

Amer Alomarah

عامر غازي الامير

Assistant Professor

CONTACT

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EDUCATION

(20-04-2021) دكتوراه
Applied Mechanics
Swinburne University of technology

RESEARCH METRICS

h-index (Scopus)	18
h-index (GS)	18
Citations (Scopus)	1889
Citations (GS)	2178
Documents (Scopus)	26
Documents (GS)	27

AWARDS

- Trusted Reviewer

RESEARCH INTERESTS

- Cellular materials
- Bio-inspired materials
- Additive manufacturing
- Auxetic materials
- Stress analysis
- Energy absorption
- Dynamic loading

ACADEMIC TITLES

2024-04-20 Assistant Professor

ADMINISTRATIVE POSITIONS

2024-01-01 - Present Director of continuing education center

INTERNATIONAL MEMBERSHIPS

- Member of Advisory panel

PUBLICATIONS (27)

1. **Experimental and Numerical Investigation of Mechanical Properties of Sandwich Composite Structures: Effects of Skin Architectures**
   Iranian Journal of Science and Technology, Transactions of Mechanical ..., 2026 | 2026 | Cited: 2
2. **Design and Control-Oriented Simulation of a Superelastic Nitinol Steerable Microcatheter Tip for Ischemic Stroke Thrombectomy**
   Inventions 11 (3), 54, 2026 | 2026
3. **Experimental and numerical study on failure mechanisms of sandwich composite structure: Effect of auxetic core**
   Proceedings of the Institution of Mechanical Engineers, Part L: Journal of ..., 2025 | 2025 | Cited: 13
4. **Investigating the Mechanical, Physical and Biological Properties of PMMA/TiO2 Composites with Nanoclay for Denture Applications**
   Engineering Transactions 73 (1), 29-43, 2025 | 2025 | Cited: 3
5. **Influence of silicon nanosheet (SiNS) on the toughness of biphasic calcium phosphate (BCP) composites**
   Fracture and Structural Integrity 19 (72), 137-147, 2025 | 2025 | Cited: 2
6. **Compressive Performances of 3D-bio-inspired Auxetic Metamaterials: Design and Experiments**
   Thin-Walled Structures, 114355, 2025 | 2025 | Cited: 33
7. **Enhancing the mechanical and biological properties of artificial bone regeneration with functionally graded ceramics**
   Physica Scripta 100 (7), 075944, 2025 | 2025 | Cited: 2
8. **Enhancement of mechanical, physical, and electrical performances of epoxy composites by inclusion nano-particles: A review**
   Journal of Composite Materials 59 (29), 3321-3351, 2025 | 2025 | Cited: 13
9. **Studying the influence of micro-particles on the mechanical performance and damage failures of composite laminates**
   Journal of Industrial Textiles 54, 15280837241275018, 2024 | 2024 | Cited: 4
10. **Out-of-plane compressive properties of a butterfly-shaped auxetic metamaterial**
    Smart Materials and Structures 33 (11), 115031, 2024 | 2024 | Cited: 42
11. **Compressive properties of a modified re-entrant chiral auxetic structure (MRCA) under uniaxial quasi-static loading**
    Smart Materials and Structures 33 (5), 055028, 2024 | 2024 | Cited: 45

12. **The effects of manufacturing techniques on the mechanical performance of an auxetic structure manufactured by fused filament fabrication and multijet fusion processes**
Advanced Engineering Materials 26 (7), 2302033, 2024 | 2024 | Cited: 50

13. **3D printed auxetic stents with re-entrant and chiral topologies**
Smart Materials and Structures 32 (11), 115028, 2023 | 2023 | Cited: 37

14. **A bio-inspired auxetic metamaterial with two plateau regimes: compressive properties and energy absorption**
Thin-Walled Structures 192, 111175, 2023 | 2023 | Cited: 152

15. **Metamaterials with enhanced mechanical properties and tuneable Poisson's ratio**
Smart Materials and Structures 31 (2), 025026, 2022 | 2022 | Cited: 39

16. **Dynamic and quasistatic properties of an auxetic structure: a comparative study**
Advanced Engineering Materials 24 (9), 2101811, 2022 | 2022 | Cited: 31

17. **Mechanical response of a compressed novel 3D tetrachiral structure processed by MJF 3D printing process**
Materials Today: Proceedings 46, 4776-4781, 2021 | 2021 | Cited: 27

18. **Mechanical Properties of Novel Auxetic Structures**
Swinburne, 2021 | 2021 | Cited: 6

19. **Out-of-plane and in-plane compression of additively manufactured auxetic structures**
Aerospace science and technology 106, 106107, 2020 | 2020 | Cited: 139

20. **Compressive properties of 3D printed auxetic structures: experimental and numerical studies**
Virtual and Physical Prototyping 15 (1), 1-21, 2020 | 2020 | Cited: 279

21. **Dynamic performance of auxetic structures: experiments and simulation**
Smart materials and structures 29 (5), 055031, 2020 | 2020 | Cited: 93

22. **Compressive properties of a novel additively manufactured 3D auxetic structure**
Smart Materials and Structures 28 (8), 085019, 2019 | 2019 | Cited: 111

23. **An investigation of in-plane tensile properties of re-entrant chiral auxetic structure**
The International Journal of Advanced Manufacturing Technology 96 (5), 2013-2029, 2018 | 2018 | Cited: 136

24. **Mechanical properties and energy absorption capability of functionally graded F2BCC lattice fabricated by SLM**
Materials & Design 144, 32-44, 2018 | 2018 | Cited: 613

25. **Tensile properties of an auxetic structure with re-entrant and chiral features—a finite element study**
The International Journal of Advanced Manufacturing Technology 99 (9), 2425-2440, 2018 | 2018 | Cited: 78

26. **Large deformation of an auxetic structure in tension: Experiments and finite element analysis**
Composite Structures 184, 92-101, 2018 | 2018 | Cited: 223

27. **Mechanical properties of the 2D re-entrant honeycomb made via direct metal printing**
IOP Conference Series: Materials Science and Engineering 229 (1), 012038, 2017 | 2017 | Cited: 39