

Hassan Elahi

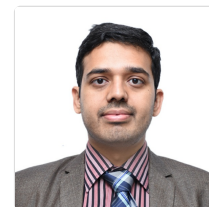
Associate Professor

College of Electrical & Mechanical Engineering

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About

Dr. Hassan Elahi is working as Associate Professor in the College of Electrical & Mechanical Engineering. Dr. Hassan Elahi has a PhD in AERONAUTICAL AND SPACE ENGINEERING. Dr. Hassan Elahi has published 68 research articles & conference papers having a citation count of 1686, carried out 4 projects and filed 4 intellectual property.

Qualifications

PhD in AERONAUTICAL AND SPACE ENGINEERING University of Roma "La Sapienza" , Italy	2016 - 2020
MSc in APPLIED MECHANICS AND DESIGN UET Taxila , Pakistan	2012 - 2014
BS in MECHATRONICS ENGINEERING UET Taxila , Pakistan	2008 - 2012

Experience

Associate Professor College of Electrical & Mechanical Engineering	2025- Present
Assistant Professor College of Electrical & Mechanical Engineering	2022 - 2022
ASSOCIATE RESEARCHER/POSTDOC SAPIENZA UNIVERSITY OF ROME, ITALY , SAPIENZA UNIVERSITY OF ROME, ITALY	2019 - 2022
LECTURER IST ISLAMABAD , MECHANICAL ENGINEERING DEPARTMENT, IST, ISLAMABAD	2014 - 2015
TEACHER ASSITANT UET TAXILA , MECHANICAL ENGINEERING DEPARTMENT, UET TAXILA	2012 - 2014

Research Projects

National Projects

INDIGENO US DEVELOPMENT OF SENSOR OF PAP 104 FUZE Funding Agency: Pakistan NAVY through NHL and DRD Amount: PKR 4,670,000.00 Status: Approved_inprocess	2024
Design & Development of PVDF Hydrophone for Underwater Applications Funding Agency: NESCOM Amount: PKR 500,000.00 Status: Approved_inprocess	2024
Industrial ultrasonic actuators based on piezoelectric materials for ultrasonic welding machines Funding Agency: Pakistan Science Foundation (PSF) Amount: PKR 7,356,600.00 Status: Approved_inprocess	2025
FUNCTIONAL REPLACEMENT OF THE HE FUZE’S SHOCK WAVE DETECTOR OF UNDERWATER VEHICLE PAP-104 THROUGH INDEGNOUS DEVELOPMENT Funding Agency: Pakistan Navy Amount: PKR 4,670,000.00 Status: Approved_inprocess	

International Projects

Research Articles

Frost detection and defrost control: Emerging trends, methods, and experimental evaluations <i>Hassan Akbar Anjum Naeem Malik Tahir Habib Nawaz Hassan Elahi Hammad Ur Rahman Ismail Lazoglu Huzzam Hassan</i> <i>International Journal of Refrigeration</i> , Volume:179, Page:121-141 Impact Factor: 3.800 Quartile: 1 DOI: https://doi.org/10.1016/j.ijrefrig.2025.08.005	2025
Applications of piezoelectric-based sensors, actuators, and energy harvesters <i>Hassan Elahi Hamid Jabbar Anas Bin Aqeel Ahsan Ali Aasia Farrukh Saira Bibi Wael A. Altabey Sallam A. Kouritem Mohammad Noori Mohammad Ali</i> <i>Sensors and Actuators Reports</i> , Volume 9, Article Number 100302 Impact Factor: 6.500 Quartile: 1 Citations: 2 DOI: https://doi.org/10.1016/j.snr.2025.100302	2025
Design of a novel tri-axis ZnO nanowires based piezoelectric accelerometer <i>Muhammad sohaib Khan Hassan Elahi Muhammad Mubasher Saleem Masood Ur Rehman Muhammad Abdullah Tayyab Mohsin Islam Tiwana</i> <i>PLoS ONE</i> , Volume 20, Issue 3, Article Number e0318069 Impact Factor: 2.900 Quartile: 1 DOI: https://doi.org/10.1371/journal.pone.0318069	2025
Precision Segmentation and Binary Masking of Skin Lesions in Automated Dermatological Diagnostics using Detectron2 <i>Hassan Elahi Umar Shahbaz Khan 00000386764-Haseeb Amjad 00000376140-Nija Asif Hassan Akbar Ali R. Ansari Raheel Nawaz</i> <i>IEEE Access</i> , Volume: 12, Page(s): 87696-187708 Impact Factor: 3.4 Quartile: 2 Citations: 1 DOI: https://doi.org/10.1109/ACCESS.2024.3514865	2024
A high sensitivity, low cost and fully decoupled multi-axis capacitive tactile force sensor for robotic surgical systems <i>Sajid Hussain Muhammad Mubasher Saleem Muhammad Rehan Hassan Elahi Mohsin Islam Tiwana</i> <i>Plos One</i> , https://journals.plos.org/plosone/s/journal-information Impact Factor: 2.9 Quartile: 1 Citations: 2 DOI: doi.org/10.1371/journal.pone.0313737	2024
Body-Pose-Guided Action Recognition with Convolutional Long Short-Term Memory (LSTM) in Aerial Videos <i>Sohaib Mustafa Saeed Hassan Akbar Tahir Habib Nawaz Hassan Elahi Umar Shahbaz Khan</i> <i>Applied Sciences</i> , Volume 13, Issue 16, Article Number 9384 Impact Factor: 2.7 Quartile: 2 Citations: 7	2023

DOI: <https://doi.org/10.3390/app13169384>

Heat Transfer Enhancement in Cooling Jacket of Liquid Cooled Spark Ignition Engine 2023

Hussain Ahmed Tariq Faisal Mehmood Muhammad Anwar Hassan Elahi Muhammad Raheel Bhutta Talha Irfan Khan Asif Israr Muhammad Umer Usama Waleed Qazi Usman Ghafoor

Energies , Volume:16, Issue:13, Article Number:5126

Impact Factor: 3.2 | **Quartile:** 3

DOI: 10.3390/en16135126

Optimum Driving of Ultrasonic Cleaner Using Impedance and FFT Analysis with Validation of Image 2023

Processing of Perforated Foils

Muhammad Usman Khan Faisal Rehman Mohsin Saleem Hassan Elahi Tae Hyun Sung Hamid Jabbar

Applied Sciences , Volume: 13, Issue: 12, Article Number: 6991

Impact Factor: 2.838 | **Quartile:** 2 | **Citations:** 3

DOI: 10.3390/app13126991

Crashworthiness study of UCAV's main landing gear using explicit dynamics 2022

Raees Fida Swatia Muhammad AsfandYar Amjad Muhammad Talha Hassan Elahi H. R. Hamdan Abid Ali Khan S. R. Qureshi

International Journal of Crashworthiness, Volume 27, No. 6, Pages 1843-1859

Impact Factor: 1.472 | **Quartile:** 4 | **Citations:** 5

DOI: <https://doi.org/10.1080/13588265.2022.2028449>

Clamping Force Sensor Fault Analysis and Fault-Tolerant Control of the Electromechanical Brake 2022

System

Yiyun Zhao Hassan Elahi Hui Lin Feng Miao Saleem Riaz

Arabian Journal for Science and Engineering, Pages 1-13

Impact Factor: 2.807 | **Quartile:** 2 | **Citations:** 9

DOI: 10.1007/s13369-022-07214-5

Multimodal piezoelectric wind energy harvester for aerospace applications 2022

Muhammad Abdullah Sheeraz Muhammad Sohail Malik Khalid Rahman Hassan Elahi Muhammad Khurram Marco Eugeni Paolo Gaudenzi

International Journal of Energy Research, Volume 46, Issue 10, Pages 13698-13710

Impact Factor: 4.6 | **Quartile:** 1 | **Citations:** 24

DOI: <https://doi.org/10.1002/er.8089>

Experimental and Numerical Research of Paved Microcrack Using Histogram Equalization for Detection 2022

and Segmentation

Asad Ullah Zhaoyun Sun Hassan Elahi Farkhanda Afzal Amna Khatoon Nasir Sayed Ishfaq Ahmad

Mathematical Problems in Engineering, Volume 2022, Article ID 2684983, 13 pages

Impact Factor: 0 | **Citations:** 7

DOI: <https://doi.org/10.1155/2022/2684983>

Vibration of FG Porous Three-Layered Beams Equipped by Agglomerated Nanocomposite Patches 2022

Resting on Vlasov's Foundation

Mohammad Khorasani Hassan Elahi Marco Eugeni Luca Lampani Omer Civalek

Transport in Porous Media, Volume 142, Issue 1-2, Pages 157-186

Impact Factor: 3.610 | **Quartile:** 2 | **Citations:** 19

DOI: 10.1007/s11242-021-01658-3

Design of Two-Mode Spectroscopic Sensor for Biomedical Applications: Analysis and Measurement of 2022

Relative Intensity Noise through Control Mechanism

Usman Masud Muhammad Rizwan Amirzada Hassan Elahi Faraz Akram Ahmed Zeeshan Yousuf Khan Muhammad Khurram Ehsan Muhammad Aasim

Qureshi Aasim Ali Sajid Nawaz Usman Ghafoor

Applied Sciences , Volume 12, Issue 4, Article Number 1856

Impact Factor: 2.9 | **Quartile:** 2 | **Citations:** 10

DOI: <https://doi.org/10.3390/app12041856>

Comparative Analysis of AlexNet, ResNet18 and SqueezeNet with Diverse Modification and Arduous 2022

Implementation

Asad Ullah Hassan Elahi Zhaoyun Sun Amna Khatoon Ishfaq Ahmad

Arabian Journal for Science and Engineering, Volume 47, Issue 2, Pages 2397-2417

Impact Factor: 2.807 | **Quartile:** 2 | **Citations:** 74

DOI: <https://doi.org/10.1007/s13369-021-06182-6>

Modeling and Simulation of Dual Beams Hybrid Energy Harvester for Bridge's Health Monitoring Systems <i>Waheed Gul Sulaiman Tahir Saqlain Razzaq Muhammad Umer Hassan Elahi</i> <i>Integrated Ferroelectrics</i> , Volume:221, Issue:1, Page:138-151 Impact Factor: 0.836 Quartile: 4 DOI: https://doi.org/10.1080/10584587.2021.1965839	2021
A predictive approach to optimize a hho generator coupled with solar pv as a standalone system <i>Osama Majeed Butt Tareq Saeed Hassan Elahi Usman Masud Usman Ghafoor Hang Seng Che Nasrudin Abd Rahim Muhammad Shakeel Ahmad</i> <i>Sustainability</i> , Volume 13, Issue 21, Article Number 12110 Impact Factor: 3.889 Quartile: 2 Citations: 18 DOI: https://doi.org/10.3390/su132112110	2021
Silicon particles/black paint coating for performance enhancement of solar absorbers <i>Shwe Sin Han Usman Ghafoor Tareq Saeed Hassan Elahi Laveet Kumar Jeyraj Selvaraj Usman Masud Muhammad Shakeel Ahmad</i> <i>Energies</i> , Volume 14, Issue 21, Article Number 7140 Impact Factor: 3.252 Quartile: 3 Citations: 15 DOI: https://doi.org/10.3390/en14217140	2021
CFD analysis on the effects of distorted inlet flows with variable RPM on the stability of the transonic micro-compressor <i>Muhammad Umer Sohail Hassan Elahi Asad Islam Hossein Raza Hamdani4 Khalid Parvez Raees Fida Swati</i> <i>Microsystem Technologies</i> , Volume 27, Issue 10, Pages 3811-3827 Impact Factor: 2.012 Quartile: 3 Citations: 6 DOI: https://doi.org/10.1007/s00542-020-05177-x	2021
Sustainability-Based Analysis of Conventional to High-Speed Machining of Al 6061-T6 Alloy <i>Salman Sagheer Warsi Taiba Zahid Hassan Elahi Raja Awais Liaquat Saira Bibi Fouzia Gillani Usman Ghafoor</i> <i>Applied Sciences</i> , Volume 11(19), Article Number 9032 Impact Factor: 2.679 Quartile: 2 Citations: 8 DOI: 10.3390/app11199032	2021
Effect of phase change materials on the short-term thermal storage in the solar receiver of dish-micro gas turbine systems: A numerical analysis <i>Muhammad Anser Bashir Ahmed M. Daabo Khuram Pervez Amber Muhammad Sajid Khan Adeel Arshad Hassan Elahi</i> <i>Applied Thermal Engineering</i> , Volume 195, Article Number 117179 Impact Factor: 6.465 Quartile: 1 Citations: 28 DOI: https://doi.org/10.1016/j.applthermaleng.2021.117179	2021
The investigation on structural health monitoring of aerospace structures via piezoelectric aeroelastic energy harvesting <i>Hassan Elahi</i> <i>Microsystem Technologies</i> , Volume 27, Issue 7, Pages 2605-2613 Impact Factor: 2.012 Quartile: 3 Citations: 42 DOI: 10.1007/s00542-020-05017-y	2021
Real-time fault diagnosis and fault-tolerant control strategy for hall sensors in permanent magnet brushless dc motor drives <i>Xi Zhang Yiyun Zhao Hui Lin Saleem Riaz Hassan Elahi</i> <i>Electronics</i> , Volume 10, Issue 11, Article Number 1268 Impact Factor: 2.690 Quartile: 3 Citations: 17 DOI: https://doi.org/10.3390/electronics10111268	2021
Study of the surface and dimensional quality of the als10mg thin-wall components manufactured by selective laser melting <i>Muhammad Waqas Dingyong He Hassan Elahi Saleem Riaz Marco Eugeni Paolo Gaudenzi</i> <i>Journal of Composites Science</i> , Volume 5, Issue 5, Article Number 126 Impact Factor: N/A Citations: 5 DOI: https://doi.org/10.3390/jcs5050126	2021
Numerical assessment and parametric optimization of a piezoelectric wind energy harvester for IoT-based applications <i>Muhammad Abdullah Sheeraz Muhammad Sohail Malik Khalid Rehman Hassan Elahi Zubair Butt Iftikhar Ahmad Marco Eugeni Paolo Gaudenzi</i> <i>Energies</i> , Volume 14, Issue 9, Article Number 2498 Impact Factor: 3.252 Quartile: 3 Citations: 15	2021

DOI: <https://doi.org/10.3390/en14092498>

Prediction of non-uniform distorted flows, effects on transonic compressor using cfd, regression analysis and artificial neural networks

2021

Muhammad Umer Sohail Hossein Raza Hamdani Asad Islam Khalid Parvez Abdul Munem Khan Usman Allauddin Muhammad Khurram Hassan Elahi
Applied Sciences , Volume 11, Issue 8, Article Number 3706

Impact Factor: 2.838 | **Quartile:** 2 | **Citations:** 15

DOI: <https://doi.org/10.3390/app11083706>

Influence of microstructural evolution and localized delta ferrite number on high-cycle fatigue crack opening and propagation rate

2021

Mudaser Ullah Faisal Qayyum Hassan Elahi Fariha Mukhtar Qasim Ali Ch Asad Abbas
Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, Volume:235, Issue:4, Page:728-742

Impact Factor: 2.311 | **Quartile:** 3 | **Citations:** 4

DOI: <https://doi.org/10.1177/1464420720976701>

A Novel Fast Error Convergence Approach for an Optimal Iterative Learning Controller

2021

Saleem Riaz Hui Lin Hassan Elahi
Integrated Ferroelectrics , Volume 213, Issue 1, Pages 103-115

Impact Factor: 0.836 | **Quartile:** 4 | **Citations:** 18

DOI: <https://doi.org/10.1080/10584587.2020.1859828>

Fretting fatigue crack initiation and propagation in Ti6Al4V sheets under tribocorrosive conditions of artificial seawater and physiological solutions

2020

Zeeshan Anjum Masood Shah Hassan Elahi Mushtaq Khan Muhammad Mujahid Shahab Khushnood Faisal Qayyum
Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, Volume 234, Issue 12, Pages 1526-1534

Impact Factor: 2.311 | **Quartile:** 3 | **Citations:** 9

DOI: <https://doi.org/10.1177/1464420720946431>

Characterization and Implementation of a Piezoelectric Energy Harvester Configuration: Analytical, Numerical and Experimental Approach

2020

Hassan Elahi M.Rizwan Mughal Marco Eugeni Faisal Qayyum Asif israr Ahsan ali Khushboo Munir Jaan praks Paolo Gaudenzi
Integrated Ferroelectrics , Volume 212, Issue 1, Pages 39-60

Impact Factor: 0.836 | **Quartile:** 4 | **Citations:** 25

DOI: <https://doi.org/10.1080/10584587.2020.1819034>

Reliability Risk Analysis for the Aeroelastic Piezoelectric Energy Harvesters

2020

Hassan Elahi Khushboo Munir Marco Eugeni Paolo Gaudenzi
Integrated Ferroelectrics , Volume 212, Issue 1, Pages 156-169

Impact Factor: 0.836 | **Quartile:** 4 | **Citations:** 1

DOI: <https://doi.org/10.1080/10584587.2020.1819044>

Performance evaluation of a piezoelectric energy harvester based on flag-flutter

2020

Hassan Elahi Marco Eugeni Federico Fune Luca Lampani Franco Mastroddi Giovanni Paolo Romano Paolo Gaudenzi
Micromachines , Volume 11, Issue 10, Article Number 933

Impact Factor: 2.891 | **Quartile:** 2 | **Citations:** 47

DOI: <https://doi.org/10.3390/mi11100933>

Modeling and Design of a Piezoelectric Nonlinear Aeroelastic Energy Harvester

2020

Hassan Elahi Marco Eugeni Luca Lampani Paolo Gaudenzi
Integrated Ferroelectrics , Volume 211, Issue 1, Pages 132-151

Impact Factor: 0.836 | **Quartile:** 4 | **Citations:** 14

DOI: <https://doi.org/10.1080/10584587.2020.1803681>

Ultrahigh energy density and thermal stability in sandwich-structured nanocomposites with dopamine@Ag@BaTiO3

2020

Mohsin Ali Marwat Weigang Ma Pengyuan Fan Hassan Elahi Chanatip Samart Bo Nan Hua Tan David Salamon Baohua Ye Haibo Zhang
Energy Storage Materials , Volume 31, Pages 492-504

Impact Factor: 17.789 | **Quartile:** 1 | **Citations:** 98

DOI: <https://doi.org/10.1016/j.ensm.2020.06.030>

Effect of MoSi2-Si3N4/SiC multi-layer coating on the oxidation resistance of carbon/carbon composites above 1770 K

2020

Imran Abbas Yanxiang Wang Hassan Elahi Muhammad Ali Siddiqui Mudaser Ullah Faisal Qayyum
Journal of Composites Science , Volume 4, Issue 3, Article Number 86

Impact Factor: N/A Citations: 6 DOI: https://doi.org/10.3390/jcs4030086	
Design and performance analysis of hybrid solar powered geyser in Islamabad, Pakistan <i>Hassan Elahi Ali Tamoor Abdul Basit Asif israr Raees Fida Swati Shamraiz Ahmed Usman Ghafoor Muhammad Shaban Thermal Science</i> , Volume 24, No. 2A, Pages 757-766 Impact Factor: 1.625 Quartile: 4 Citations: 6 DOI: https://doi.org/10.2298/TSCI180311299E	2020
A new type of aerostatic thrust bearing controlled by high-speed pneumatic valve and a novel pressure transducer <i>Waheed Ur Rehman Guiyun Jiang Yongqin Wang Nadeem Iqbal Shafiq Ur Rehman Shamsa Bibi Hassan Elahi International Journal of Automotive and Mechanical Engineering</i> , Volume 16, Issue 4, Pages 7430-7446 Impact Factor: N/A Citations: 8 DOI: https://doi.org/10.15282/ijame.16.4.2019.16.0550	2019
An area-optimized N-bit multiplication technique using N/2-bit multiplication algorithm <i>Muneeb Abrar Hassan Elahi Bilal Ali Ahmed Muhammad Ghayasudin M.Rizwan Mughal SN Applied Sciences</i> , Volume 1, Issue 11, Article Number 1348 Impact Factor: N/A Citations: 5 DOI: https://doi.org/10.1007/s42452-019-1367-6	2019
Investigation of Deformation in Bimorph Piezoelectric Actuator: Analytical, Numerical and Experimental Approach <i>Ahsan ali Riffat Asim Pasha Hassan Elahi Muhammad Abdullah Sheeraz Saima bibi Zain Ul Hassan Marco Eugeni Paolo Gaudenzi Integrated Ferroelectrics</i> , Volume 201, Issue 1, Pages 94-109 Impact Factor: 0.557 Quartile: 4 Citations: 43 DOI: https://doi.org/10.1080/10584587.2019.1668694	2019
Effect of Natural Aging and Fatigue Crack Propagation Rate on Welded and Non-Welded Aluminum Alloy (AA2219-T87) <i>Mudasir Ijaz Faisal Qayyum Hassan Elahi Mudaser Ullah Marco Eugeni Saeed Badshah Paolo Gaudenzi Advances in Science and Technology Research Journal</i> , Volume 13, Issue 3, Pages 129-143 Impact Factor: N/A Citations: 11 DOI: https://doi.org/10.12913/22998624/110737	2019
Investigation of Electrical Properties for Cantilever-Based Piezoelectric Energy Harvester <i>Ahsan ali Riffat Asim Pasha Muhammad Abdullah Sheeraz Zubair Butt Hassan Elahi Afzaal Ahmed Khan Advances in Science and Technology Research Journal</i> , Volume 13, Issue 3, Pages 76-85 Impact Factor: N/A Citations: 18 DOI: https://doi.org/10.12913/22998624/110175	2019
Studying the effect of thermal fatigue on multiple cracks propagating in an SS316L thin flange on a shaft specimen using a multi-physics numerical simulation model <i>Fariha Mukhtar Faisal Qayyum Hassan Elahi Masood Shah Strojnicki vestnik - Journal of Mechanical Engineering</i> , Volume 65, Issue 10, Pages 565-573 Impact Factor: 1.377 Quartile: 3 Citations: 15 DOI: DOI:10.5545/sv-jme.2019.6073	2019
Deflection of coupled elasticity–electrostatic bimorph PVDF material: theoretical, FEM and experimental verification <i>Muhammad Usman Khan Zubair Butt Hassan Elahi Waqas Asghar Zulkarnain Abbas Muhammad Shoaib M. Anser Bashir Microsystem Technologies</i> , Volume:25, Issue:8, Page:3235-3242 Impact Factor: 1.737 Quartile: 3 Citations: 21 DOI: https://doi.org/10.1007/s00542-018-4182-x	2019
Experimental and Numerical Investigation of PZT Response in Composite Structures with Variable Degradation Levels <i>Vittorio Memmolo Hassan Elahi Marco Eugeni Ernesto Monaco Fabrizio Ricci Michele Pasquali Paolo Gaudenzi Journal of Materials Engineering and Performance</i> , Volume 28, Issue 6, Pages 3239-3246 Impact Factor: 1.652 Quartile: 3 Citations: 24 DOI: https://doi.org/10.1007/s11665-019-04011-4	2019
Investigation of tensile and in-plane shear properties of carbon fiber reinforced composites with and without piezoelectric patches for micro-crack propagation using extended finite element method <i>R. F. Swati Hassan Elahi L. H. Wen A. A. Khan S. Shad M.Rizwan Mughal</i>	2019

Microsystem Technologies , Volume 25, Issue 6, Pages 2361-2370

Impact Factor: 1.737 | **Quartile:** 3 | **Citations:** 18

DOI: <https://doi.org/10.1007/s00542-018-4120-y>

Design and performance evaluation of a piezoelectric aeroelastic energy harvester based on the limit cycle oscillation phenomenon

2019

Hassan Elahi Marco Eugeni Paolo Gaudenzi

Acta Astronautica , Volume 157, Pages 233-240

Impact Factor: 2.833 | **Quartile:** 1 | **Citations:** 44

DOI: <https://doi.org/10.1016/j.actaastro.2018.12.044>

Extended finite element method (XFEM) analysis of fiber reinforced composites for prediction of micro-crack propagation and delaminations in progressive damage: a review

2019

R. F. Swati L. H. Wen Hassan Elahi A. A. Khan S. Shad

Microsystem Technologies , Volume 25, Issue 3, Pages 747-763

Impact Factor: 1.737 | **Quartile:** 3 | **Citations:** 56

DOI: <https://doi.org/10.1007/s00542-018-4021-0>

Piezoelectric thermo electromechanical energy harvester for reconnaissance satellite structure

2019

Hassan Elahi Marco Eugeni Paolo Gaudenzi Madiha Gul Raees Fida Swati

Microsystem Technologies , Volume 25, Issue 2, Pages 665-672

Impact Factor: 1.737 | **Quartile:** 3 | **Citations:** 30

DOI: <https://doi.org/10.1007/s00542-018-3994-z>

Experimental and numerical investigation of transversal damage in carbon fiber reinforced composites using X-FEM analysis

2019

R. F. Swati L. H. Wen Hassan Elahi A. A. Khan S. Shad

Journal of Mechanical Science and Technology , Volume 33, Issue 1, Pages 205-211

Impact Factor: 1.345 | **Quartile:** 3 | **Citations:** 10

DOI: DOI 10.1007/s12206-018-1220-7

Response of piezoelectric materials on thermomechanical shocking and electrical shocking for aerospace applications

2018

Hassan Elahi Marco Eugeni Paolo Gaudenzi Faisal Qayyum Raees Fida Swati Hayat Muhammad Khan

Microsystem Technologies , Volume 24, Issue 9, Pages 3791-3798

Impact Factor: 1.513 | **Quartile:** 3 | **Citations:** 51

DOI: <https://doi.org/10.1007/s00542-018-3856-8>

Sustainability Assessment and Analysis of Malaysian Food Manufacturing Sector - A Move Towards Sustainable Development

2017

Kuan Yew Wong Hassan Elahi Shamraiz Ahmad

Advanced Science Letters , Volume 23, Number 9, Pages 8942-8946

Impact Factor: - | **Citations:** 18

DOI: <https://doi.org/10.1166/asl.2017.10000>

Conference Proceedings

Comparative Performance and Resource Utilization Analysis of OCR Models for Number Plate Recognition on Raspberry Pi 4

2025

Noman Shabbir Rameel Ahmed Muhammad Wasif Raza Ayesha Zeb Hassan Elahi Hasan

2025 International Conference on Communication Technologies, ComTech 2025, res.country(177,)

Citations: N/A

DOI: 10.1109/ComTech65062.2025.11034455

Robust State of Charge Estimation of Lithium-Ion Batteries Using a Nonlinearity-Aware PID Observer

2024

Hafiz Muhammad Jawaad Muhammad Saeed Hamid Jabbar Anjum Naeem Malik Hassan Elahi Umar Shahbaz Khan

2024 International Conference on Robotics and Automation in Industry (ICRAI), res.country(177,)

Citations: N/A

DOI: 10.1109/ICRAI62391.2024.10894055

Physics-Informed Machine Learning for State of Charge Estimation of Lithium-Ion Batteries

2024

Hafiz Muhammad Jawaad Muhammad Saeed Anjum Naeem Malik Arash Khalatbarisoltani Hassan Elahi Umar Shahbaz Khan

2024 International Conference on Robotics and Automation in Industry (ICRAI), res.country(177,)

Citations: N/A

DOI: 10.1109/ICRAI62391.2024.10894277	
Dynamic Temporal Modeling Using Cascaded Deep Networks and Encoder Transformers for Human Action Recognition	2024
<i>Haseeb Amjad Nija Asif Umar Shahbaz Khan Hassan Elahi</i> 2024 International Conference on Robotics and Automation in Industry (ICRAI), res.country(177,)	
Citations: N/A	
DOI: 10.1109/ICRAI62391.2024.10894302	
Machine Learning Based Energy Prediction of Hybrid Solar-Wind Energy Harvesters Using MPPT	2024
<i>Muhammad Abdullah Khan Muhammad Taha Rehan Shahid Muhammad Subhan Asad Hassan Elahi Muhammad Abdullah Tayyab</i> 6th International Conference on Robotics and Automation in Industry, ICRAI 2024, res.country(177,)	
Citations: N/A	
DOI: https://doi.org/10.1109/ICRAI62391.2024.10894090	
Materials Classification via Piezoelectric Sensors for Robotic Grippers	2024
<i>Hafiz Muhammad Saad Asjid Mehmood Malik Muhammad Hasham Tahir Khan Muhammad Sirhan Tahir Hassan Elahi Muhammad Abdullah Tayyab</i> 6th International Conference on Robotics and Automation in Industry, ICRAI 2024, res.country(177,)	
Citations: N/A	
DOI: https://doi.org/10.1109/ICRAI62391.2024.10894683	
Evaluation of Model Degradation in PaddleOCR, UltOCR, and TrOCR Across Baseline and TensorFlow Lite Environments	2024
<i>Rameel Ahmed Noman Shabbir Muhammad Wasif Raza Ayesha Zeb Hassan Elahi</i> 6th International Conference on Robotics and Automation in Industry, res.country(177,)	
Citations: N/A	
DOI: 10.1109/ICRAI62391.2024.10894257	
Wind-Induced Piezoelectric Transduction via an Artificial Tree	2023
<i>Muhammad Danyal Faizi Jatoi Riffat Asim Pasha Dr Hassan Elahi Muhammad Abdullah Sheeraz</i> 2nd International Conference on Recent Academic Studies ICRAS 2023, res.country(224,)	
Citations: N/A	
DOI: https://as-proceeding.com/index.php/icras	
Trends in Complex Multiphase Flow Modeling for Effective Fuel Energy Acquisition	2019
<i>Muhammad Talha Tahir Dengwei Jing Muhammad Hatam Hassan Elahi</i> 4th World Congress on Momentum, Heat and Mass Transfer (MHMT'19), res.country(109,)	
Citations: N/A	
DOI: 10.11159/icmfht19.119	
Stability of Piezoelectric Material for Suspension Applications	2017
<i>Hassan Elahi A. israr R. F. Swati H. M. Khan A. Tamoor</i> 2017 Fifth International Conference on Aerospace Science & Engineering (ICASE), res.country(233,)	
Citations: N/A	
DOI: 10.1109/ICASE.2017.8374261	
Analysis of Stability and Degradation of Smart Structure for Cubic Reconnaissance Satellites	2017
<i>Hassan Elahi Paolo Gaudenzi Valerio Cardini Marco Eugeni G Graterol Nisi M. Pasquali Luciano Pollice</i> 8th International Conference on DeMEASS VIII, res.country(190,)	
Citations: N/A	
DOI: Nil	
A new approach to classification of upper limb and wrist movements using EEG signals	2017
<i>Muhammad Ahsan Gull Hassan Elahi Mohsin. Marwat Saad. Waqar</i> 2017 13th IASTED International Conference on Biomedical Engineering (BioMed), res.country(12,)	
Citations: N/A	
DOI: 10.2316/P.2017.852-049	

Books

Piezoelectric Aeroelastic Energy Harvesting	2021
<i>Hassan Elahi Marco Eugeni Paolo Gaudenzi</i> 1st Edition, Pages 1-282	
Citations: N/A	
DOI: https://doi.org/10.1016/C2020-0-01123-0	

Book Chapters

Smart structures	2022
<i>Hassan Elahi Marco Eugeni Paolo Gaudenzi</i>	
In: <i>Book on Piezoelectric Aeroelastic Energy Harvesting</i> , Chapter 2, Pages 21-38	
Citations: N/A	
DOI: https://doi.org/10.1016/B978-0-12-823968-1.00011-8	

Editorial Activities

Computer subassembly	2024
Reviewed Papers for Journals	
Impact Factor: 5.8	
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Reviewed Papers for Journals	
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	2022
Reviewed Papers for Journals	
Impact Factor: N/A	

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Status: Filed	
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