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 from the School of Geographical and Earth Sciences, College of Science and Engineering, University of Glasgow, UK, 2015.
- MSc in Surveying from the College of Engineering, Salahaddin University, Erbil, Iraq, 2000.
- BSc in Civil Engineering from the College of Engineering, Salahaddin University, Erbil, Iraq, 1996.

Employment:

2021-Present	Full-time academic staff member, Department of Geomatics, responsible for teaching, research, and supervision of BSc, MSc, and PhD students.
2023-present	Editorial Team, *Zanco Journal of Pure and Applied Sciences* - Section Editor, later Associate Editor.
2021-present	Member of the Promotion Committee, College of Engineering.
2021-2023	Member and later Head, Engineering Consultancy Bureau, College of Engineering.
2016-2021	Head, Geomatics (Surveying Engineering) Department and Lecturer — contributed to projects and training through the Consultancy Bureau; participant in the GeoNetC Erasmus+ Online Master's program.
2015-2016	Lecturer, Department of Geomatics Engineering — resumed teaching after PhD.
2011-2015	PhD Candidate, University of Glasgow, UK.
2009-2011	Lecturer, Salahaddin University-Erbil, teaching Engineering Drawing and Visual Basic in the Surveying Engineering Department.
2008-2009	Lecturer, Salahaddin University-Erbil, teaching C++ in the Civil Engineering Department and Engineering Drawing in the Surveying Engineering Department.
2008-2010	Head of the College of Engineering Library at Salahaddin University-Erbil.
2005-2008	Part-time Lecturer, Salahaddin University-Erbil, teaching Engineering Drawing and Surveying in the College of Engineering.
2001-2008	Senior CAD Operator and Primavera Scheduler, working with the United Nations and private construction companies including Zozik Group and Zagros Group for Engineering.
2000-2001	Assistant Lecturer, in the college of engineering at Salahaddin University-Erbil.
1998-2000	Master's candidate in Civil Engineering (Photogrammetry) at Salahaddin University-Erbil.
1996-1998	Engineer in the Surveying and AutoCAD Laboratory, Civil Engineering Department, Salahaddin University-Erbil.

Qualifications

Professional in the following software:

- Erdas,
- Socet GXP,
- ArcGIS, ArcGIS Pro
- Civil 3D &AutoCAD,
- Summit Evolution,
- Primavera Management,
- 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

1. Rojgar Qarani Ismael, & Haval Abduljabbar Sadeq. (2025). Sequential Hybrid Integration of U-Net and Fully Convolutional Networks with Mask R-CNN for Enhanced Building Boundary Segmentation from Satellite Imagery. Zanco Journal of Pure and Applied Sciences, 37(3), 157–171. https://doi.org/10.21271/ZJPAS.37.3.13.
2. Sadeq, H. A.: Evaluate the Impact of Class Granularity in Point Cloud Semantic Segmentation on DTM Accuracy, Int. Arch. Photogramm. Remote Sens. Spatial Inf. Sci., XLVIII-M-6-2025, 243–249, https://doi.org/10.5194/isprs-archives-XLVIII-M-6-2025-243-2025, 2025.
3. Rojgar Qarani Ismael, & Sadeq, H. (2025). LoD2 Building Reconstruction from Stereo Satellite Imagery using Deep Learning and Model-Driven Approach. Zanco Journal of Pure and Applied Sciences, 37(2), 103–118. https://doi.org/10.21271/ZJPAS.37.2.10
4. Sadeq, Haval Abduljabbar, (2025). Accuracy Assessment of Dense Point Cloud Generated by Deep Learning and Semiglobal Matching. Photogrammetric Engineering & Remote Sensing, Volume 91, Number 3, March 2025, pp. 153-162(10).
5. 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.
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.
7. 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.
8. 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
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.
10. Sadeq, H.A. Building Extraction from Stereo Aerial Imagery Using Dynamic Programming. Arab J Sci Eng (2021), 46(3).
11. Sadeq, H.A.-J., "Building Extraction from Lidar Data Using Statistical Methods ". Photogrammetric Engineering & Remote Sensing 2021. 87(1): p. 33–42.

12. 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.
13. Sadeq, H., "Using Total Probability in Image Template Matching". The International Arab Journal of Information Technology, 2020. 17(3): p. 347-357.
14. 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.
15. 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.
16. 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.
17. 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.
18. Haval A. Sadeq. Employing Smartphone and Compact Camera in Building Measurements. (2018) Eurasian Journal of Science & Engineering. (EAJSE)4(1)
19. Sadeq HA. Utilizing Geographic Coordinates for postcode Design (2016). In Zanco. Journal of Pure and Applied Sciences Salahaddin University –Erbil. 28(5).
20. 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.
21. **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.**
22. 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.
23. 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
24. Sadeq, H., Drummond, J. & Li, Z., 2012. Evaluation of ASTER GDEM v. 2 using GPS checkpoints, OSGB DEM values and photogammetrically derived DEMs. In XXII Conference of International Society of Photogrammetry and Remote Sensing. Melbourne, Australia, pp. 295-300
25. 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.
26. 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.
27. 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).
28. 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).
29. 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.
30. **Sadeq, H. 2000. Photogrammetric Road Construction Survey, (Master thesis), Salahaddin University-Erbil.**

Conferences and courses attended

- ISPRS, EARSeL & DGPF Joint Istanbul Workshop 2025 in Istanbul-Turkey
- 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-2011
- GIS course at Glasgow University-UK-2011
- 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://scholar.google.com/citations?user=d8v2tAIAAAAJ&hl=en
- https://orcid.org/0000-0003-0636-473X
- https://www.scopus.com/authid/detail.uri?authorId=56541601800