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**S/o MUHAMMAD MUKHTAR**

**PERSONAL INFORMATION**

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Tahir.mme.ceet@pu.edu.pk
- Date of Birth 12-09-1979
- Marital Status Married
- PEC Status Metal/1687 (**Professional Engineer**)
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**ACADEMIC QUALIFICATIONS**

**Throughout First Class Academic Career**

**PhD in Mechanical Engineering** (Advanced Materials and Processing) from  
Universiti Teknologi PETRONAS, Perak, Malaysia in March 2012.

**PhD thesis Title:** “The Development of Silica Nanoparticles from Sand Mines as  
Reinforcement for Iron based Metal Matrix Composites”.

**M.Sc Engineering** (Metallurgy and Material Sciences) Passed in 1<sup>st</sup> Division from  
Institute of Chemical Engg. & Technology, University of the Punjab, Lahore,  
Pakistan in 2007.

**B.Sc Engineering** (Metallurgy and Material Sciences) passed in 1<sup>st</sup> Division from  
Institute of Chemical Engg. & Technology, University of the Punjab, Lahore,  
Pakistan in June 2003.

**Intermediate (F. Sc)** (Physics, Chemistry, Maths) 1<sup>st</sup> division from Lahore Board,  
Pakistan 1998.

**Matric** 1<sup>st</sup> division Sargodha Board, Pakistan 1995.

**CURRENT STATUS**

Working as Assistant Professor at Department of Metallurgy and Materials  
Engineering, College of Engineering and Emerging Technologies, University of the  
Punjab Lahore Pakistan since 03-09-2012 to till date.

**Foreign Teacher/Researcher:** Worked as Foreign Teacher/Researcher at School of Materials Science and Engineering, Jiangxi University of Science and Technology, Ganzhou China from 10 March 2018 to 26 December 2018.

## **HEC Approved Supervisor**

Higher Education Commission of Pakistan Approved Supervisor

**(a) Teaching Subjects B.Sc Engineering**

Powder Metallurgy, Metal Shaping and Treatment, Foundry Engineering and Advance Materials.

**(b) Teaching Subjects M.Sc Engineering**

Manufacturing Processes  
Characterization Techniques

**(c) Teaching Subjects Ph.D Engineering**

Advance Powder Metallurgy  
Advance Composites

**(d) Supervision of M.Sc Student thesis**

- (i) Zaheer Abas (MME-11-14) The beneficiation of Thal Silica Sand to Produce Silicon powder. M.Sc thesis passed.
- (ii) Muhammad Humza (MME-12-05) Development and Characterization of Kevlar Fiber-Silica Sand Nanoparticles Aluminium based Hybrid Composites. M.Sc thesis passed.
- (iii) Muhammad Abubaker Khan, (MME-12-10), The Development and Characterization of Carbon fibers reinforced Copper matrix Composite, M.Sc thesis passed.
- (iv) Marriyam Khan (MME-12-04) Studying the effects of silica nanoparticles on Carbon Fiber reinforced Aluminium based hybrid composites. M.Sc Thesis passed.
- (v) Hafiza Maida (MME-13-03), Studying the effect of Reinforcements on Aluminium based hybrid Composites. M.Sc thesis passed.
- (vi) Ahsan Aleem (MME-11-04), Improvement of Mechanical and Thermal Properties by using Unsaturated Polyester based Hybrid Composites, M.Sc thesis passed.
- (vii) Jamshaid Ali (MME-11-03) The effect of Addition of Glass Fiber and Silica Sand Nanoparticles on the Mechanical Properties of Aluminum based Hybrid Composites. M.Sc thesis passed.
- (viii) Muhammad Hassan Abbas (MME-14-19) Studying the Effects of Adding Silica Sand Micro Particles on Epoxy Based Coatings. M.Sc Thesis Passed.
- (ix) Abrar Hussain (MME-15-03) Development and Assessment of Mechanical

Properties of Graphene Coating on Silica Substrate. M.Sc thesis passed.

## **AREAS OF INTEREST**

- Powder Metallurgy
- Materials Processing
- Advance Mateirals
- Nanomaterials and Nanocomposites
- Ceramics, Metal based composites

## **PROFESSIONAL AND WORKING EXPERIENCES**

### **1. Teaching Experiences at Universiti Teknologi PETRONAS, Perak, Malaysia**

#### **Graduate Assistant (GA)**

Worked as Tutor and Lab Demonstrator in Mechanical Engineering Department, Universiti Teknologi PETRONAS from February 2009 to March 2012 (3 year).

- **GA Teaching Courses Tutorial and Labs**

Introduction to Materials Science and Engineering (Tutorial)  
Engineering Materials Labs (Fatigue Test, Impact Test, Corrosion of Materials Test, Hardness and Microstructure analysis, Stiffness of Materials Test)

### **2. Teaching Experience at Bahauddin Zakariya University, Multan, Pakistan**

#### **(j) Teaching Experience**

Worked as Lecturer at Institute of Advanced Materials, Bahauddin Zakariya University, Multan, Pakistan, from 24-07-2007 to 01-02-2009 (one and half year).

- **Teaching Courses**

Introduction to Engineering Materials  
Engineering Ceramics  
Corrosion Engineering  
Phase Transformation in Materials  
Polymers and Composites  
Fuels and Furnaces  
Mineral Processing  
Extractive Metallurgy

- **Labs Experiments**

Minerals Processing Lab  
Corrosion Engineering Lab  
Polymer and Composites Lab

#### **(k) Research and Development**

- **Project Work Completed**

Worked as Project team member for establishment of an Institute, entitled as “Institute of Advanced Materials (IAM)” at Bahauddin Zakariya University, under the grant (HEC/2006) of Higher Education Commission of Pakistan from 24-07-2007 to 01-02-2009.

- **Member Board of Studies**

1. Member Board of Studies of Institute of Advance Materials, Bahauddin Zakariya University since from 2008 to till 2009.
2. Member Board of Studies Department of Metallurgy and Materials Engineering, University of Engineering and Technology Taxila 2014 to till date.

### **3. Research Projects and Awards**

- Graduate Assistantship Scheme award for PhD in Mechanical Engineering, Universiti Teknologi PETRONAS (UTP) Malaysia (February 2009 to March 2012).
- The Malaysian’s Ministry of Higher Education (MOHE) under the Fundamental Research Grant Scheme (FRGS 2/2010/TK/UTP/02/23, “Indigenous and Low Cost Method of Producing Silica Sand Nanoparticles”)
- “Production of Thal Desert Silica Sand Nanoparticles by ball milling process”. Startup Research grant 2013, awarded by HEC of Pakistan and in progress.
- The Development and Characterization of Aluminum based Carbon Fiber-Silica Sand Nanoparticles Hybrid Composites, granted by University of the Punjab Lahore for 2015.

### **4. Visiting Faculty Member**

Worked as visiting Faculty Member in “College of Technology”, University of the Lahore from 03-03-2005 to 06-06-2007 (Two year).

- **Teaching Courses**

Introduction to Engineering Materials  
Mechanics of Materials

## **PROFESSIONAL ENGINEER EXPERIENCES**

### **1. Junior Engineer**

Worked as Junior Engineer in Pakistan Institute of Technology for Minerals and Advanced Engineering Materials (PITMAEM), Pakistan Council for Scientific and Industrial Research (PCSIR) Laboratory Complex, Feroze pure Road, Lahore, Pakistan from 10-05-2005 to 05-03-2007 (Two years).

- **Project Work Completed.**

Worked as Project team member for the establishment of a new Institute entitled “Pakistan Institute of Technology for Minerals and Advanced Engineering Materials (PITMAEM)”, in the Materials Science Research Centre (MSRC), PCSIR Laboratories under the grant of Ministry of Science and Technology Government of Pakistan (2005).

- **Laboratories Developed**

Composite Lab, Jewellery and Hallmarking lab, Materials Testing lab, Metallography lab, Sample preparation lab, NDT lab, PVD and CVD lab, SEM and SPM lab, Plasma lab, Foundry lab, Heat Treatment Lab, Corrosion Control lab and Laser Marking lab.

- **Research and Materials Testing**

(a) The development of Polymer Matrix Composites (Glass Fiber, Carbon Fiber Reinforced Polymer Composites) as well as Agrowaste Polymer Matrix Composites and study of their characterizations according to ASTM standards on Research basis.

(b) The Characterization and Chemical Composition of Precious Metals (Au, Ag, Cu, Ni, Cr, Mn, Pb, Fe etc.) by using Micro- XRF, Instrument according to ASTM standards. To stamp the precious metal using Engraving machine (LASER) for commercial use.

(c) The study the rules of Health, Safety and Environment (HSE) according to international Rules and Regulations and their implementations according to the requirements.

- **Procurement Responsibilities**

(a) All procurement strategies, principles and practices, and can generate suitable instruments (Purchase Orders, Service Orders and Contracts) through Maximo. And able to negotiate terms and conditions and have an experience of mitigating commercial, legal and HSE risks. Understanding of international standards such as ISO, ASTM, API, ANSI, SAE, ASME, etc.

(b) Managing all Labs having more than one hundred latest equipments of (PITMAEM) according international HSE rules. As well as Library of latest books (1150) of different topics like Nano materials, Polymers, Composites, ASTM Standards, ASM Standards, Lasers, biomaterials, Metals and Alloys, Corrosion, Coatings, PVD and Plasma etc.

## **2. Production Engineer**

Worked as Production Engineer in Mah Plastics (WAVES) Cool Industries of Pakistan Multan Road Lahore, Pakistan from 10-10-2003 to 10-03-2005 (Two year).

### **Job Responsibilities**

(a) Identification, Testing & Processing of different types of Plastic Materials (Nylon, PP, PVC, HIPS, GPPS, ABS, HDPE, LDPE etc) , according to standards of Toray Plastic Company of Japan, Novamid Plastic company of Japan and Sabic Plastic Company of Saudi Arabia, in Injection Molding Machines of different Capacities, as well as Hand Molding Machines.

(b) The maintenance and fabrication of steel moulds and pressure vessels of different capacities according ASME standard as well as the maintenance of Injection molding machines and Hand Molding machines of different capacities.

(c) Also worked as Incharge Health Safety and Environment, Safety Precautions, Safety Equipments, Safety Rules and Regulations and Safety signs, labels according to International Standards and Fire Fighting training.

## PUBLICATIONS

### Publication in Journals

1. Muhammad Abubaker Khan, Yangwei Wang, Muhammad Junaid Anjum, Ghulam Yasin, Abdul Malik, Faisal Nazeer, Shahrukh Khan, **Tahir Ahmad**, Hao Zhang, Effect of heat treatment on the precipitate behaviour, corrosion resistance and high temperature tensile properties of 7055 aluminum alloy synthesis by novel spray deposited followed by hot extrusion, Vacuum 174 (2020) 109185. (IF=2.906).
2. Yangwei wang, Muhammad Abubaker Khan, Ghulam Yasin, **Tahir Ahmad**, Adiabatic shear band localization in an Al-Zn-Mg-Cu alloy under high strain rate compression, Journal of Materials Research and Technology 9(2020) 3977-3983 (IF= 5.289).
3. Syed Shehzad Raza, **Tahir Ahmad**, Muhammad Kamran, Xuehui Zhang, Muhammad Abdul Basit, Muhammad Umar Manzoor, Aqil Inam, Osama Majeed Butt, Muhammad Abrar, Effect of Hot Rolling on Microstructures and Mechanical Properties of Ni base Superalloy, Vacuum 174, (2020) 109204 (IF=2.906).
4. Jiang Liu, Junbiao Liu, Xuehui Zhang, Tahir Ahmad, Tongxiang Liang, Longfei Zeng, Chunming Wang and Bin Yang, Effect of Ultrasonic Surface Rolling Treatment on Corrosion Behavior of Alloy 690, Metals 2020, 10, 917, 1-12, (IF=2.117).
5. Shengjian Zhu, Yifeng Hu, Xuehui Zhang, Yangjun Zou, Tahir Ahmad, Wenglong Zhang, Fuqian Tang & Tongxiang Liang, Experimental investigation on ultrasonic shot peening of WC-Co alloy, Materials and Manufacturing Processes, 2020, Vol. 35, No. 14, 1576–1583 (IF=2.6).
6. Muhammad Abubaker Khan, Yangwei Wang, Ghulam Yasin, Faisal Nazeer, Abdul Malik, Waheed Qamar Khan, Tahir Ahmad, Hao Zhang, Mohamed A. Afifi, The effect of strain rates on the microstructure and the mechanical properties of an over-aged Al-Zn-Mg-Cu alloy, Materials Characterization 167 (2020) 110472, (IF=3.562).
7. Junbiao Liu, Xuehui Zhanga Ziyi Cui, Tahir Ahmad, Chunming Wang, Nian Hong, Tongxiang Liang, Bin Yang, Effects of ultrasonic surface rolling processing and plasma nitriding on the fretting wear behavior of Inconel 690TT, Surface & Coatings Technology 402 (2020) 126312. (IF=3.784).

8. Muhammad Abubaker Khan, Yangwei Wang, Huanwu Cheng, Ghulam Yasin, Abdul Malik, Faisal Nazeer, Tahir Ahmad, Waheed Qamar khan, Muhammad Kamran, Mohamed A. Afifi, Microstructure evolution of an artificially aged Al-Zn-Mg-Cu alloy subjected to soft- and hard-steel core projectiles, *Journal of Materials Research and Technology* 9(5) (2020) 11980-11992 (IF= 5.289).
9. Faryal Mughal, Mohsin Muhyuddin, Muhammad Rashid, **Tahir Ahmad**, Muhammad Aftab Akram, Muhammad Abdul Basit, Multiple energy applications of quantum-dot sensitized TiO<sub>2</sub>/PbS/CdS and TiO<sub>2</sub>/CdS/PbS hierarchical nanocomposites synthesized via p-SILAR technique, *Chemical Physics Letters* 717 (2019) 69-76. (IF=1.68).
10. Muhammad Abubaker Abubakar Khan, Yangwei Wnag, Tahir Ahmad, Microstructure characterization of AA7055-T6, AA6061-T6511 and AA7A52-T6 Al alloys subjected to ballistic impact against heavy tungsten alloy projectile, *Journal of Archives of Civil and Mechanical Engineering*, 2019, 19, 1484-1496. (IF=2.864).
11. Muhammad Abubaker Khan, Yangwei wang, Ghulam Yasin, Faisal Nazeer, Abdul Malik, Waheed Qamar Khan Hao Zhang Tahir Ahmad, Microstructure characteristic of spray formed 7055 Al alloy subjected to ballistic impact by two different steel core projectiles impact, *Journal of Materials Research and Technology* 8(6) (2019) 6177-6190. (IF= 5.289).
12. Jinming Liu, Fei Li, Jinping Liu, Xu Zhang, Tahir Ahmad, Tongxiang Liang, Thermodynamic description of the Ce-Ga and Ga-Gd systems, *Monatshefte für Chemie - Chemical Monthly* (2019) 150:1225-1233. (IF=1.501).
13. Xuehui Zhang, Shengjian Zhu, Biao Zhang, Tahir Ahmad, Chunming Wang, Liangliang Zhou, Tongxiang Liang\* ,Bin Yang, Effect of Y<sub>2</sub>O<sub>3</sub> addition on the Microstructure, Wear resistance, and Corrosion Behavior of W-4.9Ni-2.1Fe heavy Alloy, *Journal of Materials Engineering and Performance*, 2019, 28, 4801-4810, ((IF=1.476).
14. Jiang Liu, Chunming Wang, Wenlong Zhang, Tingting Xia, Xuehui Zhang, Tongxiang Liang, Tahir Ahmad, and Bin Yang, Corrosion behaviour of Nanocrystallines 304 Stainless Steel in Simulated Secondary side Environment, *Materials Science and Technology*, 2019, Vol. 35(8), 907-915. (IF=1.938).
15. Yang Xian Yan, Tahir Ahmad, Xuehui Zhang, Tongxiang Liang, Sajjad Ur Rehman, M. U. Manzoor, Weijiang Liu and Muhammad Abdul Basit, Microstructure, hardness and corrosion behavior of Ni-Ti alloy with the addition of rare earth metal oxide (Gd<sub>2</sub>O<sub>3</sub>), *Mater. Res. Express* 6 (2019) 076513. (IF=1.449)
16. Sajjad Ur Rehman, Qingzheng Jiang, Weikai Lei, Liangliang Zeng, Qiulan Tan, Mahpara Ghazanfar, Saif Ullah Awan, **Tahir Ahmad**, Minglong Zhong, Zhenchen Zhong, Microstructure, magnetic properties, thermal stabilities and coercivity mechanisms of Ta doped Nd-Fe-B ribbons, *Journal of Physics and Chemistry of Solids*, 124 (2019) 261–265. (IF=2.207).
17. M. Kashif, T. munir, N. Nasir, M. Sharif, A. Shahzad, **Tahir Ahmad**, A. Hussain, M. Noree , First Principles Study of Electronic, Elastic and

- Optical Properties of SnO under in-plane Biaxial Strain, Digest Journal of Nanomaterials and Biostructures, 14(1) 2019, p. 127 - 137. (IF=0.673)
18. Sajjad Ur Rehman, Qingzheng Jiang, Weikai Lei, Kai Liu, Liangliang Zeng, Mahpara Ghazanfar, **Tahir Ahmad**, Renhui Liu, Shengcan Ma, Zhenchen Zhong, Microstructures and magnetic properties of cast alnico 8 permanent magnets under various heat treatment conditions, Physica B: Condensed Matter 552 (2019) 136–141. (IF=1.453)
  19. Majid Niaz Akhtar, Kashif Ali Asim Umer, **Tahir Ahmad**, Muhammad Azhar Khan, Structural Elucidation and Morphological and Magnetic Behavior Evaluations, of Low-Temperature Sintered, Ce-doped, Nanostructured Garnet Ferrites, Materials Research Bulletin, Vol. 101, pp. 48-55, 2018. (IF=3.355)
  20. **Tahir Ahmad**, Sajjad Ur Rehman, Jinming Liu, Xuehui Zhang, M. U. Manzoor, M. H. Abbas and H. M. Anwar Asghar, Characterization of epoxy based coating reinforced with nanoparticles of silica sand, Journal of the Chinese Advanced Materials Society, 6(4), 2018, pp.497-507.
  21. Syed Shehzad Raza, **Tahir Ahmad**, Mohammad Kamran, Mohammad Umar Manzoor, Asma Salman, Barkat Ahmad, Rashid Sarfaraz Wattoo, Nouman Riaz, Evaluation of Effects of Change in Length of Carbon Fibers on the Properties of Aluminum Based Composite, International Journal of Science and Qualitative Analysis, 2018; 4(3): 74-82
  22. **Tahir Ahmad**, Syd Shehzad Raza, Muhammad Kamran, M. U. Manzoor, Asma Salman, Studying the Effect of Variation in Volume Fractions of Carbon Fibres on Mechanical and Electrical Properties of Copper based composites, Journal of Fundamental and Applied Sciences, 10(2), 23-35, 2018.
  23. Muhammad Manzoor, Asma Salman, Hamna Sajjad, Ameerq Farooq, **Tahir Ahmad**, Muhammad Kamran, Nawal Ali, Hafsa Zafar, Electrochemical Characterization of PVD Coated AlTiN Coating on Stainless Steel substrate for Biomedical implant, Journal of Faculty of Engineering & Technology, Vol. 25, No. 1 (2018).
  24. Asma Salman, Hamna Sajjad, Muhammad Umar Manzoor, Ameerq Farooq, **Tahir Ahmad**, The Study of Electrochemical behavior of Tin Coated Stainless Steel in artificial body fluid, Journal of Faculty of Engineering & Technology, Vol. 25, No. 1 (2018).
  25. S. S. Raza, **Tahir Ahmad**, M. U. Manzoor, M. Kamran, R. Ahmad, Analysis of Metallurgical Aspects and their Role in Processing and Performance of SuperAlloys: A Review, Journal of Fundamental and Applied Sciences, J Fundam Appl Sci. 2017, 9(1), 485-498.
  26. **Tahir Ahmad**, A. N. Malik, S. S. Raza, M. Kamran, M. U. Manzoor, A. Salman<sup>1</sup>, F. Hussain, F. Riaz<sup>1</sup>, R. Ahmad, M. N. Akhtar, Thermal, Electrochemical and Mechanical Properties of Shape Memory Alloy developed by a Conventional processing Route, Journal of Fundamental and Applied Sciences, 2017, 9(2), 847-860.
  27. **Tahir Ahmad**, Syed Shehzad Raza, Ehsan Aleem, M. Kamran, Umar Manzoor, Atif Makhdoom, Rafiq Ahmad, Sehrish Mukhtar, Improvement in mechanical and thermal properties of unsaturated polyester- based hybrid composites, Iranian Polymer Journal, 2017, 26, 305–311. (IF=1.707)



28. **Tahir Ahmad**, Muhammad Kamran, Muhammad Faizan, Rafiq Ahmad, Bambang Ariwahjoedi, Faraz Hussain, Fahad Riaz, Studying the Effect of Precipitation Hardening on 6061 Aluminum Alloy Weldments, *Advanced Materials Research*, Vol. 1133 (2016) pp. 300-304.
29. M.T.Z. Butt, **Tahir Ahmad**, N.A. Siddiqui, Characterization of Two Hybrid Welding Techniques on SA 516 Grade 70 Weldments, *International Journal of Chemical, Nuclear, Materials and Metallurgical Engineering*, Vol. 10 (8), 2016, pp. 1038-1043.
30. Muhammad Kamran, **Tahir Ahmad**, Usaid Azhar, Dil Khurram, Bambang B. A. Wahjoedi, Rafiq Ahmad, Faraz Hussain, A Comparative Study of Different Electrolytes on Anodizing of 2024 Aluminum Alloy and Electrochemical Behavior of Anodized Film, *Journal of the Pakistan Institute of Chemical Engineers*, Vol 44, No 1 (2016), pp. 29-40.
31. **Tahir Ahmad**, Tabinda Kazmi, K. A. Bhatti, Gul Hameed Awan, Wasim Amin, M. Kamran, M. Atif Makhdoom, Structural, Morphological, and Mechanical Properties of Laser Irradiated AA-2024-T3 Aluminum Alloy Sheet, *Journal of the Pakistan Institute of Chemical Engineers*, Vol 44, No 1 (2016), pp.9-16.
32. **Tahir Ahmad**, Muhammad Kamran, Muhammad Umar Manzoor, The Effect of Glass Fiber and Silica Sand Nanoparticles addition on Aluminum based Hybrid Composites, *Journal of Faculty of Engineering and Technology*, Vol. 23 (2), 2016, pp. 01-07.
33. **Tahir Ahmad**, Sehrish Mukhtar, Muhammad Kamran, Muhammad Umar Manzoor, The Effect of Aluminum Coating on Stainless Steel 316L and Alpha Iron, *Journal of Faculty of Engineering and Technology*, Vol. 23 (2), 2016, pp. 09-17.
34. W. Islam, G. Hameed, **Tahir Ahmad**, M. Kamran, H. Khan, Z. Abbas, Effect of Magnesium Concentration and Temperature on the Morphology and Chemical Composition of Anodized Layer of Al Alloys, *Journal of the Pakistan Institute of Chemical Engineers*, Vol 43, No 1 (2015), pp. 111-116.
35. **Tahir Ahmad**, Muhammad Atif Ehsan, Khalid Mehmood Ghauri, Muhammad Kamran, Qaisar Khushi Muhammad, Comparative Study of Dissimilar Weldings of AA6061 and AA2024 Aluminum Alloys by FSW and GTAW, *Journal of Faculty of Engineering and Technology*, Vol. 22 (2), 2015, pp. 27-37.
36. F. Riaz, **Tahir Ahmad**, M. Kamran, M. T. Munir, F. Hussain, M. U. Manzoor, R. Ahmad, The Production and Characterization of Ultrafine-Grained Metal Sheets Produced by Accumulative Roll Bonding Process, *Journal of the Pakistan Institute of Chemical Engineers*, Vol 43, No 2 (2015), pp.1-8.
37. W. Ahmad, G. H. Awan, **Tahir Ahmad**, M. T. Z. Butt, L. A. Kasuri, M. Kamran, Phase based Study of Solidified Structures evolved during the TIG welding of 2219-T87 Aluminium Alloy, *Journal of the Pakistan Institute of Chemical Engineers*, Vol 43, No 2 (2015), pp. 45-56.
38. R. Bashir, G. H. Awan, **Tahir Ahmad**, M. Kamran, A. Ahmad L. A. Kasuri, Electroless deposition of high phosphorus Ni-P, Ni-Al<sub>2</sub>O<sub>3</sub>-P, Ni-Cu-P coatings and their corrosion behaviour in 0.5M Na<sub>2</sub>SO<sub>4</sub> solution, *Journal of the Pakistan Institute of Chemical Engineers* Vol 43, No 2 (2015), pp. 85-92.

39. Fahad Riaz, **Tahir Ahmad**, Muhammad Kamran, Faraz Hussain, Muhammad Taqi Zahid Butt, Investigation on Various Formulation of Rust Converters by using Spectroscopic and Electrochemical Characterization Techniques, Journal of the Pakistan Institute of Chemical Engineers, Vol 43, No 2 (2015), pp.93-97.
40. **Tahir Ahmad**, Muhammad Kamran, Bambang Ari Wahjoedi, Muhammad Taqi Zahid Butt, Muhammad Umar Manzoor, Zaheer Abbas, The Beneficiation of Thal Silica Sand and the Production of High grade Silicon, Journal of Faculty of Engineering and Technology, Vol. 22 (2), 2015, pp. 81-90.
41. **Tahir Ahmad**, Rafiq Ahmad, Muhammad Kamran, Bambang A Wahjiodi, Effect of Thal Silica Sand nanoparticles and glass fiber reinforcements on epoxy-based hybrid Composite, Iranian Polymer Journal, Vol. 24, 1, 2015, pp 21-27. (IF=1.707)
42. **Tahir Ahmad**, Othman Mamat, Rafiq Ahmad, Amir N. Malik, Studying the formation of  $Fe_2SiO_4$  and Pearlite phases in Iron-Silica Sand Nanoparticles Composites. Defect and Diffusion Forum, Vols. 337-338, 2013, 39-47.
43. **Tahir Ahmad**, Othman Mamat, Rafiq Ahmad, Studying the Effects of adding Silica Sand Nanoparticles on Epoxy based Composites: “Nano/Microstructured Materials: Rapid, Low-Cost, and Eco-Friendly Synthesis Method“, Vol. 2013, pp. 1-5.
44. M. Kamran, F. Hussain, R. Ahmad, **Tahir Ahmad**, Fahad Riaz, “Investigating the Pitting Resistance of 316 Stainless Steel in Ringer’s Solution using the Cyclic Polarization Technique” Defect and Diffusion Forum Vol. 344 (2013) pp 1-7.
45. Rafiq Ahmad, Rafi Raza, Saima Mumtaz, **Tahir Ahmad**, “Effect of Different Modifiers on Microstructure and Strength of Locally Developed A356 Al-Si Alloy”, Defect and Diffusion Forum, Vol. 344 (2013) pp 9-17.
46. Rafiq Ahmad, Saima Mumtaz, **Tahir Ahmad**, “Studying the Effect of Different Combinations of Salt Modifier on the Mechanical Properties and Microstructure of A356 Al-Si Alloy”, Defect and Diffusion Forum Vol. 344, (2013) pp 27-36.
47. Fahad Riaz, Rao Khuram Shahzad, M. Kamran, Faraz Hussian, Rafiq Ahmad, **Tahir Ahmad**, “Evaluation of Surface Preparation Techniques for Steel Substrates Prior to Coating Application”, Defect and Diffusion Forum, Vol. 344 (2013) pp 55-70.
48. **Tahir Ahmad**, Othman Mamat, Rafiq Ahmad, Physico-mechanical Properties of Sintered Iron- Silica Sand Nanoparticles Composites: A Preliminary Study. Defect and Diffusion Forum (Semiconductors) XIV, Vol. 332, 2012, 7-16.
49. **Tahir Ahmad**, Othman Mamat, Tronoh Silica Sand Nanoparticle Production and Applications Design for Composites. Defect and Diffusion Forum (Ceramics) XIII. Vol. 330, 2012, pp 39-47.
50. **Tahir Ahmad**, Othman Mamat, The Effect of Hardener and Catalyst Ratio on the Mechanical Properties of Fiber Glass Reinforced Polymer Composites. International Journal of Nano and Material Sciences, 1(1), 2012, 51-58.
51. **Tahir Ahmad**, Othman Mamat, The development and characterization of

- Zirconia Silica Sand Nanoparticles Composites, World Journal of Nanoscience and Engineering, vol.1, 2011, pp 7-14.
52. **Tahir Ahmad**, Othman Mamat, Characterization and Properties of Iron-Silica Sand Nanoparticles Composites, Journal of Defects and Diffusion Forum (Ceramics) XII. Vols. 316-317 in 2011, pp 97-106.
  53. **Tahir Ahmad**, Othman Mamat, The development and characterization of Alumina Silica Sand Nanoparticles Composites, Published in Defect and Diffusion Forum (Metals) XIII. Vols. 319-320, 2011, pp. 85-94.
  54. **Tahir Ahmad**, Othman Mamat, Bambang Ari Wahjoedi, Characterization and Properties of Copper-Silica Sand Nanoparticles Composites, Published in Journal of Defect and Diffusion Forum (Metals), Vols. 319-320, 2011, pp. 95- 105.
  55. **Tahir Ahmad**, Othman Mamat, Characterization and Properties of Aluminium-Silica Sand Nanoparticles Composites. Solid State Science and Technology, Vol. 19, No 1, 2011, pp. 138-149.

### International Conferences

- Tahir Ahmad, Maida Bashir, Muhammad Kamran, Rafiq Ahmad, Muhammad Umar Manzoor, Sliding Friction behavior of Aluminum based Hybrid Composites, Materials Science and Technology 2016 (MS&T16), October 23-27, 2016, Salt Palace Convention Center, Salt Lake City, Utah USA pp. 899-905.
- Tahir Ahmad, Studying the Effect of Carbon Fiber-Silica Sand Nanoparticles on Copper based Hybrid Composites, Advancing Materials and Manufacturing CAMS 2016, Swinburne University, Hawthorn, Australia.
- Fahad Riaz, Muhammad Kamran, Adil Ashraf, Nauman Aslam, Tahir Ahmad, To Design of Welding Procedure to avoid Delayed Cracking Phenomenon in ASTM A335 P22 Materials, Materials Science and Technology 2016 (MS&T16), October 23-27, 2016, Salt Palace Convention Center, Salt Lake City, Utah USA pp. 1097-1102.
- Tahir Ahmad, M. Kamran, R. Ahmad, T.Z. Butt, Study of the Microstructure and Mechanical Properties of locally developed Carbon Fiber-Silica Sand Nanoparticles Aluminium based Hybrid Composites, Materials Science and Technology (MS&T) 2015, October 4-8, 2015, Greater Columbus Convention Center, Columbus, Ohio, USA, pp.329-336.
- Rafiq Ahmad, Saima Mumtaz, **Tahir Ahmad**, Effect of Modification using NaF with BaCl<sub>2</sub> on Microstructure and Mechanical Properties of A356 Al-Si Alloy, International Young Engineers Convention, IYEC, 17-19 April, 2014.
- **Tahir Ahmad**, Rafiq Ahmad, Saima Mumtaz, Production of Thal Silica Sand Nanoparticles for Metal Matrix Composites, 1<sup>st</sup> International Conference of Applied Chemistry, 18-20 November 2013, Faisalabad Pakistan.
- **Tahir Ahmad**, Othman Mamat, Tronoh Silica Sand Nanoparticles Production and Applications Design for Composites, International Conference on Plant Equipment and Reliability (ICPER 2012) 12-14 June 2012, Kuala Lumpur Convention Centre. ISBN: 978-983-2271-82-6.
- **Tahir Ahmed**, Othman Mamat, The Development and Characterization of HDPE- Silica Sand Nanoparticles Composites, 2011 IEEE COLLOQUIUM ON

HUMANITIES, SCIENCE AND ENGINEERING RESEARCH (CHUSER 2011) 5th – 6th December 2011, Penang, Malaysia. ISBN: 978-1-4673-0019-3.

- **Tahir Ahmed**, Othman Mamat, The Development and Properties of Polypropylene-Silica Sand Nanoparticles Composites, 2011 IEEE COLLOQUIUM ON HUMANITIES, SCIENCE AND ENGINEERING RESEARCH (CHUSER 2011) 5th – 6th December 2011, Penang, Malaysia. ISBN: 978-1-4673-0019-3
- **Tahir Ahmed**, Othman Mamat, Characterization and Properties of Copper-Silica Sand Nanoparticles Composites, International Conference on Plant Equipment and Reliability (ICPER 2010) 15-17 June 2010, Kuala Lumpur Convention Centre. ISBN: 978-1-4244-6624-5
- **Tahir Ahmed**, Othman Mamat, Characterization and Properties of Aluminium-Silica Sand Nanoparticles Composites, 25<sup>th</sup> Regional Conference on Solid State Science and Technology 21-23 December 2009, Bayview Beach Resort Penang Malaysia. ISBN 978-3-8443-2691-6-8.6.
- **T. Ahmed**, S. Alam, The Effect of Thickness on the Mechanical Properties of Fiber Reinforced Polymer Composite, 2<sup>nd</sup> International Conference on Frontier of Advanced Engineering Materials, 4-6 Dec, 2006, Lahore-Pakistan.
- K. Mehmood, **T. Ahmed**, S. Alam, Hallmarking is Essential Need of Jewelry Industry, 2<sup>nd</sup> International Conference on Frontier of Advanced Engineering Materials, 4-6 Dec, 2006, Lahore-Pakistan.

## INVITED SPEAKER

National Seminar on Engineering Materials and Their Performance, held in University of the Punjab, Lahore, Pakistan on 30 April 2013.

## CONFERENCES ATTENDED

- Worked as Conference Organizer for International Seminar on “**21<sup>st</sup> Century’s Materials-Testing Trends and Role of PCSIR**” organized by PCSIR Labs Complex, Lahore, Pakistan on 4<sup>th</sup> April, 2006.
- Worked as Conference Organizer for “**Second International Conference on Frontiers of Advanced Engineering Materials (FAEM-06)**” organized by PITMAEM, PCSIR Labs. Complex, Lahore, Pakistan on 04-06 December, 2006.
- Worked as organizing member of the conference on “**Phase Transformation and Deformation in Engineering Materials**” organized by Institute of Advanced Materials, Bhauddin Zakariya University Multan, Pakistan on 8-9<sup>th</sup> February, 2008.
- **25<sup>th</sup> Regional Conference on Solid State Science and Technology** 21-23 December 2009, Bayview Beach Resort Penang Malaysia.
- **International Conference on Plant Equipment and Reliability** (ICPER 2010) 15-17 June 2010, Kuala Lumpur Convention Centre, ISBN: 978-1-4244-6624-5.
- 2011 IEEE COLLOQUIUM ON HUMANITIES, SCIENCE AND ENGINEERING RESEARCH (CHUSER 2011) 5th – 6th December 2011, Penang, Malaysia, 978-1-4673-0019-3.

- **International Conference on Plant Equipment and Reliability (ICPER 2012)** 12-14 June 2012, Kuala Lumpur Convention Centre, ISBN: 978-983-2271-82-6.

## PROFESSIONAL TRAININGS

1. DESCON Engineering International Ltd (In-House Training from 20-03-2005 to 02-05-2005)
  - (1) QMS-Quality Management System  
ISO 9001: 2000 QMS
  - (2) EMS- Environmental Management system  
ISO 14001:1996 EMS
  - (3) OHSAS- Occupational Health, Safety & Management System  
OHSAS 18001: 1999

## Codes & Standard Knowledge

1	<b>ASME</b>	Sec I	Sec II-A	Sec II-B	Sec II-C
2	<b>ASME</b>	Sec II-D	Sec IV	Sec V	Sec VIII-I
	<b>ASME</b>	Sec VIII-II	Sec IX	Code Cases	
3	<b>ASTM</b>	Sec 1, V 01.01	Sec 1, V 01.03	Sec 1, V 01.04	
4	<b>ASTM</b>	Sec 1, V 01.05	Sec 1, V 01.06	Sec 1, V 01.08	

2. Fifteen days training of Polymer Matrix Composites and their manufacturing techniques (Hand-lay-Up, Pultrusion, Filament Winding etc) in Fiber Craft Industries Harbanspura Lahore Pakistan (01-09-2005 to 15-09-2005).
3. Fundamentals of Corrosion and Cathodic Protection organized by Institute of Chemical Engineering and Technology, University of the Punjab, Lahore Pakistan (19-23 June, 2007)
4. Cathodic Production Systems for Underground Pipelines (Advance Level) organized by Institute of Chemical Engineering and Technology, University of the Punjab, Lahore Pakistan. (03-07 July, 2007)
5. Four-week Internship on Corrosion study of Boilers in Kohinoor Sugar Mills, Jauharabad, Khushab, Pakistan (02-07-2001 to 31-07-2001).

## OBJECTIVE

To achieve Excellence in my Professional career.

## REFERENCES

### 1. National

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 University of the Punjab Lahore, Pakistan  
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## **2. International**

(i) Associate Prof. Dr. Othman Mamat

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Engineering Department, Universiti Teknologi PETRONAS Perak, Malaysia

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(ii) Associate Prof. Dr. Bambang Ari Wahjoedi

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