



Moutaman M. Abbas

 **Website:** <https://scholar.google.com/citations?user=rtbOhwwAAAAJ&hl=en&oi=ao>

ABOUT ME

PhD researcher in Civil Engineering with experience in scientific publishing, peer review, and editorial coordination. Author of multiple peer-reviewed journal articles and actively involved in managing Special Issues, collaborating with editors, authors, and reviewers throughout the publication process. Skilled in manuscript evaluation, scientific communication, academic writing, and research integrity, with a strong attention to detail and excellent organizational abilities. Passionate about supporting high-quality scholarly publishing and contributing to efficient editorial workflows in an international academic environment.

WORK EXPERIENCE

Transilvania University of Braşov

City: Braşov | **Country:** Romania

[17/11/2024 – Current]

Research Assistant

- Conduct interdisciplinary research in artificial intelligence and sustainable infrastructure engineering.
- Author and co-author peer-reviewed scientific publications in international journals.
- Perform literature reviews, data analysis, and scientific reporting.
- Collaborate with international researchers and academic institutions.
- Present research findings through scientific publications and conferences.

Golden Stone Group

City: Khartoum | **Country:** Sudan

[04/09/2021 – 16/11/2023]

Site Engineer

- Supervised daily construction activities to ensure compliance with technical specifications and project requirements.
- Coordinated with contractors, consultants, and project stakeholders to maintain project schedules and quality standards.
- Monitored construction progress, prepared technical reports, and documented site activities.
- Reviewed engineering drawings and resolved technical issues during project execution.
- Ensured compliance with health, safety, and quality regulations on site.

CARDBOARD FACTORY

[06/09/2017 – 31/12/2020]

Warehouse worker

- Machine Operation
- Transporting Materials

EDUCATION AND TRAINING

- [30/09/2025 – Current]

Doctor of Philosophy (PhD) in Civil Engineering
Transilvania University of Braşov
Field(s) of study: Engineering, manufacturing and construction: • *Building and civil engineering*
- [01/10/2023 – 09/07/2025]

M.Sc. Project Management in Urban Regeneration
Transilvania University of Braşov, Romania <https://constructii.unitbv.ro/en/study-programmes/master-s-degree.html>
City: Brasov | **Country:** Romania
- [10/10/2015 – 16/06/2021]

B.Sc (HONOURS) in Civil Engineering
National University of Sudan <https://nu.edu.sd/>
Address: Sudan, Khartoum, Elraqi Area, Elraqi Hospital, 11111, Khartoum, Sudan
- [Current]

Guest Editor
MDPI Journals (Automation, Designs, and AI for Engineering) https://www.mdpi.com/journal/aieng/special_issues/4Y9YO6G4P8
- [17/12/2020 – 23/12/2020]

Risk Management
STS (UK) Limited <https://www.elearningcollege.com/>
Address: United Kingdome, Staff Training Solutions, 3 Oswin Road, Brailsford industrial Estate Braunstone Leicester, LE3 1HR, London, United Kingdom
- [26/09/2020 – 08/10/2020]

Digital Marketing
Google LLC <https://learndigital.withgoogle.com/digitalgarage>
Address: 1600 Amphitheatre Parkway, Mountain View, California 94043 USA, California, United States

LANGUAGE SKILLS

Mother tongue(s): Arabic

Other language(s):

English

LISTENING C2 READING C2 WRITING C2

SPOKEN PRODUCTION C2 SPOKEN INTERACTION C2

Romanian

LISTENING B1 READING B1 WRITING B1

SPOKEN PRODUCTION B1 SPOKEN INTERACTION B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

SKILLS

Scientific writing | Manuscript Handling | Peer Review | Editorial Workflow | Scientific Writing | Literature Review | Proofreading | Teamwork | Management skills | Decision-making | Research Integrity | Time Management | Collaboration | Microsoft Office | Problem-Solving

PUBLICATIONS

Publications

2026

1. **Abbas, M. M.,** Bărbulescu, A. (2026). *Physics-Informed Machine Learning for Carbonation Depth Prediction in Concrete*. **Materials**, 19(6), 1271. **DOI:** <https://doi.org/10.3390/ma19061271>

2. **Abbas, M. M.**, Bărbulescu, A. (2026). *ConcreteML: A machine learning software for predicting concrete compressive strength with explainable AI*. **SoftwareX**, 34, 102729. DOI: <https://doi.org/10.1016/j.softx.2026.102729>
3. **Abbas, M. M.**, Muntean, R. (2026). *AI-Blockchain Synergy for Sustainable Construction: A ResNet50-Based Framework for Waste Classification and Traceability*. **Results in Engineering**, 30, 110322. DOI: <https://doi.org/10.1016/j.rineng.2026.110322>
4. **Abbas, M. M.** (2026). *Physics-Guided Feature Engineering and Synthetic Data Augmentation for Machine Learning Prediction of Chloride Diffusion in Concrete*. **Journal of Composites Science**, 10(7), 377. DOI: <https://doi.org/10.3390/jcs10070377>
5. Zaky, K. O., **Abbas, M. M.**, Muntean, R. (2026). *Integrating Triple Helix Collaboration and Blockchain in Circular Economy Models for Enhanced Waste Recycling*. **Sustainability**, 18(7), 3535. DOI: <https://doi.org/10.3390/su18073535>

2025

1. **Abbas, M. M.**, Muntean, R. (2025). *The Effectiveness of Different Additives on Concrete's Freeze-Thaw Durability: A Review*. **Materials**, 18(5), 978. DOI: <https://doi.org/10.3390/ma18050978>
2. **Abbas, M. M.** (2025). *Recycling waste materials in construction: Mechanical properties and predictive modeling of Waste-Derived cement substitutes*. **Waste Management Bulletin**, 3(1), 168–192. DOI: <https://doi.org/10.1016/j.wmb.2025.01.004>
3. **Abbas, M. M.**, Muntean, R. (2025). *Marble Powder as a Sustainable Cement Replacement: A Review of Mechanical Properties*. **Sustainability**, 17(2), 736. DOI: [10.3390/su17020736](https://doi.org/10.3390/su17020736)
4. **Abbas, M. M.**, Muntean, R. (2025). *Predictive Modelling of Concrete Tensile Strength Using ANN and Supplementary Cementitious Materials (SCMs)*. **Construction and Building Materials**, 489, 142362. DOI: <https://doi.org/10.1016/j.conbuildmat.2025.142362>
5. Gindy, M., **Abbas, M. M.**, Muntean, R., Butnariu, S. (2025). *Hybrid Topology Optimization of a Concrete Structure via Finite Element Analysis and Deep Learning Surrogates*. **CivilEng**, 6(4), 68. DOI: <https://doi.org/10.3390/civileng6040068>
6. **Abbas, M. M.**, Muntean, R. (2025). *Predicting Mechanical Properties of Marble Powder Concrete Using Artificial Neural Networks and Blockchain-Rock for Sustainable Construction*. **Frontiers in Built Environment**, 11, 1594735. DOI: <https://doi.org/10.3389/fbuil.2025.1594735>
7. **Abbas, M. M.**, Muntean, R. (2025). *RockChain: A Technological Framework for Blockchain-Driven Circular Waste Management in Construction Sector*. **Journal of Innovative Solutions for Eco-Environmental Sustainability**, Special Issue 1, 123. DOI: <https://doi.org/10.46991/JISEES.2025.SI1.123>

2024

1. **Abbas, M. M.** (2024). *Deep Reinforcement Learning: Insights from the Rubik's Cube*. **Bulletin of the Transilvania University of Braşov. Series I – Engineering Sciences**, 17(66), No. 2. DOI: <https://doi.org/10.31926/but.ens.2024.17.66.2.1>

Link: <https://scholar.google.com/citations?user=rtbOhwwAAAAJ&hl=en&oi=ao>