

Adil Mahdi Jabbar

عادل مهدي جبار حمود الغرباوي

Assistant Professor

PROFILE

Assistant Prof. Dr. - PhD in structural engineering- University of Technology - Iraq - Civil Engineering Department

Research interests: Ultra-high-performance concrete - Supplementary Cementitious additives for concrete - Shear in reinforced concrete beams - Finite element analysis - Abaqus analysis - Reinforced concrete columns

ACADEMIC TITLES

2025-12-01 Assistant Professor

TEACHING EXPERIENCE

Assistant Professor

College of Engineering

2025-12 - Present

COURSES

• Theory of Structures- Steel Design - Analysis & Design of RC Structures - Engineering Mechanics - Building Construction - Structural Systems for Buildings

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• Statistics and data processing

GRADUATE SUPERVISION

Structural Behaviour of Hollow One-way Slabs Made of Recycled Aggregate Concrete Enhanced with Cementitious Materials

Zehraa Gheni Jebur (2026)

ADMINISTRATIVE POSITIONS

2023-01-10 - Present Responsible of Scientific Affairs Division

PUBLICATIONS (28)

1. Numerical and theoretical study of sectional shape effect on the structural behavior of long concrete columns

   Structural Engineering and Mechanics 100 (2), 343-363, 2026 | 2026

2. Sustainable urban heritage strategies for Iraq's holy cities: A case study of the Old City of Najaf

   Sustainable Engineering and Innovation | 2026

CONTACT

Phone: 07802525200

Email: adilmahdi@uowasit.edu.iq

adilmahdi@uowasit.edu.iq

EDUCATION

(01-12-2022) دكتوراه

Structural Engineering

University

RESEARCH METRICS

h-index (Scopus)	6
h-index (GS)	7
Citations (Scopus)	172
Citations (GS)	229
Documents (Scopus)	18
Documents (GS)	26

RESEARCH INTERESTS

• Ultra-high-performance concrete- Finite element analysis -Analysis via Abaqus - Shear in RC beams

3. **Structural Behaviour of Hollow One-way Slabs of Recycled Concrete Aggregate with Rectangular Longitudinal Cavities for Sustainability: An Experimental and Numerical Study**
2026

4. **An Experimental Investigation to Enhance the Strength of Recycled Aggregate Concrete Using Silica Fume**
Wasit Journal of Engineering Sciences 14 (3), 67-81, 2026 | 2026

5. **Preserving heritage for Iraqi cities: Urban modernization approaches according to expert opinions**
Heritage and Sustainable Development 7 (2), 1199-1212, 2025 | 2025 | Cited: 3

6. **The impact of incorporating chopped basalt fibers into the mixture on some mechanical properties of concrete**
Innovative Infrastructure Solutions 10 (12), 533, 2025 | 2025

7. **Sustainability Investigation of the Old Mustansiriya Madrasa in Modern Construction: A Comparative Study**
Journal of Islamic Architecture 8 (3), 726-736, 2025 | 2025 | Cited: 3

8. **Urban Resilience Strategies: Creating Adaptable and Sustainable Public Spaces Along Riverbanks in Mid-Sized Cities – A Case Study of Kut City**
International Journal of Sustainable Development and Planning | 2025

9. **Using digital software to design interactive smart canopies for the outdoor environment**
Architecture and Engineering 10 (2), 19-32, 2025 | 2025 | Cited: 2

10. **A numerical investigation of the structural behavior of reinforced concrete beams fully or partially encased with UHPC layers in flexure**
Structures 70, 107706, 2024 | 2024 | Cited: 22

11. **Numerical Analysis of Sectional Shape Effect on Behavior of Short Concrete Columns**
Wasit Journal of Engineering Sciences 12 (1), 30-37, 2024 | 2024 | Cited: 3

12. **Impact of Merging Basalt Fibers with Various Types of Concrete and the Factors Affecting Them: A Review**
Al-Esraa University Colleges Journal for Engineering Science 5 (7), 15-40, 2024 | 2024 | Cited: 1

13. **Using fibers instead of stirrups for shear in ultra-high performance concrete T-beams**
Australian Journal of Structural Engineering 24 (1), 36-49, 2023 | 2023 | Cited: 16

14. **Experimental and Numerical Investigation of the Impact of Basalt Fibers and Tie Spacing on Short Concrete Column Behavior**
International Journal of Engineering: Transaction A 36 (7), 1287-1299, 2023 | 2023 | Cited: 6

15. **Numerical simulation of ultra-high-performance concrete's compressive and tensile behaviour in beams**
Journal of Applied Engineering Science 21 (2), 532-546, 2023 | 2023 | Cited: 4

16. **Experimental and Numerical Behavior of Basalt Fiber Reinforced Short Concrete Columns Under Axial Loading**
Periodica Polytechnica Civil Engineering | 2023 | Cited: 4

17. **Impact of Failure-surface Parameters of Concrete Damage Plasticity Model on the Behavior of Reinforced Ultra-high Performance Concrete Beams**
Periodica Polytechnica Civil Engineering | 2023 | Cited: 33

18. **Using Cementitious Materials to Enhance Concrete Properties and Improve the Environment: A Review**
Wasit Journal of Engineering Sciences | 2023 | Cited: 13

19. **A Numerical Study to Investigate Shear Behavior of High-strength Concrete Beams Externally Retrofitted with Carbon Fiber Reinforced Polymer Sheets**
International Journal of Engineering 36 (11), 2112-2123, 2023 | 2023 | Cited: 5

20. **Effect of Fire Flame on Some Mechanical Properties of Self-Compacting Concrete**
Al-Esra University College Journal of Science and Engineering 5 (7), 99-119, 2023 | 2023 | Cited: 1

21. **A Theoretical Study to Predict the Flexural Strength of Singly and Doubly Reinforced Ultra-High Performance Concrete Beams**
Journal of Engineering Science and Technology Review | 2022 | Cited: 5

22. **Structural behavior of ultra-high-performance concrete beams under flexural and shear action: a review**
Engineering and Technology Journal 40 (5), 743-758, 2022 | 2022 | Cited: 4

23. **The effect of using basalt fibers compared to steel fibers on the shear behavior of ultra-high performance concrete T-beam**
Case Studies in Construction Materials 15, 1-24, 2021 | 2021 | Cited: 68

24. **Mitigation of the Factors Affecting the Autogenous Shrinkage of Ultra-High Performance Concrete**
Engineering and Technology Journal | 2021 | Cited: 7

25. **Impact of dilation angle and viscosity on the ultra-high performance concrete behavior in Abaqus**
2021 International Conference on Advance of Sustainable Engineering and its ..., 2021 | 2021 | Cited: 20

26. **Ultra high performance concrete preparation technologies and factors affecting the mechanical properties: a review**
IOP Conference Series: Materials Science and Engineering 1058 (1), 012029, 2021 | 2021 | Cited: 21

27. **Structural systems for traditional and tall buildings**
University house for printing and publishing, University of Bagdad, Iraq, Baghdad, | 2017