

ZAEEM UR REHMAN

Institute of Metallurgy & Materials Engineering, University of the Punjab, Lahore.

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Qualifications

PhD Metallurgy & Materials Engineering (2017) Continued

UNIVERSITY OF PUNJAB, LAHORE

CGPA: 3.52/4.00

MSc. Metallurgical & Materials Engineering (2013-2015) Qualified

UNIVERSITY OF ENGINEERING & TECHNOLOGY, LAHORE

CGPA: 3.42/4.00

BSc. Metallurgy & Materials Engineering (2009-2013) Qualified

BAHAUDDIN ZAKARIYA UNIVERISITY, MULTAN

CGPA:3.44/4.00

Intermediate (2007-2009) Qualified

LEADERSHIP COLLEGE, MULTAN

BISE- Multan

Grade: A

MATRICULATION (2005-2007) Qualified

Al. Noor Public High School Multan

BISE- Multan

Grade: A+

Professional Experience

➤ Working as a **“Lab Engineer”** at **“Institute of Metallurgy & Materials Engineering, University of the Punjab, Lahore”** from 11 March, 2020 till present.

➤ Worked as **“Research Assistant”** at **“Department of Metallurgy & Materials Engineering, University of the Punjab, Lahore”** from 01 March, 2017 till 10 March, 2020.

➤ Worked as **“Inspection Engineer”** at **“Bureau Veritas”** from 01 January 2014 to 28 February 2017.

Skills

- Experience of operating Gamry Potentiostat, X-ray diffractometer, Scanning electron microscope, Atomic force microscope, Universal Testing Machine, Hardness testers, Different types of furnaces.
- General Computer Skills: Origin Pro, Gamry Echem analyst, Match, MS Office (MS Word, Excel, Power point), ANSYS and CATIA.
- Communication Skills: Writing / Spoken English, Urdu, Punjabi and Saraiki.
- Diploma in IT-Office

Major Subjects

Advanced composites, Ceramics and glasses, Nano Materials, Deformation & Fracture, Nuclear Reactor Materials, Coating Techniques, Corrosion Engineering, Ferrous & Non-Ferrous Metallurgy, Materials Characterization, Heat Treatment of Metals & Alloys, Solidification Processes, Foundry Engineering, Physical Metallurgy, Phase Transformation, Powder Metallurgy, Surface Engineering, Inspection & Testing of Materials, Polymeric & Composite Materials, Manufacturing Technologies

Assisted in following final year projects:

Graduate

- *Graphene oxide/polypyrrole-based carbon fiber reinforced epoxy composites for structural and electromagnetic interference shielding applications.*
- *Graphene oxide/polyaniline-based carbon fiber reinforced epoxy composites for structural and electromagnetic interference shielding applications.*
- *Hydrothermal synthesis of MnO₂ and its composites for supercapacitors.*
- *Development of doped graphene oxide-based electrodes for supercapacitor applications.*
- *Electrochemical adsorption of methylene blue (MB) on platinum (Pt) coated with graphene oxide (GO).*

Undergraduate

Projects

- *Study on Lanthanum-based perovskite for supercapacitor applications.*
 - *Flexible fluorographene-based supercapacitors.*
 - *Development of nano clay-based hydrogels for wound healing applications.*
 - *Mechanical analysis of carbon fiber/epoxy composite on ANSYS software.*
 - *Mechanical testing of polymer matrix fiber reinforced (Epoxy/glass fiber) composite using ANSYS software.*
 - *Design for the synthesis of one kilogram of boron nitride nano sheets.*
 - *Synthesis of Lanthanum-based perovskites and their hybrids for supercapacitor applications.*
 - *Manganese oxide-based electrodes for supercapacitor applications.*
 - *To study the effect of graphite precursor on the thermal behavior of graphene/silicone composites.*
 - *Corrosion study of graphene oxide coatings deposited on magnesium AZ31B alloy developed for biomedical implants.*
 - *Boron nitride coatings for corrosion protection of metals.*
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- *Effect of graphene oxide (GO) and reduced graphene oxide (rGO) filler on mechanical properties of glass fiber reinforced unsaturated polyester composites.*
 - *Role of graphene oxide and glass fibers on the properties of porous concrete.*
 - *Effect of Processing Parameters and Precursor Graphite on the Corrosion Behavior of Electrophoretically Deposited GO Coatings on Copper Metal.*
 - *Synthesis of graphene by chemical vapor deposition (CVD) on 316L stainless steel substrate.*
 - *Synthesis and characterization of boron nitride nano sheets (BNNSs) by CVD.*
 - *Synthesis of BNNSs by liquid phase exfoliation method and corrosion study of electrophoretically deposited BNNSs on copper metal.*

Final Year Projects

- *Synthesis of graphene and comparative study of graphene/graphene polypyrrole thin hybrid coatings on copper metal.*
- *Development of Ni-Ti-Pd Shape Memory Alloy & Study the effect of “Pd” on the properties and transformation temperature of Ni-Ti Shape Memory Alloy.*

Publications

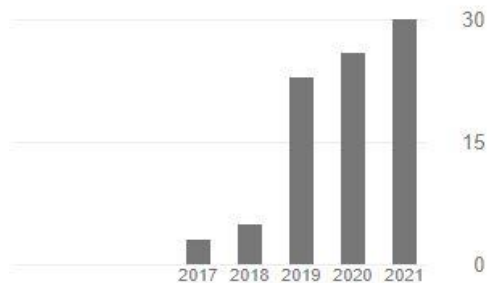
- *Maqsood MF, Raza MA, **Rehman ZU**, Abid M, Inam A, Iqbal S, Corrosion study of zinc-rich epoxy ester paints for cold galvanizing of mild steel, *Surface Review and Letters*, (2021) 2150064.*
 - *Nadeem A, Maqsood MF, Raza MA, Ilyas MT, Iqbal MJ, **Rehman ZU**, Binder free boron nitride-based coatings deposited on mild steel by chemical vapour deposition: Anti-corrosion performance analysis, *Physics B: Condensed Matter*, (2021) 412600.*
 - ***Rehman ZU**, Raza MA, Tariq A, Chishti UN, Maqsood MF, Lee N, Awais MH, Mehdi SMZ, Inam A, $La_{0.75}Sr_{0.25}Cr_{0.5}Mn_{0.5}O_3$ perovskite developed for supercapacitor applications, *Journal of Energy Storage*, 32 (2020) 101951.*
 - *Nadeem A, Raza MA, Maqsood MF, Ilyas MT, Westwood A, **Rehman ZU**, Characterization of boron nitride nanosheets synthesized by boron-ammonia reaction, *Ceramics International* 46 (2020) 20415–20422.*
 - *Maqsood MF, Raza MA, Ghauri FA, **Rehman ZU**, Ilyas MT, Corrosion study of graphene oxide coatings on AZ31B magnesium alloy, *Journal of Coatings Technology and Research* (<https://doi.org/10.1007/s11998-020-00350-3>).*
 - ***Rehman ZU**, Raza MA, Hussnain A, Chishti UN, Inam A, Ali F, Maqsood MF, Effect of morphology of manganese oxide on the capacitive behavior of electrodes, *Mater. Res. Express* 6(2019) 115552.*
 - *Raza MA, Mujadid M, Hussain M, Ali HQ, **Rehman ZU**, Mechanical properties of graphene oxide coated-glass fiber reinforced unsaturated polyester composites, *Mater. Res. Express* 6 (2019) 115303*
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- *Uddin GM, Jawad M, Ghufran M, Saleem MW, Raza MA, **Rehman ZU**, Experimental investigation of tribo-mechanical and chemical properties of TiN PVD coating on titanium substrate for biomedical implants manufacturing, The International Journal of Advanced Manufacturing Technology, Volume 102, 19 June 2019, Pages 1391-1404.*
 - ***Rehman ZU**, Raza MA, Ghauri FA, Kanwal R, Ahmad A, Graphene oxide coatings deposited on steel substrate using electrophoretic deposition and electrochemical evaluation of coatings in saline media, Key Engineering Materials, Trans Tech Publications Ltd, Switzerland, Volume 778, 9 May 2018, Pages 111-117.*
 - *Raza MA, **Rehman ZU**, Ghauri FA, Corrosion study of silane-functionalized graphene oxide coatings on copper, Surface Coatings and Technology, Volume 663, 1 October 2018, Pages 93-99.*
 - *Raza MA, **Rehman ZU**, Ghauri FA, Ahmad A, Ahmad R, Raffi M, Corrosion study of electrophoretically deposited graphene oxide on copper metal, thin solid films, Volume 620, 1 December 2016, Pages 150-159.*
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Cited by

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Citations	87	87
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Google Scholar citations





Zaeem Ur Rehman

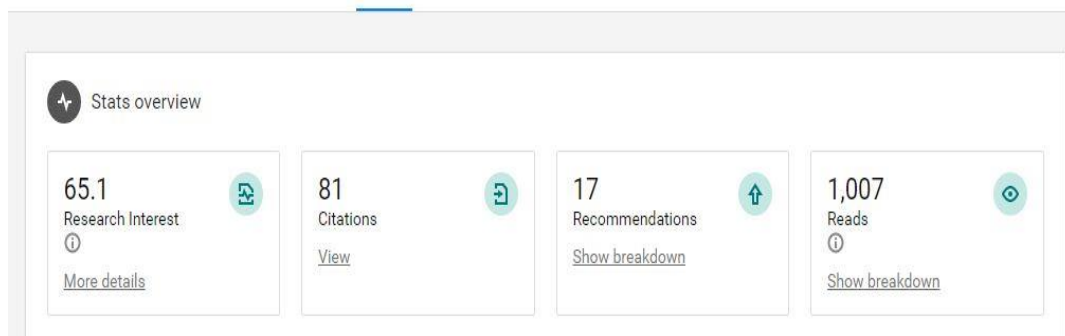
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Conferences

- **Rehman ZU, Raza MA, Tariq A, Maqsood MF, Awais MH, Latif U, Maqsood MF, $La_{0.75}Sr_{0.25}Cr_{0.5}Mn_{0.5}O_3$ /Graphene oxide-based composite electrodes for energy storage applications, International E-conference on emerging trends and innovations in nanotechnology, 9-11 April 2021, Department of Physics Riphah Institute of Computing and Applied Sciences, RIPHAH International University Lahore, Pakistan.**
- **Rehman ZU, Raza MA, Tariq A, Maqsood MF, Awais MH, Latif U, Maqsood MF, $La_{0.75}Sr_{0.25}Cr_{0.5}Mn_{0.5}O_3$ /Graphene oxide-based composite electrodes for energy storage applications, International conference on energy, water and environment (ICEWE-2021), 31st March 2021, New Campus, University of Engineering and Technology Lahore, Pakistan.**
- **Rehman ZU, Raza MA, Hussnain A, Chisthi UN, Ali F, Maqsood MF, Manganese oxide-based hybrid electrodes for supercapacitor applications, International Conference on Solid State Physics-2019, 8-11 December, 2019, Centre of Excellence in Solid State Physics, University of the Punjab, Lahore, Pakistan.**
- **Rehman ZU, Raza MA, Hussnain A, Chishti UN, Ali F, Maqsood MF, Manganese oxide-based hybrid electrodes for supercapacitor applications, 2nd International Symposium on Advanced Energy Materials: Production to Storage, 10 December 2019, Interdisciplinary Research Centre in Biomedical Materials, COMSATS University Islamabad (Lahore campus), Lahore, Pakistan.**
- **Rehman ZU, Raza MA, Latif U, Maqsood MF, Doped graphene oxide-based electrodes for supercapacitors, 1st International Symposium on Advanced Energy Storage Materials, 4-6 Nov 2019, Lahore, Pakistan.**
- **Rehman ZU, Raza MA, Hussnain A, Chisthi UN, Ali F, Maqsood MF, Manganese oxide-based hybrid electrodes for supercapacitor applications, 16th International Symposium on Advanced Materials, 21-25 Oct 2019, Islamabad, Pakistan.**

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- **Rehman ZU**, Raza MA, Hussnain A, Chisthi UN, Ali F, Manganese oxide-based electrodes for supercapacitor applications, 1st International Symposium on Advances in Metallurgy & Materials 2018, 16-18 October 2018, PIEAS, Islamabad, Pakistan.
 - Raza MA, **Rehman ZU**, Ghauri FA, Corrosion study of silane-functionalized graphene oxide coatings on copper, 45th International conference on Metallurgical coatings and Thin Films, 23-28 April 2018, San Diego, CA, USA.
 - **Rehman ZU**, Raza MA, Kanwal R, Ghauri FA, Graphene oxide coatings deposited on steel substrate using electrophoretic deposition and electrochemical evaluation of coatings in saline media, 15th International Symposium on Advanced Materials, 13-18 Oct 2017, Islamabad, Pakistan.
 - Talat S, **Rehman ZU**, Raza MA, Ghauri FA, Nisa S, Electrochemical adsorption of methylene blue on platinum coated with graphene oxide, Third International Conference on Engineering Sciences, 21-22 Dec 2017, University of the Punjab, Lahore, Pakistan.
 - Rais A, **Rehman ZU**, Niaz S, Raza MA, Ghauri FA, Effect of processing parameters and precursor graphite on the corrosion behavior of electrophoretically deposited graphene oxide coatings on copper metal, Third International conference on Engineering Science, 21-22 Dec. 2017, University of the Punjab, Lahore, Pakistan.
 - **Rehman ZU**, Raza MA, Ghauri FA, Ahmad A, Ahmad R, Corrosion Study of Electrophoretically Deposited Graphene Oxide Coatings on Copper Metal, 43rd International conference on Metallurgical coatings and Thin Films, 24-29 April 2016, San Diego, CA, USA.
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