

# Academic Curriculum Vitae



## Personal Information:

Full Name: Haval AbdulJabbar Sadeq

Academic Title: Asst. Prof.

Email: haval.sadeq@su.edu.krd

Mobile: +964 750 445 4760



## Education:

- PhD in Geomatics in the School of Geographical and Earth Sciences / College of Science and Eng. From the University of Glasgow-Glasgow-UK, 2015.
- MSc. in Surveying in the College of Engineering at the Salahaddin University-Erbil, Iraq, 2000.
- BSc in Civil Engineering in the College of Engineering at the Salahaddin University-Erbil, Iraq, 1996.

## Employment:

- 2021-Present** A full-time member of the teaching academic staff in the Geomatics Dep. and head of the Consultant Bureau in the College of Engineering at Salahaddin University Erbil.
- 2021-2023** Member and head of the Engineering Consultant Bureau in the College of Engineering at Salahaddin University Erbil.
- 2016-2021** Lecturer and Head of Geomatics (Surveying) Eng. at Salahaddin University-Erbil, and working in the College of Engineering Consultant Bureau to achieve surveying projects and training.
- 2016-2017** Participate in GeonetC Erasmus+ program for the online master's degree.
- 2015-2016** Gained PhD and resume teaching in the Geomatics (Surveying) Eng. at Salahaddin University-Erbil
- 2011-2015** PhD candidate at the University of Glasgow-UK.
- 2009-2011** Teaching Engineering Drawing and Visual Basics in the Surveying Engineering Department at the Salahaddin. University-Erbil,
- 2008-2009** Teaching C++ in the Civil Eng. Dep. and Engineering drawing in the Surveying Eng. Dep at the Salahaddin University-Erbil.
- 2008-2010** Head of the library in the College of Engineering at the Salahaddin University-Erbil.
- 2005-2008** Part-time job contract with the Salahaddin University-Erbil, for teaching Engineering Drawing and Surveying in the College of Engineering.

- 2001-2008** Senior CAD operator and Primavera Scheduler in the United Nations & and private Construction companies (Zozik Group and Zagros Group for engineering)
- 2000-2001** Lecturer Assistant, teaching engineering Drawings in the software Dep. at the Salahaddin University-Erbil
- 1998-2000** Masters candidate in Civil Engineering-Photogrammetry at the Salahaddin University-Erbil.
- 1996-1998** Engineer in the Surveying and AutoCAD lab. In Civil Engineering-Salahaddin University-Erbil

## Qualifications

- Professional in the following software:
  - o Erdas,
  - o Socet GXP,
  - o ArcGIS,
  - o Civil 3D &AutoCAD,
  - o Summit Evolution,
  - o Primavera Management,
  - o C++ and Python

## Teaching experience:

- Teaching undergraduate and Postgraduate (BSc, High diploma, MSc and PhD)
- Subjects Map Projections, Cartography, PhotogrammetryI&II, C++, Digital photogrammetry, Advanced Photogrammetry, Advanced Digital Photogrammetry.
- ArcGIS lab, photogrammetry lab.

## Research and publications

- Haval AbdulJabbar Sadeq. (2024). Generating 3D City Mesh Model Based on Aerial Imagery: A Case Study, College of Engineering Campus. *Zanco Journal of Pure and Applied Sciences*, 36(2), 62–69. <https://doi.org/10.21271/ZJPAS.36.2.6>.
- Haval AbdulJabbar Sadeq (12 Apr 2024): A Bayesian framework for 3D point cloud filtering, *Journal of Spatial Science*, DOI: 10.1080/14498596.2024.2337742.
- S. H. Abdullah and D. M. Salih, “3D Buildings Change Detection from Aerial and Satellite Stereo Imagery Using Kullback–Leibler Divergence Algorithm,” *Wasit J. Eng. Sci.*, vol. 10, no. 4, pp. 13–25, 2023, doi: 10.31185/ejuow.vol10.iss4.454.
- Sadeq, H.A.J., 2023. Improving Least-Squares Stereo Matching by Using Different Reference Points. *J. Indian Soc. Remote Sens.* 9. <https://doi.org/10.1007/s12524-023-01699-9>
- D. M. Ali and H. A. Sadeq, “Road Pothole Detection Using Unmanned Aerial Vehicle Imagery and Deep Learning Technique,” *ZANCO J. PURE Appl. Sci.*, vol. 34, no. 6, Dec. 2022, doi: 10.21271/ZJPAS.34.6.12.
- Sadeq, H.A. Building Extraction from Stereo Aerial Imagery Using Dynamic Programming. *Arab J Sci Eng* (2021), 46(3).
- Sadeq, H.A.-J., "Building Extraction from Lidar Data Using Statistical Methods ". *Photogrammetric Engineering & Remote Sensing* 2021. 87(1): p. 33–42.

- Abdullah, S., Sadeq, H. and Salih, D. (2020) "The use of pixel-based algorithm for automatic change detection of 3D Building from Aerial and Satellite Imagery: Erbil city as a case study", *Zanco Journal of Pure and Applied Sciences*, 32(2), pp. 24-38. doi: 10.21271/ZJPAS.32.2.4.
  - Sadeq, H., "Using Total Probability in Image Template Matching". *The International Arab Journal of Information Technology*, 2020. 17(3): p. 347-357.
  - Sadeq, H.A., "Toward City Web Mapping in developing countries using satellite and stereo aerial imagery: A Case Study". *IOP Conference Series: Materials Science and Engineering*, 2020. 737: p. 012212.
  - Sadeq, H.: CITY MODELLING USING GEOINFORMATICS: A CASE STUDY OF THE COLLEGE OF ENGINEERING CAMPUS, SALAHADDIN UNIVERSITY, IRAQ, *Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci.*, XLII-2/W16, 189–194, <https://doi.org/10.5194/isprs-archives-XLII-2-W16-189-2019>, 2019.
  - Sadeq, H. A., 2019. Accuracy assessment using different UAV image overlaps. *Journal of Unmanned Vehicle Systems*, 7(3), pp. 175-193. DOI:10.1139/juvs-2018-0014.
  - Mala, B. A., Salih, D. M., & Sadeq, H. A. (2019). Integration of terrestrial laser scanning and digital close-range photogrammetry for heritage documentation. Paper presented at the Second International Conference on Engineering and Innovative Technology SU-ICEIT-2019, Erbil-Iraq.
  - Haval A. Sadeq. Employing Smartphone and Compact Camera in Building Measurements. (2018) *Eurasian Journal of Science & Engineering*. (EAJSE)4(1)
  - Sadeq HA. Utilizing Geographic Coordinates for postcode Design (2016). In *Zanco. Journal of Pure and Applied Sciences Salahaddin University –Erbil*. 28(5).
  - Sadeq H, Drummond J, Li Z. MERGING DIGITAL SURFACE MODELS IMPLEMENTING BAYESIAN APPROACHES. In *XXIII Conference of International Society of Photogrammetry and Remote Sensing*. Prague-Czech Republic: 2015.
  - Sadeq, H. 2015. Merging Digital Surface Models Sourced from Multi-Satellite Imagery and their Consequent Application in Automating 3D Building Modelling, (PhD thesis), University of Glasgow.
  - Sadeq, H., Drummond, J. and Li, Z. (2014) "Bayesian Approach to Building Footprint extraction and 3D Modelling from High-resolution Satellite Imagery," in *Proceedings of the GIS Research UK 22nd Annual Conference*. Glasgow-UK.
- NB: The above paper was awarded The Whittles Prize for the "best paper integrating Remote Sensing and GIS", on a conference participant vote.
- Sadeq, H., Drummond, J. and Li, Z. (2014) "Bayesian approach to building footprint extraction and 3D modelling from high resolution satellite imagery," *South-Eastern European Journal of Earth Observation and Geomatics*, 3(2S), pp. 185–189
  - Sadeq, H., Drummond, J. & Li, Z., 2012. Evaluation of ASTER GDEM v. 2 using GPS checkpoints, OSGB DEM values and photogrammetrically derived DEMs. In *XXII Conference of International Society of Photogrammetry and Remote Sensing*. Melbourne, Australia, pp. 295-300
  - Sadeq, H., 2012. Comparing Ground Survey Data with SRTM Satellite Data: Case Study in North of Iraq. *Al-Rafidain Engineering Journal*, Mosul, Iraq, 20(5), pp.136-147.
  - Sadeq, H., 2010. Accuracy Evaluation of SRTM (used in Google Earth) by Comparison with National Topographic Maps (1:50,000) in North of Iraq. *University Of Technology, Baghdad, Iraq.*, 28(21), pp.6337-6346.
  - Sadeq, H., 2009. Maximizing Project Control Using Project Management Software Case Study: Ifraz Water Treatment Project in Erbil Governorate. *Zanco. Journal of Pure and Applied Sciences Salahaddin University -Erbil*, 21(4).
  - Sadeq, H., 2009. City Growth Monitoring Using Map and Remote Sensing: Case Study Arbil-Kurdistan. *Zanco. Journal of Pure and Applied Sciences Salahaddin University -Erbil*, 21(6).
  - Sadeq, H. and Henari, K. (2005) 'Photogrammetric Road Construction surveying', *Zanco. Journal of Pure and Applied Sciences Salahaddin University –Erbil, Iraq*, 17(1), pp. 97–103.
  - Sadeq, H. 2000. Photogrammetric Road Construction Survey, (Master thesis), Salahaddin University-Erbil.

## Conferences and courses attended

- ICACS24 Conference 2024 in Erbil-Iraq
- ICOWOBAS Conefernce 2023 in Erbil-Iraq
- GEOBENCH Workshop 2023 in Krakow-Poland
- EWDR conference 2022 in Antalya-Turkey
- BCEE4 conference 2019 in Istanbul-Turkey
- PIA19 conference 2019 in Munich-Germany
- SU-ICEIT- 2019 in Erbil-Iraq
- IEC2018 in Erbil-Iraq
- ISPRS Congress in Prague-2016
- GISRuk Conference in Glasgow-2014
- Wavelength conference-Falmouth-UK-2012 (present a poster)
- Socet-GXP in BAE system- UK
- GIS course at Glasgow University-UK
- Bayesian statistics at Glasgow University-UK.

## Funding and academic awards

- Award of books, manuals, or other literature published by ASPRS,
- Award of five-year free subscription to Photogrammetric Engineering & Remote Sensing by ASPRS,
- Getting a prize, “Book: High Resolution Optical Satellite imagery”, from Whittles Publishing for the best research paper in integrating GIS and Remote Sensing at GISRUK 2014 Conference- Glasgow-UK.

## Professional memberships

### Professional Memberships (continuing)

- Member in Kurdistan Engineering Union-Erbil/IRAQ (since 1996)
- Member in ASPRS - American Society for Photogrammetry & Remote Sensing/USA (since 2015)
- Individual Member of the International Society for Photogrammetry and Remote Sensing.

### Professional Memberships (previous)

- Member in RSPSoc- Remote Sensing & Photogrammetry Society/ UK.
- Member in CICES-Chartered Institution of CIVIL ENGINEERING SURVEYORS/UK.
- Member in RICS: Royal Institution of Chartered Surveyors/UK.

## Professional Social Network Accounts:

- <https://www.researchgate.net/profile/Haval-Sadeq>
- <https://www.linkedin.com/in/haval-sadeq-a63b8133/>
- [https://twitter.com/Haval\\_Sadeq](https://twitter.com/Haval_Sadeq)
- <https://scholar.google.com/citations?user=d8v2tAIAAAAJ&hl=en>
- <https://orcid.org/0000-0003-0636-473X>