

# Muhammad Shoaib Butt

Associate Professor  
School of Chemical & Materials Engineering

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## About

Dr. Muhammad Shoaib Butt is working as Associate Professor in the School of Chemical & Materials Engineering. Dr. Muhammad Shoaib Butt has a PhD in Biomaterials. Dr. Muhammad Shoaib Butt has published 32 research articles & conference papers having a citation count of 450, carried out 5 projects and filed 0 intellectual property.

## Qualifications

<b>PhD in Biomaterials</b> Southeast University , China	2014 - 2017
<b>MPhil in Metallurgy And Materials Engineering</b> South University of Science and Technology of China , China	2012 - 2014
<b>B.Sc (Hon) in metallurgy</b> University of the Punjab , Pakistan	2006 - 2010

## Experience

<b>Associate Professor</b> School of Chemical & Materials Engineering	2024- Present
<b>Assistant Professor</b> School of Chemical & Materials Engineering	2021 - 2024
<b>Assistant Professor</b> School of Chemical & Materials Engineering	2018 - 2021
<b>Assistant Professor</b> School of Chemical & Materials Engineering	2018 - 2018
<b>Teaching Assistant</b> Southeast University,Nanjing China , Southeast University,Nanjing China	2015 - 2017

## Awards

<b>NUST</b> "Teaching Skills and OBE,Stress and Time Management for NUST Faculty"	2018
<b>Southeast University</b> Successfully scheduled, provided, and established high quality learning opportunities for the students to achieve learning goals, in accordance with the university mission, values and ethos.	2015
<b>Pakistan Engineering Coun</b> Member of Pakistan Engineering Council as Membership No. METAL/2557	2011
<b>PITAC</b> Quality Control Inspector	2011
<b>Punjab Unviersity</b> Non-Destructive Evaluation of Weldments and their Remedies	2010
<b>PICS</b> Stress and Anger Mangement	2010
<b>Lawrence College</b> HOCKEY COLOR	2010

Research Projects

National Projects

4th ASEAN-Pakistan Conference on Materials Science (APCoMS 2025)	2025
Funding Agency: ASEAN Pakistan Collaboration Fund	
Amount: PKR 24,780,568.00	
Status: Approved_inprocess	
Skin stapling for wound closure in the emergency department	2021
Funding Agency: NUST	
Amount: PKR 300,000.00	
Status: Completed	
Intestinal anastomosis with a skin stapler: a safe and efficient method in human	2022
Funding Agency: HEC	
Amount: PKR 19,750,000.00	
Status: Approved_inprocess	
Development of biodegradable sutures for surgical incisions and wounds	2021
Funding Agency: PSF	
Amount: PKR 1,765,652.00	
Status: Completed	
Biodegradable Metallic Materials Strengthened Poly-Lactic Acid (PLA) Composites through Interfacial Properties for Osteosynthesis Implantation	2018
Funding Agency: HEC	
Amount: PKR 492,000.00	
Status: Completed	

International Projects

Research Articles

Green synthesis of niosomal dual drug delivery systems for synergistic anticancer therapy	2025
Tabinda Kiran Muhammad Shoaib Butt Sobia Rafique Nimra Shabbir Daulat Haleem Khan Yumna Yousaf Hafiza Madiha Saeed	
Colloids and Surfaces A: Physicochemical and Engineering Aspects, Volume 718, Article Number 136883	
Impact Factor: 4.900   Quartile: 2	
DOI: <a href="https://doi.org/10.1016/j.colsurfa.2025.136883">https://doi.org/10.1016/j.colsurfa.2025.136883</a>	
From staples to biodegradable solutions: AZ31 magnesium alloy sutures with dual-layer PAA-chitosan coating for intestinal anastomosis	2025
Nauman Javed Aimen Hanif Muhammad Shoaib Butt	
International Journal of Biological Macromolecules, Volume 315, Part 1, Article Number 144162	
Impact Factor: 7.700   Quartile: 1	
DOI: <a href="https://doi.org/10.1016/j.ijbiomac.2025.144162">https://doi.org/10.1016/j.ijbiomac.2025.144162</a>	
Computational Fluid Dynamics Simulation and Analysis of Non-Newtonian Drilling Fluid Flow and Cuttings Transport in an Eccentric Annulus	2024
Muhammad Ahsan Shah Fahad Muhammad Shoaib Butt	
Mathematics , Volume:13, Issue:1, Article Number 101	
Impact Factor: 2.300   Quartile: 1	
DOI: <a href="https://doi.org/10.3390/math13010101">https://doi.org/10.3390/math13010101</a>	
Solution-combustion synthesis of AgCo3O4/FeMn-O multiphase composite for high-performance asymmetric supercapacitor	2024
Moiz Anwar Asmara Fazal Muhammad Javaid Iqbal Badriah S. Almutairi Muhammad Zubair Khan Muneeb Irshad Mohsin Ali Raza Muhammad Shoaib Butt	
Mohsin Saleem (Corresponding Author) Waqas Ahmed Abdul Ghaffar	
Journal of Energy Storage , Volume: 105, Article Number: 114602, Pages:16	
Impact Factor: 8.9   Quartile: 1   Citations: 3	
DOI: <a href="https://doi.org/10.1016/j.est.2024.114602">https://doi.org/10.1016/j.est.2024.114602</a>	
Targeted Delivery of Letrozole-loaded Mg-doped Cobalt Ferrite Nanoparticles for Breast Cancer Treatment	2024
Huma Ijaz Urwah Raseed Naeem Kiani Hina Saeed Rumeza Hanif Sidra Anwar Nauman Javed Muhammad Shoaib Butt	
Journal of Drug Delivery Science and Technology, Volume 101, Part B, Article Number 106245	
Impact Factor: 4.500   Quartile: 1   Citations: 5	

DOI: 10.1016/j.jddst.2024.106245

**Fabrication and Biocompatibility of Neem/Chitosan Coated Silk Sutures for Infection Control and Wound Healing**

2024

Urwah Raseed Naeem Kiani Muhammad Shoaib Butt Hina Saeed Rumeza Hanif Sidra Anwar  
*Journal of King Saud University-Science*, Volume 36, Issue 10, Article Number 103435

**Impact Factor:** 3.700 | **Quartile:** 1 | **Citations:** 8

**DOI:** <https://doi.org/10.1016/j.jksus.2024.103435>

**Recovery and restoration of glass fibers from end-of-life composite waste through pyrolysis and partial oxidation processes combined with hot alkaline surface treatments**

2024

A. Rafay Muhammad Irfan Salman Raza Naqvi Malik Adeel Umer M. A. Rehman Mohsin Saleem Muhammad Shoaib Butt Asad Ullah Khan  
*Polymer Composites*, Pages 1-14

**Impact Factor:** 4.800 | **Quartile:** 1

**DOI:** <https://doi.org/10.1002/pc.28916>

**3D-printed polyether-ether ketone/carboxymethyl cellulose scaffolds coated with Zn–Mn doped mesoporous bioactive glass nanoparticles**

2024

Awab Mughal Syed Muneeb Haider Gillani Sheraz Ahmed Duaa Fatima Rabia Hussain Jawad Manzur Muhammad Haseeb Nawaz Badar Minhas  
Muhammad Shoaib Butt Mahdi Bodaghi Muhammad Atiq Ur Rehman  
*Journal of the Mechanical Behavior of Biomedical Materials*, Volume: 156, Article Number: 106581

**Impact Factor:** 3.9 | **Quartile:** 2 | **Citations:** 14

**DOI:** 10.1016/j.jmbbm.2024.106581

**Kappa-carrageenan and sodium alginate-based pH-responsive hydrogels for controlled release of methotrexate**

2024

Muhammad Anees Ur Rehman Qureshi Nasima Arshad Atta Rasool Naveed Kausar Janjua Muhammad Shoaib Butt Muhammad Naqeeb Ur Rehman  
Qureshi Hammad Ismail  
*Royal Society Open Science*, Volume: 11, Issue: 04, Pages: 19

**Impact Factor:** 3.5 | **Quartile:** 2 | **Citations:** 7

**DOI:** 10.1098/rsos.231952

**Moringa oleifera/chitosan-coated silk sutures for improved wound healing**

2024

Muhammad Shoaib Butt Zainab Malik Rabia Ghaffar Abrar H Baluch Mohsin Saleem Abdul Ghaffar  
*Materials Chemistry and Physics*, Volume 313, Article Number 128737

**Impact Factor:** 4.6 | **Quartile:** 2 | **Citations:** 9

**DOI:** <https://doi.org/10.1016/j.matchemphys.2023.128737>

**Antibacterial and photocatalytic properties of Ag-doped CeO<sub>2</sub>:BaO synthesized by simple solution combustion method**

2023

Aniqa Rani Rabia Ghaffar Muhammad Shoaib Butt Muneeb Irshad Mohsin Saleem Muhammad Hanif Muhammad Arshad Suleman Ahmad Abid Aleem Abdul Ghaffar  
*Materials Letters*, Volume 353, Article Number 135270

**Impact Factor:** 3.0 | **Quartile:** 2 | **Citations:** 1

**DOI:** <https://doi.org/10.1016/j.matlet.2023.135270>

**Influence of zinc substitution on the structural, dielectric, and gas sensing properties of Mg<sub>1-x</sub>Zn<sub>x</sub>Fe<sub>2</sub>O<sub>4</sub> nanoparticles**

2023

Iqra Nazir Farhan Javaid Mutawara Mahmood Baig Muhammad Shoaib Butt Iftikhar Hussain Gul  
*ACS Omega*, Volume 8, Issue 38, Pages 34760-34767

**Impact Factor:** 4.1 | **Quartile:** 2 | **Citations:** 3

**DOI:** 10.1021/acsomega.3c03781

**Synthesis and characterization of cobalt doped ferrites for biomedical applications**

2023

Muhammad Naeem Kiani Muhammad Shoaib Butt Iftikhar Hussain Gul Mohsin Saleem Muhammad Irfan Abrar H. Baluch Muhammad Aftab Akram Mohsin Ali Raza  
*ACS Omega*, Pages 1-7

**Impact Factor:** 4.132 | **Quartile:** 2 | **Citations:** 41

**DOI:** <http://doi.org/10.1021/acsomega.2c05226>

**Impact based characterization of composites using a computational framework**

2023

Zaigham Saeed Toor Abrar H Baluch Abdul Wadood Atiq Ur Rehman Mohsin Saleem Muhammad Shoaib Butt Khazar Hayat  
*ACTA ASTRONAUTICA*, Volume 202, Pages 705-714

**Impact Factor:** 2.954 | **Quartile:** 1 | **Citations:** 4

**DOI:** <https://doi.org/10.1016/j.actaastro.2022.11.011>

- Study of ferroelectric and piezoelectric response of heat-treated surfactant-based BaTiO<sub>3</sub> nanopowder for high energy capacitors** 2023  
 Gulraiz Tanvir Mohsin Saleem Hamid Jabbar Amir Hamza Muhammad Asif Hussain Muhammad Zubair Khan Abrar H. Baluch Muhammad Irfan Muhammad Shoaib Butt Faysal Naeem Abdul Ghaffar Muhammad Ahsan Muhammad Asif Rafiq Rizwan Ahmed Malik Adnan Maqbool  
*Materials Science and Engineering B*, Volume 287, Article Number 116100  
**Impact Factor:** 3.407 | **Quartile:** 2 | **Citations:** 9  
**DOI:** <https://doi.org/10.1016/j.mseb.2022.116100>
- Improved super capacitive performance of hydrothermally developed Mn and Ni oxides along with activated carbon as ternary nanocomposite** 2022  
 Faiza Khalid Mohsin Saleem Hamid Jabbar Muhammad Gulraiz Tanvir Muhammad Shoaib Butt Abrar H. Baluch Abdul Ghaffar Muhammad Ahsan Rizwan Ahmed Malik Umit Alver Hussein Alrobei Zab dur Rehman Meshal Alzaid Muhammad Zubair Khan  
*Journal of Physics and Chemistry of Solids*, Volume 161, Article Number 110467  
**Impact Factor:** 3.995 | **Quartile:** 2 | **Citations:** 11  
**DOI:** <https://doi.org/10.1016/j.jpcs.2021.110467>
- Enhancement in bonding strength and ageing resistance of polychloroprene solvent-based adhesives through graft copolymerization** 2021  
 Fariz Aneeq Muhammad Shahid Mohsin Saleem Muhammad Awais Muhammad Shoaib Butt Malik Adeel Umer  
*Journal of Adhesion Science and Technology*, Volume 35, No.16, Pages 1752-1763  
**Impact Factor:** 2.077 | **Quartile:** 3 | **Citations:** 7  
**DOI:** <https://doi.org/10.1080/01694243.2020.1857581>
- Nanoporous Alumina Membranes for Sugar Industry: An Investigation of Sintering Parameters Influence on Ultrafiltration Performance** 2021  
 Farooq Khan Niazi Malik Adeel Umer Ashfaq Ahmed Muhammad Arslan Hafeez Zafar Khan Muhammad Shoaib Butt Z Luo Young-Kwon Park Abdul Razzaq  
*Sustainability*, Volume 13(14), Article Number 7593  
**Impact Factor:** 3.251 | **Quartile:** 2 | **Citations:** 2  
**DOI:** <https://doi.org/10.3390/su13147593>
- In Situ Synthesis of a Polyaniline/ Fe–Ni Codoped Co<sub>3</sub>O<sub>4</sub> Composite for the Electrode Material of Supercapacitors with Improved Cyclic Stability** 2021  
 Muhammad Aftab Akram Sofia Javed Muhammad Shoaib Butt Muhammad Usman Muhammad Adnan Muhammad Tayyab Ahsan  
*ACS Omega*, Volume 6(2), Pages 1190-1196  
**Impact Factor:** 4.132 | **Quartile:** 2 | **Citations:** 55  
**DOI:** <https://doi.org/10.1021/acsomega.0c04306>
- Numerical and Experimental evaluation of the Mechanical behavior of Kevlar/Glass fiber reinforced epoxy hybrid composites** 2020  
 Mohsin Saleem Muhammad Shoaib Butt Muhammad Nabeel Muhammad Ali Nasir Mariyam Sattar Rizwan Ahmed Malik Meshal Alzaid Hussein Alrobei  
*Journal of Mechanical Science and Technology*, Volume 34(11), Pages 4613-4619  
**Impact Factor:** 1.734 | **Quartile:** 3 | **Citations:** 13  
**DOI:** <http://doi.org/10.1007/s12206-020-1019-1>
- Numerical Modeling of Ejector and Development of Improved Methods for the Design of Ejector-Assisted Refrigeration System** 2020  
 Mohsin Saleem Muhammad Shoaib Butt Hafiz Ali Muhammad Hafiz Muhammad Abdullah Zabdur Rehman Beomjoon Lee Young-Jin Baik Jongjae Cho Muhammad Imran Manzar Masud  
*Energies*, Volume 13(21), Article Number 5835  
**Impact Factor:** 2.702 | **Quartile:** 3 | **Citations:** 6  
**DOI:** <https://doi.org/10.3390/en13215835>
- Development and Aging Behaviour of Solvent-Based Polychloroprene Rubber Nano-Adhesive Using Multiwall Carbon Nanotubes** 2020  
 Muhammad Awais Muhammad Shahid Mohsin Saleem Fariz Aneeq Muhammad Shoaib Butt Malik Adeel Umer  
*Journal of Materials Science and Chemical Engineering*, Volume 8(9), Pages 31-44  
**Impact Factor:** -  
**DOI:** 10.4236/msce.2020.89004
- Synthesis and Characterization of PVA/Starch Hydrogel Membranes Incorporating Essential Oils Aimed to be Used in Wound Dressing Applications** 2020  
 Farrukh Altaf Muhammad Bilal Khan Niazi Zaib Jahan Tahir Ahmad Muhammad Aftab Akram Amna Safdar Muhammad Shoaib Butt Tayyaba Noor Farooq Sher  
*Journal of Polymers and the Environment*, Pages 1-19  
**Impact Factor:** 3.667 | **Quartile:** 2 | **Citations:** 145

DOI: <https://doi.org/10.1007/s10924-020-01866-w>

**Corrosion and wear behavior of TiN PVD coated 304 stainless-steel** 2020  
*Muhammad Shoaib Butt Awais Awan Riffat Asim Pasha Rizwan Ahmed Malik Ibrahim M Alarifi Meshal Alzaid Muhammad Latif Ammar Naseer Mohsin Saleem Hussein Alrobei*  
*Journal of Mechanical Science and Technology*, Volume 34, Pages 3227–3232  
**Impact Factor:** 1.734 | **Quartile:** 3 | **Citations:** 17  
**DOI:** DOI 10.1007/s12206-020-0714-2

**Revealing the Effects of Microarc Oxidation on the Mechanical and Degradation Properties of Mg-Based Biodegradable Composites** 2020  
*Muhammad Shoaib Butt Mohsin Saleem Adnan Maqbool Malik Adeel Umer Farhan Javaid Rizwan Ahmed Malik Muhammad Asif Hussain Zabdur Rehman*  
*ACS Omega*, Volume 5(23), Pages 13694–13702  
**Impact Factor:** 2.87 | **Quartile:** 2 | **Citations:** 14  
**DOI:** <https://dx.doi.org/10.1021/acsomega.0c00836>

**Enhanced Mechanical Properties of Surface Treated AZ31 Reinforced Polymer Composites** 2020  
*Muhammad Shoaib Butt Mohsin Saleem Adnan Maqbool Malik Adeel Umer Rizwan Ahmed Malik Ibrahim M. Alarif Hussein Alrobei*  
*Crystals*, Volume 10, Issue 5, Article Number 381  
**Impact Factor:** 2.404 | **Quartile:** 2 | **Citations:** 10  
**DOI:** <https://doi.org/10.3390/cryst10050381>

**Percolation phenomena of dielectric permittivity of a microwave-sintered BaTiO3–Ag nanocomposite for high energy capacitor** 2020  
*Mohsin Saleem Muhammad Shoaib Butt Adnan Maqbool Malik Adeel Umer Muhammad Shahid Farhan Javaid Rizwan Ahmed Malik Hamid Jabbar Hafiz Muhammad Waseem Khalil Lim Dong Hwan Minsoo Kim Bo-Kun Koo Soon Jong Jeong*  
*Journal of Alloys and Compounds*, Volume 822, Article Number 153525  
**Impact Factor:** 5.316 | **Quartile:** 1 | **Citations:** 29  
**DOI:** <https://doi.org/10.1016/j.jallcom.2019.153525>

**Biodegradable Mg Strengthened Poly-Lactic Acid Composite through Interfacial Properties** 2017  
*Muhammad Shoaib Butt Jing Bai Feng Xue*  
*Materials Science Forum*, Volume 900, Pages 7-11  
**Impact Factor:** - | **Citations:** 3  
**DOI:** 10.4028/www.scientific.net/MSF.900.7

**Mechanical and degradation properties of biodegradable Mg strengthened poly-lactic acid composite through plastic injection molding** 2017  
*Muhammad Shoaib Butt Jing Bai Xiaofeng Wan Chenglin Chu Feng Xue Hongyan Ding Guanghong Zhou*  
*Materials Science and Engineering C*, Volume 70, Part 1, Pages 141-147  
**Impact Factor:** 5.080 | **Quartile:** 1 | **Citations:** 31  
**DOI:** 10.1016/j.msec.2016.08.051

## Conference Proceedings

**Degradation behavior of biodegradable Mg skin staple pins: Dual defense against corrosion and bacterial infections** 2024  
*Muhammad Shoaib Butt Romana*  
*27th International Congress of Chemical and Process Engineering*, res.country(56,)  
**Citations:** N/A  
**DOI:** Nil

**Synthesis and Characterization of Activated Carbon and its Application for Wastewater Treatment** 2023  
*Farhan Raheel A Rafay Bushra Bibi Sher Ahmad Zeeshan Ali Mohsin Saleem M Shoaib Butt Atiq Ur Reham Muhammad Irfan*  
*The 6th Conference on Emerging Materials and Processes (CEMP 2023)*, res.country(177,)  
**Citations:** N/A  
**DOI:** Nil

## Editorial Activities

**Biomedical Materials & Devices** 2025  
Reviewed Papers for Journals  
**Impact Factor:** 4.8

**Biomedical Materials & Devices** 2025

Reviewed Papers for Journals	
<b>Impact Factor: 4.8</b>	
<b>Biomedical Materials &amp; Devices</b>	2025
Reviewed Papers for Journals	
<b>Life</b>	2024
Reviewed Papers for Journals	
<b>Impact Factor: 3.2</b>	
<b>ChemistrySelect</b>	2024
Reviewed Papers for Journals	
<b>Impact Factor: 2.3</b>	
<b>Pharmacognosy Magazine</b>	2024
Reviewed Papers for Journals	
<b>Impact Factor: 1.5</b>	
<b>International Journal of Biological Macromolecules</b>	2024
Reviewed Papers for Journals	
<b>Impact Factor: 8.2</b>	
<b>International Journal of Molecular Sciences</b>	2024
Reviewed Papers for Journals	
<b>Impact Factor: 5.6</b>	
<b>Advanced Engineering Materials</b>	2023
Reviewed Papers for Journals	
<b>Impact Factor: 4.122</b>	
<b>Journal of Polymers and the Environment</b>	2023
Reviewed Papers for Journals	
<b>Impact Factor: 5.3</b>	
<b>Journal of Functional Biomaterials</b>	2023
Reviewed Papers for Journals	
<b>Impact Factor: 4.9</b>	
<b>Nanoscale Advances</b>	2023
Reviewed Papers for Journals	
<b>Impact Factor: 4.7</b>	
<b>Journal of Personalized Medicine</b>	2023
Reviewed Papers for Journals	
<b>Impact Factor: 2.6</b>	
<b>Crystals</b>	2023
Reviewed Papers for Journals	
<b>Impact Factor: 2.7</b>	
<b>Coatings</b>	2023
Reviewed Papers for Journals	
<b>Impact Factor: 3.236</b>	
<b>Journal of Functional Biomaterials</b>	2023
Reviewed Papers for Journals	
<b>Impact Factor: 4.901</b>	
<b>Materials</b>	2023
Reviewed Papers for Journals	
<b>Impact Factor: 3.623</b>	
<b>Applied Sciences-Basel</b>	2023
Reviewed Papers for Journals	
<b>Impact Factor: 2.838</b>	
<b>Materials</b>	2023
Reviewed Papers for Journals	
<b>Impact Factor: 3.748</b>	
<b>Journal of Functional Biomaterials</b>	2023

Reviewed Papers for Journals <b>Impact Factor:</b> 4.901	
<b>Sensors</b> Reviewed Papers for Journals <b>Impact Factor:</b> 3.576	2023
<b>Aerospace</b> Reviewed Papers for Journals <b>Impact Factor:</b> 2.66	2023
<b>International Journal of Molecular Sciences</b> Reviewed Papers for Journals <b>Impact Factor:</b> 6.208	2023
<b>Coatings</b> Reviewed Papers for Journals <b>Impact Factor:</b> 3.236	2023
<b>Materials</b> Reviewed Papers for Journals <b>Impact Factor:</b> 3.748	2023
<b>Polymers</b> Reviewed Papers for Journals <b>Impact Factor:</b> 4.967	2022
<b>Corrosion and materials degradation</b> Reviewed Papers for Journals <b>Impact Factor:</b> N/A	2022
<b>Crystals</b> Reviewed Papers for Journals <b>Impact Factor:</b> 2.670	2022
<b>Journal of Functional Biomaterials</b> Reviewed Papers for Journals <b>Impact Factor:</b> 4.901	2022
Reviewed Papers for Journals <b>Impact Factor:</b> 0.2	2021
Reviewed Papers for Journals	2021
Reviewed Papers for Journals <b>Impact Factor:</b> 3.512	2021
Reviewed Papers for Journals <b>Impact Factor:</b> 4.749	2021
Reviewed Papers for Journals	2021
Reviewed Papers for Journals	2021
Reviewed Papers for Journals	2020
Reviewed Papers for Journals	2020
Reviewed Papers for Journals	2020
Reviewed Papers for Journals <b>Impact Factor:</b> 0.007	2020

Reviewed Papers for Journals	2020
Reviewed Papers for Journals	2020

## Trainings

<b>The Science Fun 2023</b> <b>Partner:</b> None <b>Duration:</b> 12-Apr-2023 to 21-Jul-2023	2023
<b>The Science Fun</b> <b>Partner:</b> None <b>Duration:</b> 20-May-2022 to 05-Aug-2022	2022