

# Curriculum Vitae (CV)



## Personal details:

**Name:** Ahmed Mohammed Hasan

**Date and place of birth:** 01-04-1973, Erbil-Kurdistan Region-Iraq.

**Marital status:** Married

**Home address:** 116 D - New Zanko village – Erbil – Iraq.

**Job address:** Civil Engineering Department –College of Engineering – Salahaddin University

**Mobile:** +964 750 463 0741

**E-mail:** [ahmed.hasan@su.edu.krd](mailto:ahmed.hasan@su.edu.krd)

## Educational qualificaion:

- **Ph.D** in Geotechnical Engineering - Civil Engineering / **University of Glasgow**, UK (2016).
- **M.Sc.** in Geotechnical Engineering - Civil Engineering / **Duhok University**, Iraq (2006).
- **B.Sc.** in Civil Engineering /College of Engineering/**Salahaddin University-Erbil, Iraq** (1997).

## Background and experience:

1- From 9/2016 – up-to-date

I resumed teaching as a **Lecturer** at the *College of Engineering /Civil Department/Salahaddin University - Erbil.*

2- From 2012 to 2016

I received PhD degree in Civil Engineering - Geotechnical Engineering entitled “Small strain elastic behaviour of unsaturated soil investigated by bender/extender element testing”. Supervised by Cormack professor Simon J. Wheeler at the University of Glasgow-Glasgow, UK.

3- From 2006 to 2012

I was **an assistant lecturer** at the college of Engineering-Civil department-Salahaddin University-Erbil. The following subjects have been taught:-

- Foundation Engineering (4<sup>th</sup> year students)
- Elective topics including design of reinforced earth retaining walls and tunneling (stage 4).
- Civil drawing (4<sup>th</sup> year students).
- Soil Mechanics (3<sup>rd</sup> year students)
- Soil Mechanics laboratory (3<sup>rd</sup> year students)
- Computer programming and numerical methods C++ (2<sup>nd</sup> year students).
- Participating in preparation of geotechnical reports and soil testing with **Engineering Consultant Bureau** - College of Engineering / Salahaddin University. I resumed working with the Bureau since 2017 up-to-date.

4- From 2004 to 2006

I received M.Sc. degree in Geotechnical Engineering entitled “*Evaluation and Treatment of Expansive Soils using Reinforcements*” supervised by Dr.Kamal Ahmed Rasheed who was the dean of the College of Engineering-University of Sulaimani.

5- From 1998 to 2004

**I-** As a **demonstrator** at the College of Engineering - Salahaddin University-Erbil at the following subjects:

- Soil Mechanics laboratory.
- Fluid Mechanics laboratory.
- Engineering drawing.

**II-** I also worked concurrently as a **Design Engineer** at the following projects:

1. Structural design of building of the Medical Department (Koya Institute) Project in Koya, as a (Design Engineer) supervised by (UNESCO).
2. Structural design and renovation of 4 food quarantine building projects in Erbil, Dohuk and Sulaimania governorates, as a (Design Engineer) supervised by Food and Agricultural Organization (UN FAO).
3. Full Design of (10) Irrigation projects in Sidakan, Mergasor and Sherwanmazn districts as a (Design Engineer) supervised by (UN FAO).
4. Supervising the Bawakhalan Irrigation project as a UN FAO Site Engineer.
5. Construction of two Student Health Care centers in Iskan and Khanzad Quarter in Erbil city with Mazn company supervised by (UN-HABITAT- UNCHS).
6. Construction of four staff houses in Shaqlawa district with Tareen Company supervised by (UN-HABITAT).
7. Surveying Irrigated areas in (Kore, Hujran, Tawska and Kawanian villages in Erbil) by (GPS) instrument. Drawing precise maps using Grafer & AutoCAD softwares from the (GPS) data.
8. Drawing and submitting more than (20) projects by AutoCAD software FAO as a Draftsman.

### **Postgraduate modules:**

I have taught MSc students different modules including Engineering Soils, Constitutive modeling of soils and Geotechnical Software

### **Postgraduate supervision:**

I have supervised one MSc student in Geotechnical engineering entitled “Ultimate capacity of laterally loaded pile foundation in unsaturated layered sandy soils” in 2018-2019.

### **International and National journal reviewer:**

**International reviewer:** I have reviewed more than 15 papers for Arabian Journal of Geosciences (Impact factor 1.05) and Geomate Journal (SJR 0.34).

**National reviewer:** I have reviewed more than 20 papers for national journals and conferences.

### **Membership of profession bodies:**

- Kurdistan Engineer Union, Erbil, from 1997 to date.
- Institution of Civil Engineers ICE, London, UK, from 2014 to date.
- Iraqi Geotechnical Engineers, Baghdad, Iraq from 2021.

### **Research interesting:**

- 1- Expansive soils.
- 2- Soil improvement.
- 3- Deep foundations.
- 4- Unsaturated soils.
- 5- Small strain elastic behaviour and large strain plastic behaviour of soils.
- 6- Small strain anisotropy and large strain anisotropy of soils.

### **Publications:**

#### ○ **International Journal**

1. Arsalan Mahmoodzadeh, Mokhtar Mohammadi, Hawkar Hashim Ibrahim, Sazan Nariman Abdulhamid , Hunar Farid Hama Ali, Ahmed Mohammed Hasan, Mohammad Khishe, Hoger Mahmud, 2021. **Machine learning forecasting models of disc cutters life of tunnel boring machine.** *Automation in Construction* 128. <https://doi.org/10.1016/j.autcon.2021.103779>
2. Yousif Mawlood, Ahmed Mohammed, Rizgar Hummadi, Ahmed Hasan, and Hawkar Ibrahim, 2021. **Comparison of artificial neural network (ANN) and linear regression modeling with residual errors to predict the unconfined compressive strength and compression index for Erbil City soils, Kurdistan-Iraq.** *Arabian Journal of Geosciences* (2021) 14:485. <https://doi.org/10.1007/s12517-021-06712-4>
3. Yousif Mawlood, Ahmed Mohammed, Rizgar Hummadi, Ahmed Hasan, and Hawkar Ibrahim, 2021. **Modeling and Statistical Evaluations of Unconfined Compressive Strength and Compression Index of the Clay Soils at Various Ranges of Liquid Limit.** *Journal of Testing and Evaluation*. DOI: 10.1520/JTE20200505
4. Hawkar Hashim Ibrahim, Younis M. Alshkane, Yousif Ismael Mawlood, Krikar M. Gharrib Noori and Ahmed Mohammed Hasan, 2020. **Improving the geotechnical properties of high expansive clay using limestone powder.** *Innovative Infrastructure Solutions* 5:112.
5. Omed Azeez, Rizgar Hummadi and Ahmed Hasan, 2019. **Ultimate capacity of laterally loaded pile foundation in dry and saturated layered soils.** *International Journal of Engineering Research and Technology*, Volume 12, No. 10, pp. 1647-1653

## ○ **International Conference papers**

1. Hasan, A. M. & Wheeler, S. J., 2016. Interpreting measurements of small strain elastic shear modulus under unsaturated conditions. 3<sup>rd</sup> European conference on unsaturated soils, **Paris, France**.
2. Hasan, A. M. & Wheeler, S. J., 2015. Influence of unsaturated state variables on small strain elastic behavior. 6<sup>th</sup> Asian-pacific conference on unsaturated soils, **Guilin, China**.
3. Hasan, A. M. & Wheeler, S. J., 2015. Measuring travel time in bender/extender element test. 16<sup>th</sup> European Conference on Soil Mechanics and Geotechnical Engineering, ECSMGE, **Edinburgh, UK**.
4. Hasan, A. M. & Wheeler, S. J., 2014. Influence of compaction procedure on elastic anisotropy. 5<sup>th</sup> International Conference on Unsaturated Soils, **Sydney, Australia**.

## ○ **National journal papers**

1. Hasan A. M., 2018. "An approach for description of elastic parameters cross-anisotropic saturated soils". **Eurasian Journal of Science and Engineering**- Ishik university- Erbil-Iraq, Vol. 3, no. 3, June.
2. Noori, K. M. , Ibrahim, H. H., Hasan A. M., 2018. "Influence of Upstream Blanket on Earth Dam Seepage". **Eurasian Journal of Science and Engineering**- Ishik university- Erbil-Iraq, Vol. , No. .
3. Hasan A. M., 2011. "Stabilization of Erbil Clay Products by Reinforcement with Waste Human Hair Additive". **Journal of Pure and Applied Sciences**-Salahaddin university- Erbil, Vol.22, No.5.
4. Hasan A. M., 2009. "Behavior of Silty Clay Reinforced with Waste Human Hair as Randomly Fiber Reinforcement". **Journal of Pure and Applied Sciences**-Salahaddin university- Erbil, Vol.21, No.2.

## Oragnising events:

1. Oragnising the proposed first Iraqi workshop on Geotechnical Engineering holding in Erbil for the period 4-5 of December 2017 (unfortunately postponed two days prior the starting date due to unforeseen issues).

## Conference, Workshop, seminar and Lecture:

Participation in the 3<sup>rd</sup> annual International Engineering Conference on Developments in Civil & Computer Engineering Applications (**IEC2017**) which held in Erbil on February 26-27, 2017.

Participation in three days training course on **personality type** conducted according to the standards and guidelines established by Leader Development Organization **LDO** in Erbil from 18<sup>th</sup> to 20<sup>th</sup> of September 2016. The course led by Sardar Azad Omer. A certificate was given.

Attending 55<sup>th</sup> Rankine Lecture, repeated. **Hazard, Risk and Reliability in Geotechnical Practice**, by **Professor Dr Suzanne Lacasse (Norwegian Geotechnical Institute)**, on 15<sup>th</sup> March 2016, IET Teacher Building, 14 St Enoch Square, Glasgow, United Kingdom.

Participation in a one day technical sessions on **Application of modern limit analysis methods in geotechnical practice**, by Professor Matthew Gilbert and Dr Colin Smith from University of Sheffield, the sessions held in November 2015, 27 Waterloo Place, Edinburgh, United Kingdom.

Participation in a one day course on **Cone Penetration Test CPT**, Sponsored by **FUGRO**, at Ibrox Stadium, 150 Edmiston Dr, Glasgow, United Kingdom, on 23<sup>rd</sup> April, 2015.

Attending 54<sup>nd</sup> Rankine Lecture. **Interactions in Offshore Foundation Design**, by **Professor Guy Houlby, the University of Oxford** on 19<sup>th</sup> March 2014, The Great Hall, Sherfield Building, Imperial College London, London, United Kingdom.

A two days workshope on **Wave Propagation and Soil Stiffness: Particle-Continuum Duality**, The workshop held at the Clifton Hill House, University of Bristol, Bristol, UK, on 20<sup>th</sup> and 21<sup>th</sup> March 2014.

Attending 52<sup>nd</sup> Rankine Lecture, repeated. **Performance-Based Design in Geotechnical Engineering**, by **Professor Malcolm Bolton, Cambridge University** on Tuesday 12<sup>th</sup> March 2013, Fulton Building, University of Dundee, Dundee, UK.

A one day workshope on **An Introduction to Offshore Geophysics and Geotechnical Engineering**, Sponsored by Scottish Geotechnical Group SGG on 4<sup>th</sup> November 2015 at the University of Aberdeen, Aberdeen, United Kingdom. The workshop covered:

- Site Investigation Planning and Geohazard assessment.
- Introductory Seismic Principles.
- Swathe Bathymetry/ Multibeam sonar.
- Geotechnical Systems.
- Data Integration and Geographical Information Systems.
- Geotechnical Analysis for Pipelines.
- Shallow Foundations, Suction Caissons and GBS Design.
- Pile Design for Offshore Structures.