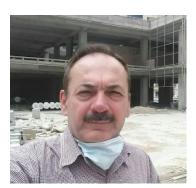
## Curriculum Vitae

## **Personal**

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## **Qualifications**

- ♣ PhD Degree in Civil Engineering, College of Engineering, VŠB Technical University of Ostrava, Ostrava-Poruba, Czech Republic, @14.01. 2020
- ♣ Master Degree in Civil Engineering, College of Engineering, VŠB Technical University of Ostrava, Ostrava-Poruba, Czech Republic, class 2009
- ♣ B.Sc. in Civil Engineering, College of Engineering, VŠB Technical University of Ostrava, Ostrava-Poruba, Czech Republic, class 2007
- ♣ B.Sc. in Irrigation & Drainage Engineering, Duhok University, Kurdistan Region Iraq, class 2000.

## Skills and Expertise

- 1. Geotechnical Engineering
- 2. Tunneling
- 3. Soil Mechanics
- 4. Numerical Modeling in Geotechnical Engineering
- 5. Soil Structure Interaction

## Academic Affiliations/ Membership

Member of the Syndicate of Engineers in the Kurdistan Region of Iraq with the rank of Consultant Engineer No.: 539

Member of the Iraqi Scientific Society of Soil Mechanics and Foundation Engineering.

ISSSMFE ID No.: DUH10238

# Languages:

Language	Reading	Writing	Talking
Kurdish	Excellent	Excellent	Excellent
Arabic	Excellent	Excellent	Excellent
English	V. Good	Good	Good
Czech	Good	Good	Good

# Teaching Experience (Undergraduate Studies):

Subject	Place	Period
Foundation Engineering, 4th class	College of Engineering-Civil Department, UOD	2022-2023
Engineering Statistics, 2 <sup>nd</sup> class	College of Engineering-Civil Department, UOD	2022-2023
Engineering Geology, 1st class	College of Engineering-Civil Department, UOD	2022-2023
Foundation Engineering, 4th class	College of Engineering-Civil Department, UOD	2021-2021
Engineering Geology, 1st class	College of Engineering-Civil Department, UOD	2021-2021
Strength of Materials, 2 <sup>nd</sup> class	Mechanical Engineering Department, UOD	2020-2021
Mechanics of Materials, 2 <sup>nd</sup> class	Mechanical Engineering Department, UOD	2020-2021
Tutorial of Foundation, 1st class	College of Engineering-Civil Department, UOD VŠB-TUO, Czech Republic	2013-2014
Tutorial of Computer, 1st class	College of Engineering-Civil Department, UOD	2012-2013
Tutorial of Mathematic, 2 <sup>nd</sup> class	College of Engineering-Civil Department, UOD	2009-2011
Tutorial of Steel Structure and Foundation for 4th class	College of Engineering-Civil Department, UOD	2009-2011

# Conferences & Workshop:

Conference	Place	Period	Year
Workshop: Tunnels Engineering	UoD, Duhok-Iraq	4 <sup>th t</sup> November	2021
Workshop: Apply E-learning in the Laboratories	UoD, Duhok-Iraq	1 <sup>st</sup> November	2020
3rd Czech-China Scientific Conference 2017 The 6th International Conference on Risk Analysis and Crisis Response	VŠB –TUO, Czech Republic	7 <sup>th</sup> June	2017
OVA'16 – New Knowledge and Measurements in Seismology, Engineering Geophysics and Geotechnical Engineering *	VŠB –TUO, Czech Republic	12th to 14th April	2016
OVA 15 – New Knowledge and Measurements in Seismology, Engineering Geophysics and Geotechnical Engineering *	VŠB –TUO, Czech Republic	7 <sup>th</sup> to 9 <sup>th</sup> April	2015
1 <sup>st</sup> CCSC Czech-China 2015 Scientific Conference	VŠB –TUO, Czech Republic	7th October	2015
The 14 <sup>th</sup> International Conference on Geotechnical Engineering	Hotel Bellevue, Slovakia	2 <sup>nd</sup> to the 3 <sup>rd</sup> October	2014
XV Danube-European Conference on Geotechnical Engineering	Vienna U.T., Austria	9th / 11th September	2014
First Engineering Education Conference	University of Duhok- Iraq	17th to the 19th April	2012

W.S Tunnel Engineering Design & Construction	Duhok University-Iraq	05th - 06th September	2012
Workshop: التخطيط للمدن التاريخية	University of Duhok- Iraq	10th to the 11th October	2012
Training-Workshop for young professionals to apply for scientific visits in Germany	University of Sulaimaniyah - Iraq	19th to the 21th June	2011

## **Reviewing Papers**

#	Papers	Remarks	
1	Behavior of Load-Settlement-Time for Short- Term Wetting in Unsaturated Test	The 2nd International	
2	Collapsibility of unsaturated soil samples along static compaction curves	Conference on Engineering and Advanced Technology (ICEAT 2022),	
3	Response of Pile foundation to Lateral and Vertical Loads: A Review	https://eng.qu.edu.iq/ICEAT/	
4	Analytical Study to Investigated the Problems of the Al-Mokhtar Tunnel-Iraq	JMBM-D-22-00018R1 for Journal of the Mechanical Behavior of Materials.	

## Presentation

- 1. Numerical Analysis and Monitoring of Seismic Design and Behavior for Urban Tunnel Lining PART I, Presentation at VSB-TUO on 03.05.2017
- 2. Numerical Analysis and Monitoring of Seismic Design and Behavior for Urban Tunnel Lining PART II, Presentation at VSB-TUO on 01.04.2017
- 3. Training Course: Teaching outside the classroom by E-learning @ UoD, 12/9/2020

### Work:

- Lecturer at University of Duhok (UOD), Faculty of Engineering, Civil Engineering Dept. dated (29.01.2020 ---)
- Associate Lecturer at University of Duhok (UOD), Faculty of Engineering, Civil Engineering Dept. from (01-07-2009 till 1.10.2014)
- Construction experiences of ground and underground works.
- **♣** Software skills such as MIDAS GTS NX, AutoCAD, Plaxis, and computer operations, Microsoft Office. etc.
- **↓** I worked as a supervisor engineer in government departments in the Kurdistan region of Iraq.
- **↓** I have worked with UNITED NATION (UN -UNOPS / FAS Organization as Interpreter (LG2) for Period (10-08-2003 up to 31-12-2003).
- **↓** I worked as site Engineer in drought survey committee in UN- FAO Organization under UNSCR 986 in Duhok Governorate for the period (05-01-2001 up to 10-08-2003)

## Textbook. Online published

- 1. Analysis & Modelling of Tunnel using Midas GTS 2013
- 2. Underground Structures Support, Stress & Strain of Tunnel
- 3. Engineering Geology & Tunnels Engineering
- 4. Soil and Soil Mechanics textbook
- 5. Consolidation of Soils Testing and Evaluation
- 6. Ancient civilization and Geotechnical Engineering
- 7. Canal Structure at Mesopotamia

## <u>Articles</u>

- 1. J A Mohammed, 2021. Prediction of the Position and Construction Procedures Response of Static and Dynamic Conditions in the Twin Tunnel Construction. The 4<sup>th</sup> International Conference on Materials Engineering & Science (IConMEAS 2021), which will be held at University of Duhok, Kurdistan Iraq on October 06-07, 2021.
- 2. J. A. Mohammed, 2022. Prediction of the position and construction procedures response of static and dynamic conditions in the twin tunnel construction, Journal: AIP Conference Proceedings AIP Conference Proceedings 2660, 020003 (2022), Volume 2660, Issue 1, 17 November 2022. DOI: <a href="https://doi.org/10.1063/5.0109828">https://doi.org/10.1063/5.0109828</a>. Published: November 2022
- Jaafar A Mohammed, 2020. SIMULATION OF TUNNEL LINING AND SURROUNDING ROCK MASS RESPONSE TO CONSTRUCTION LOADS. Journal of University of Duhok, Vol.32, No.2 (Pure and Eng. Sciences), Pp 131-141, 3232 (Special Issue). DOI: <a href="https://doi.org/10.26682/csjuod.2020.23.2.11">https://doi.org/10.26682/csjuod.2020.23.2.11</a>, <a href="https://journal.uod.ac/index.php/uodjournal/article/view/914">https://journal.uod.ac/index.php/uodjournal/article/view/914</a>
- 4. Jaafar A Mohammed, 2020. SIMULATION OF TUNNEL LINING AND SURROUNDING ROCK MASS RESPONSE TO CONSTRUCTION LOADS. 3<sup>rd</sup> international conference on recent innovations in engineering (ICRIE) Duhok, September 9-10-2020
- Jaafar Mohammed, 2019. Numerical Analysis of Static and Dynamic Response of Urban Tunnel Lining. Degree of Doctor of Philosophy in Department of Geotechnical and Underground Engineering, Faculty of Civil Engineering, VSB-TUO. ISBN: 978-80-248-4292-9. <a href="http://dspace.vsb.cz/handle/10084/139192">http://dspace.vsb.cz/handle/10084/139192</a>
- 6. Mohammed J., Hrubešová E., 2019. Numerical Modelling for Twin Horizontal Circle Tunnels under Static and Dynamic Loads. In: Pradhan B. (eds) GCEC 2017. Lecture Notes in Civil Engineering, Volume 9, 2019, Pages 111-124. Springer, Singapore, ISSN: 23662557, DOI: 10.1007/978-981-10-8016-6\_9, ISBN: 978-981-10-8015-9, Part of the Lecture Notes in Civil Engineering book series (LNCE, volume 9), Springer, Singapore, <a href="https://link.springer.com/chapter/10.1007/978-981-10-8016-6\_9">https://link.springer.com/chapter/10.1007/978-981-10-8016-6\_9</a>
- 7. MOHAMMED, Jaafar a Eva HRUBEŠOVÁ. Numerical simulation for horizontal tunnels with vertical alignment affected by static and dynamic loads. In: Proceedings of the 12th fib International PhD Symposium in Civil Engineering. Praha: Czech Technical University in Prague, 2018. s. 601-608. ISBN 978-80-01-06401-6. <a href="https://www.fast.vsb.cz/224/cs/veda-a-vyzkum/publikacni-cinnost/">https://www.fast.vsb.cz/224/cs/veda-a-vyzkum/publikacni-cinnost/</a>

- 8. MOHAMMED, Jaafar a Eva HRUBEŠOVÁ. Numerical simulation for horizontal tunnels with vertical alignment affected by static and dynamic loads. In: Proceedings of the 12th fib International PhD Symposium in Civil Engineering. Praha: Czech Technical University in Prague, 2018. s. 601-608. ISBN 978-80-01-06401-6. <a href="https://www.fast.vsb.cz/224/cs/veda-a-vyzkum/publikacni-cinnost/">https://www.fast.vsb.cz/224/cs/veda-a-vyzkum/publikacni-cinnost/</a>
- 9. MOHAMMED, Jaafar a Eva HRUBEŠOVÁ. Numerical modelling of horse-shoe tunnels with respect to static and dynamic loads. In: Sborník příspěvků 16. mezinárodní konference Geotechnika 2018: 18.-19.10.2018, Horský hotel Soláň, Karolinka, Czech Republic. Ostrava: Vysoká škola báňská Technická univerzita Ostrava, 2018. s. 1-10. ISBN 978-80-248-4216-5. https://www.fast.vsb.cz/224/cs/veda-a-vyzkum/publikacni-cinnost/
- 10. HRUBEŠOVÁ, Eva, Lukáš ĎURIŠ a Jaafar MOHAMMED. Variantní přístupy k výpočtu stabilizačního tlaku na čelbu při ražbě tunelů plnoprofilovými tunelovacími stroji. In: Podzemní stavby Praha 2016: 13. mezinárodní konference: 23.-25.května 2016, Praha, Česká republika. Praha: Česká tunelářská asociace, 2016. s. 1-8. ISBN 978-80-906452-0-2. https://www.fast.vsb.cz/224/cs/veda-a-vyzkum/publikacni-cinnost/
- 11. MOHAMMED, Jaafar, Eva HRUBEŠOVÁ, 2018. Assessment of Static and Dynamic Stresses Horse-Shoe Tunnel with Connecting Gallery using Finite Element Method: (As a Case Study). Transactions of the VSB Technical University of Ostrava, Safety Engineering Series. VŠB Technical University of Ostrava, Faculty of Safety Engineering, 2018, 18(1), s. 18-23. ISSN 1805-3238. https://www.fast.vsb.cz/224/cs/veda-a-vyzkum/publikacni-cinnost/
- 12. Mohammed, J., Hrubešová, E. 2018. Numerical simulation for horizontal tunnels with vertical alignment affected by static and dynamic loads. Proceedings of the 12<sup>th</sup> fib International PhD Symposium in Civil Engineering 2018, Pages 601-608; Faculty of Civil Engineering of the Czech Technical University in Prague. Prague; Czech Republic; 29 August 2018 through 31 August 2018; Code 138883 ISBN: 978-800106401-6. <a href="https://www.scopus.com/authid/detail.uri?authorId=25645932800">https://www.scopus.com/authid/detail.uri?authorId=25645932800</a>.
- 13. MOHAMMED, Jaafar and Eva HRUBEŠOVÁ. Assessment of Static and Dynamic Stresses Horse-Shoe Tunnel with Connecting Gallery using Finite Element Method: (As a Case Study). Transactions of the VSB Technical University of Ostrava, Safety Engineering Series. VŠB Technical University of Ostrava, Faculty of Safety Engineering, 2018, 18(1), p. 18-23. ISSN 1805-3238. <a href="https://www.fast.vsb.cz/224/en/research/publications">https://www.fast.vsb.cz/224/en/research/publications</a>
- 14. Hrubešová, E., Duris, L., Melichar, A., Jaafar, M., 2017.Determination of tunnel face stabilizing pressure using numerical and analytical methods. Advances and Trends in Engineering Sciences and Technologies II Proceedings of the 2<sup>nd</sup> International Conference on Engineering Sciences and Technologies, ESaT 2016-2017, Pages 767-772; Vysoke Tatry; Slovakia; 29 June 2016 through 1 July 2016; Code 189459; ISBN: 978-131539382-7. <a href="https://www.scopus.com/authid/detail.uri?authorId=25645932800">https://www.scopus.com/authid/detail.uri?authorId=25645932800</a>.
- 15. Hrubesova, E., Lahuta, H., Duris, L., Jaafar, M., 2015. Mathematical modeling of foundation-subsoil interaction. International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM Volume 2, Issue 1, 2015, Pages 437-444;

- 15th International Multidisciplinary Scientific Geoconference and EXPO, SGEM 2015; Albena; Bulgaria; 18 June 2015 through 24 June 2015; Code 153949; ISSN: 13142704; https://www.scopus.com/authid/detail.uri?authorId=25645932800.
- 16. J. MOHAMMED, 2017. NUMERICAL MODELLING FOR CIRCLE TUNNEL UNDER STATIC AND DYNAMIC LOADS (CASE STUDY: COMPARISON IN DIFFERENT OF TUNNEL DIAMETERS). In: 17<sup>th</sup> International ELASTIC MODULUS AND Multidisciplinary Scientific GeoConference SGEM 2017, www.sgem.org, SGEM2017 Conference Proceedings, ISBN 978-619-7105-99-5 / ISSN 1314-2704, 29 June - 5 July, 2017, 10.5593/sgem2017/12/S02.080. Vol. 17. Issue 12, 627-634 DOI: pp, https://www.sgem.org/sgemlib/spip.php?article9104&lang=en.
- 17. E. Hrubešová & L. Ďuriš & J. Mohammed, 2016. Alternative approaches to the calculation of face stability pressure during tunnel excavation using tunnel boring machines. Conference: 13TH INTERNATIONAL CONFERENCE UNDERGROUND CONSTRUCTION PRAGUE 2016, 3RD EASTERN EUROPEAN TUNELLING CONFERENCE EETC 2016, At Clarion Congress Hotel Prague, Freyova 33, Prague 9 Vysočany, Czech Republic. DOI: 10.13140/RG.2.1.3358.4888.
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- 19. Alaa Alsaad, Abduljalil Sulaiman and Jaafar A Mohammed, 2015. Enhancement of Circular Cutout in High Strength RC Deep Beam Using CFRP, In: 3rd Annual International Conference on Architecture and Civil Engineering (ACE 2015), ISSN 2301-394X, DOI:10.5176/2301-394X\_ACE15.145. <a href="http://dl4.globalstf.org/?wpsc-product=enhancement-of-circular-cutout-in-high-strength-rc-deep-beam-using-cfrp">http://dl4.globalstf.org/?wpsc-product=enhancement-of-circular-cutout-in-high-strength-rc-deep-beam-using-cfrp</a>
- 20. Alaa Alsaad, Abduljalil Sulaiman, and Jaafar A. Mohammed, 2015. Using CFRP for Enhancing of Circular Cutout in High Strength RC Deep Beam. GSTF Journal of Engineering Technology (JET) Vol.3 No.3, October 2015. DOI 10.7603/s40707-014-0020-4.https://www.globalsciencejournals.com/search/page/11?facet-content-type=Article http://dl6.globalstf.org/index.php/jet/issue/view/137
- 21. J. Mohammed, 2016. A Review of Seismic Design and Behavior of Gali-Zakho Tunnel. 13<sup>th</sup> International Conference Underground Construction Prague 2016 will be enhanced by connection with the 3<sup>rd</sup> Eastern European Tunnelling Conference (EETC 2016) 23rd to 25<sup>th</sup> May.

  ISBN 978-80-906452-1-9. http://ucprague.guarant.eu/2016/www.ucprague.com/index.html
- 22. **Jaafar Mohammed, 2017,** NUMERICAL MODELLING FOR CIRCLE TUNNEL UNDER STATIC AND DYNAMIC LOADS FOR DIFFERENT DEPTH, RESEARCH JOURNAL OF MINING, ISSN 2453-9996, https://sgemworld.at/sgemlib/spip.php?article9104
- 23. Jaafar Mohammed; Eva Hrubešová, 2016, Assessment of Internal Forces in Circle Tunnel Resulted from Seismic Load Using Finite Elements Method, 15. ROČNÍK

- MEDZINÁRODNEJ KONFERENCIE THE 15<sup>TH</sup> INTERNATIONAL CONFERENCE, ADVANCED METHODS AND TRADITIONS IN GEOTECHNICS SLOVAKIA, ISBN:978-80-248-3935- 6, http://miningresearch.org/volume-1-2017
- 24. Jaafar Mohammed and Eva Hrubešová, 2017. Comparison in Numerical Modelling for Circle Tunnel under Static and Dynamic Loads for Different Tunnel Diameters and Different Modulus of Elasticity. Global Civil Engineering Conference (GCEC2017) 25 - 28 July 2017, Malaysia
- 25. Jaafar Mohammed and Eva Hrubešová, 2017. Numerical Modelling for Twin Horizontal Circle Tunnel under Static and Dynamic Loads. Global Civil Engineering Conference (GCEC2017) 25 28 July 2017, Malaysia
- 26. Eva Hrubesova, Lukas Duris, Adam Melichar and Mohamed Jaafar, 2016. UTILIZATION OF MATHEMATICAL MODELLING TO THE ASSESSMENT OF TUNNEL FACE STABILIZING PRESSURE, INTERNATIONAL JOURNAL OF INTERDISCIPLINARITY IN THEORY AND PRACTICE, ITPB NR.: 10, YEAR: 2016 (ISSN 2344 2409).

#### **References:**

#### 1- VSB - Technical University of Ostrava, Ostrava, Czechia

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