# Engr. Dr. Ali Dad Chandio (HEC Approved PhD Supervisor)

Department of Metallurgical Engineering
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#### **Education**

- o PhD in Materials (The University of Manchester, UK, 2015)
- o ME in Materials (NED UET, 2009)
- o BE Metallurgy & Materials (Mehran UET, 2006)

#### **Publications**

- 1. Shahid Hussain Abro, <u>A.D. Chandio</u> Influence of austenite phase transformation on existing microstructure of low C-Mn steel, Engineering, Technology & Applied Science Research (accepted manuscript), 2018
- 2. Murtuza Mehdi, <u>A.D. Chandio</u>, Maaz Akhtar, Zaib Khan, Zaman and Adeel "Silver nano platelet films on soft micro grating surface" Microelectronics International (accepted manuscript)
- 3. MS Hanif, <u>A.D. Chandio</u> High-Temperature Effectiveness of Ginger Extract as Green Inhibitor, for Corrosion in Mild Steel, NUST Journal of Engineering Sciences (NJES) (accepted manuscript)
- 4. Shahid Hussain Abro, <u>A.D. Chandio</u> and Umair Aftab, "Effect of Heating Rate on Microstructural Developments in Cold Heading Quality Steel Used for Automotive Applications" Mehran University Research Journal of Engineering & Technology,, Vol. 37, issue 3, p 461-466, July 2018
- **5.** Ali Dad Chandio, Nabeel A. Khan, Rameez Jawaid and S. Naqi Mohsin "Failure Study of Two Dissimilar Steels Joined by Spot Welding Technique" Journal of Key Engineering Materials, Trans Tech Publications, Switzerland Vol. 778, pp 262-267, 2018.
- 6. Muhammad Yasir Khan, Ali Dad Chandio, Muhammad Sohail, Muhammad Arsalan, Muhammad Wasim Akhtar, Syed Zeeshan Abbas and Zeshan Akhtar, Low Temperature Synthesis of Anatase TiO<sub>2</sub> Nanoparticles and its Application in Nanocrystalline Thin Films, Journal of Key Engineering Materials, Trans Tech Publications, Switzerland Vol. 778, pp 86-90, 2018.
- 7. Muhammad Yasir Khan, Ali Dad Chandio, Muhammad Sohail, Syed Zeeshan Abbas, Rao Shakeel Ahmed, Shahid Bhutto and Syed Junaid Mehmood "Removal of Heavy Metals (Lead, Cadmium and Iron) from Low-Grade Nanoscale Zinc Oxide using Ammonium Carbonate Solution as a Leaching Agent" Journal of Key Engineering Materials, Trans Tech Publications, Switzerland Vol. 778, pp 132-136, 2018.
- 8. Umair Aftab, Muhammad Ishaque Abro, <u>Ali Dad Chandio</u>, Waseem Akhtar and Shafique Ahmed "Effect of Nano-ceria on Physiognomies of Aluminum-5% Zinc Sacrificial Anode" Mehran University Research Journal of Engineering & Technology, Vol 37, issue 2, April 2018.
- 9. M. A. Kalhoro, Z. H. Ibupoto, <u>A. D. Chandio</u>, K. A. Kalhoro, Q.U.A Baloch, Effect of bi-solvents on the Morphology of CuO Nanostructures Using Soft Template, Research Journal-Science Series, Vol 49, issue (4), 2017.
- 10. **A.D. Chandio**, M.A. Kalhoro, S.T. Iqbal and K.A. Kalhoro, Analysis of the βNiAl Coating Conditions using an In-situ Chemical Vapour Deposition Technique, Sindh University Research Journal-Science Series, Vol 49, issue (2), 2017.
- 11. K.A. Kalhoro, M. Khalid, <u>A.D. Chandio</u>, M.A. Kalhoro and N. Channa, Impedance Spectroscopy of Copper Substituted Nickel Ferrite Nanoparticles, Sindh University Research Journal-Science Series, Vol 49, issue (3) September 2017



- 12. Subhan Ali Jogi, Moazam Baloch, <u>Ali Dad Chandio</u>, Iftikhar Ahmed Memon, and Ghulam Sarwar Chandio, "Evaluation of Impact Strength of Epoxy Based Hybrid Composites Reinforced with EGlass/ Kevlar 49" Mehran University Research Journal of Engineering & Technology, Vol 36, issue 4, 2017.
- 13. <u>Ali Dad Chandio</u>, Shahid Hussain Abro and Abdul Rauf Jamali "Effect of Temperature and Time on Nickel Aluminide Deposition" Mehran University Research Journal of Engineering & Technology, 2018
- 14. Imtiaz Ali Soomro, Muhammad Ishaque Abro, <u>Ali Dad Chandio</u>, Waseem Khan and Moazam Baloch "Effect of Intercritical Heat Treatment on Mechanical Properties of Plain Carbon Dual Phase Steel", Mehran University Research Journal of Engineering & Technology, 2017 (accepted manuscript).
- 15. Abdul Rauf Jamali, <u>Ali Dad Chandio</u>, Waseem Khan, Zubia Anwer and Imtiaz Ali Soomro, Plasmonic Effect of Gold Nanoparticles Surrounded by Multidielectric Matrix, Mehran University Research Journal of Engineering & Technology, Vol 36, issue 3, 2017.
- 16. Chandio, A. D. and P. Xiao (2017). Study of Effect of Hafnium Addition on Oxidation Resistance of βNiAl Coatings Prepared by an In-Situ Chemical Vapour Deposition Method. Developments in Strategic Ceramic Materials II, John Wiley & Sons, Inc.: 247-259.
- 17. <u>Chandio A.D</u>. and Xiao P., Effect of Pack Aluminising Conditions on βNiAl Coatings, International Journal of Chemical, Molecular, Nuclear, Materials and Metallurgical Engineering Vol:10, No:6, 2016
- 18. <u>Chandio A.D.</u>, Zhao X., Chen Y. Bai M. and Xiao P., A Study of a βNiAl Bondcoat Deposited Onto CMSX-4 Superalloy for Thermal Barrier Applications, in Developments in Strategic Ceramic Materials. 2015, John Wiley & Sons, Inc. p. 203-218.
- 19. Mingwen Bai, Eleni Sarakinou, Ying Chen, Ali Daad Chandio, Xiaofeng Zhao, Michael Preuss, Ping Xiao, Microtexture Analysis of the Alumina Scale in Thermal Barrier Coatings. Journal of the American Ceramic Society, 2015. 98(12): p. 3639-3642.
- 20. Chen, Y., Zhao, X., Bai, M., <u>Chandio, A.,</u> Wu, R., Xiao, P. "Effect of platinum addition on oxidation behaviour of  $\gamma/\gamma'$  nickel aluminide", Acta Materialia, 2015. 86(0): p. 319-330.
- 21. Aqeel Ahmed Shah, Zhongyi Guo, <u>Ali Dad Chandio</u>, Yanjun Xiao, Sangwon Jee, Syed Abdul Moiz, Qurban A. Shah and Jung-Ho Lee, Fabrication of Si-Ge Nanowires, NUST Journal of Engineering Sciences (NJES) 12/2010; 3(1):35.

#### **Invited/Keynote Speeches**

- 1. International Symposium on Advanced Metallurgy and Materials 2018, PIEAS Islamabad TBC (October 16 18 2018)
- 2. International Symposium on Advanced Metallurgy and Materials 2017, PIEAS Islamabad TBC (October 28 31 2018)
- 3. International Symposium on Advance Materials 2017 TBC (September 2018)

#### **Job Experience**

- 1. Consultant PMO, SBIP, Sindh Government July 2018 to date.
- 2. Associate Professor, July 2017 to date
- 3. Acting Chairman Metallurgical Engineering (June 2018 to July 2018)
- 4. Acting Chairman Materials Engineering (June 2018 to July 2018)
- 5. Associate Professor, July 2017 to date
- 6. Assisting CMM & CMY 2016 to date.
- 7. Asst. Professor, NED University (Dec 2015 to date).

- 8. PG Data Analyst 2015, (Assisting in the Development of Labs in School of Materials, The University of Manchester, UK)
- 9. Demonstrator/GTA, 2014, School of Materials, The University of Manchester, UK
- 10. Asst. Professor 2010 to 2011, Department of Materials/Metallurgical Engineering NED UET, Pakistan
- 11. Lecturer 2006 2010, Department of Materials/Metallurgical Engineering, NED UET, Pakistan
- 12. Lecturer 2006 2006 (3 months), Department of Metallurgy and Materials Engineering, DCET, Karachi, Pakistan
- 13. Trainee Engineer 2006 2006 (2 months), Bolan Castings Ltd, Pakistan

## Memberships/Committees

- 1. **Member Technical Evaluation Committee** Home Office, Government of Sindh for Chief Minster Secretariat (2017 to 2018)
- 2. **Member Technical Evaluation Committee** for MYD and MMD, NED University, Karachi
- 3. **Member Technical Evaluation Committee** for Metallurgy and Materials Engineering Department, MUET, Jamshoro, Sindh, Pakistan
- 4. **Expert Member, BOS**, Metallurgy and Materials Engineering Department, MUET, Jamshoro, Sindh, Pakistan
- 5. **PhD Proposal Reviewer,** Metallurgy and Materials Engineering Department, MUET, Jamshoro, Sindh, Pakistan
- 6. Reviewer, Surface Coating and Technology (USA) Journal
- 7. **Member PSQCA** on various standards related to Materials and Metallurgical Engineering which includes, Material Testing, Welding and Material Selection
- 8. **Member National Curriculum committee (NCRC)** of "Materials and Metallurgical Engineering", HEC Islamabad, Pakistan
- 9. Member Engineering Practice Examination (EPE), Pakistan Engineering Council,
- 10. Others (American Ceramic Society, ASM, USA)
- 11. Member for Assessment Teams (AT) for both M. Engg. and Ph.D, NED University

#### **Projects / Research Activities**

- 1. Failure Investigation of Aircrafts, Sub-marines, power plants etc.
- 2. Synthesis and Characterisations of Nanomaterials
- 3. Dental composites and Implants
- 4. X-ray doses
- 5. High Temperature Materials
- 6. Corrosion
- 7. Battery Materials
- 8. X-rays for Medical Applications
- 9. Reverse Engineering of Castings to be used in Automotive Applications

#### Awards

- 1. Nominated for Speaker Award, Beatle, (USA) (2015)
- 2. Manchester Postgraduate Award (UK) (2011 2014)

# **Teaching Interests**

- 1. Materials Science/Engineering Materials
- 2. Advanced Materials Characterisation Techniques
- 3. Corrosion Science and Engineering
- 4. Physical Metallurgy
- 5. High Temperature Materials and Superalloys

- 6. Surface Engineering
- 7. Biomaterials

## **Postgraduate Students**

- 4. Three (03) PhD Students
- 5. **Six** Masters (06) Students
- 6. **1 Research** Associate

#### References

- 1. Prof. Ping Xiao, School of Materials, The University of Manchester, United Kingdom. ping.xiao@manchester.ac.uk
- 2. Prof. Dr. Muhammad Moazam Baloch, Department of Metallurgy and Materials Engineering, Mehran University of Engineering & Technology, Jamshoro, Sindh, Pakistan, moazam.baloch@faculty.muet.edu.pk
- 3. Prof. Dr. Amir Iqbal, Ag. Chairman, Department of Metallurgical Engineering, NED University of Engineering & Technology, Karachi, Sindh, Pakistan, syed\_amir@hotmail.com

#### **Countries Visited:**

Switzerland, Austria, Malaysia, Spain, China, Italy, Germany, UK, USA, France, Belgium, Netherlands, Turkey, Norway, Vatican City.