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| <b>CURRICULUM VITAE</b><br><b>Mahdi Obaid Karkush</b><br><i>BSc, MSc, PhD, MISSMGE</i> |  |
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| 1. PERSONAL DETAILS           |                                                                                                                                                                               |                    |                                                                                                                                                                                        |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Surname                       | Karkush                                                                                                                                                                       | Address            | University of Baghdad, College of Engineering, Civil Engineering Department                                                                                                            |
| Forename                      | Mahdi Obaid                                                                                                                                                                   | Home Phone Number: | +964-030-252329                                                                                                                                                                        |
| Title                         | Prof. Dr.                                                                                                                                                                     | Work Phone Number: | -                                                                                                                                                                                      |
| Date of Birth                 | 15/2/1973                                                                                                                                                                     | Mobile Number:     | +9647801058893                                                                                                                                                                         |
| Nationality                   | Iraqi                                                                                                                                                                         | Email:             | <a href="mailto:mahdi_karkush@coeng.uobaghdad.edu.iq">mahdi_karkush@coeng.uobaghdad.edu.iq</a><br><a href="mailto:mahdi_karkush@fulbrightmail.org">mahdi_karkush@fulbrightmail.org</a> |
| Marital State                 | Married-3kids                                                                                                                                                                 | Driving Licence:   | Full                                                                                                                                                                                   |
| Google Scholar                | <a href="https://scholar.google.com/citations?hl=en&amp;authuser=1&amp;user=rqc_eyYAAAAJ">https://scholar.google.com/citations?hl=en&amp;authuser=1&amp;user=rqc_eyYAAAAJ</a> |                    |                                                                                                                                                                                        |
| Research Gate                 | <a href="https://www.researchgate.net/profile/Mahdi_Karkush">https://www.researchgate.net/profile/Mahdi_Karkush</a>                                                           |                    |                                                                                                                                                                                        |
| University of Baghdad website | <a href="http://www.en.uobaghdad.edu.iq/PageViewer.aspx?id=29">http://www.en.uobaghdad.edu.iq/PageViewer.aspx?id=29</a>                                                       |                    |                                                                                                                                                                                        |

| 2. PRESENT EMPLOYMENT        |                                                                                                                                                                                                                                                                                                                                                                                |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Job Title                    | Faculty                                                                                                                                                                                                                                                                                                                                                                        |
| Name and address of Employer | College of Engineering, University of Baghdad, Al- Jadiriah, Baghdad- Iraq                                                                                                                                                                                                                                                                                                     |
| Main Responsibilities        | <ul style="list-style-type: none"> <li>▪ Member of Civil Engineering Department board.</li> <li>▪ Teaching postgraduate courses in Civil Engineering Department (MSc).</li> <li>▪ Teaching undergraduate courses in Civil Engineering Department.</li> <li>▪ Supervising final year projects.</li> <li>▪ Supervising MSc theses.</li> <li>▪ Supervising PhD theses.</li> </ul> |
| Commencing Date              | 20/2/2000                                                                                                                                                                                                                                                                                                                                                                      |

| 3. GRADUATE AND POSTGRADUATE QUALIFICATIONS |                          |                                                                             |             |
|---------------------------------------------|--------------------------|-----------------------------------------------------------------------------|-------------|
| Title of the Award                          | Subject                  | Awarding Body                                                               | Date        |
| PhD<br>(Grade 83.85 %)                      | Geotechnical Engineering | University of Baghdad, College of Engineering, Civil Engineering Department | March, 2008 |



|                                   |                             |                                                                                   |              |
|-----------------------------------|-----------------------------|-----------------------------------------------------------------------------------|--------------|
| Pre- PhD.<br>Comprehensive Exam * | Geotechnical<br>Engineering | University of Baghdad, College<br>of Engineering, Civil<br>Engineering Department | 2004         |
| MSc.<br>(Grade 80.86 %)           | Structural<br>Engineering   | University of Babylon, College<br>of Engineering, Civil<br>Engineering Department | August, 1998 |
| B.Sc<br>(Grade 72.12%)            | Civil Engineering           | University of Babylon, College<br>of Engineering, Civil<br>Engineering Department | 1995         |

\*PhD study included two courses and comprehensive exam:

- 1) Advanced Soil Mechanics-I, Seepage, Soil Improvement, and Soil Dynamics.
- 2) Advanced Soil Mechanics-II, Earth Structures, Advanced Foundation Design, and Constitutive Relationships.
- 3) The comprehensive Exam including written and oral exam in the following subjects:  
Advanced Soil Mechanics, Soil Dynamics, Seepage, Earth Structures, Advanced Foundation Design, Soil Improvement, Advanced Concrete Technology, Constitutive Relationships, and Finite Element.

#### 4. TRAINING

- Computer Training course 2002, Babylon University.
- Teaching Instruction Procedures 2001, Babylon.
- Management of Projects, World Bank 2006, Amman.
- Urban Planning, ITiDi 2009, Malaysia.
- GIS Course, 2009 College of Engineering/Baghdad University, Baghdad.
- Urban Planning, ITiDi 2010, Malaysia.
- Fulbright Visitors Scholarship 2013, University of Little Rock at Arkansas, USA.
- Computer Training course 2013, Baghdad University.
- CIS Intensive training program 2016, Centre for Iraqi Studies, Nuremberg, Germany.
- Intensive training course 2017, Swinburne University of Technology, Melbourne, Australia.

#### 5. INSTITUTIONAL OR PROFESSIONAL MEMBERSHIP AND ACTIVITIES

| Institution/Professional Bodies                                      | Type of Membership/Involvement | Date      |
|----------------------------------------------------------------------|--------------------------------|-----------|
| Iraqi Engineers Union                                                | Consultant                     | 1995-yet  |
| Iraqi Society for Soil Mechanics and Foundation Engineering          | Member                         | 2002-2018 |
| Iraqi Society for Soil Mechanics and Foundation Engineering          | President                      | 2018-yet  |
| International Society of Soil Mechanics and Geotechnical Engineering | Member                         | 2011-yet  |

#### 6. PERSONAL STATEMENT

I consider myself as an enthusiastic, hardworking, committed and good team player/leader. I am self-motivated and eager to learn and grow professionally. I always work to my full potential and set competitive but achievable aims to work towards. I have excellent management skills, and I am effective at balancing my time in order to achieve goals in the most efficient way. I easily adapt to change and my knowledge of other cultures and societies are enhanced through traveling over the world.

#### 7. PUBLICATIONS



1. Karkush, M. O., 1998. Nonlinear Behaviour of Folded Plate Structures. M.Sc Thesis, Babylon University, Babel, Iraq.
2. Karkush M. O., 2004. Analysis of non-regular elevational beam profile. Journal of Babylon University for Engineering Science, Vol.9, No.3, pp. 994-1002.
3. Karkush, M. O. and Najlaa H. Shareef, 2004. Effect of join rigidity on the elastic-plastic analysis of steel space structure. Journal of Babylon University for Engineering Sciences, Vol.9, No.5, pp. 847-858.
4. Karkush, M. O. and Al-Mashhdi, Samer A., 2004. Effect of Industrial Trash on the Shrinkage Cracks of Cement Mortar and Some Concrete Properties. Journal of Babylon University for Engineering Sciences, Vol.9, No.5, pp.1093-1101. (in Arabic Language).
5. Karkush, M. O., Alwash N. A. and Al-Rifaie, W. N., Non-linear behavior of folded plate structures by finite strip method. Engineering and Technology Journal.
6. .
7. Karkush, M. O., (2008) "Analytical Modeling and Experimental Investigation of the Leaching Behavior of Gypseous Soils ". Ph.D. Thesis, Baghdad University, Baghdad, Iraq.
8. Karkush, M. O., Al-Shakarchi, Y. and Al-Jorany, A. N., 2008. Leaching Behavior of Gypseous Soils. Journal of Engineering, Vol. 14, N0.4, pp.3077-3089.
9. Karkush, M. O., Al-Shakarchi, Y. and Al-Jorany, A. N., 2008. Theoretical Modeling and Experimental Investigation of the Leaching Behavior of Salty Soils. In Conference on Construction and Building Technology, pp. 123-138.
10. Faisal, A.A. and Karkush, M. O., 2008. Quantitative Description of the Two-Phase Constitutive Relationships for Organic Liquid Contaminants. Journal of Babylon University for Engineering Science, Vol.15, No.4.
11. Karkush, M. O., Ziboon, A. T. and Hussien, H. M., 2010. Physical Properties and Spectral Reflectance Measurement of Contaminated Soil. 1st International Geomatics Engineering Conference, University of Technology, Iraq.
12. Karkush, M. O., Ziboon, A. T. and Hussien, H. M., 2013. Application of remote Sensing Techniques in Geotechnical Engineering. Geomatics of Middle East and North Africa Conference, Euro-Arab Organization for Environment, Water and Desert Researches, Jordan.
13. Karkush, M. O., Ziboon, A. T. and Hussien, H. M. 2013. Studying the Effects of some Contaminants on Geotechnical Properties of Clayey Soil. CPEG 2013, Coupled Phenomena in Environmental Geotechnics Symposium, Association of Geotechnica Italia, Torino.
14. Karkush, M. O., Ziboon, A. T. and Hussien, H. M. (2014) "Studying the Effects of Contamination on Soil Properties Using Remote Sensing". Journal Engineering/Baghdad University, Vol. 20, No. 6, pp. 78-90.
15. Karkush, M. O. and Abdul Kareem, M. S., (2014) "Effects of Industrial Wastes on Geotechnical Properties of Clayey Soil". Journal of Babylon University, Vol.22, No.2.
16. Karkush, M. O. and Resol, D. A., (2015) "Studying the Effects of Industrial Waste Water on Chemical and Physical Properties of Sandy Soil". Journal of Babylon University/Engineering Science, Vol.23, No.2.
17. Karkush, M. O. and Abdul Kareem, M. S., (2015) "Behavior of Pile Foundation Subjected to Lateral Cyclic Loading in Contaminated Soils". Journal of Civil Engineering Research, USA, Vol.5, No.6.
18. Karkush, M. O. and Jafar, G. S., (2015) "Effects of Surcharge on the Behavior of Passive Piles in Sandy Soil". International Journal of Scientific & Engineering Research, Vol.6, No.10.
19. Karkush, M. O. and Abdul Kareem, M. S., (2016) "Behavior of Pile Group Subjected to Cyclic Lateral Loading in Contaminated Soils". International Journal of GEOMATE, Japan, Vol.10, No.21.
20. Karkush, M. O. (2016) "Impacts of Soil Contamination on the Response of Piles Foundation under a Combination of Loading". Engineering, Technology & Applied Science Research, Vol.6, No. 1, pp. 917-921.
21. Karkush, M. O. (2016) "Behavior of Pile Groups Subjected to Axial Static and Lateral Cyclic Loads in Contaminated Soils". Proceeding of 4th Geo-China Conference, GPS, ASCE Library, pp. 166-173.
22. Karkush, M. O. and Altaher, T. A. (2016) "Risk Assessment of AL-Nassyriah Oil Refinery Soil". Journal of Civil Engineering Research, Vol. 6, No. 1, pp. 16-21.



23. Karkush, M. O. and Altaher, T. A. (2016) "Remediation of Contaminated Soil with Petroleum Industrial Wastewater". *Journal of Engineering*, Vol. 23, No. 1, pp. 63-70.
24. Karkush, M. O. and Ali, H. A. (2016) "Improvement of Unconfined Compressive Strength of Soft Clayey Soil by Using Glass Wool Fibers". *The Iraqi Journal for Mechanical and Material Engineering*, Special Volume, Babylon First International Engineering Conference Issue (B), pp. 295-305.
25. Karkush, M. O. and Altaher, T. A. (2017) "Geotechnical Evaluation of Clayey Soil Contaminated with Industrial Wastewater". *Archives of Civil Engineering*, Vol. 63, No. 1, pp.147-162.
26. Karkush, M. O. and Resol, D. A. (2017) "Remediation of Sandy Soil Contaminated with Industrial Wastewater". *International Journal of Civil Engineering*, Vol. 15, No. 3, pp.441-449.
27. Karkush, M. O. and Abdulkareem, Z., 2017. Investigation the Impacts of Fuel Oil on the Geotechnical Properties of Cohesive Soil. *Engineering Journal*, Vol. 21 No. 4, pp.127-137.
28. Karkush, M. and Altaher, T., 2017. Remediation of Contaminated Soil of Thi-Qar Oil Refinery Plant. In *Proceedings of the 19th International Conference on Soil Mechanics and Geotechnical Engineering* (pp. 3139-3142).
29. Karkush, M.O. and Kareem, Z.A., 2017. Effects of Fuel Oil on the Geotechnical Properties of Clay Soil. *Journal of Engineering*, 23(8), pp.1-12.
30. Karkush, M.O. and Kareem, Z.A., 2019. Behavior of passive pile foundation in clayey soil contaminated with fuel oil. *KSCE Journal of Civil Engineering*, 23(1), pp.110-119.
31. Karkush, M.O. and RESOL, D.A., 2017. Geotechnical Properties of Sandy Soil Contaminated With Industrial Wastewater. *Journal of Engineering Science and Technology*, 12(12), pp.3136-3147.
32. Karkush, M.O. and Aljorany, A.N., 2019. Numerical Evaluation of Foundation of Digester Tank of Sewage Treatment Plant. *Civil Engineering Journal*, 5(5), pp.996-1006.
33. Ali, S.D. and Karkush, M.O., 2019. Geotechnical Properties of Clayey Soil Contaminated with Copper. *Association of Arab Universities Journal of Engineering Sciences*, 26(1), pp.74-80.
34. Karkush, M.O. and Ali, S.D., 2019. Effects of Copper Sulfate Contamination on the Geotechnical Behavior of Clayey Soils. *Journal of GeoEngineering*, 14(1), pp.47-52.
35. Karkush, M. O., & AbdulKareem, M. S. (2018). Effects of Residues Oil Contamination on the Geotechnical Properties of Clay Soil. *Association of Arab Universities Journal of Engineering Sciences*, 25(5), 243-255.
36. Karkush, M. O., Kareem, M. S. A., & Jasim, M. M. (2018). Ultimate Lateral Load Capacity of Piles in Soils Contaminated with Industrial Wastewater. *Civil Engineering Journal*, 4(3), 509-517.
37. Karkush, M. O., & Kareem, Z. A. (2018). Investigation the impacts of fuel oil contamination on the behaviour of passive piles group in clayey soils. *European Journal of Environmental and Civil Engineering*, 1-17.
38. Karkush, M.O. and Abdulkareem, M.S., 2019. Deep remediation and improvement of soil contaminated with residues oil using lime piles. *International Journal of Environmental Science and Technology*, 16(11), 7197-7206.
39. Karkush, M. O., Ali, H. A., & Ahmed, B. A. (2018). Improvement of Unconfined Compressive Strength of Soft Clay by Grouting Gel and Silica Fume. In *Proceedings of China-Europe Conference on Geotechnical Engineering* (pp. 546-550). Springer, Cham.
40. Karkush, M. O., & Ali, S. (2018). Remediation of clay soil contaminated with lead nitrate using washing-enhanced electrokinetic technique. *Journal of Electrochemical Science and Engineering*, 9(1), 63-73.
41. M O Karkush, D A Al-Hamdani, M M Jasim. (2018). Modeling the transport of contaminant by washing process in the sandy soil. *ARPJ Journal of Engineering and Applied Sciences*, 14(1), 62-69.
42. Karkush, M. O., & Jabbar, A. (2019). Improvement of Soft Soil Using Linear Distributed Floating Stone Columns under Foundation Subjected to Static and Cyclic Loading. *Civil Engineering Journal*, 5(3), 702-711.
43. Ali, S. D., & Karkush, M. O. (2019). Geotechnical Properties of Clayey Soil Contaminated with Copper. *Association of Arab Universities Journal of Engineering Sciences*, 26(1), 74-80.
44. Karkush, Mahdi O., and Anwar Jabbar. "Improvement of Soft Soil Using Linear Distributed Floating Stone Columns under Foundation Subjected to Static and Cyclic Loading." *Civil Engineering Journal* 5, no. 3 (2019): 702-711.



45. Karkush, M., & Ali, S. (2019). Remediation of clay soil contaminated with lead nitrate using washing-enhanced electrokinetic technique. *Journal of Electrochemical Science and Engineering*, 9(1), 63-73.
46. Karkush, M. O., & Ali, S. D. (2019). EFFECTS of copper sulfate contamination on the geotechnical behavior of clayey soils. *Journal of GeoEngineering*, 14(1), 47-52.
47. Karkush, M. O., & Aljorany, A. N. (2019). Numerical Evaluation of Foundation of Digester Tank of Sewage Treatment Plant. *Civil Engineering Journal*, 5(5), 996-1006.
48. Karkush, M. O., Ahmed, M. D., & Al-Ani, S. M. (2019). Magnetic Field Influence on The Properties of Water Treated by Reverse Osmosis. *Engineering, Technology & Applied Science Research*, 9(4), 4433-4439.
49. Karkush, M. O., & Yassin, S. (2019). Improvement of Geotechnical Properties of Cohesive Soil Using Crushed Concrete. *Civil Engineering Journal*, 5(10), 2110-2119.
50. Karkush, M. O., & Abdulkareem, M. S. (2019). Deep Improvement of Fine-Grained Soil Using Lime Piles. *ZANCO Journal of Pure and Applied Sciences*, 31(5), 71-79.
51. Karkush, M. O., & Abdulkareem, M. S. (2019). Deep remediation and improvement of soil contaminated with residues oil using lime piles. *International Journal of Environmental Science and Technology*, 16(11), 7197-7206.
52. Karkush, M. O., & Ali, S. D. (2019). Remediation of Clayey Soil Contaminated with Copper Sulfate Using Washing-Enhanced Electrokinetics Technique. *Russian Journal of Electrochemistry*, 55(12), 1381-1390.
53. Jebur, M. M., Ahmed, M. D., & Karkush, M. O. (2020, January). Numerical Analysis of Under-Reamed Pile Subjected to Dynamic Loading in Sandy Soil. In *IOP Conference Series: Materials Science and Engineering* (Vol. 671, No. 1, p. 012084). IOP Publishing.
54. KARKUSH, M. O., & ALI, S. D. (2020). Impacts of lead nitrate contamination on the geotechnical properties of clayey soil. *Journal of Engineering Science and Technology*, 15(2), 1032-1045.
55. Karkush, M. O., Aljorany, A. N., and Jaffar, G. S. (2020). Behavior of passive single pipe pile in sandy soil. In *IOP Conference Series: Materials Science and Engineering* (Vol. 737, p. 012106). IOP Publishing.

## 8. REFEREES

|                                                                                                                                                                                                                          |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Prof. Abbas A. Alawi</b><br><b>Head of the Civil Engineering Department,</b><br><b>College Engineering,</b><br><b>University of Baghdad.</b><br><b>Tel: +9647901879289</b><br><b>Email: abbasallawi2004@yahoo.com</b> |  |
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## 9. RELEVANT EXPERIENCE AND MAIN ACHIEVEMENTS

### 1-WORK EXPERIENCE

- 1- Member of the Civil Engineering Board/Babylon University (2000-2008).
- 2- Member of the Civil Engineering Board/Baghdad University (2008- till now aday).
- 3- Coordinator of Civil Engineering Department/Babylon University (2000-2002).
- 4- Member of Exam Boards in Civil Engineering Department/Babylon University (2000-2002).
- 5- Head of Exam Boards-B in Civil Engineering Department/Baghdad University (2009-2011).
- 6- Member of Team Responsible about the Structural Design of many Buildings in Babylon University.
- 7- Member of Team Responsible about the Structural Design of many Buildings in Al-Qadhsia University.
- 8- Member of Team Responsible about the Structural Design of the Building of Directorate of Electricity/Babel.
- 9- Member of Team Responsible about the Structural Design of Multi-storey Hall/Dewanyia Province.
- 10- Head of Team Responsible about the Design of School Building, World Bank Projects-Stage-I, Dewanyia Province.
- 11- Member of Team Responsible about the Design of School Building, World Bank Projects-Stage-I, Babylon Province.



## 9. RELEVANT EXPERIENCE AND MAIN ACHIEVEMENTS

- 12- Member of Team Responsible about the Design of School Building, World Bank Projects-Stage-II, Babylon, Dewanyia and Najaf Provinces (Al-Kufa Consultancy Bureau).
- 13- Head of Team Responsible about the Design of School Building, World Bank Projects-Stage-II, Babylon Province.
- 14- Member of Team Responsible about the Design of School Building, World Bank Projects-Stage-I, Dewanyia Province.
- 15- Member of Team Responsible about the Design of Multi-Storey Cars Parking Buildings in Dewanyia, Karbala and Najaf for General Directorate of Municipalities.
- 16- Member of Team Responsible about the Design of Sewage System for Hill City.
- 17- Member of Team Responsible about the Design of Sewage System for Azizia/Wassit Province.
- 18- Member of Team Responsible about the Design of Sewage System for Numaniya/Wassit Province.
- 19- Member of Team Responsible about the soil investigation for many different Projects in Wassit, Dewanyia, Nassayria, Karbala and Najaf.
- 20- Member of Team Responsible about the Design of Sewage System for Al-Jadwal Al-Garbi District/Karbala Province.
- 21- Member of Team Responsible about the Design of the Second Lane of Omara-Sheeb Road.
- 22- Member of Management team of updating the master plan for Badra city.
- 23- Member of Management team of updating the master plan for Suwairra city.
- 24- Member of Management team of preparing the new master plan for Doboni city.
- 25- Head of Team Responsible about the Design of Directorate of Prison/Ministry of Interior/Iraq.
- 26- Head of Team Responsible about the Soil Investigation and Remediation of Sewer Pipe line/Kut/Wassit Province.
- 27- Member of Team Responsible about the Design of Second Road Connecting Iran with Omara/Myssan Province Iraq.
- 28- Head of Team Responsible about the Soil Investigation for Baiji Tourist City/Salah Al-Deen Province /Iraq.
- 29- Member of Team Responsible about the Design of Baiji Tourist City/Salah Al-Deen Province /Iraq.
- 30- Head of Surveying Team conducted Office and Field Surveying Works for Redevelopment of Master Plans for Zubaidyia and Sheikh Saad/Wassit Province.
- 31- Head of Topographic Survey and Soil Resistivity Survey for Petronas Oil Company in Garaaf-Nassayria Province.
- 32- Head of team conducting soil investigation for the directorate of municipalities- Hilla- Babylon.
- 33- Structural design for the directorate of municipalities- Hilla- Babylon.
- 34- Head of team conducting soil investigation for the directorate of municipality- Al-Hurr- Karbala.
- 35- Structural design for the directorate of municipality- Al-Hurr- Karbala.
- 36- Structural design for Al-Bilad Islamic Bank-Erbil.
- 37- Head of team conducting soil investigation for the water project in Al-Hay and Al-Bashaer- Wassit.
- 38- Head of team conducting soil investigation for the sewage project in Ghammas- Dewanyia.
- 39- Head of team conducting soil investigation for the sewage project in Suk-Al sheouk-Thi Qar.
- 40- Head of team conducting topographic survey for water project in Al-Hay and Al-Bashaer- Wassit.
- 41- Head of team conducting topographic survey for the sewage project in Suk-Al Sheouk-Thi Qar.
- 42- Head of team conducting topographic survey for the sewage project in Ghammas- Dewanyia.
- 43- Head of team conducting orthorectification of satellite images for the project of structural plan of Myssan.
- 44- Structural design for the directorate of municipality- Al-Hindyia- Karbala.
- 45- Structural design for the Multi-Function Building in Najaf.
- 46- Member of soil samples testing for PS2 (oil tanks) in Nassyria.
- 47- Member of topographic survey of Suwairrah military airport.
- 48- Member of soil investigation team for Al-Basrah electricity control system.

### 2-Consultation

- Consultant to the Ministry of Military Industry (2000-2003)
- Consultant to the Ministry of Municipalities and Public Works (2001-2002)





## 9. RELEVANT EXPERIENCE AND MAIN ACHIEVEMENTS

- Consultant to the Ministry of Education (2004-2007)
- Consultant to the Ministry of Interior (2008-2009)
- Consultant to the Ministry Industry (2011-2012)

### 4- Teaching

- Mathematics, Construction Materials, Engineering Drawing, Strength of Materials, and Engineering Mechanics in Civil Engineering Department, College of Engineering, University of Babylon.
- Engineering Surveying in Technical Institute of Babylon.
- Mathematics-II in Babylon University.
- Mathematics-I in Baghdad University.
- Soil Mechanics in Civil Engineering Department, College of Engineering, University of Baghdad.
- Foundation Engineering in Civil Engineering Department, College of Engineering, University of Baghdad.
- Advanced soil Mechanics-I and II, M. Sc courses
- Seepage in Soil, M. Sc course
- Advanced Soil Testing, M. Sc course.
- Geoenvironmental Engineering, M. Sc and PhD course.
- Geomatics Engineering, PhD course.
- Soil Dynamics, PhD course.
- Sustainability in Geotechnical Engineering

### 5-Expertise

- Highly experienced in the field of soil exploration, testing and writing soil investigation reports.
- Highly experienced in structural design of different types of structures.
- Highly experienced in the management of different types of projects.
- Highly experienced in the conducting different types of surveying for different types of projects.
- Arch GIS 9.2 applications.
- Computer Programming (Office, Autocad, Grapher, Staad Pro and Visual Fortran).

## 10. TEACHING AT THE UNIVERSITY OF BAGHDAD

### Undergraduate

1. Soil Mechanics.
2. Mathematics-I.
3. Mathematics-II.
4. Foundation Engineering.

### Graduate

#### **A. MSc level**

1. Advanced Soil Mechanics-I,
2. Advanced Soil Mechanics-II,
3. Seepage in Soils
4. Advanced Laboratory and Field Soil Testing.
5. Geoenvironmental Engineering

#### **B. PhD level**

1. Geoenvironmental Engineering,
2. Geomatic Engineering,



3. Soil Dynamics,
4. Sustainability in Geotechnical Engineering

**Thesis Supervision (MSc and PhD levels)**

1. Studying the Effects of Some Contaminants on the Geotechnical Soil Properties by Testing and Remote Sensing/MSc Thesis.
2. Investigation the Effects of Contamination and Washing Process on the Geotechnical Properties of Sandy Soil/MSc Thesis.
3. Effect of Soil Contamination on the Behavior of Piles Subjected to Laterally Cyclic Loading/MSc Thesis.
4. Effects of Embankment Construction nearby an Axially Loaded Pile(s) /MSc Thesis.
5. Studying the Contamination and Remediation of Al-Nassyria Oil Refinery Soil/MSc Thesis.
6. Theoretical Analysis and Experimental Modeling of Surcharge Adjacent to Pile Foundation in Contaminated Soils/MSc Thesis.
7. Geotechnical Properties and Electrokinetics Remediation of Heavy Metals Contaminated Soil/MSc Thesis.
8. Remediation of Contaminated Soil Under Foundation Subjected to Static and Cyclic Loading/ PhD Thesis.
9. Consolidation Modeling of Kerosene Contaminated Clayey Soils/MSc Thesis.
10. Behavior of Floating Stone Columns in Weak Soil Under Static and Cyclic Loading/MSc Thesis.
11. Environmentally Sustainable Use of Recycled Crushed Concrete in Soil Improvement/MSc Thesis.
12. Improvement the Geotechnical Properties of Soft Soil Using Microbial Induced Calcite Precipitation Enhanced with Electrokinetics Technique/PhD Thesis.
13. Behavior of screw piles under static and cyclic loading in gypseous soils/PhD Thesis.
14. Impacts of Microbial Induced Calcite and Nano Materials on the Compressibility of Gypseous Soils/PhD Thesis.
15. Impacts of Magnetic Water Treatment on The Behavior of Screw Piles in Expansive Soil/PhD Thesis.
16. Investigation the Performance of Screw Piles in Soft Soil Under Axial Static and Cyclic Loadings/MSc Thesis.

