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EDUCATION

(05-05-2016) دكتوراه

Applied Mechanics/Mechatronics

Newcastle University

RESEARCH METRICS

h-index (Scopus)	28
h-index (GS)	36
Citations (Scopus)	1914
Citations (GS)	2790
Documents (Scopus)	94
Documents (GS)	123

RESEARCH INTERESTS

- Condition Monitoring
- Fault Diagnosis
- Vibration Analysis
- Machine Learning
- Embedded Systems

PROFILE

Alaa Abdulhady Jaber earned his Ph.D. from the School of Mechanical and Systems Engineering, Newcastle University, United Kingdom, in 2016. He obtained his MSc and BSc degrees in Applied Mechanics from the Mechanical Engineering Department, University of Technology, Iraq, in 2008 and 2006, respectively. He has published more than 50 journal and conference papers. His main research interests include condition monitoring, fault diagnosis, vibration analysis, artificial intelligence, robotics, and control.

ACADEMIC TITLES

2019-05-13	Associate Professor

ADMINISTRATIVE POSITIONS

2017-06-01 - 2023-01-15	Director of Scientific Affairs and Cultural Relations Department
2023-10-31 - Present	Deputy Dean for Scientific Affairs

PUBLICATIONS (197)

1. **Integrated Experimental, Statistical, and Finite Element Analysis of Nanoparticle-Reinforced Polymer Composites for Advanced Structural Applications Completed with Bibliometric ...**
   ASEAN Journal for Science and Engineering in Materials 5 (2), 287-310, 2026 | 2026 | Cited: 1
2. **Experimental and machine learning approaches for the design and optimization of additively manufactured polymer gears: a review**
   Multiscale and Multidisciplinary Modeling, Experiments and Design 9 (1), 60, 2026 | 2026 | Cited: 1
3. **Vibration-based delamination evaluation in GFRP composite plates using random forest**
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4. **Robust Multi-State EEG Cognitive Classification via Optimized Time-Domain Features and CatBoost.**
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8. **3D Printed PLA+ Bone Support Devices: Raster Angle Optimization for Enhanced Mechanical Performance in Orthopedic Applications**
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9. **Optimizing wind turbine performance: the impact of atmospheric factors and advanced control strategies**
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10. **Reliability-oriented framework for UAV-based inspection missions in modern power and energy systems**
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12. **Temporal Feature Extraction and Gradient Boosting for Binary**
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2025

14. **Indonesian Journal of Science & Technology**
Indonesian Journal of Science & Technology 10 (2), 207-236, 2025 | 2025

15. **DEAR-Taguchi analysis of buckling load and shear force in AA6061-T6 friction stir spot welds**
Multiscale and Multidisciplinary Modeling, Experiments and Design 8 (1), 94, 2025 | 2025 | Cited: 1

16. **Zeitschrift für Naturforschung: Stability analysis of semi-analytical technique for time-fractional Cauchy reaction-diffusion equations**
De Gruyter, 2025 | 2025

17. **Optimization of hybrid core designs in 3D-printed PLA+ sandwich structures: An experimental, statistical, and computational investigation completed with bibliometric analysis**
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18. **Environmental engineering solutions for efficient soil classification in southern Syria: a clustering-correlation extreme learning approach**
International Journal of Environmental Science and Technology 22 (4), 2177-2190, 2025 | 2025 | Cited: 12

19. **Energy consumption and efficiency degradation predictive analysis in unmanned aerial vehicle batteries using deep neural networks**
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20. **Structural optimization-based enhancement of the dynamic performance for horizontal axis wind turbine blade**
Journal of Applied and Computational Mechanics 11 (3), 811-825, 2025 | 2025 | Cited: 8

21. **Fault Detection and Diagnosis Methodologies for Unmanned Aerial Vehicles: State-of-the-Art**
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25. **Enhanced Load-Settlement Curve Forecasts for Open-Ended Pipe Piles Incorporating Soil Plug Constraints Using Shallow and Deep Neural Networks**
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85. **Analysis of 5 MW NREL Wind Turbine Using Qblade Software**
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86. **Application of Discrete Wavelet Transform for Condition Monitoring and Fault Detection in Wind Turbine Blades: An Experimental Study**
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International Journal of Renewable Energy Research (IJRER) 13 (3), 1082-1092, 2023 | 2023 | Cited: 1

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Curved and Layered Structures 10 (1), 20220214, 2023 | 2023 | Cited: 70

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The Journal of Supercomputing, 1-20, 2023 | 2023 | Cited: 6

90. **Numerical investigations of two vibrating cylinders in uniform flow using overset mesh**
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95. **Modeling of lead (II) ion adsorption on multiwall carbon nanotubes using artificial neural network and Monte Carlo technique**
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