



## **MOHD MUZAMIR MAHAT, PhD MRSC**

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### **Research Interests**

Conducting polymers for biomedical applications, surface characterizations using XPS, corrosion science, advanced materials, nanomaterials and biomaterials.

### **Education**

<b>Year</b>	<b>Degree</b>	<b>Area</b>	<b>Institution</b>
2013-2016	PhD and DIC	Materials Science and Engineering (Surface of Biomaterials)	Imperial College London, UK
2009-2010	Master of Engineering (Hons.)	Mechanical Engineering (Materials)	University Teknologi Malaysia
2005-2008	Bachelor of Science (Hons.)	Materials Technology (First Class)	Universiti Teknologi MARA, Malaysia

Ph.D. Thesis Title: "X-ray photoelectron spectroscopy for surface characterisation of the biostability of polyaniline Films" under the supervision of Professor Molly Stevens and Professor David Payne, Department of Materials, Imperial College London, United Kingdom.

Ph.D. Thesis Examiners:

- Professor John Foord (University of Oxford, United Kingdom)
- Professor Sandrine Heutz (Imperial College London, United Kingdom)

### **Work Experience**

<b>Year</b>	<b>Post</b>	<b>Place</b>
2014-2015	Researcher and Lab demonstrator	Imperial College London, United Kingdom
2013-current	Senior Lecturer	Faculty of Applied Sciences, Universiti Teknologi MARA, Malaysia
2010-2013	Lecturer	Faculty of Applied Sciences Universiti Teknologi MARA, Malaysia
2007	Trainer	MTBE/PP (Oil and Gas for plastic materials) Gebeng, Kuantan, Malaysia

## Awards & Scholarship

Year	Achievement
2021	Top 12 Merdeka Award Grant for International Attachment (Results will be announced in November 2021)
2020	Gold Award of International, Invention, Innovation & Technology Exhibition ITEX2020
2020	Silver Award of Invention, Innovation & Design Exposition 2020 (IIDEX2020)
2020	Bronze Award of Malaysian Technology Expo (MTE) 2020
2020	Best Oral Presenter Malaysia-Japan International Conference on Nanoscience, Nanotechnology & Nanoengineering 2020 (MJIC2020), Nagoya Institute of Technology
2019	Gold Award of Invention, Innovation & Design Exposition (IIDEX) 2019
2019	Bronze Award pitching of Invention, Innovation & Design Exposition (IIDEX) 2019
2019	Royal Society of Chemistry Travel Grant (Japan)
2017	President Medal For Outstanding Research Team Imperial College London, UK.
2015	Imperial College Malaysian PhD Top Scholar- recognised by the High Commissioner of Malaysia in London, United Kingdom.
2013-2016	King of Malaysia scholarship for PhD programme. (Top 6 in Malaysia) (RM980,000)
2013	UiTM Academic Award- <i>Ahli Akademik Harapan</i> 2013 (cash RM5,000, award plaque and certificate)
2013	Promoted to senior lecturer at Faculty of Applied Sciences, UiTM Malaysia
2012	Bronze Award in Invention, Innovation and Design (IID), Johor Malaysia- Founder.
2012	Silver Award in Invention, Innovation and Design (IID), Johor Malaysia- co founder. ( <i>Superb Performance of rubber Toughened Polyester-Kenaf Composite</i> )
2011	Best Service Award in UiTM Malaysia (cash RM1000 and certificate)
2008-2010	King of Malaysia Scholarship for MSc programme. (Top 6 in Malaysia)
2008	Best student of the program during Graduation day 2008 (BSc. Materials Technology)
2005-2008	Dean's list Awards (3 times)
2005-2008	Public Service Department of Malaysia Scholarship (Excellent student scheme)

## Leadership Experience

- **Head of Unit of Research Communications & Visibility**  
Office of Deputy Vice-Chancellor (Research & Innovation) (*Feb 2020-current*)
- **Corporate coordinator**  
Faculty of Applied Sciences (*January 2019- February 2020*)
- **Project Leader** of UiTM Hand Sanitisers Project 2020 (*Four edition*)
- **Chief Editor** of Faculty's e-bulletin (*Three edition 2019-2020*)
- **Chairman** of Short Course: Materials Characterization Siri I 2018
- **Chairman** of *Jelajah Sains Bahan* 2017
- **Floor Manager** for Conference of Heads of Academic Departments (CHAD) of UiTM 2018
- **Head** of promotional section for Bulan Inovasi UiTM
- **Facilitator** for Soft skill communication camp (2017-2019)
- **Head of Faculty's** Mentoring program (2016)
- **Resource person** for Materials Technology Courses (three codes) (2013-2020)
- **Advisor** for Materials Technology society (2012)
- **Advisor** for FSG Student Camp Eco Tour to National Forest (2012)

## Research Grants (Total: RM 1,202,440.00)

**Project leader: RM 239,000.00**

**Joined project: RM 963,440.00**

Grant Type/Project Tittle	Role	Amount
<b>FRGS-RACER 2019</b> <i>Mechanism of Electronic Conduction of PEDOT-PSS: X-Photoelectron Spectroscopy (XPS) And Density Functional Theory (DFT) Analysis</i>	Project Leader	RM 51,200.00
<b>FRGS-RACER 2019</b> <i>Enhancement of Mechanical Properties of Al-Si Alloy by Grain Refinement with ZrB<sub>2</sub> And Sc</i>	Member	RM 51,200.00
<b>GOV 2019</b> <i>Penggalakan Penggunaan Teknologi Hijau: Daripada Tenaga Matahari Kepada Tenaga Elektrik</i>	Member	RM 10,000.00
<b>LESTARI 2019</b> <i>Mechanism of Electronic Conduction of Polyaniline: X-Ray Photoelectron Spectroscopy (XPS) And Density Functional Theory (DFT) Analysis</i>	Project Leader	RM 30,000.00
<b>GIP 2019</b> <i>Electronic and Antibacterial Properties of Polyaniline Coated on Polyester Fabric</i>	Project Leader	RM 20,000.00
<b>FRGS 2019</b> <i>Polypyrrole-Graphene Oxide Nanocomposite Sorbent for Micro-Solid Phase Extraction of Tetracycline Antibiotics Residues in Aqueous Matrices</i>	Member	RM 102,900.00
<b>FRGS 2019</b> <i>Microbial Biotransformation of Chlorpyrifos by Soil Fungi</i>	Member	RM 92,500.00
<b>DANA-BESTARI 2018</b> <i>Studies of Electronic and Surface Chemistry of Polyaniline/Fabric Composites</i>	Project Leader	RM 30,000.00
<b>GOV 2018</b> <i>Promoting Materials Science and Green Technology: Transforming Waste to Wealth</i>	Project Leader	RM 5,000.00
<b>INT 2018</b> <i>Modified Polyurethane Concrete -Pu (Polyurethane) Bonding Performance</i>	Member	RM 35,840.00
<b>PERDANA-BESTARI 2018</b> <i>A Phytochemical Approach to Enhance the Efficiency Of Biosynthesized Siler Nanoparticles From Extraction Of Imperata Cylindrica</i>	Member	RM 35,000.00
<b>PERDANA-BESTARI 2018</b> <i>Elucidation of Organic and Inorganic Gunshot Residue Using Spectroscopy, Chromatographic and Chemometric Methods</i>	Member	RM 35,000.00
<b>DANA KCM-LESTARI 2017</b> <i>Biosynthesis of Zinc Oxide Nanoparticles from Native Plant (Pandanus Amaryllifolius) And Its Corrosion Inhibition Efficiency</i>	Member	RM 20,000.00
<b>DANA KCM-LESTARI 2017</b> <i>Biosynthesis of Zinc Oxide Nanoparticles from Native Plant (Pandanus Amaryllifolius) And Its Corrosion Inhibition Efficiency</i>	Member	RM 20,000.00

<b>MyRA-LESTARI 2017</b> <i>Surface Chemistry and Biocompatibility Studies Of 2d Polyaniline Films Doped by Phosphoric Acid</i>	Project Leader	RM 20,000.00
<b>DANA KCM-LESTARI 2017</b> <i>Aluminium-Hybrid Metal Matrix Composites Cast Alloys Combined of Titanium-Boron (Ti-B) And Scandium (Sc) Inoculations Release to Improve Mechanical Properties</i>	Member	RM 20,000.00
<b>RAGS 2012</b> <i>Role of Halogen Ions on One Dimensional Tio2 Nanotube Formation</i>	Member	RM 75,000.00
<b>ST-DANA 2011</b> <i>Aerobic and Anaerobic Biocorrosion Of Mild and Stainless Steel By Pseudomonas Aeruginosa</i>	Project Leader	RM 10,000.00
<b>ST-FRGS 2011</b> <i>Growth Mechanism of Self-Organized Tio2 Nanotube Formation</i>	Member	RM 126,000.00
<b>ST-DANA 2011</b> <i>Length Control of Self-Organized Tio2 Nanotube by Anodic Oxidation Process</i>	Member	RM 10,000.00
<b>ST-DANA 2011</b> <i>Mechanical Properties of Rubber Toughened Polyester Composite Filled Kenaf Fiber</i>	Member	RM 10,000.00
<b>ST-FRGS 2010</b> <i>Study of Bonding Mechanism Between Titanium (Ti) Powder and Nano Hydroxyapatite (Ha) In Nano Ha-Ti Metal Matrix Composite (Mmc) Bio-Implant Materials</i>	Member	RM 68,000.00
<b>ST-DANA 2010</b> <i>Microbiologically-Influenced Corrosion (Mic) Study of Stainless and Mild Steels by Pseudomonas Aeruginosa</i>	Project Leader	RM 7,000.00
<b>ST-FRGS 2010</b> <i>Microbiologically-Influenced Corrosion (Mic) Study of Stainless and Mild Steels By Pseudomonas Aueruginosa</i>	Project Leader	RM 65,800.00

Data Source: IRMIS UiTM

## Teaching & Learning

- **Lab demonstrator (Imperial College London, UK)**

Magnetism and polymerization

- **Courses at UiTM (BSc: AS230/AS240; MSc:FSG763)**

Introduction of materials Science (MST451), Materials Processing I (MST513), Materials Processing II (MST514), Biomaterials (MST562), Advanced Materials Characterisation (MST613), Materials Selection (MST652), Corrosion Materials (MST664), Green Materials & Sustainable Energy (MST652), and Textile Materials Characterisation (TXL713).

## Research Supervision (Main Supervisor)

**Current:** 2 PhD, 4 MSc, 6 Undergraduate

**Completed:** 5 MSc, 26 Undergraduate

### **PhD student**

- 1) **Adlan Akram Mohamad Mazuki (On-going)**  
Detection of impurities of Gold in Jewelry Industries using XRF techniques
- 2) **Muhammad Faiz Aizamddin (On-going)**  
Fabrication and characterization of conducting polymers-based fabric for bio-electronic applications.

### **MSc student**

- 1) **Ahmad Hisham Bin Mohamed Aris (Completed)**  
Comparative Study between Aerobic and Anaerobic Microbiologically Influenced Corrosion of Mild Steel by *Pseudomonas Aeruginosa*.
- 2) **Azlini Aziz (Completed)**  
Structural and Ionic Conductivity of  $Mg_{12}Mg_3(PO_4)_3$  of polycrystalline compound.
- 3) **Mohd Noor Zairi (Completed)**  
Synthesis and Characterization of PEO - NaI Thin Films.
- 4) **Siti Nurzatul Ikma (Completed)**  
Electronic and Antibacterial Properties of Polyaniline Coated on Polyester Fabric
- 5) **Anis Ameera Anizaim (Completed)**  
Fabrication and characterization of impregnated polyester fabric with polyaniline.
- 6) **Nazreen Che Roslan (On-going)**  
Heat treatment of PEDOT: PSS based conductive fabric for bio-electronic applications.
- 7) **Dania Adila Ahmad Ruzaidi (On-going)**  
Biodegradation of conductive PEDOT: PSS - collagen based scaffold material for tissue engineering applications.
- 8) **Nurul Ain Najihah Asri (On-going)**  
Fabrication and characterization of conductive nanofibrous chitosan/ PEDOT: PSS core-shell structured scaffolds for biomedical applications.
- 9) **Ayu Natasha Ayub (On-going)**  
Highly stretchable of PEDOT: PSS fiber with polyurethane (PU) additive.

### **Undergraduate student**

- 1) **Mohammad Nazim Mohd Nizam (On-going)**  
The Effect of Heat-treatment of Electrically Conductive Fabric Embedded PEDOT: PSS Thin Film.
- 2) **Fifi Alfiani Suhaimi (On-going)**  
Fabrication and Characterisation of PEDOT: PSS Fabrics Doped Hydrochloric Acid and *p*-Toluene Sulfonic Acid.
- 3) **Anis Syahirah Ramli (On-going)**  
Characteristics of PEDOT: PSS Spin-Coated on Chitosan and Poly-vinylidene Difluoride (PVDF) Thin Film.
- 4) **Nur Atikah Ismail (On-going)**  
Effect of pH Value on the Structural and Conductivity of PEDOT: PSS Fabrics.
- 5) **Muhammad Adam Saripudin (On-going)**  
Conductivity and Thermal Studies of PEDOT: PSS Doped DMSO Thin Film.
- 6) **Baharin Amir (On-going)**  
Structural and Conductivity Studies of Patterned Solvent-Treated PEDOT: PSS thin Film.
- 7) **Nabilah Norzuki (Completed)**  
Secondary doping of PEDOT: PSS with DMSO and characterization of DMSO/PEDOT: PSS on fabric.
- 8) **Nurul Adila Sham (Completed)**  
Fabrication and characterization of polyaniline/chitosan patches for biomedical applications.

- 9) **Che Wan Nur Hidayah (Completed)**  
Investigation of electronic and thermal properties of polyaniline/polyester fabrics.
- 10) **Farrah Syahirah (Completed)**  
Synthesis and thermal characterisation of PEDOT: PSS for cardiac tissues.
- 11) **Dania Adila (Completed)**  
Phase and conductivity studies PEDOT: PSS for biomedical applications.
- 12) **Nurlily Marlissa (Completed)**  
Hydrogel of PEDOT-PSS for drug delivery: synthesis and physical properties.
- 13) **Muhammad Iman Ilyas Razali (Completed)**  
Synthesis and Electronic properties of PEDOT: PSS thin films.
- 14) **Mohd Aiman Hakim (Completed)**  
Micropatterning of PEDOT-PSS for biomedical patches.
- 15) **Ayu Natasha Ayub (Completed)**  
Fabrication and Mechanical Properties of PEDOT: PSS based textiles.
- 16) **Suhairah Haziqah (Completed)**  
Synthesis of ZnO-Ag nanorods for photocatalysis.
- 17) **Nur Aimi Nadhirah (Completed)**  
Synthesis of ZnO-CdS nanorods for UV-sensor.
- 18) **Amierul Hakiem Azhari (Completed)**  
Investigation of Structural and Physical Properties of Controlled Release Fertilizer.
- 19) **Mohd Amir Nazmi (Completed)**  
Preparation and Characterisation of Controlled Release Fertilizer in Peat Soil.
- 20) **Muhamad Afiq Fikri Md Jamil (Completed)**  
Mechanical Properties and Sensory Evaluation of Functional Gummy in Current Market.
- 21) **Farahhanan Zakaria (Completed)**  
Preparation and Physical Properties of Gummy Containing Agar and Acetylated Starch.
- 22) **Khairunnisa Mohd Fadli (Completed)**  
Synthesis and Structural Properties of Polyaniline Doped Phosphoric Acid.
- 23) **Muhammad Faiz Aizamddin (Completed)**  
Fabrication and Characterisation of Polyaniline Doped HCl and pTSA.
- 24) **Nazreen Che Roslan (Completed)**  
Morphological and Conductivity Studies of Polyaniline Fabric Doped Phosphoric Acid.
- 25) **Muhammad Asyrap Kamarudin (Completed)**  
Thermal Properties of Polyaniline doped HCl and pTSA acid.
- 26) **Nur Wahidah Kamarudin (Completed)**  
Preparation and Physical Properties of Gummy Containing Agar and Oxidized Starch.
- 27) **Mohd Taufik Mamat (Completed)**  
Microbiologically influenced corrosion (MIC) study of Mild Steel by *Pseudomonas aeruginosa*.
- 28) **Mohd Fauzid Mohd Torikat (Completed)**  
Microbiologically influenced corrosion (MIC) study of Stainless Steel by *Pseudomonas aeruginosa*.
- 29) **Ahmad Qamar Bin Md Razali (Completed)** Study on the electroless Nickel plating on copper substrate by variation of time and temperature
- 30) **Norlela Mokhtar (Completed)**  
Electron beam curable nanomaterials for abrasion resistance using TPGDA monomer.
- 31) **Siti Radhiah Samchek (Completed)**  
Study of Nickel layer on copper substrate prepared by electroless method.
- 32) **Ahmad Lotfi Zawawi (Completed)** Diameter control of self-organized TiO<sub>2</sub> nanotubes by anodization.

## Memberships

Royal Society of Chemistry, UK -*Member*

Institute of Mineral and Materials Malaysia -*Member*

Persatuan Sains Analis Malaysia (ANALIS) - *Member*

## Selected Publications

### Journal Articles

- 1) **Mohd Muzamir Mahat\***, Awis Sukarni Mohmad, Sabere Juzaili Azizi, Nur Asyura Amdan, Potential Applications of Conducting Polymers to Reduce Secondary Bacterial Infections among COVID-19 Patients: A Review. *Emergent Materials*, **4**, 279–292 (2021).
- 2) Hairul Hisham Hamzah, NH Saleh, Bhavik Patel, **Mohd Muzamir Mahat**, SA Shafiee, T Sönmez, (2021), Recycling Chocolate Aluminum Wrapping Foil as to Create Electrochemical Metal Strip Electrodes. *Molecules*, **26 (1)**, 21 (2021).
- 3) Adlan Akram Mazuki, **Mohd Muzamir Mahat\***, Rosmamuhamadani Ramli, Saifollah Abdullah, Variation in the Collimator Beam Size of Energy-Dispersive X-Ray Fluorescence Spectroscopy for Improved Measurement of Gold Purity. *Journal of Applied Spectroscopy*, **88**, 552–556 (2021).
- 4) Yee Hui Robin Chang, Junke Jiang, Heng Yen Khong, Ismail Saad, Soo See Chai, **Mohd Muzamir Mahat** and Shuxia Tao, Stretchable AgX (X = Se, Te) for Efficient Thermoelectrics and Photovoltaics. *ACS Applied Materials Interfaces*, **13**, 21-36, (2021).
- 5) N. C. Roslan, M. F. Aizamddin, S. N. I. Omar, N. A. Jani, M. I. A. Halim, Z. Z. Ariffin, **Mohd Muzamir Mahat\***, Morphological and Conductivity Studies of Polyaniline Fabric Doped Phosphoric Acid. *Malaysian Journal of Analytical Sciences*, **24 (5)**, 698-706 (2020).
- 6) S. A. Shafiee, S. C. Perry, H. H. Hamzah, **Mohd Muzamir Mahat**, F. A. Al-lolage, M. Z. Ramli, Recent Advances on Metal Nitride Materials as Emerging Electrochemical Sensors: A Mini Review. *Electrochemistry Communications*, 120, 106828 (2020).
- 7) **Mohd Muzamir Mahat\***, M. F. Aizamddin, N. C. Roslan, M. A. Kamarudin, S. N. I. Omar, Conductivity, Morphology and Thermal Studies of Polyaniline Fabrics. *Journal of Mechanical Engineering*, **SI 9(1)**, 137-150 (2020).
- 8) Omar, S. N. I., Zainal Ariffin, Z., Zakaria, A., Safian, M. F., Halim, M. I. A., Ramli, R., **Mohd Muzamir Mahat\***, Electrically conductive fabric coated with polyaniline: physicochemical characterisation and antibacterial assessment. *Emergent Materials*, **3**, 469–477 (2020).
- 9) Aizamddin, M. F., Roslan, N. C., Kamaruddin, M. A., Omar, S. N., Safian, M. F., Abdul Halim, M. I., **Mohd Muzamir Mahat\***, Study of conductivity and thermal properties of polyaniline doped with *p*-toluene sulfonic acid. *Malaysian Journal of Analytical Sciences*, **24(3)**, 413-421 (2020).
- 10) Nur Aimi Jani, Izzatul Syifa Azizan, Nur Fatin Razak, **Mohd Muzamir Mahat**, Wee Siong Chiu, Saadah Abdul Rahman, pH Condition Influence Nanotube Structure of TiO<sub>2</sub> by Anodizing Titanium Substrate. *Science Letters*. **14 (1)** (2020).
- 11) Rosmamuhamadani Ramli, **Mohd Muzamir Mahat**, Sabrina M. Yahaya and Mahesh Kumar Talari, the Effect of Ca and Zn on Microstructure and Hardness Properties of Mg-10Al-1Zn and Mg-10Al-5Ca-2Zn Alloy. *ASM Science Journal*, **12**, Special Issue 3 (2019).
- 12) Nabila Nujaimi A.B, Ibrahim R.E. Nurul Hidayah M., Rosmamuhamadani R., Mahesh K.T., **Mohd Muzamir Mahat**, Noor Najmi B. and Yahaya S.M., Microstructure phase distribution analysis of Al-Si-TiB<sub>2</sub>-Sr-Sc composite fabricated by casting technique, *Green Design and Manufacture: Advanced and Emerging Applications*, **2030**, 020131-020136 (2018).

- 13) Rosmamuhamadi R., Arawi A.Z.O., Mahesh Kumar T., **Mohd Muzamir Mahat**, Noor Najmi B., Sabrina., Yahaya M., Sulaiman S., and Ismail M.I.S., Wear characterization of nano-hydroxyapatite with addition of titanium (HA-Ti), *Materials Science and Engineering*, **348**, 12001-12007 (2018).
- 14) Siti Nurzatul Ikma Omar, Zaidah Zainal Ariffin, Rabiatuladawiyah Mad Akhir, Mohamed Izzharif Abd Halim, Rosmamuhamadani Ramli and **Mohd Muzamir Mahat**, Electrically conductive polyester fabrics embedded polyaniline, *International Journal of Engineering & Technology* (2018).
- 15) Mohd Noor Zairi Mohd Sapri, Azizah hanom Ahmad, **Mohd Muzamir Mahat\***, Thermal Analysis of 1-Ethyl-3-Methylimidazolium Trifluoromethanesulfonate Ionic Liquid to PEO- $\text{NaCF}_3\text{SO}_3$  Polymer Electrolyte. *Solid State Phenomena*, **268**, 338-342 (2017)
- 16) Damia Mawad, Catherine Mansfield, Antonio Lauto, Filippo Perbellini, Geoffrey W. Nelson, Joanne Tonkin, Sean O. Bello, Damon J. Carrad, Adam P. Micolich, **Mohd Muzamir Mahat**, Jennifer Furman, David Payne, Alexander R. Lyon, J. Justin Gooding, Sian E. Harding, Cesare M. Terracciano and Molly M. Stevens, A conducting polymer with enhanced electronic stability applied in cardiac models. *Science Advances*, **2**, e1601007 (2016).  
**(Flagship)**
- 17) Damia Mawad, Arbel Artzy-Schnirman, Joanne Tonkin, Jose Ramos, Sahika Inal, **Mohd Muzamir Mahat**, Nadim Darwish Limor Zwi-Dantsis, George G. Malliaras, J. Justin Gooding, Antonio Lauto and Molly M. Stevens, 2016, Electroconductive Hydrogel Based on Functional Poly (Ethylenedioxy Thiophene). *Chemistry of Materials*, **28** (17), 6080–6088 (2016).
- 18) **Mohd Muzamir Mahat**, Damia Mawad, Geoffrey W. Nelson, Sarah Fearn, Robert G. Palgrave, David J. Payne and Molly M. Stevens, 2015, Elucidating the deprotonation of Polyaniline films by XPS. *Journal of Materials Chemistry C*, **3**, 7180-7186 (2015).
- 19) Rachael H. Harrison, Joseph A. M. Steele, Robert Chapman, Adam J. Gormley, Lesley W. Chow, **Mohd Muzamir Mahat**, Lucia Podhorska, Robert G. Palgrave, David J. Payne, Shehan P. Hettiaratchy, Iain E. Dunlop, Molly M. Stevens, Modular and Versatile Spatial Functionalization of Tissue Engineering Scaffolds through Fiber-Initiated Controlled Radical Polymerization. *Advanced Functional Materials*, **25**, 5748–5757 (2015).
- 20) Azlini Aziz, **Mohd Muzamir Mahat**, Azizah Hanom Ahmad, 2013, Effect of  $\text{Al}_2\text{O}_3$  on the Electrical Conductivity and Structural Study in  $\text{MgI}_2\text{-Mg}_3(\text{PO}_4)_2$  Based Solid Electrolyte, *Advanced Materials Research*, **701**, 150-153 (2013).
- 21) NA Jani, MF Achoi, **Mohd Muzamir Mahat**, S Abdullah, Z Lockman, M Noor, A Fauzi, 2013, Surface and Structural Properties of  $\text{TiO}_2$  Nanotubes Formation via Electrochemical Anodization, *Advanced Materials Research*, **686**, 71-76 (2013).
- 22) DN Shri, J Ramli, NA Alang, **Mohd Muzamir Mahat**, Influence of Surface Pretreatment on Carbon Coating of Cutting Tools Using PVD. *Applied Mechanics and Materials*, **236**, 530-535 (2012).
- 23) DN Awang Shri, J Ramli, NA Alang, **Mohd Muzamir Mahat**, Effect of Surface Pretreatment on Morphology and Microhardness on Carbon Coating Using PVD. *Advanced Materials Research*, **472**, 50-54 (2011).



## Proceedings/Conferences

- 1) Mokhtar, N.A.N. Awang Shri, D.N.A, **Mohd Muzamir Mahat**. Effect of equal channel angular pressing die angle on corrosion behavior of bulk nanostructured metal, *Lecture Notes in Mechanical Engineering*, 213-221 (2020)
- 2) N H Mustafa, **Mohd Muzamir Mahat**, S M Yahaya and R Rosmamuhamadani (2019). Corrosion behaviour of in-situ Zirconium Diboride ( $ZrB_2$ ) reinforced by Aluminium-Copper (Al-Cu) alloy metal matrix composite. *Journal of Physics: Conference Series*. 1349
- 3) Muhammad Faiz Aizamddin, **Mohd Muzamir Mahat\***, Mohd Azizi Nawawi Morphological, Structural and Electrochemical Studies of Conductive Polyaniline Coated Polyester Fabrics. *Proceedings of International Exchange and Innovation Conference on Engineering & Sciences (IEICES)*. **5**, 53-57 (2019).
- 4) Siti Nurzatul Ikma Omar, Zaidah Zainal Ariffin, Rabiatal Adawiyah Md Akhir, Dayangku Noorfazidah Awang Shri, Mohamed Izzharif Abdul Halim, Muhd Fauzi Safian, Hazeeq Hazwan Azman, Rosmamuhamadani Ramli, **Mohd Muzamir Mahat\***, Polyaniline (PANI) fabric doped p-toluene sulfonic acid (pTSA) with anti-infection properties. *Materials Today: Proceedings*. **16**, 1994-2002 (2019).
- 5) Mohamed Izzharif Abdul Halim, Zulfadhlin Niami Musa, Siti Nurhazlin Jaluddin, Umi Kalsum Abdul Karim, **Mohd Muzamir Mahat**, Muhd Fauzi Sufian, Zaidah Zainal Ariffin (2019) Investigation of sharpness of knife by onion cutting. *Materials Today: Proceedings*, **16**, 2039-2046 (2019).
- 6) SM Shahrul Nizan Shikh Zahari, Nik Fatin Nabilah Muhammad Nordin, Muhamad Syukur Kmarudin, Mus'ab Sahrim, **Mohd Muzamir Mahat**, Hazeeq Hazwan Azman, Ramli Junud and nor Azman Endot, Poly(vinylpyrrolidinone)- iron magnetic nanocomposites as sorbents for effective oil removal from water, *Recent Advancement on Applied Physics, Industrial Chemistry and Chemical Technology*, 1972, 030026-1- 030026-6 (2018).
- 7) **Mohd Muzamir Mahat**; Ahmad Hisham Mohamed Aris; Umi Sarah Jais; Mohd Fakharul Zaman Raja Yahya; Rosmamuhammadani Ramli, 2011, Infinite Focus Microscope (IFM): Microbiologically influenced corrosion (MIC) behavior on mild steel by Pseudomonas aeruginosa, *IEEE*, 106-110.
- 8) **Mohd Muzamir Mahat**, AHM Aris, US Jais, M Yahya, R Ramli, NN Bonnia, MT Mamat, 2012, A preliminary study on Microbiologically influenced corrosion (MIC) of mild steel by Pseudomonas aeruginosa by using infinite focus microscope (IFM), *AIP*, **1455**, 117-123.
- 9) **Mohd Muzamir Mahat**, M. S. Kamarudin, J. Isa, N. N. Bonnia, N. A. Jani, 2012, Azadirachta excelsa as green corrosion inhibitor for mild steel in acidic medium, *IEEE*, 538 – 541.

## Conferences/Workshop

1. International Conference on Nanoscience & Nanotechnology (NanoSci-Tech 2021), Institute of Science UiTM & Nagoya Institute of Technology. (Session Chair)
2. Virtual Seminar of UiTM and University of Vienna 26 May 2021. (Invited Speaker)
3. Virtual Colloquium Series-Physics and Materials Symposium 2021FSG UiTM. (Session Chair)
4. 2020 Materials of the Future: Smart Applications in Science and Engineering, Springer Nature & University of Qatar (Invited Speaker)
5. ASEAN Young Scientists Network (ASEAN-YSN) Leadership Webinar 2020 (Participant)

6. Malaysia-Japan International Conference on Nanoscience, Nanotechnology & Nanoengineering 2020 (MJIC2020) Institute of Science UiTM & Nagoya Institute of Technology (Oral Presenter).
7. International Conference of Analytical Science 2019, Malaysian Analytical Sciences Society (ANALIS). (Oral Presenter)
8. Materials Ocenia 2019- Melbourne, Australia. (Invited Speaker)
9. The 5<sup>th</sup> International Exchange and Innovation Conference on Engineering & Sciences (IEICES 2019) University of Kyushu, Japan. (Oral Presenter)
10. International Conference on Nanoscience & Nanotechnology (NanoSci-tech 2018), UiTM & Nagoya Institute of Technology. (Session Chair)
11. Asian Conference of Technology, Science and Innovation (ACoTSI 2019) UiTM (Session Chair)
12. FSG Cafe Scientific Series 2/2018 (Speaker)
13. Advanced Materials Characterization Workshop 2018 (Speaker)
14. BIOCAM 2017 (Session Chair and Oral Presenter)
15. MRS 2016, Boston USA (Poster Presentation)
16. Department of Materials' Postgraduate Day, Imperial College London, UK (Oral Presenter)
17. 2015 Summer Camp for XPS Analysis, UK (Participant)

## Newspaper/Media Appearances

1. New Straits Times, Columnists: [A planet in distress with discarded face masks, disposable plastics](#). (March 6, 2021)
2. New Straits Times, Columnists: [The Versatility of Materials Science](#). (July 6, 2020)
3. New Straits Times, Opinion: [Telco Support help facilitate e learning transition](#). (April 28, 2020)
4. New Straits Times, Opinion: [Spurring Scientific Literacy with Everyday Language](#). (March 18, 2020)
5. Berita Harian Seksyen Inovasi: [Tekstil Anti-bakteria](#). (October 24, 2019)
6. TV1, Selamat Pagi Malaysia: [Projek Hand Sanitiser UiTM](#) (April 13, 2020)
7. TV3, Buletin Utama: [Saintis Malaysia Terokai Kaedah Baharu Perubatan Jantung Seorang anak Malaysia antara 17 saintis antarabangsa yang berjaya membangunkan kaedah baharu tampalan bahan bio, bagi merawat tisu jantung yang rosak](#) (December 12, 2016)
8. NTV7, 7Edition – [A Malaysian student is among 17 international scientists who have successfully developed a patch that could one day be used to repair damage to the human heart](#) (December 13, 2016)

## Judge/Reviewers

1. Reviewer-ACS Biomaterials Science & Engineering
2. Reviewer-Science Letters UiTM
3. Reviewer-IIUM Engineering Journal
4. Reviewer-The International Conference on Recent Advancements in Science and Technology (ICoRAST2017), USIM
5. Reviewer-The 2<sup>nd</sup> International Conference on Applied Sciences & Industrial Technology 2018, UiTM

6. Reviewer-International Journal of Automotive and Mechanical Engineering (IJAME)
7. Reviewer of ISTE2020, UiTM
8. Jury-Innovation Competition - Pride Entrepreneur Care Carnival (PECC) 2018 Politeknik Malaysia Nilai, 15/10/2018-16/10/2018
9. Jury-Innovation Competition: Innovation Design Research International Competition Malaysia Research & Innovation Society (MyRIS), 23/04/2017-25/04/2017
10. Jury-SRIIC FSG-Innovation competition, UiTM, 15/08/2017-15/08/2017
11. UiTM Internal Grant Evaluation, 01/01/2019-31/12/2019

## Postgraduate Thesis Examiners

UiTM	Nurfarhana Rosman	20176578704	Master	17/02/2020-31/03/2020
UiTM	Nur Azeni Binti Mohamad Rusop	2019772729	Master (DRP)	06/08/2019-06/08/2019
UiTM	Shima Asyurah Binti Shumhaimi	2016357983	Master (DRP)	25/02/2019-25/02/2019
UiTM	Mohammad Izzuwan Bin Matisa	2019531997	Master	01/08/2019-01/08/2019
UiTM	Siti Juliana Binti Japari	2016445442	Master	07/05/2019-07/05/2019
UiTM	Rabiatuladawiyah Bt Md Akhir	2018611758	PhD (DRP)	20/10/2020-20/10/2020
UiTM	Ahmad Talhah Bin Suhaimi	2016782091	Master	18/09/2020-18/09/2020
UiTM	Nurul Afaah Binti Abdullah	2017141425	Master (DRP)	14/05/2020-14/05/2020
UiTM	Izzul Adli Bin Mohd Arif	2015463276	PhD (pre-viva)	15/06/2020-15/06/2020
UiTM	Muhammad Siddiq Fadhil Bin Sutrisno	2019670078	Master(pre-viva)	07/05/2020-07/05/2020
UiTM	Nur Izzah Atirah Binti Mat Hussain	2017331919	Master	07/07/2020-07/07/2020
UiTM	Amira Syazwani Binti Mustafa Kamal	2017423872	Master	21/07/2020-21/07/2020
UiTM	Zahidah Binti Othman	2014411446	Master	23/03/2021-12/05/2021
UiTM	Nabila Nujaimi Binti Ab.Basir	2017814302	Master	16/03/2021-05/05/2021
UniKL	Ahmad Syafiq Fauzan Mohd Asnawi	55360219015	Master	30/11/2020-07/04/2021

## Consultation

**Total= RM 61,450.00**

Project	Value (RM)	Awarding Company
Mechanical and Physical Tests for Turnout Pad (Eva) For Rawang Ipoh Line	12,950.00	Vossloh Cogifer Malaysia Sdn. Bhd.
Analysis and Commentary of Underwater Inspection for Steel Piles at Port of Tanjung Pelepas (PTP)	8,000.00	Prestasi Perintis Sdn. Bhd.
Consultation Service on CHNS Elemental Analysis	2,000.00	Universiti Sains Islam Malaysia
Assessment of Physical and Chemical Properties of HDPE Dowel	35,000.00	Eastern Pretech (Malaysia) Sdn. Bhd.
Consultation Service On Field Emission Scanning Electron Microscopy (Fesem) And Brunauerâ€“Emmettâ€“Teller (BET) Analyses	3,000.00	Universiti Sains Islam Malaysia
Surface Analysis Studies of Biopolymer Samples	500.00	Universiti Sains Islam Malaysia

*Data Source: IRMIS UiTM*