطيط النقل، تصميم ونمذجة التبليط.

الشهادات الدراسية:

- ◄ دكتوراه فلسفة في هندسة طرق ونقل / اختصاص مواصلات: كلية الهندسة، الجامعة المستنصرية، العراق، (٢٠٠٦).
- ◄ ماجستير في هندسة مدنية / اختصاص جيوتكنيك :كلية الهندسة ،جامعة النهرين، العراق (٢٠٠١).
 - ◄ بكالوريوس هندسة مدنية / كلية الهندسة، جامعة النهرين ، العراق (١٩٩٨).

الجوائز والتكريم الاكاديمي:

- ◄ (٧٥) شكر وتقدير، عميد كلية الهندسة ورئيس الجامعة المستنصرية،العراق
 - ◄ (٢٢) شكر وتقدير، وزير التعليم العالي و البحث العلمي، العراق.

الخبرة الأكاديمية والتدريس:

لم سنوات الخبرة: ٣٣ سنة المقررات الدراسية التي تم تدريسها:

كورسات طلبة الدراسات الأولية	كورسات طلبة الدبلوم العالى	كورسات طلبة الماجستير	كورسات طلبة الدكتوراه
(3rd Class) هندسة المرور	انظمة النقل الذكي	هندسة المرور المتقدم	محاكاة المرور
(4th Class) صيانة الطرق		تخطيط النقل المتقدم	نمذجة النقل
(4th Class) تخطيط النقل		الإحصاء الهندسي	
(2nd Class) تكنلوجيا الاسفلت		تخطيط النقل/ مركز التخطيط	

	الحضري والأقليمي
(4th Class) مواصلات	

- 1. (2012) The Effect of Styrene Butadiene Styrene on the Properties of Asphalt and Hot Asphalt Mixture with References to Artificial Neural Networks.
- (2013) Experimental and Numerical Investigation of Stabilized Unbound Granular Pavement Materials.
- 3. (2013) Modeling Fatigue Life and Fracture Parameters in HMA based on Experimental Work and Analytical Approach.
- 4. (2013) Evaluation of Tack Coat Applications and Bond Strength at Asphalt Concrete Layers Interface.
- 5. (2015) Effect of Hydraulic Properties of Granular Base Material on Pavement Performance.
- 6. (2015) Crack Propagation Modeling for Local Rigid Pavement.
- 7. (2015) Durability of Polymer Modified Open Graded HMA Mixtures Based on Experimental Work and Finite Element Modeling.
- 8. (2017) Assessment of Concrete Pavement Using Steel Fiber.
- 9. (2015) Experimental Study of Doweled Joints for Plain Concrete Pavement.
- 10. (2017) Experimental Study of Steel Fiber Reinforced Flexible Pavement.
- 11.(2018) Investigation of the Durability of Granular Base Material using Gyratory Compactor.
- 12. (2020) Analysis of traffic Operations at A Selected Roundabout in Baghdad City.
- 13.(2021) The Influence of Side Friction on Traffic Characteristics for Selected Major Urban Streets in Baghdad City.
- 14. (2021) Trip Production Characteristics and Modeling for Al-Adhmiyah District at Baghdad City based on Cross-Classification Technique.
- 15.(2019) Travel Time Modeling for Major Arterial Roads in Baghdad City and Traffic Congestion Management
- 16. (2020) Enhancement Characterization of Unbound Road bases by using Recycled Materials.
- 17. (2020) Effect of Travel Time Variability on Streets Accessibility in Baghdad City.
- 18. (2020) Empirical Study of Operating Speed in Urban Streets Based on Global Positioning System (GPS).
- 19. (2021) Improving Traffic Operation Performance of 14th Ramadan and Al-Rowad Intersections in Al-Mansour Region.
- 20. (2022) Traffic Operation Assessment of Urban Corridor using Performance Measures.
- 21.(2023) Design of Signals Timing for Multiple Coordinated Signalized Intersections.
- 22. (2024) Capacity Modeling of Urban Streets under Different Traffic Conditions.

الإشراف على أطاريح الدكتوراه

- 1. (2015) Urban Growth and Transport Dynamic Modeling for Baqubah City.
- 2. (2020) Evaluating Rutting Potential of Local Warm Mix Asphalt.
- 3. (2023) Evaluating the Integration of Multimodal Transportation System and Land Use towards Sustainable Planning.
- 4. (2024) Development of a Comprehensive Public Transport Plan in Urban Areas.

الإنتساب المهني والجمعيات:

- ◄ رئيس قسم الطرق والنقل ٢٠١٥-٢٠٥
- ◄ مدير عام دائرة الاعمار والمشاريع / وزارة التعليم العالي ٢٠١٧-٢٠١٨
- ◄ عضو هيئة تحرير مجلة الهندسة والاستدامة -كلية الهندسة -الجامعة المستنصرية ٢٠١٦ ٢٠١٩
 - ◄ عضو الجمعية العلمية لبحوث الطرق والنقل.
 - ◄ رئيس قسم هندسة الطرق والنقل ٢٠١٨ ٢٠٢٠.

الكتب المؤلفة: (عدد الكتب المؤلفة 5)

- الرقم الدولي:4-2-8547-9922-978 : ISBN: 978 ، الناشر مؤسسة ثائر العصامى
- الدولى: 3-0-9228537-9-915N:978. القمة للطباعة .
- المختصر المفيد في هندسة المرور، ٢٠٢٣، رقم الإيداع في دار الكتب والوثائق ببغداد (٣١٠٢) لسنة ISBN-978-9-228537-1-7، الرقم الدولي: 0-1-9728537-9-978. القمة للطباعة.
- الدولي: 4-3-228537-9-9228537. القمة للطباعة. الدولي: 4-3-28537-9-9228537. الله المروري، ٢٠٢٣، المقم الطباعة.
- الدولي: 6-9-9228537-9-9-15BN. القمة للطباعة.

المنشورات العلمية:

بحوث علمية

- 1. "Finite Element Approach to Evaluate the Resistance to Plastic Flow in Asphalt Mixtures". Engineering and Development Journal, College of Engineering, Mustansiriyah University, 2010.
- "Combined Effect of Wheel and Thermal Conditions on Stress Distribution in Flexible Pavement". Engineering and Technology Journal, University of Technology, Vol. 27, No. 12, 2009.

3. "Propagation Mechanisms for Surface Initiated Cracking in Composite Pavements". Al-Khwarizmi Engineering Journal, College of Engineering, University of Baghdad, Vol.5, No.3, 2009.

 "Numerical Analysis of Controlled Modulus Column Foundation System Supported Embankments". Journal of Engineering, A Scientific Referred Journal Published by: College of Engineering /University of Baghdad. No.2, Volume 15, 2009.

 "Analysis of Consolidation Behaviour of Subsoils under Cyclic Trapezoidal Loading". Engineering and Development Journal, Comprehensive Scientific Engineering Conference, Vol. 12, Part I, ISSN1813-7822, 2008.

6. "Analysis of Geotextile Embankment by ANSYS". Journal of Engineering, a College of Engineering/ University of Baghdad, No.1, Vol.17, 2011.

- 7. "Deformation Analysis of Road Embankment Foundation Improvement with Fiber Glass" Engineering and Technology Journal, University of Technology, Vol. 30, No. 19, 2012.
- 8. "CBR Prediction Model with GIS Application Technique" International Journal of Structural and Civil Engineering Research, Vol. 2, No. 2, May 2013.
- 9. "The Effect of Styrene Butadiene Styrene on the Properties of Hot Asphalt Mixture." International Journal for Sciences and Technology, Vol. 7, No. 4, 2012.
- 10. "Stress Intensity Parameter and Crack Growth of Iraqi Hot Mix Asphalt Mixtures". Asian Journal of Engineering and Technology, Volume 01- Issue 05, 2013.
- 11. "Effect of Materials and Stabilizers Type on the Strength of Base Layer."

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تطوير المهارات:

♣ شهادة مشاركة في دورة تدريبية للقيادات النسوية في وزارة التعليم العالي والبحث العلمي IREX العراق، ٢٠١٧.

→ استاذ زائر في جامعة Ruhr الألمانية لمدة ٦ اشهر ٢٠١٠.

الاستاذ المسّاء الدكتور المراع المراع

الاستاذ الدكتور محمل هاسم معمل هاسم هندسة العفرة والنقل رئيس تسم هندسة العفرة والنقل