

Muhammad Nasir

Assistant Professor

College of Electrical & Mechanical Engineering

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About

Dr. Muhammad Nasir is working as Assistant Professor in the College of Electrical & Mechanical Engineering. Dr. Muhammad Nasir has a PhD in Material Engineering. Dr. Muhammad Nasir has published 46 research articles & conference papers having a citation count of 580, carried out 0 projects and filed 0 intellectual property.

Qualifications

PhD in Material Engineering Universiti Malaya , Malaysia	2014 - 2017
M.E in Mechanical Universiti Malaya , Malaysia	2011 - 2013
BE in Mechanical Universiti Malaya , Malaysia	2006 - 2010

Experience

Assistant Professor College of Electrical & Mechanical Engineering	2023- Present
Assistant Professor College of Electrical & Mechanical Engineering	2021 - 2023
Assistant Professor Pakistan Navy Engineering College	2019 - 2021
Post Doc University of Malaya , alan Universiti, 50603 Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur, Malaysia	2017 - 2019
Manufacturing Engineer Flextronics Sdn Bhd , Lot Plo 226D, Perindustrian Senai 3, 81400, Senai, Johor, Malaysia	2010 - 2013
Test Engineer Flextronics SDN BHD , Senai 3 Johor Bahru Malaysia	2006 - 2010

Research Articles

Effect of Zn nanoparticle doped flux on electromigration damages in SAC305 solder joint <i>M. Nasir Bashir Abdul Faheem Khan Shahid Bashir Mohamed Bashir Ali Bashir Muhammad Jamshaid Iqra Javed Imran Ali</i> <i>Journal of Materials Science: Materials in Electronics</i> , Volume:34, Issue:5, Impact Factor: 2.779 Quartile: 2 Citations: 8 DOI: 10.1007/s10854-022-09646-z	2023
Effect of Zn nanoparticle-doped flux on mechanical properties of SAC305 solder joint after electromigration <i>Muhammad Nasir Bashir Niaz Bahadur Khan Shahid Bashir Abdul Faheem Khan M. M. Quazi Mustabshirha Gul Saif Wakeel Hafiz Muhammad Saad</i> <i>Journal of Materials Science: Materials in Electronics</i> , Vol:34, Article Number: 321, Impact Factor: 2.779 Quartile: 2 Citations: 5 DOI: 10.1007/s10854-022-09722-4	2023
Effects of cobalt nanoparticle on microstructure of Sn58Bi solder joint <i>Muhammad Nasir Bashir A. S. M. A. Haseeb Sumsun Naher Muhammad Mahmood Ali Mohamed Bashir Ali Bashir Asad A. Zaidi Muhammad Jamshaid Muhammad Jamshaid Iqra Javed</i> <i>Journal of Materials Science: Materials in Electronics</i> , Vol:34, Article number: 248,	2023

- Impact Factor:** 2.779 | **Quartile:** 2 | **Citations:** 9
DOI: 10.1007/s10854-022-09465-2
- Thermoelectric Transport Properties of Double-Filling InxLa0.25Co4Sb12 Skutterudite Materials** 2022
 Mohamed Bashir Ali Bashir Ethar Yahya Salih Suhana Mohd Said Yuzuru Miyazaki Dhafer Abdul-Ameer Shnawah Muhammad Nasir Imran Haider Sajid
 Mohamed Hamid Elsheikh
Journal of Electronic Materials, Vol: 52, Pages:971-979
Impact Factor: 2.047 | **Quartile:** 3 | **Citations:** 3
DOI: <https://doi.org/10.1007/s11664-022-10083-1>
- Multi-Objective Optimization of Process Parameters during Micro-Milling of Nickel-Based Alloy Inconel 718 Using Taguchi-Grey Relation Integrated Approach** 2022
 Muhammad Sheheryar Muhammad Ali Khan Syed Hussain Imran Jaffery Rehan Khan Muhammad Nasir Mansoor Alruqi
Materials, Volume 15, Issue 23, Article Number 8296
Impact Factor: 3.748 | **Quartile:** 1 | **Citations:** 18
DOI: <https://doi.org/10.3390/ma15238296>
- Role of Crystallographic Orientation of β -Sn Grain on Electromigration Failures in Lead-Free Solder Joint: An Overview** 2022
 Muhammad Nasir Sajid Ullah Butt Muhammad Adil Mansoor Niaz Bahadur Khan Shahid Bashir Yew Hoong Wong Turki Alamro Sayed Mohamed Eldin Mohammed Jameel
Coatings, Volume 12(11), Article Number 1752
Impact Factor: 3.236 | **Quartile:** 2 | **Citations:** 7
DOI: <https://doi.org/10.3390/coatings12111752>
- A New ANN-Based Controller with Variable Frequency for a 12-Switches Cascaded Modified Packed U-Cell Inverter** 2022
 Mohammed A. Bou-Rabee Kaif A. Lodi Muhammad Nasir Imad Eddin AlBalaa
International Review of Electrical Engineering, Volume 17, Issue 5, Pages 470-480
Impact Factor: N/A | **Citations:** 4
DOI: 10.15866/iree.v17i5.21761
- Effects of tin particles addition on structural and mechanical properties of eutectic Sn–58Bi solder joint** 2022
 Muhammad Nasir Hafiz Muhammad Saad Muhammad Rizwan M. M. Quazi Muhammad Mahmood Ali Arslan Ahmed Asad A. Zaidi Manzoore Elahi M. Soudagar A. S. M. A. Haseeb Sumsun Naher
Journal of Materials Science: Materials in Electronics, Volume 33, Pages 22499-22507
Impact Factor: 2.8 | **Quartile:** 2 | **Citations:** 9
DOI: <https://doi.org/10.1007/s10854-022-09028-5>
- Effect of cobalt nanoparticles on mechanical properties of Sn–58Bi solder joint** 2022
 M. Nasir Bashir Hafiz Muhammad Saad Muhammad Rizwan Sedat Bingo Iftikhar Ahmed Channa Mustabshirha Gul A. S. M. A. Haseeb Sumsun Naher
Journal of Materials Science: Materials in Electronics, Volume 33, Pages 22573-22579
Impact Factor: 2.8 | **Quartile:** 2 | **Citations:** 10
DOI: <https://doi.org/10.1007/s10854-022-09035-6>
- A Comprehensive Review on Investigation of Sediment Erosion of Pelton Wheel Turbine** 2022
 Sati Ullah Muhammad Rehan Khan Tariq Talha Muhammad Nasir Muhammad Ali Khan Aurang Zaib
Pakistan Journal of Engineering and Technology, Volume 5, Number 2, Pages 152-162
Impact Factor: 0
DOI: <https://doi.org/10.51846/vol5iss2pp152-162>
- Effect of Ni and Co nanoparticle-doped flux on microstructure of SAC305 solder matrix** 2022
 Muhammad Nasir A.S.M.A. Haseeb Saif Wakeel Muhammad Ali Khan M. M. Quazi Niaz Bahadur Khan Arslan Ahmed Manzoore Elahi M. Soudagar
Journal of Materials Science: Materials in Electronics, Volume 33, Issue 25, Pages 20106-20120
Impact Factor: 2.8 | **Quartile:** 2 | **Citations:** 16
DOI: <https://doi.org/10.1007/s10854-022-08827-0>
- Grain size stability of interfacial intermetallic compound in Ni and Co nanoparticle-doped SAC305 solder joints under electromigration** 2022
 Muhammad Nasir A.S.M.A. Haseeb
Journal of Materials Science: Materials in Electronics, Volume 33, Issue 17, Pages 14240-14248
Impact Factor: 2.8 | **Quartile:** 2 | **Citations:** 15
DOI: <https://doi.org/10.1007/s10854-022-08352-0>

Forecasting the Solar Panels Power Output Based on Air Pollution and Weather in the Gulf Countries by Using Machine Learning <i>Mohammed A. Bou-Rabee Mohd Bilal Muhammad Nasir Arif Ali</i> <i>International Review of Electrical Engineering</i> , Volume 17, Issue 6, Pages 570-577 Impact Factor: N/A Citations: 6 DOI: https://doi.org/10.15866/iree.v17i6.22714	2022
Systematic Review of Drilling Problems and Their Solutions in Petroleum Engineering <i>Muhammad Nasir Muhammad Nihal Naseer M. M. Quazi Saif Wakeel Imran Ali Manzoore Elahi M Soudagar Jahanzeb Bhatti</i> <i>Journal of ICT, Design, Engineering and Technological Science</i> , Volume 5, No. 2, Pages 1-16 Impact Factor: 0 DOI: https://doi.org/10.33150/JITDETS-5.2.1	2021
A review on the formation of colors on SS304 stainless steel induced by laser color marking technique <i>R. Linggamm M. M. Quazi M. Nasir Bashir M. H. Aiman Abdullah Qaban Foram Dave M. M. Ali</i> <i>Journal of Advances in Technology and Engineering Research</i> , Volume 7(2), Pages 01-26 Impact Factor: N/A DOI: 10.20474/jater-7.2.1	2021
RSM and Artificial Neural Networking based production optimization of sustainable Cotton bio-lubricant and evaluation of its lubricity & tribological properties <i>M. Gul N.W.M. Zulkifli M.A. Kalam H.H. Masjuki M.A. Mujtaba Sumra Yousuf M. Nasir Bashir Waqar Ahmed M.N.A.M. Yusoff Shazia Noor Rauf Ahmad</i> <i>Energy Reports</i> , Volume 7, Pages 830-839 Impact Factor: 4.937 Quartile: 2 Citations: 36 DOI: https://doi.org/10.1016/j.egyr.2021.01.033	2021
Bioglass-fibre reinforced hydroxyapatite composites synthesized using spark plasma sintering for bone tissue engineering <i>Muhammad Rizwan Ali Dad Chandio Muhammad Sohail Muhammad Nasir Sumra Yousuf Rodianah Alias Hammad ur Rehman M. Hamdi Wan Jeffrey Basirun</i> <i>Processing and Application of Ceramics</i> , Volume 15, Issue 3, Pages 270-278 Impact Factor: 1.804 Quartile: 2 Citations: 2 DOI: https://doi.org/10.2298/PAC2103270R	2021
The Influence of Nanosecond Fibre Laser on the Removal of Paint on Metallic Surface <i>R. Linggamm M. M. Quazi M. Nasir Bashir M. Ishak M.H. Aiman</i> <i>International Journal of Technology and Engineering Studies</i> , Volume 7, Issue 2, Pages 1-7 Impact Factor: N/A DOI: https://dx.doi.org/10.20469/ijtes.7.10001-2	2021
An Analysis of Geometrical and Failure Characteristics of Laser Micro-Welded SS304 and DSS2205 <i>R. M. Mithun M. M. Quazi M. Nasir Bashir M. Ishak M. H. Aiman</i> <i>Journal of ICT, Design, Engineering and Technological Science (JITDETS)</i> , Volume 5, No. 1, Pages 1-7 Impact Factor: N/A DOI: https://doi.org/10.33150/JITDETS-5.1.1	2021
A New Hybrid LGPMBWM-PIV Method for Automotive Material Selection <i>Saif Wakeel Sedat Bingol Shafi Ahmad Muhammad Nasir Mir Seyed Mohammad Mohsen Emamat Zhou Ding H. Fayaz</i> <i>Informatica</i> , Volume 45(1), Pages 105-115 Impact Factor: 2.688 Quartile: 1 Citations: 11 DOI: https://doi.org/10.31449/inf.v45i1.3246	2021
History and fundamental principle of Instrument Landing System (ILS) and technical detailed architecture of ILS transmitter and receiver <i>Mehran khan Faiza Ali Muhammad Nasir</i> <i>Journal of Advances in Technology and Engineering Research</i> , Volume 7(1), Pages 01-08 Impact Factor: N/A DOI: https://doi.org/10.20474/jater-7.1.1	2021
Design and Optimization of Portable Small Scale Horizontal Axis Wind Turbine <i>Monis Sherwa M. Nasir Bashir Muhammad Jameel Wattoo Muhammad Osama Saeed Tayyab Naeem Muhammad Nauman Nawaz Muhammad Shakeel</i> <i>International Journal of Technology and Engineering Studies</i> , Volume 7, Issue 1, Pages 17-26 Impact Factor: N/A DOI: 10.20469/ijtes.7.40003-1	2021

Evaluation of a Nanostructured MWCNT based RAM Coating Applied to a Glass Fiber Composite <i>Adil Hassan M. Nasir Bashir Farhan Abbas Ammar Muhammad Khan Ahmed Sohail Ghaur</i> <i>International Journal of Technology and Engineering Studies</i> , Volume 7, Issue 1, 1-9 d Impact Factor: N/A DOI: https://dx.doi.org/10.20469/ijtes.7.10001-1	2021
The Laser Cleaning Process for the Removal of Surface Corrosion Developed over One Year on Stainless Steel SS304 <i>R. Linggamm M. M. Quazi M. H. Aiman J. Farzad M. Nasir Bashir</i> <i>Journal of ICT, Design, Engineering and Technological Science</i> , Volume 4, No. 2, Pages 36-41 Impact Factor: N/A DOI: https://doi.org/10.33150/JITDETS-4.2.3	2020
Solar assisted vapor absorption cooling system: A review <i>Saad Ahmed Muhammad Nasir Shah Zaib Umar Hamza Khan</i> <i>Journal of Advances in Technology and Engineering Research</i> , Volume 6(2), Pages 69-76 Impact Factor: N/A DOI: https://doi.org/10.20474/jater-6.2.3	2020
Multi-objective-optimization of process parameters of industrial-gas-turbine fueled with natural gas by using Grey-Taguchi and ANN methods for better performance <i>M. Gul M.A. Kalam M.A. Mujtaba Saira Alam Muhammad Nasir Iqra Javed Umair Aziz M. Rizwan Farid M. Tahir Hassan Shahid Iqbal</i> <i>Energy Reports</i> , Volume 6, Pages 2394-2402 Impact Factor: 5.318 Quartile: 1 Citations: 29 DOI: https://doi.org/10.1016/j.egy.2020.08.002	2020
Selection of sustainable material for the manufacturing of complex automotive products using a new hybrid Goal Programming Model for Best Worst Method–Proximity Indexed Value method <i>Saif Wakeel Sedat Bingol M. Nasir Bashir Shafi Ahmad</i> <i>Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications</i> , Pages 1-15 Impact Factor: 2.311 Quartile: 3 Citations: 22 DOI: DOI: 10.1177/1464420720966347	2020
Synthesis, Characterization, and In Vitro Biochemical Analysis of Hydroxyapatite–Bioglass® Composite Scaffolds for Bone Tissue Repair <i>Muhammad Rizwan Sumra Yousuf Muhammad Sohail M. Nasir Bashir Rodianah Alias M. Hamdi Wan Jeffrey Basirun</i> <i>JOM</i> , Volume 72, Pages 3683–3692 Impact Factor: 2.474 Quartile: 2 Citations: 1 DOI: https://link.springer.com/article/10.1007%2Fs11837-020-04289-z	2020
Review of Wing-Morphing Technology <i>Daniyal Ahmed Muhammad Nasir</i> <i>International Journal of Technology and Engineering Studies</i> , Volume 6, Issue 2, Pages 41-51 Impact Factor: N/A DOI: https://dx.doi.org/10.20469/ijtes.6.10001-2	2020
Implementation of Lean Methodology on the Main Assembly Line of an Automotive Plant to Enhance Productivity <i>Amber Iqbal M. Nasir Bashir Asna Alam M. Bilal Asif Iqra Arshad</i> <i>Journal of ICT, Design, Engineering and Technological Science</i> , Volume 4, No. 1, Pages 16-22 Impact Factor: 0 DOI: https://doi.org/10.33150/JITDETS-4.1.4	2020
An Overview of LaserWelding of High Strength Steels for Automotive Application <i>Kishen A/L Manoharan M. M. Quazi M. N. Bashir M. N. M. Salleh A. Q Zafiuddin R. Linggamm</i> <i>International Journal of Technology and Engineering Studies</i> , Volume 6, Issue 1, Pages 23-40 Impact Factor: 0 DOI: https://dx.doi.org/10.20469/ijtes.6.10004-1	2020
Investigating the wear characteristics of metal matrix composite coating deposited on AA5083 Al-alloy by laser surface engineering technique <i>Imran Ali Naiming Lin M.M Quazi M. Nasir Bashir Hammad Sadiq Faisal Sharaf</i> <i>North American Academic Research</i> , Volume 3(01), Pages 138-146 Impact Factor: 0 DOI: https://doi.org/10.5281/zenodo.3626448	2020

- A case study in the textile industry for the reduction of cost of quality** 2019
 Muhammad Rehan Yasin M Nasir Bashir Syed Asad Ali Zaidi
Journal of Advances in Technology and Engineering Research, Volume 5(6), Pages 219-230
Impact Factor: 0
DOI: <https://doi.org/10.20474/jater-5.6.1>
- The effects of graphene oxide nanoparticle additive stably dispersed in dairy scum oil biodiesel-diesel fuel blend on CI engine: performance, emission and combustion characteristics** 2019
 M. Nasir Bashir Manzoore Elahi. M. Soudagar Nik-Nazri Nik-Ghazali M.A. Kalam Irfan Anjum Badruddin N.R. Banapurmath T.M. Yunus Khan Naveed Akram Rijavan Farade Asif Afzal
Fuel, Volume 257, Article Number 116015
Impact Factor: 5.578 | Quartile: 1 | Citations: 219
DOI: <https://doi.org/10.1016/j.fuel.2019.116015>
- Effect of Shielded Metal Arc Welding (SMAW) parameters on mechanical properties of low-carbon, mild and stainless-steel welded joints: A review** 2019
 S. Farrukh Haider M. M. Quazi Jahanzeb Bhatti M. Nasir Bashir Imran Ali
Journal of Advances in Technology and Engineering Research, Volume 5(5), Pages 191-198
Impact Factor: 0
DOI: <https://doi.org/10.20474/jater-5.5.1>
- Development of water jet cutting and study on different parameters** 2019
 W. Khalid M. Hussain M. Nasir Bashir M.M. Quaz Imran Ali Jahanzeb Bhatti Hammad Ur Rehman
Journal of Applied and Physical Sciences, Volume 5(3), Pages 81-87
Impact Factor: 0
DOI: <https://doi.org/10.20474/japs-5.3.2>
- Enhancing Corrosion Resistance in Explosive Welding** 2019
 Asna Alam M. Nasir Bashir
International Journal of Applied and Physical Sciences, Volume 5, Issue 3, Pages 73-81
Impact Factor: N/A
DOI: <https://dx.doi.org/10.20469/ijaps.5.50002-3>
- Mechanical and tribological performance of a hybrid MMC coating deposited on Al-17Si piston alloy by laser composite surfacing technique** 2018
 M. M. Quazi M. Ishak A. Arslan M. A. Fazal Farazila Yusof B. S. Sazzad M. Nasir Bashir M. Jamshaid
RSC Advances, Volume 8, Pages 2394–2402
Impact Factor: 3.049 | Quartile: 2 | Citations: 11
DOI: [10.1039/c7ra08191j](https://doi.org/10.1039/c7ra08191j)
- Improving mechanical and electrical properties of Cu/SAC305/Cu solder joints under electromigration by using Ni nanoparticles doped flux** 2018
 M. Nasir Bashir A.S.M.A. Haseeb
Journal of Materials Science: Materials in Electronics, Volume 29, Pages 3182–3188
Impact Factor: 2.195 | Quartile: 2 | Citations: 21
DOI: <https://doi.org/10.1007/s10854-017-8252-0>
- Scratch adhesion and wear failure characteristics of PVD multilayer CrTi/CrTiN thin film ceramic coating deposited on AA7075-T6 aerospace alloy** 2018
 M. M. Quazi M. Ishak A. Arslan M. Nasir Bashir Imran Ali
Journal of Adhesion Science and Technology, Volume 32, No. 6, Pages 625-641
Impact Factor: 1.21 | Quartile: 3 | Citations: 25
DOI: [10.1080/01694243.2017.1373988](https://doi.org/10.1080/01694243.2017.1373988)
- Effect of Cobalt Doping on the Microstructure and Tensile Properties of Lead Free Solder Joint Subjected to Electromigration** 2016
 M. Nasir Bashir A.S.M.A. Haseeb Abu Zayed Mohammad Saliquir Rahman M. A. Fazal
Journal of Materials Science & Technology, Volume 32, Issue 11, Pages 1129-1136
Impact Factor: 2.764 | Quartile: 1 | Citations: 41
DOI: <http://dx.doi.org/10.1016/j.jmst.2016.09.007>
- Reduction of electromigration damage in SAC305 solder joints by adding Ni nanoparticles through flux doping** 2015
 M. Nasir Bashir A.S.M.A. Haseeb Abu Zayed Mohammad Saliquir Rahman M. A. Fazal, C. R. Kao
Journal of Materials Science, Volume 50, Pages 6748–6756

Conference Proceedings

Effects of cerium oxide nanoparticles on biodiesel blend	2021
M. Nasir Bashir	
1st International Conference on Advances in Material Science and Environmental Engineering 25th, res.country(177,)	
Citations: N/A	
DOI: Nil	
Evaluation of a nanostructured MWCNT based RAM coating applied to a glass fiber composite	2021
Adil Hassan M. Nasir Bashir M. Rizwan	
1st International Conference on Advances in Material Science and Environmental Engineering 25th, res.country(177,)	
Citations: N/A	
DOI: Nil	
Reactive Nanoparticle Doped Flux for High Reliability Electronic Micro-joints	2018
A.S.M.A. Haseeb M. Nasir Bashir G K Gosh	
4th International Conference on Structure, Processing and Properties of Materials, SPPM2018, res.country(19,)	
Citations: N/A	
DOI: 0	
Effect of Ni nanoparticles on intermetallic compounds formation in SAC305 solder joint under high current density	2014
M. Nasir Bashir A.S.M.A. Haseeb Abu Zayed Mohammad Saliqur Rahman M. A. Fazal	
36th International Electronics Manufacturing Technology Conference, res.country(157,)	
Citations: N/A	
DOI: 10.1109/IEMT.2014.7123131	

Editorial Activities

Edited Journal Issue / Proceeding / Book	2021
Impact Factor: 0	
Edited Journal Issue / Proceeding / Book	2020
Impact Factor: 0	
Reviewed Papers for Journals	2020
Editor in Chief of Journal	2019