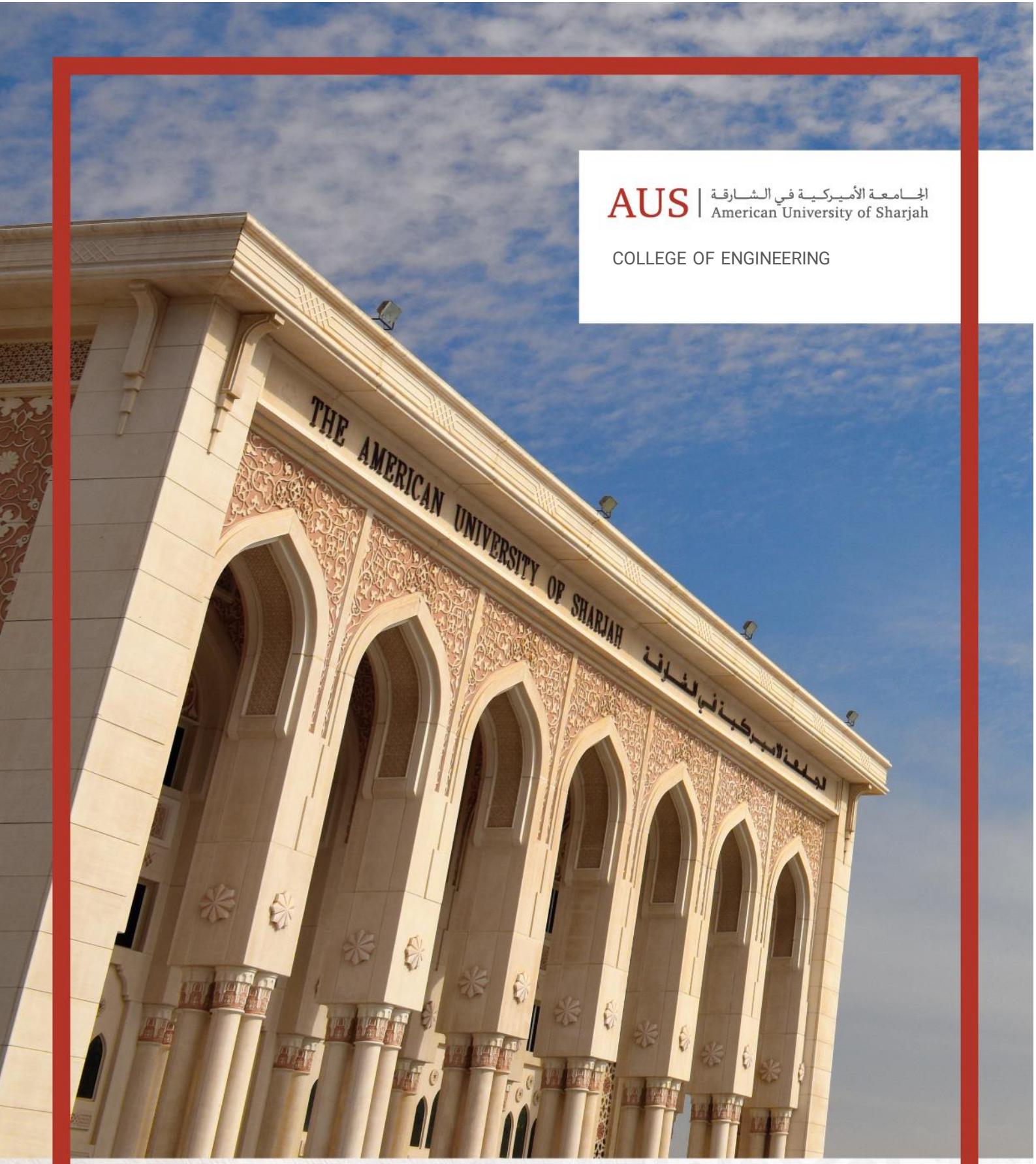

Riad T. Al-Sadek Chair in Civil Engineering Activity Report

31 July 2026

RESEARCH

RESEARCH Highlights

- Recipient of the Excellence in Research and Scholarly Work 2025-2026 Award: STEM Category, University Research and Creative Works Council (URCWC), AUS, June 2026.
- Ranked among the world's top 2% researchers for 2025 in a study led by Stanford University and published by Elsevier.
- Shortlisted for the Research Project of the Year: STEM, Awards Arab World 2025, Times Higher Education (THE), Amman, Jordan, November 2025.
- Recipient of the 2025 Outstanding Research and Creative Works Achievement Awards, Pathway 1: Publications in the Top 1% of Scopus-Indexed Journals (3 papers), AUS, March 2026.
- Awarded the Best Presentation Award, "Microstructural and Elemental Analysis of Bond Degradation in Anchored Flexural Prism under Saline Exposure.", Joint Conference of ISEC 2025 and ASEA SEC 7, Sydney, Australia, November 17-21, 2025.
- A total of 30 journal papers (29 papers in Q1, and 1 paper in Q2) were published in Scopus-indexed journals.
- A total of 8 conference proceeding papers (6 Scopus Indexed) were published.
- Five papers presented at the European Conference on Fracture were published in a special issue of Procedia Structural Integrity (Elsevier, Scopus-indexed, Q3).
- Worked on three previously awarded research grants as a PI and a Co-PI.
- Advised/Co-advised six MSCE Theses and two PhD theses.

Dr. Hawileh and Dr. Abdalla shortlisted for the 2025 THE Awards Arab World

Dr. Rami Hawileh, Professor of Civil Engineering and the Riad T. Al Sadek Endowed Chair in Civil Engineering, and Dr. Jamal Abdalla, Professor of Civil Engineering, have been shortlisted for the 2025 Times Higher Education (THE) Awards Arab World: Research Project of the Year – STEM. Their project, “Advanced Composite Technologies for Sustainable Structural Rehabilitation,” advances innovative solutions for sustainable and resilient infrastructure.

- # ARTICLES PUBLISHED

1. Zhang, Z., Kong, T., Yu, J., **Hawileh, R.**, Abdalla, J., and Qin, F., (2026). "Mechanical performance and thermal spalling resistance of PE-steel hybrid fiber-reinforced high strength ECC at elevated temperatures." *Journal of Building Engineering, Elsevier,* Vol. 123, 115921. https://doi.org/10.1016/j.jobe.2026.115921. ***[Q1, Top 1%]***

2. Sahoo, S., **Hawileh, R.**, Abdalla, J., and Rahman, A., (2026). "Numerical modeling and analysis of fiber-reinforced lightweight hollow core slabs under variable flexure-to-shear ratios." *Computers and Concrete*, Vol. 37, No. 2, pp. 247-272, https://doi.org/10.12989/cac.2026.37.2.247. ***[Q1]***

3. Abokwiek, R., Abdalla, J., **Hawileh, R.**, and, El Maaddawy, T. (2026). "Behavior of reinforced concrete columns strengthened with hybrid NSM-CFRP strips and CFRP wraps under axial compression and biaxial bending." *Structures, Elsevier*, Vol. 85, 111191, https://doi.org/10.1016/j.istruc.2026.111191. ***[Q1]***

4. Khalil, A., **Hawileh, R.**, and Attom, M., (2026). "Durability assessment of bent and straight GFRP reinforcement conditioned in accelerated saline environments." *Journal of Building Engineering*, *Elsevier*, Vol. 117, 114889, https://doi.org/10.1016/j.jobe.2025.114889. ***[Q1, Top 1%]***

5. Naser, M.Z., and **Hawileh, R.** (2026). "Developing empirical indices for structural engineering problems via machine learning." *Engineering Structures, Elsevier,* Vol. 346, Part A, 121609, https://doi.org/10.1016/j.engstruct.2025.121609. ***[Q1]***

6. Sadoun, Z., Bouziadi, F., and **Hawileh, R.** (2026). "Analysis of the New Simplified Bond-Slip Law for FRP Flexural-Externally Strengthened RC Beams Through Finite Element Modeling." *Polymer Composites*, *John Wiley & Sons Inc.*, https://doi.org/10.1002/pc.70812. ***[Q1]***

7. Shen, Q., Lu, C., Zhang, Z., Abdalla, J., and **Hawileh, R.** (2026). "Mechanical properties, crack width control, and self-healing of lightweight high-strength engineered cementitious composites." *Archives of Civil and Mechanical Engineering, Springer Nature,* Vol. 26, No. 17. https://doi.org/10.1007/s43452-025-01377-2. ***[Q1]***

8. Yang, S., Abdalla, J., **Hawileh, R.**, Liu, J., Yu, Y., and Zhang, Z. (2025). "Experimental Investigation on Factors Influencing the Early-Age Strength of Geopolymer Paste, Mortar, and Concrete." *Materials,* Vol. 18, No. 24, 5648. https://doi.org/10.3390/ma18245648. ***[Q1]***

9. Mohammed, A., Abdalla, J., **Hawileh, R.**, and Assad, M., (2025). "Flexural Behavior of Reinforced Concrete T-Beams Strengthened with AA/CFRP Hybrid Systems." *Composites Part C: Open Access, Elsevier*, Vol. 18, 100671, https://doi.org/10.1016/j.jcomc.2025.100671. ***[Q1]***

10. Elkafrawy, M., Khalil, A., **Hawileh, R.**, and AlHamaydeh, M., (2025). "Numerical Study on Shear-Oriented Parameters in RC Beams with Openings Reinforced by Fe-SMA Rebars." *Buildings,* Vol. 15, No. 12, 2028, https://doi.org/10.3390/buildings15122028. ***[Q1]***

11. Karaki, G, and **Hawileh, R.** (2025). "Integrated Building Retrofit for Seismic Resilience and Environmental Sustainability: A Critical Review." *Buildings,* Vol. 15, No. 20, 3800, https://doi.org/10.3390/buildings15203800. ***[Q1]***

12. Shen, Q., Lu, C., Zhang, Z., Abdalla, J., **Hawileh, R.**, and Zhang, X. (2025). "Tailoring sustainable lightweight insulating ECC for structural use via incorporating recycled expanded polystyrene: Microstructural and mechanical properties." *Journal of Cleaner Production, Elsevier,* Vol. 530, 146867. https://doi.org/10.1016/j.jclepro.2025.146867. ***[Q1, Top 2%]***

13. Gowrishankar, P., Aswad, N.G, Ibrahim, T., and **Hawileh, R.** (2025). "Tuning Wettability of CFRP Laminates Towards Hydrophobicity via Femtosecond Laser Processing: Performance Evaluation in Aggressive Environments." *Materials Today Communications, Elsevier,* Vol. 49, 114066, https://doi.org/10.1016/j.mtcomm.2025.114066. ***[Q2]***

14. **Hawileh, R.**, Alharmoodi, H., Hajjaj, A., Aljarwan, A., Sahoo, S., and Abdalla, J. (2026). "Performance, Degradation, and Failure Mechanism of Normal and Lightweight Concrete Exposed to Elevated Temperature." *Engineered Science,* Vol. 39, 1937, http://dx.doi.org/10.30919/es1937. ***[Q1]***

15. Yu, J., Abdalla, J., **Hawileh, R.**, Zhang, X., and Zhang, Z. (2025). "Corrosion Inhibition in Concrete: Synergistic Performance of Hybrid Steel-Polypropylene Fiber Reinforcement Against Marine Salt Spray." *Polymers*, Vol. 17, No. 18, 2645. https://doi.org/10.3390/polym17192645. ***[Q1]***

16. Lu, C., Shen, Q., Zhang, Z., Zhang, X., and **Hawileh, R**. (2025). "Synergistic effect of waste steel slag powder and fly ash in sustainable high strength engineered cementitious composites: From microstructure to macro-performance." *Journal of Building Engineering, Elsevier,* Vol. 113, 114039. https://doi.org/10.1016/j.jobe.2025.114039. ***[Q1, Top 1%]***

17. Shen, Q., Lu, C., Zhang, Z., Abdalla, J., and **Hawileh, R**. (2025). "Incorporating nanomaterials into high strength ECC: Boosting self-healing and mechanical properties for marine infrastructure." *Case Studies in Construction Materials, Elsevier,* Vol. 23, e05208. https://doi.org/10.1016/j.cscm.2025.e05208. ***[Q1]***

18. Assad, M., **Hawileh, R.**, Abdalla, J.A., and Alkhrdaji T. (2025). "Flexural behavior of CFRP-strengthened and end-anchored RC beams with large fiber anchors." *Structures, Elsevier*, Vol. 80, 109702, https://doi.org/10.1016/j.istruc.2025.109702. ***[Q1]***

19. Shen, Q., Zhang, Z., Zhang, X., Abdalla, J., and **Hawileh, R**. (2025). "Incorporating expanded vermiculites into fresh strength ECC: Improving its tensile properties and autogenous self-healing behavior." *Construction and Building Materials, Elsevier,* Vol. 492, 142906. https://doi.org/10.1016/j.conbuildmat.2025.142906. ***[Q1]***

20. Lu, C., Sun, D., Shen, Q., Zhang, Z., Zhang, X., Abdalla, J., and **Hawileh, R**. (2025). "Buildability of 3D printing engineered cementitious composites (ECC): A comprehensive assessment framework under laboratory conditions." *Journal of Building Engineering, Elsevier,* Vol. 111, 113390. https://doi.org/10.1016/j.jobe.2025.113390. ***[Q1, Top 1%]***

21. Almalkawi, A.T., **Hawileh, R.**, Safieh, H., Wu, W., Al-Osta, M.A., Abdalla, J.A. (2025). "Prediction of inelastic seismic performance of RC structures using machine learning algorithms." *Emirati Journal of Civil Engineering and Applications,* Vol. 3, No. 2, pp. 4-13, https://doi.org/10.54878/2nm0s449.

22. Assad, M., **Hawileh, R.**, and Abdalla, J. (2025). "Effect of anchor's inclination angle on the flexural enhancement of CFRP-strengthened RC beams." *Procedia Structural Integrity, Elsevier*, Vol. 68, pp. 252-258. Special Issue for the European Conference on Fracture 2024. https://doi.org/10.1016/j.prostr.2025.06.050. ***[Q3]***

23. Shahin, E., Abdalla, J.A., and **Hawileh, R**. (2025). "Mechanical performance of sustainable PE-ECC using GGBS and dune sands." *Procedia Structural Integrity, Elsevier*, Vol. 68, pp. 238-244. Special Issue for the European Conference on Fracture 2024. https://doi.org/10.1016/j.prostr.2025.06.048. ***[Q3]***

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25. Safieh, H., **Hawileh, R**., Assad, M., and Abdalla, J.A. (2025). "Prediction of the compressive strength of normal weight concrete with variable fly ash percentages using machine learning." *Procedia Structural Integrity, Elsevier*, Vol. 68, pp. 245-251. Special Issue for the European Conference on Fracture 2024. https://doi.org/10.1016/j.prostr.2025.06.049. ***[Q3]***

26. Salameh, A., **Hawileh, R**., Assad, M., and Abdalla, J.A. (2025). "Integrating experimental bond-slip models intro finite element modeling of CFRP-strengthened concrete prisms." *Procedia Structural Integrity, Elsevier*, Vol. 68, pp. 166-172. Special Issue for the European Conference on Fracture 2024. https://doi.org/10.1016/j.prostr.2025.06.038. ***[Q3]***

27. Mahmoudi, F., Abdalla, J., and **Hawileh, R.** (2025). "Mechanical Properties of GGBS-based Polyethylene Engineered Cementitious Composite (PE-ECC) at Elevated Temperature." *Results in Engineering, Elsevier,* Vol. 27, 106159, https://doi.org/10.1016/j.rineng.2025.106159. ***[Q1]***

28. Chen, Y., Lu, C., Zhang, Z., Abdalla, J., **Hawileh, R.**, and Zhang, X. (2025). "Multiple-scaled investigations on mechanical properties of medium-early-strength PVA-ECC with recycled tire crumb rubber incorporated." *Case Studies in Construction Materials, Elsevier,* Vol. 23, e04931, https://doi.org/10.1016/j.cscm.2025.e04931. ***[Q1]***

29. Assad, M., **Hawileh, R.**, Abdalla, J.A., Safieh, H., and Shaw S.K. (2025). "Behaviour of strengthened RC beams with CFRP and GSM sheets under cyclic loading." *Composites Part C: Open Access, Elsevier*, Vol. 17, 100617, https://doi.org/10.1016/j.jcomc.2025.100617. ***[Q1]***

30. Naser, M.Z., Al-Bashiti, M.K., Tapeh, A.T.G., Naser, A., Kodur, V., **Hawileh, R.**, Abdalla, J., Khodadadi, N., Gandomi, A.H., and Eslamlou, A.D. (2025). "A Review of Benchmark and Test Functions for Global Optimization Algorithms and Metaheuristics." *Wiley Interdisciplinary Reviews: Computational Statistics, John Wiley & Sons, Inc.*, Vol. 17, No. 2, e70028, https://doi.org/10.1002/wics.70028. ***[Q1]***

31. Gowrishankar, P., **Hawileh, R.**, Sahoo, S., and Abdalla, J. (2025). "Optimizing anchor fan geometry for enhanced bond characteristics in CFRP-strengthened concrete members." *Structures, Elsevier,* Vol. 76, 108998, https://doi.org/10.1016/j.istruc.2025.108998. ***[Q1]***

32. Zhang, Z., Abdalla, J., Yu, J., Chen, Y., **Hawileh, R.**, and Mahmoudi, F. (2025). "Use of polypropylene fibers to mitigate spalling in high strength PE-ECC under elevated temperature." *Case Studies in Construction Materials, Elsevier,* Vol. 22, e04381, https://doi.org/10.1016/j.cscm.2025.e04381. ***[Q1]***

33. Sun, F., Shen, Q., Zhang, Z., Abdalla, J.A., **Hawileh, R.**, Zhang,X., and Zhang, P. (2025). "Mechanical and self-healing performance of rubberized calcium-sulfoaluminate-cement-based CZM for ultra-thin white-topping overlay use." *Case Studies in Construction Materials, Elsevier,* Vol. 22, e04450, https://doi.org/10.1016/j.cscm.2025.e04450. ***[Q1]***

34. Shen, Q., Sun, D., Lu, C., Zhang, Z., Zhang, X., Abdalla, J.A., and **Hawileh, R.** (2025). "Fresh and anisotropic-mechanical properties of polyoxymethylene fibers reinforced 3D printable cementitious composites." *Journal of Building Engineering, Elsevier*, Vol. 103, 112140, https://doi.org/10.1016/j.jobe.2025.112140. ***[Q1, Top 1%]***

35. Sun, F., Lu, C., Zhang, Z., Abdalla, J.A., **Hawileh, R.**, and Zhang, X. (2025). "High strength engineered cementitious composites (ECC) with recycling waste glass powder: mechanical properties and environmental benefits." *Case Studies in Construction Materials, Elsevier,* Vol. 22, e04380, https://doi.org/10.1016/j.cscm.2025.e04380. ***[Q1]***

36. Almaadawy, A., S Banerji, S., **Hawileh, R.**, Salama, M.I., Meleka, N.N., and Hekal, GM. (2025). "Flexural behavior of RC continuous beams strengthened with strain hardening cementitious composites." *Journal of Building Engineering, Elsevier*, Vol. 103, 112033, https://doi.org/10.1016/j.jobe.2025.112033. ***[Q1, Top 1%]***

• CONFERENCES

1. Gharzeldeen, M., **Hawileh, R.**, Abdalla, J., and Banerji, S. (2026). "Residual Performance and Degradation of Hybrid Fiber-Reinforced UHPC after Exposure to Elevated Temperatures." *Proceedings of the 11th World Congress on Civil, Structural, and Environmental Engineering (CSEE 2026)*, Paris, France, April 16-18, 2026, doi: 10.11159/icsect26.133.

2. Raslan, M.W., **Hawileh, R.**, Sahoo, S., and Abdalla, J. (2026). "Effectiveness of CFRP Strengthening on Lightweight High-Strength Hollow-Core Slabs." *Proceedings of the The 16th International Conference on Key Engineering Materials (ICKEM 2026)*, Barcelona, Spain, March 16-18, 2026.

3. Araya, M., Gharzeldeen, M., Abdalla, J., and **Hawileh, R.** (2026). "Machine Learning-Based Prediction of Ultimate Bond Strength in FRP–Concrete Bond–Slip Systems." *Proceedings of the First International Conference on Artificial Intelligence in Structural Engineering (ARTISTE 2025)*, Turin, Italy, September 14-17, 2025. Paper No. 135.

4. Gowrishankar, P., **Hawileh, R.**, and Abdala, J. (2025). "Behavior of Carbon Anchors in Alkaline Enviornment." *Proceedings of the Joint Conference of ISEC 2025 and the 7th Australasia and South-East Asia Structural Engineering and Construction Conference*, Sydney, Australia, November 17-21, 2025, CTE-02, doi: 10.14455/ISEC.2025.12(1).

5. Gowrishankar, P., **Hawileh, R.**, and Abdala, J. (2025). "Microstructural and Elemental Analysis of Bond Degredation in Anchored Flexural Prisms under Saline Exposure." *Proceedings of the Joint Conference of ISEC 2025 and the 7th Australasia and South-East Asia Structural Engineering and Construction Conference*, Sydney, Australia,, November 17-21, 2025, CTE-03, doi: 10.14455/ISEC.2025.12(1).

• RESEARCH GRANTS AND SCHOLARSHIPS

- Recipient of AUS Research Grant (PI), FRG25-C-E42, "Structural Behavior of UHPC Full-Scale Slabs under Fire Exposure", Total funding amount: 423,104 AED (2025-2027).
- Recipient of External Service Contract Grant (PI), Land Pro Contracting, "Testing of Temporary Flowable and Self-Compacting Backfill Material", Total funding amount: 468,083 AED (2024-2026).
- Recipient of AUS Postdoctoral Fellowship Award 2025 (Co-PI), PDFA25-E05, "Performance of Stabilized Soil with Glass Waste for Earth-Fill Dams under Harsh Environmental Conditions", Total funding amount: 309,471 AED (2025-2026).
- Recipient of AUS Research Grant (Co-PI), FRG24-C-E49, "Guidelines for Strengthening of RC Beams in Flexure using ECC layers and ECC Mortars for Externally Bonding CFRP", Total funding amount: 161,080 AED (2024-2026).
- Recipient of AUS Postdoctoral Fellowship Award 2024 (PI), PDFA24-E49, "Durability of CFRP-to-Concrete Anchored Joints under Harsh environmental Conditions", Total funding amount: 150,000 AED (2024-2026).
- Recipient of AUS Research Grant (PI), FRG23-C-E26, "Performance and Durability of CFRP-to-Concrete Anchored Bond under Harsh Environments", Total funding amount: 594,550 AED (2023-2026).

TEACHING

• ACADEMIC ACTIVITIES

- Developed and taught the new SFE 420 course, *Fire Resistance in Buildings*, for the Minor in *Safety and Fire Protection Engineering*, offered for the first time in Spring 2026.
- Supervised/Co-supervised three senior design projects (CVE490 & 491), including one project sponsored by Emirates Stones, Valburna (steel supplier) & Trillium Engineering.
- A senior design team from the Mechanical Engineering Department (MCE), which I co-advised, won **First Place** for their project, *Sound Wave Fire Extinguisher*, at the 13th Undergraduate Research and Innovation Competition (URIC), Abu Dhabi University, in May 2026. The project explored the use of low-frequency sound waves as an alternative fire-suppression method. The students designed and developed a functional prototype consisting of a subwoofer, amplifier, and acoustic funnel operating at 40 Hz.

KNOWLEDGE TRANSFER

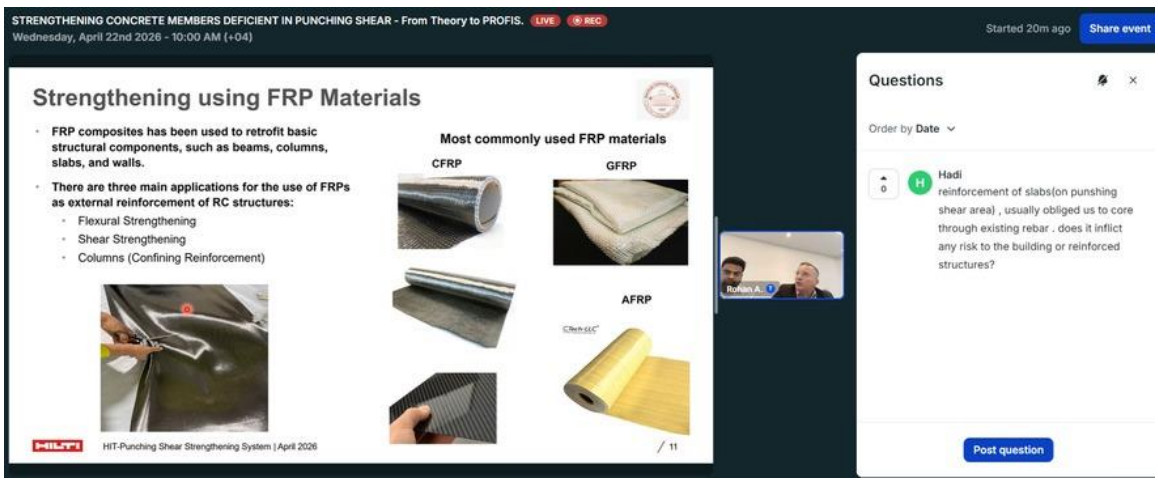
- Workshop on Advancing Safety, Innovation & Sustainability in the Built Environment
  - Organized, in collaboration with the International Code Council (ICC), a workshop celebrating International Building Safety Day 2025, titled *Advancing Safety, Innovation & Sustainability in the Built Environment*, at the American University of Sharjah in October 2025.
  - The workshop began with opening remarks by Dr. Sameh El-Sayegh, Professor and Head of Civil Engineering, followed by a keynote presentation, titled *Enabling Safety, Sustainability, and Innovation through Building Codes*, delivered by Mr. Mohamed Amer, Managing Director – MENA, ICC.
  - Dr. Rami Hawileh delivered a technical presentation entitled *Research Insights: Fire Safety in Building Design and Performance*, highlighting recent research developments and their implications for engineering practice.
  - Organized a panel discussion on *Current Market Needs in Building Construction*, bringing together leading representatives from industry and academia to discuss emerging challenges, opportunities, and future directions for the construction sector. The panel was moderated by Mr. Mohamed Amer, and featured Ms. Nadine Ibrahim, Division Manager, STRUCTURAL Middle East; Ms. Dana Baalbaki, Codes and Approvals Manager, Hilti; Dr. Sherif Yehya, Professor of Civil Engineering; and Dr. Musa Alanweh, Managing Director, PE Engineering Consultant.
  - The workshop gathered students, faculty, alumni, and industry professionals.

- # Technical Workshop on Facade and Curtain Wall
  - Hosted, in collaboration with the Sharjah Civil Defense Authority (SCDA), a technical workshop on *Facade and Curtain Wall Systems*. The event was inaugurated by Dr. Fadi Aloul, Dean of the College of Engineering at AUS, and Lieutenant Colonel Imad Al-Murshidi, Head of the Protection and Safety Section at SCDA, underscoring the importance of collaboration between academia, government, and industry in advancing building safety and fire protection practices.
  - Dr. Rami Hawileh delivered a presentation titled *Fire Safety Engineering Education and Research*, highlighting recent advances in structural fire engineering, ongoing research activities, graduate student achievements, and industry collaborations. The workshop also featured presentations by Dr. Susan Lamont (Arup Fellow) on *Historical Facade Fires Internationally: Impact on Regulations* and Mr. Andy Dean (Senior Technical Director of Asset Transformation, WSP Middle East) on *SCDA Facade Engineering: Typical Facade Elements*.
  - The workshop provided a platform for knowledge exchange between academia, government authorities, and industry practitioners, supporting the advancement of fire-safe building design and regulatory compliance in the UAE.
  - The event concluded with an interactive technical discussion and Q&A session involving Dr. Susan Lamont, Mr. Andy Dean, Lieutenant Hamad Al Hammadi (SCDA), and Mr. Pramod Challa, Fire and Life Safety Engineering Expert, fostering collaboration and dialogue among stakeholders involved in building safety and fire protection.

- # KEYNOTE

- **Keynote Speaker at the Abu Dhabi Infrastructure Summit (ADIS)**
  - Dr. Rami Hawileh was invited as a keynote speaker at the Abu Dhabi Infrastructure Summit (ADIS), held at the Abu Dhabi Energy Center in June 2025.
  - During the summit, Dr. Hawileh delivered a keynote presentation entitled *Flexural Strengthening of Reinforced Concrete Beams with Anchored CFRP Laminates*, highlighting the outcomes of a research project focused on enhancing the performance of strengthened reinforced concrete members through innovative anchorage systems.
  - The presentation demonstrated how sustainable fiber-reinforced polymer (FRP) materials can be effectively utilized to improve the strength, serviceability, and durability of existing infrastructure, contributing to more resilient and sustainable construction practices.
  - The keynote provided a platform for disseminating AUS research findings to engineers, consultants, industry professionals, and decision-makers involved in infrastructure development across the region.

- **Specialized Webinar on Strengthening Concrete Members in Punching Shear**
  - Dr. Rami Hawileh delivered a specialized technical webinar on strengthening concrete members in punching shear in collaboration with Mr. Rohan Agarwal, Regional Technical Marketing Manager at Hilti META, in April 2026.
  - The webinar highlighted the critical role of punching shear in structural safety, particularly in existing reinforced concrete buildings, and discussed practical design considerations and strengthening strategies for deficient structural members.
  - Dr. Hawileh presented recent research findings and engineering applications related to punching shear strengthening, highlighting current challenges, design approaches, and retrofit techniques for enhancing the structural performance of reinforced concrete members.
  - The webinar facilitated knowledge transfer between academia and industry, promoting the dissemination of research findings and best practices for improving the safety, resilience, and service life of reinforced concrete structures.



- **Guest Panelist on Sustainable Concrete Technologies**
  - Dr. Rami Hawileh was invited to participate as a guest panelist at a technical event organized by Asian Paints in August 2025, focusing on innovative and sustainable concrete technologies.
  - Dr. Hawileh contributed to a panel session entitled *Internal Curing of Concrete – External Impact: Building Better, Greener, and Longer-Lasting Concrete for Tomorrow*, which addressed challenges associated with conventional concrete curing practices and explored emerging approaches for improving concrete performance, durability, and sustainability.
  - The discussion brought together industry professionals, researchers, and practitioners to exchange knowledge on advances in concrete technology and their potential impact on sustainable construction practices.
  - The event provided an opportunity to disseminate research expertise, strengthen academia–industry collaboration, and promote dialogue on innovative solutions for enhancing the long-term performance, durability, and sustainability of concrete infrastructure.

- **Guest Panelist at the Smart Built Environment Forum (SBEF) UAE 2025**
  - Dr. Rami Hawileh was invited to participate as a guest panelist at the Smart Built Environment Forum (SBEF) UAE 2025, held in Dubai in October 2025.
  - Dr. Hawileh contributed to a panel discussion entitled *Safety by Design: AI for Fire & Life Safety in Smart Districts*, which explored the transformative role of artificial intelligence in enhancing fire and life safety strategies within smart urban developments.
  - The discussion brought together industry leaders, researchers, consultants, and technology experts to examine emerging trends, opportunities, and challenges associated with integrating AI-driven solutions into the design and operation of safer and more resilient built environments.
  - The event provided a platform to share research expertise, foster interdisciplinary collaboration, and promote knowledge exchange on the application of advanced technologies in fire safety engineering and smart city development.

- **Guest Panelists at the Annual Meetings of Global Leaders in Safety and Protection**
  - Dr. Rami Hawilehand Dr. Salaheddine Bendak, Visiting Professor of Industrial Engineering, participated as invited guest panelists at the *Annual Meetings of Global Leaders in Safety and Protection*, held in Dubai in January 2026.
  - Drs. Hawileh and Bendak contributed to a panel discussion entitled *Bridging Research and Reality: How Industry and Academia are Shaping the Future of Safety*, which explored the role of collaborative research, innovation, and knowledge transfer in addressing current and emerging safety challenges.
  - The discussion brought together industry leaders, researchers, policymakers, and safety professionals to examine strategies for strengthening partnerships between academia and industry and accelerating the implementation of research-driven solutions.
  - The event provided a valuable platform for sharing expertise, promoting interdisciplinary collaboration, and highlighting the contribution of academic research to advancing safety and protection practices across multiple sectors.

- # MEETINGS AND COLLABORATION

  - **MAPEI visits CEN to explore collaboration opportunities**

    - Dr. Rami Hawileh together with Ms. Dana Saleh, Senior Manager for Internships, Placement and Executive Education Coordinator at AUS, met with Ms. Nisreen Salman (Specification Manager), Ms. Izabella Hijazi (Marketing Manager), and Mr. Arturo Castellanos (R&D Manager) from MAPEI to explore opportunities for collaboration in student internships, senior design projects, guest lectures, and applied research initiatives, February 2026.

  - Dr. Rami Hawileh held meetings and coordination activities with representatives from the Sharjah Civil Defense Authority (SCDA) to strengthen collaboration in fire safety engineering education, professional training, applied research, and industry engagement initiatives, 2025–2026.
  - Dr. Rami Hawileh collaborated with Mr. Mohamed Amer, Managing Director – MENA, ICC, in organizing a technical workshop on building safety, innovation, and sustainability, while exploring opportunities for future collaboration in professional development and industry engagement, October 2025.
  - Dr. Rami Hawileh held discussions with industry partners and consultants to identify opportunities for collaborative research, graduate student engagement, professional training, and technology transfer activities in structural and fire safety engineering, 2025–2026.

- # OTHER ACTIVITIES:

  - Served as part of the judging panel for the MEED Projects Awards 2025 in association with Mashreq Bank (November 2025).
  - Served as a as a member of the AUS Research Council representing CEN (Fall 2024 – Present).
  - Member on the “Research Awards” subcommittee (2024-2025).
  - Member on the “Research Infrastructures” subcommittee (2024 - Present).
  - Associate Editor, ASCE Journal: Practice Periodical on Structural Design and Construction (October 2020 - Present).
  - Associate Editor in Fire Resistant Engineering, Specialty Section of Frontiers in Built Environment Journal, (July 2021 - Present).
  - Member of ACI Committee 440-00, Fiber-Reinforced Polymer Reinforcement (December 2020 – Present).
  - Voting member of ACI Subcommittee 440-0D, Research Development and Applications (December 2020 – Present).

- # MEDIA AND E-COVERAGE

  - Research achievements, awards, invited talks, and industry engagement activities associated with the Riad T. Al-Sadek Endowed Chair were regularly featured through AUS news, social media platforms, and professional networks, enhancing the visibility and impact of the university's research and outreach activities.
  - Together with the CEN Endowed Chairs, a video showcasing the professor's research interests, expertise, and highlights is produced.

ENDOWED CHAIRS

https://www.aus.edu/cen/research/hub#endowed-chairs

  - Dr. Rami Hawileh was featured in a *Gulf Fire* Fireside Chat titled *Redefining Life Safety: Innovation, Resilience, and Leadership*. Hosted by Mr. David Campbell, General Manager of Dubai Civil Defence's Emirates Safety Laboratory (ESL).
    The discussion explored advances in structural fire engineering, regulatory compliance, sustainability, and leadership in safeguarding communities. The conversation highlighted Dr. Hawileh's research contributions, collaboration with civil defence and industry partners, and the role of academia in advancing safer and more resilient built environments across the UAE and the region.

Fireside Chat

REDEFINING LIFE SAFETY: INNOVATION, RESILIENCE, AND LEADERSHIP WITH DAVID CAMPBELL

In this special edition of Fireside Chat, we meet over coffee at the distinguished American University of Sharjah to speak with Dr Rami Hawileh, a pioneering academic, researcher, and mentor whose impact on structural fire engineering is shaping the UAE's future.

As the Riad T. Sadek Endowed Chair in Civil Engineering at the American University of Sharjah (AUS), Dr Hawileh has gained worldwide recognition for his pioneering research in fire-resistant structures, concrete durability, and sustainable engineering practices. But beyond the citations and awards, what distinguishes Dr Hawileh is his unwavering dedication to empowering students, collaborating with industry, and fostering innovation that safeguards lives and strengthens communities.

His aim closely aligns with ESL's: ensuring a safer and more sustainable future together.

From his early life in Jerusalem to becoming one of the top 2% of researchers in civil and structural engineering worldwide, Dr Hawileh's journey is a remarkable testament to resilience, integrity, and visionary leadership.

Foundations of purpose and influence

David: Dr Rami, let's start from the beginning. Where did your journey into engineering begin, and what sparked your initial interest in structural systems and materials?

Rami: My journey began in Jerusalem, where I grew up surrounded by historic structures, ancient stonework, and a city that constantly reinvents itself. From a young age, I was fascinated by how buildings stand, how materials behave, and why some structures endure while others fail. That curiosity stayed with me and ultimately pushed me towards civil and structural engineering.

David: Growing up in Jerusalem and later pursuing a global academic path, what values or lessons from your early life continue to guide you today?

Rami: Growing up in Jerusalem taught me resilience, respect for community, and a deep appreciation for history and heritage. It is a city where you constantly see the past and future standing side by side. That shaped the way I think about engineering, not just as design and calculations, but as a responsibility to build structures that are safe, durable, and worthy of the people who depend on them. The values of hard work, integrity, and giving back to society stayed with me throughout my academic journey, from Jerusalem to the United States and now the UAE.

From scholar to leader, joining AUS

David: What initially attracted you to join the American University of Sharjah, and how has your role changed over the years?

Rami: AUS stood out to me as a young university with a bold vision for academic excellence, meaningful and applied research, and tangible impact on society. I joined as a young assistant professor and, over the years, advanced to associate and then to full professor ranks, supported strongly by my colleagues, college and university leadership. That environment allowed me to grow as a researcher, mentor, and contributor to the institution.

Today, my role goes beyond teaching and laboratory work. I collaborate with the Sharjah Civil Defence Authority, partner with ESL on applied fire resistance research projects, and work with industry partners and international universities to advance fire safety engineering in the UAE, the region, and globally. What began as an academic career has evolved into a mission to elevate standards, shape policy, and help build a safer and more resilient built environment.

David: Holding the Riad T. Sadek Endowed Chair is a prestigious honour. What does this recognition mean to you, and how does it influence your work?

Rami: It is both an honour and a responsibility. Being appointed as the Riad T. Sadek Chair in Civil Engineering recognises many years of research, teaching, and collaboration, but more importantly, it provides a platform to do even more. The endowed chair enables me to conduct advanced research, support students and research scholars, establish international partnerships, and initiate new initiatives in fire safety and sustainable construction. For me, it is not just a title; it is a commitment to serving the community, advancing knowledge, and contributing to safer and more resilient infrastructure in the UAE and the region. It motivates me to aim higher, pursue new ideas, and mentor the next generation of engineers and scholars who will carry this warranted field of research forward.

Shaping tomorrow's engineers

David: How do you perceive your role in shaping the next generation of engineers in the UAE?

Rami: I see teaching as more than delivering lectures; it's all about shaping mindsets. Engineers must be technically strong, but they also need integrity, curiosity, and a sense of responsibility to society. In every course and research project, I strive to connect theory with real-world challenges in structural engineering, fire safety, resistance, sustainability, and innovation. My goal is to prepare graduates who will design safer buildings, develop more innovative materials, and lead with ethics and professionalism.

Whether mentoring students, advancing global fire engineering research, or fostering collaboration across public and private sectors, Dr Hawileh is a quiet yet influential force helping shape a safer, more innovative, and sustainable future.

David: What do you think makes a truly great civil engineer in today's rapidly evolving world?

Rami: A great civil engineer today needs more than technical knowledge. Our world is changing, and cities are growing vertically. Sustainable materials are evolving, and new risks, such as fires in high-rise buildings, are emerging, along with the challenges of electric vehicles and energy storage systems. So, a great civil engineer must be adaptable, innovative, and willing to keep learning.

Research excellence & fire safety innovation

As Dr Rami equips students with knowledge and character, his research guarantees that the principles they apply are grounded in innovative science and relevance. >

Dr Rami Hawileh

Riad T. Sadek Chair in Civil Engineering at the American University of Sharjah

Rami A. Hawileh has worked in both industry and academia. He was a structural analyst at AREVA NP INC., an AREVA and Siemens Company, Lynchburg, Virginia, USA, and a structural engineer at the Austin Company, Schaumberg, Illinois, USA. He was lecturer at the University of Wisconsin-Milwaukee, USA, and the Milwaukee School of Engineering. He is also a registered Professional Engineer (PE) in the state of Virginia, USA. His areas of research and teaching interests include Structures and Computational Mechanics, Rehabilitation and Strengthening of Concrete Structures, Fire Resistance, and Finite Element Analysis.

'AS THE RIAD T. SADEK ENDOWED CHAIR IN CIVIL ENGINEERING AT THE AMERICAN UNIVERSITY OF SHARJAH (AUS), DR HAWILEH HAS GAINED WORLDWIDE RECOGNITION FOR HIS PIONEERING RESEARCH IN FIRE-RESISTANT STRUCTURES, CONCRETE DURABILITY, AND SUSTAINABLE ENGINEERING PRACTICES'

https://www.aus.edu/article/dr-hawileh-featured-in-a-fireside-chat-on-gulf-fire

FUTURE ACTIVITIES

- Prepare and teach a new course entitled “Structural Fire Engineering” as part of the new PhD in Civil and Environmental Engineering.
- Prepare internal and external applied research proposals.
- Disseminate the outcomes of current research projects in international journals and conference proceedings.
- Present research outcomes as invited panelist and keynote speaker at academic and industry events.
- Organize workshops and symposia to foster collaboration with governmental and industrial partners.

THE TEAM

Postdoctoral Research Fellows:

- Dr. Sumit Sahoo
- Dr. Saurabh Suman
- Dr. Ahmed Khalil

Research Associate:

- Ms. Maha Assad

PhD students:

- Ms. Prathibha Gowrishankar
- Dr. Raed Abou Kwiek

MSc students:

- Ms. Monia Gharzeldeen
- Mr. Mouhamad Walid Raslan
- Mr. M. Moheddin Alhaj Hussein
- Ms. Hadia Ahmed
- Mr. Hussam Safieh
- Ms. Makda Araya