

CURRICULUM VITAE

PERSONAL PARTICULAR

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RESEARCH INTERESTS

Engineering of metal oxide nanomaterials (e.g. ZnO, WO₃, MnO₂ and CCTO)

- synthesis of nanostructures such as nanorods, thin films and nanoparticles,
- control growth of nanorods: (i) morphology, (ii) aligned growth,
- bandgap engineering, and
- application of nanomaterials: photocatalysts (e.g. anti-bacterial/anti-fungal, organic dyes removal, heavy metal ions removal), dye sensitized solar cells

Phosphor materials

ACADEMIC QUALIFICATION

2010 University of Nottingham, United Kingdom
PhD in Material Engineering and Materials Design
Thesis title: Synthesis and characterization of zinc oxide nanowires

2002 Universiti Malaya, Malaysia
Master of Technology (Material Science)
Dissertation title: Formation of copper dots in Copper Decoration Technique

1998 Universiti Sains Malaysia, Malaysia
Bachelor of Engineering (Hons) (Materials Engineering)
First Class Honour

CAREER HISTORY

- 2010 - Lecturer, Universiti Sains Malaysia, Penang, Malaysia.
- 2006 Six Sigma Engineer, Flextronic Technology (Shah Alam) Sdn. Bhd., Shah Alam, Malaysia.
- 2003 – 2006 Laboratory Supervisor, InventQjaya Sdn. Bhd., Cyberjaya, Malaysia.
- 2002 QA Engineer, National Semiconductor Sdn. Bhd., Melaka, Malaysia
- 1998 - 2002 R&D Engineer/ Materials Characterization Engineer, S.E.H. (Malaysia) Sdn. Bhd., Ulu Klang, Malaysia.

VISITING SCIENTIST

1. Civil Aviation University of China, July – Dec 2022.

External examiner (Materials Program)

1. Tunku Abdul Rahman University College, Bachelor Of Materials Engineering (Hons) (2020/2021, 2021/2022).

RESEARCH GRANTS

(a) Principal researcher

1. Fundamental Research Grant Scheme (FRGS) (National)

Researcher(s) : Pung Swee Yong, Sumiyah bin Sabar, Saw Kim Guan

Duration : 1 Nov 2020 to 30 Apr 2024

Status : In-progress

“Investigation of kinetic growth and morphology evolution of ZnO nanorods and CuO/ZnO nanocomposites on kanthal wires that synthesized using direct heating method for photocatalysis application.”

2. Research University Grant (RUI) (USM)

Researcher(s) : Pung Swee Yong, Saw Kim Guan, Srimala Sreekantan, Yeoh Fei Yee, and Ong Ming Thong

Duration : 1 Sep 2018 to 31 May 2021

Status : Completed

“Development of ZnO based semiconductor photocatalyst on conductive support via rapid Direct Heating method”

3. Collaborative Research Grant – AUN/SEED-net (International)

Researcher(s) : Pung Swee Yong, Atsunori Matsuda, Khatijah Yaacob and Soe Soe Han

Duration : 1 Apr 2018 to 3 Sep 2020

Status : Completed

“Synthesis and Characterization of ZnO Based photovoltaic cells”

- 4. Bridging Grant (USM)**
Researcher(s) : Pung Swee Yong
Duration : 25 Jan 2018 to 24 Jan 2019
Status : Completed
“Synthesis and characterization of zinc/zinc oxide based nanorods by localized heating technique on resistive substrate”
- 5. Fundamental Research Grant Scheme (FRGS) (National)**
Researcher(s) : Pung Swee Yong, Yeoh Fei Yee, Srimala Sreekantan and Pung Yuh Fen
Duration : 1 Nov 2015 to 28 Feb 2019
Status : Completed
“The fundamental study of photocatalytic mechanism by semiconductor coupling (ZnO/WO₃) photocatalysts in degradation of organic pollutants and inactivation of bacteria”
- 6. Collaborative Research Grant – AUN/SEED-net (International)**
Researcher(s) : Pung Swee Yong, Atsunori Matsuda, Srimala Sreekantan and Huynh Dai Phu
Duration : 1 Oct 2016 to 30 Sep 2018
Status : Completed
“Reusability of ZnO nanoparticles in removal of organic dyes after heavy metal deposition”
- 7. Research University Grant (RUI) (USM)**
Researcher(s) : Pung Swee Yong, Srimala Sreekantan, Chuah Lee Siang and Pung Yuh Fen
Duration : 1 Dec 2013 to 31 Jul 2017
Status : Completed
“Sunlight-driven water purifier based on semiconductor photocatalysts that grown on polymer fiber for degradation of organic pollutants and bacteria removal”
- 8. Collaborative Research Grant – AUN/SEED-net (International)**
Researcher(s) : Pung Swee Yong, Itoh Mitsuru, Azizan Aziz and Kay Thi Lwin
Duration : 1 Apr 2013 to 31 Mar 2016
Status : Completed
“Synthesis and Characterization of Ni-based ZnO nanocomposite”
- 9. Short Term Grant (USM)**
Researcher(s) : Pung Swee Yong, Ahmad Fauzi Mohd Noor, M. Nazarov and Shah Rizal Kasim
Duration : 15 Jun 2012 to 14 Jun 2014
Status : Completed
“Synthesis and characterization of doped strontium magnesium silicates for persistent luminescence”
- 10. Nippon Sheet Glass Foundation (International)**
Researcher(s) : Pung Swee Yong and Srimala Sreekantan
Duration : 1 January 2012 to 31 December 2013
Status : Completed
“Continuous-flow photocatalytic water purifier based on ZnO/V₂O₅ NWs for degradation of organic pollutant”

11. **Malaysia Toray Science Foundation (MTSF) (Private)**
Researcher(s) : Pung Swee Yong and Yeoh Fei Yee
Duration : 1 January 2012 to 31 December 2013
Status : Completed
“Photocatalytic study of manganese oxide nanowires with different polymeric phase”
 12. **Fundamental Research Grant Scheme (FRGS) (National)**
Researcher(s) : Pung Swee Yong and Srimala Sreekantan
Duration : 1 April 2011 to 30 June 2013
Status : Completed
“Fundamental study of luminescence mechanism of ZnO nanostructures”
 13. **Short Term Grant (USM)**
Researcher(s) : Pung Swee Yong and Zainovia Lockman
Duration : 1 April 2011 to 31 March 2013
Status : Completed
“Synthesis and characterization of doped ZnO nanowires”
 14. **Incentive Grant (USM)**
Researcher(s) : Pung Swee Yong
Duration : 18 October 2010 to 17 October 2011
Status : Completed
“Synthesis and characterization of vertically aligned ZnO nanowires via heteroepitaxial growth using Chemical Vapour Deposition technique”
- (b) **Co-researcher**
1. **JCR Matching Grant (International)**
Researcher(s) : Sivakumar Ramakrishnan, Pung Swee Yong, Collin Joseph, and Chen Chia Yun
Duration : 1 Jan 2023 to 31 Dec 2024
Status : In progress
“Kinetics model for photocatalytic degradation of methylene blue by Ag/TiO₂ particles”
 2. **Fundamental Research Grant Scheme (FRGS) (National)**
Researcher(s) : Sivakumar Ramakrishnan, Pung Swee Yong, Srimala Sreekanthan, and Norzaini Zainal
Duration : 1 Sep 2022 to 31 Aug 2025
Status : In progress
“Investigation of yellowing chromaticity mechanism in UV/blue light-emitting diode (LED) encapsulant with metal coupled titanium dioxide (TiO₂) particles filler using experimental design and mathematical analyses”
 3. **Public-private Research Network (PPRN) (National)**
Researcher(s) : Yeoh Fei Yee, Pung Swee Yong, and Ng Kay Bin
Duration : 1 May 2022 to 30 Apr 2023
Status : Completed
“Development of a custom designed IX resin regeneration process”
 4. **Fundamental Research Grant Scheme (FRGS) (National)**
Researcher(s) : Lim Chin Seong, Kasturi Muthoosamy, Rozalina Zakaria, Chong Wu Yi, Pung Swee Yong, and Lee Hing Wah
Duration : 1 Nov 2020 to 31 Oct 2023
Status : Completed
“Investigation of optical coupling by orderly arranged plasmonic micro/nanostructures for photovoltaic power conversion efficiency enhancement”

5. **Special Program For Research Against Covid-19 (SPRAC) (JICA) (International)**
Researcher(s) : Zuhailawati Hussain, Shoichi Niambu, Anasyida bt. Abu Seman @ Hj Ahmad and Pung Swee Yong
Duration : 1 Nov 2020 to 31 Oct 2022
Status : Completed
“Self-disinfection antiviral coating to combat COVID-19 transmission”
6. **Fundamental Research Grant Scheme (FRGS) (National)**
Researcher(s) : Pan Yan, Ong Chin Eng, Pung Yuh Fen, Pung Swee Yong and Kong Chin
Duration : 1 Sep 2019 to 31 Aug 2022
Status : Completed
“Size- and shape- dependent modulatory mechanisms of zinc oxide (ZnO) nanoparticles (NPs) towards cytochrome P450 enzymes and ZnO-bio-interactions in *Caenorhabditis elegans*”
7. **Fundamental Research Grant Scheme (FRGS) (National)**
Researcher(s) : Khatijah Aisha Yaacob, Pung Swee Yong, Zainuriah Hassan and Nur Zatil ‘Ismah Hashim
Duration : 1 Jan 2019 to 31 Dec 2021
Status : Completed
“The mechanism of charge transfer for dual-gate Si NW sensors fabricated by atomic force microscope lithography for heavy metal detection”
8. **Fundamental Research Grant Scheme (FRGS) (National)**
Researcher(s) : Srimala Sreekantan, Pung Swee Yong, Hazizan Md Akil and Tuti Katrina Abdullah
Duration : 1 Jan 2019 to 31 Dec 2020
Status : Completed
“Mechanistic studies on the self healing and recovery kinetics of superhydrophobic coating”
9. **Research University Grant (RUI) (USM)**
Researcher(s) : Khatijah Aisha Yaacob, Rosnita Muhammad, Pung Swee Yong
Duration : 1 Mar 2018 to 28 Feb 2021
Status : Completed
“Understanding on the self-limiting oxidation mechanism on scaling down of silicon sub-micron wires to nano wires fabricated using AFM lithography”
10. **Fundamental Research Grant Scheme (FRGS) (National)**
Researcher(s) : Tuti Katrina Abdullah, Anasyida Abu Seman, Pung Swee Yong, and Muhammad Firdaus Mohd Nazeri
Duration : 1 Jan 2019 to 31 Dec 2020
Status : Completed
“Investigation of oxidation kinetics and oxide growth mechanisms in developing protective oxide layer of super heater materials in alkali salt environment”
11. **Fundamental Research Grant Scheme (FRGS) (National)**
Researcher(s) : Zainovia Lockman, Cheong Kuan Yew, Hiroki Habazaki, Pung Swee Yong, Khairunisak Abdul Razak
Duration : 15 Aug 2017 to 14 Aug 2019
Status : Completed
“Investigation on factors affecting the formation of nanocrystallites within nanotube walls fabricated by anodisation process”

12. **Collaborative Research Grant – AUN/SEED-net (International)**
Researcher(s) : Cheong Kuan Yew, Pung Swee Yong, Zulklifi bin Ahmad and Le Van Thang
Duration : 1 Oct 2016 to 30 Sep 2019
Status : Completed
“Development of UV Photodetector Based on Extraction of Natural Plant”
13. **Fundamental Research Grant Scheme (FRGS) (National)**
Researcher(s) : Shah Rizal Kasim, Ahmad Fauzi Mohd Noor, Nurazreena Ahmad and Pung Swee Yong
Duration : 1 Aug 2016 to 30 Jul 2019
Status : Completed
“Understanding the mechanism of synthesis and densification behavior of sintered Mg-substitute biphasic calcium phosphate (Mg-BCP)”
14. **Collaborative Grant (University of Nottingham) (International)**
Researcher(s) : Pung Yuh Fen, Le Cheng-Foh, Shafi M Tareq and Pung Swee Yong
Duration : 1 Jan 2016 to 31 Dec 2016
Status : Completed
“Mechanistic study of water purifier derived from semiconductor photocatalysts in degradation of organic pollutants and inactivation of microbes”
15. **Fundamental Research Grant Scheme (FRGS) (National)**
Researcher(s) : Yeoh Fei Yee, Pung Swee Yong , Hasmaliza Mohamad, Sim Yoke Leng and Suhaina Ismail
Duration : 1 Nov 2015 to 31 Oct 2018
Status : Completed
“Fundamental investigation on mechanism of metal immobilization in water sludge by nanoporous clay for sustainable water security”
16. **University-Community/ University-Industry Engagement Project (USM)**
Researcher(s) : Yeoh Fei Yee, Pung Swee Yong, Suhaina Ismail and Lee Ting
Duration : 1 Aug 2013 to 31 May 2016
Status : Completed
“Biochar conversion from biomass generated from palm oil wastes”
17. **Postgraduate Research Grant Scheme (PRGS) (USM)**
Researcher(s) : Chan Yim Leng, Pung Swee Yong and Srimala Sreekantan
Duration : 15 May 2013 to 14 Aug 2014
Status : Completed
“Development of a sunlight activated heterogeneous semiconductor photocatalysts for organic pollutants removal”
18. **Fundamental Research Grant Scheme (FRGS) (National)**
Researcher(s) : Saw Kim Guan, Yam Fong Kwong, Pung Swee Yong and Ng Sha Shiong
Duration : 1 May 2013 to 31 Oct 2016
Status : Completed
“Fundamental Analysis of Semiconductor-Metal Transition in Indium-doped Zinc Oxide Using Carrier Concentration and Current-Voltage Measurements”

19. **Research University Grant (RUI) (USM)**
 Researcher(s) : Srimala Sreekantan, Pung Swee Yong, Vithyacharan a/l Retnasamy and Zaliman Sauli
 Duration : 15 Jul 2012 to 14 Oct 2015
 Status : Completed
 “Development of Al₂O₃-CaO nanorods by electrodeposition”
20. **AUN/SEED-Net Collaborative Research Program with Industry (CRI) (International)**
 Researcher(s) : Yeoh Fei Yee, Mukai Shin, Pung Swee Yong and Lee Ting
 Duration : 1 October 2011 to 10 March 2014
 Status : Completed
 “Nanoporous Activated Carbon Fiber derived from Palm Empty Fruit Bunch”

PUBLICATIONS

Academic journals/Referred conference proceeding (full paper) (International)

1. A.L. Pang, A. Arsad, M.A.A. Zaini, R. Garg, M.S. Iqbal, U. Pal, M.A.S.M. Haniff, A.A. Hamzah, S.Y. Pung, M. Ahmadipour, “A comprehensive review on photocatalytic removal of heavy metal ions by polyaniline-based nanocomposites”, *Chemical Engineering Communications* 211 (2) (2024) 275-299 (ISI cited, impact factor: 2.5, Q3).
2. A. Kadem, Z.M. Tan, N.M. Suntharam, S.Y. Pung, and S. Ramakrishnan, “Synthesis of CuO, ZnO and SnO₂ coupled TiO₂ photocatalyst particles for enhanced photodegradation of Rhodamine B dye”, *Bulletin of Chemical Reaction Engineering & Catalysis* 18(3) (2023) 506-520 (ISI cited, impact factor: 1.5, Q3).
3. A.T. Le, T.D. Hanh Le, N.A. Tuan Huynh, K.Y. Cheong, C.M. Koe, W.K. Tan, S. Sabar, S.Y. Pung, “Role of hydroxyl ions in the growth of 1-D zinc oxide on wire using direct heating method”, *IIUM Engineering Congress Proceedings* 1 (1) (2023) 42-46.
4. J. Liu, S.L. Liang and S.Y. Pung, “Immobilization of ZnO microrods on rigid meshes using hydrothermal”, *Proceeding of 7th International Symposium on Advanced Materials and Nanotechnology 2023* (2023) 46-51.
5. M. Ahmadipour, M. Arjmand, A.T. Le, S.L. Chiam, Z.A.A. Ahmad, and S.Y. Pung Corrigendum to “Effects of multiwall carbon nanotubes on dielectric and mechanical properties of CaCu₃Ti₄O₁₂ composite”, *Ceramics International* 49 (2023) 28543 (ISI cited, impact factor: 4.527, Q1).
6. C.P. Leo, I. Letchumanan, S.Y. Pung, C.M. Koe, and N. Shaari, Y.N. Yusoff “Fabrication of hybrid tin oxide-cellulose nanocomposite as the flexible and thin supercapacitor”, *Energy Storage*, (2023) e508, 1-9 (ISI cited, Q3).
7. A.J. Kadem, Y.X. Teo, S.Y. Pung, S. Skreetan, and R. Sivakumar, “Predicting photocatalytic properties of metal coupled Mn-TiO₂ particle using Response Surface Methodology (RSM) as a potential filler in LED’s encapsulant”, *Bulletin of Chemical Reaction Engineering & Catalysis* 18 (2) (2023) 14 (ISI cited, impact factor: 1.5, Q3).
8. F. Ahmadijokani, S. Ahmadipouy, M.H. Haris, A. Bokhari, H. Molavi, M. Ahmadipour, S.Y. Pung, J.J. Klemes, and M. Arjmand, “High Nitrogen Loading Magnetic UiO-66 Metal-Organic Framework: A Versatile Adsorbent for Water Treatment”, *ACS Applied Materials & Interfaces* (2023) 15 (25), 30106-30116 (ISI cited, impact factor: 9.5, Q1).
9. C.M. Koe, S.Y. Pung and S. Sabar, “Structural, optical and photocatalytic performance of ZnO nanoparticles synthesized via one-step rapid heating method for Rhodamine B removal”, (2023) *Lecture notes in Mechanical Engineering*, 267-272 (Scopus cited).
10. G.S. Ng, C.M. Koe, and S.Y. Pung, “Deposition of titanium dioxide particles on kanthal coils by direct heating technique for photodegradation of methylene blue solution” *International Journal of Nanoelectronics and Materials* 1 (2023) 217 - 232 (ISI cited, impact factor: 0.5, Q4).

11. M.Z. Toe, W.K. Tan, H. Muto, G. Kawamura, A. Matsuda, and S.Y. Pung, “Evaluation of the structural, optical and photoconversion efficiency of ZnO thin films prepared using aerosol deposition”, *Applied Sciences*, 13(3) (2023) 1905 (ISI cited, impact factor: 2.7, Q2).
12. S.N.Q.A. Abd Aziz, S.Y. Pung, Z. Lockman, A. Ul-Hamid and W.K. Tan, “Rapid growth of zinc oxide nanorods on kanthal wire by direct heating method and its photocatalytic performance in organic dye removal”, *Journal of Industrial and Engineering Chemistry* 118 (2023) 226-238 (ISI cited, impact factor: 6.1, Q1).
13. A.N. Azmi, W.M. Wan Ahmad Kamil, H.A. Hassan, M.A. Ahmad, and S.Y. Pung, “Ex-situ doping of ZnO structures as potential random lasers”, *Journal of Physics: Conference Series*, 2411 (2022) 012009 (Scopus cited).
14. Z. Hussain, N.F. Mohd Padzli, N.F. Ahmad, A.A.S. Ahmad, M.D. Shafiq, and S.Y. Pung, “Development of cross-linked polyvinyl alcohol-titanium dioxide (PVA/TiO₂) film for antibacterial coating on steel”, *Malaysian Journal of Microscopy* 18 (2) (2022) 1-9 (Scopus cited).
15. M.Z. Toe, W.K. Tan, H. Muto, G. Kawamura, A. Matsuda, K.A. Yaacob, and S.Y. Pung, “Effect of carrier-gas flow rates on the structural and optical properties of ZnO films deposited using the aerosol-deposition technique”, *Electronic Materials* 3 (2022) 332-334.
16. A.T. Le, H.L.Thi Duy, K.Y. Cheong and S.Y. Pung, “Immobilization of zinc oxide-based photocatalysts for organic pollutant degradation: A review”, *Journal of Environmental Chemical Engineering*, 10 (2022) 108505 (ISI cited, impact factor: 7.7, Q1).
17. M. Ahmadipour, A.L. Pang, M.R. Ardani, S.Y. Pung, P.C. Ooi, A.A. Hamzah, M.F. Mohd Razip Wee, M.A.S. Mohammad Haniff, C.F. Dee, E. Mahmoudi, A. Arsad, M.Z. Ahmad, U. Pal, K.M. Chahrour, S.A. Haddadi, “Detection of breath acetone by semiconductor metal oxide nanostructures-based gas sensors: A review”, *Materials Science in Semiconductor Processing* 149 (2022) 106897 (ISI cited, impact factor: 4.100, Q2).
18. I.A.H. Al-Najati, K.W. Chan and S.Y. Pung, “Tire strain piezoelectric energy harvesters: a systematic review”, *International Journal of Power Electronics and Drive Systems*, 13 (2022) 444-459 (Scopus cited).
19. S.L. Chiam, S.Y. Pung, Y.F. Yee and M. Ahmadipour, “Highly efficient oxidative degradation of organic dyes by manganese dioxide nanoflowers”, *Materials Chemistry and Physics* 280 (2022) 125848 (ISI cited, impact factor: 4.6, Q2).
20. S.L. Chiam and S.Y. Pung, “Synthesis of MnO₂ particles via one step localized heating method as catalyst for dye degradation”, *Malaysian Catalysis-An International Journal* 2 (2021) 01-11.
21. S.A. Haddadi, S. Hu, S. Ghaderi, A. Ghanbari; M. Ahmadipour, S.Y. Pung, S. Li, M. Feilizadeh, M. Arjmand, “Amino-functionalized MXene nanosheets doped with Ce (III) as potent nanocontainers toward self-healing epoxy nanocomposite coating for corrosion protection of mild steel”, *ACS Applied Materials & Interfaces*,13(35) (2021) 42074–42093 (ISI cited, impact factor: 10.383, Q1).
22. A.T. Le, Z.H. Tan, R. Sivakumar and S.Y. Pung, “Predicting photocatalytic performance of metal coupled TiO₂ particles using response surface methodology (RSM)”, *Materials Chemistry and Physics* 269 (2021) 1234739 (ISI cited, impact factor: 4.778, Q2).
23. M. Ahmadipour, A.A. Hamzah, A.L. Pang, A.T. Le, S.L. Chiam, Z.A. Ahmad, B. Rajitha and S.Y. Pung, “Photodegradation of Rhodamine B-dye pollutant using CaCu₃Ti₄O₁₂-multiwall carbon nanotube nanocomposites”, *Journal of Environmental Chemical Engineering*, 9 (3) 2021, 105185 (ISI cited, impact factor: 7.968, Q1).
24. K. Thummavichai, A.T. Le, S.Y. Pung, O. Ola, M.Z. Hussain, C. Yu, F. Xu, W. Chen, N. Wang, Y. Zhu, “Sodium tungsten oxide bronze nanowire bundles in adsorption of methylene blue dye under UV and visible light exposure”, *Energies*, 14 (2021) 1322 (ISI cited, impact factor: 3.252, Q3).

25. M.Z. Toe, S.Y. Pung, K. Yaacob, and S.S. Han, "Effect of dip-coating cycles on the structural and performance of ZnO thin film-based DSSC", *Arabian Journal for Science and Engineering*, 46 (2021) 6741-6751 (ISI cited, impact factor: 2.807, Q2).
26. C.L. Chong, C.M. Fang, S.Y. Pung, C.E. Ong, Y.F. Pung, C. Kong and Y. Pan, "Current updates on the in vivo assessment of zinc oxide nanoparticles toxicity using animal models" *BioNanoScience*, (2021) 1-31 (ISI cited, impact factor: 0.440, Q4).
27. S.L. Chiam, A.T. Le, S.Y. Pung, F.Y. Yeoh, "Effect of pH on the photocatalytic removal of silver ions by β -MnO₂ particles", *International Journal of Minerals, Metallurgy and Materials*, 28 (2) (2021) 325-334 (ISI cited, impact factor: 3.850, Q2).
28. S.L. Chiam, Q.Y. Soo, M. Ahmadipour, S.Y. Pung, "Polycrystalline TiO₂ particles synthesized via one step rapid heating method as electrons transfer intermediate for Rhodamine B removal", *Materials Chemistry and Physics* 257, (2021) 123784 (ISI cited, impact factor: 4.778, Q2).
29. A.T. Le, N.S. Samsuddin, S.L. Chiam and S.Y. Pung, "Synergistic effect of pH solution and photocorrosion of ZnO particles on the photocatalytic degradation of Rhodamine B" *Bulletin of Materials Science* 44 (2021) 5 (ISI cited, impact factor: 1.878, Q4).
30. C. Hu, L.A. Thi, S.Y. Pung, L. Stevens, N. Neate, X. Hou, D. Grant, F. Xu, "Efficient dye-removal via Ni-decorated graphene oxide/carbon nanotube composites", *Materials Chemistry and Physics*, 260 (2021) 124117 (ISI cited, impact factor: 4.778, Q2).
31. M.Z. Toe, S.Y. Pung, A.T. Le, A. Matsuda, S.S. Han, K. Yaacob, and W.K. Tan, "Morphological and optical properties of ZnO NRs coupled with metal oxides with various bandgap energies by photo-oxidation technique", *Journal of Luminescence*, 229 (2021) 117649 (ISI cited, impact factor: 4.171, Q2).
32. S.L. Chiam, F.Y. Yeoh, and S.Y. Pung, "Heavy metal ions removal using β -MnO₂ particles under UV irradiation", *AIP Conference Proceedings* 2267 (1) (2020) 020009 (Scopus cited).
33. A.T. Le, S.Y. Pung, S.L. Chiam, N. A. H. BT. N. Josoh, T.Y. Koay, J.S. Lee, and N.B. Mustar, "Photocatalytic Performance of TiO₂ Particles in Degradation of Various Organic Dyes Under Visible and UV Light Irradiation", *AIP Conference Proceedings*, 2267 (1) (2020) 020017 (Scopus cited).
34. M.Z. Toe, A. Matsuda, S.S. Han, K. Yaacob, W.K. Tan and S.Y. Pung, "Effect of annealing temperature on the ZnO thin film-based dye sensitized solar cell", *AIP Conference Proceedings* 2267 (1) (2020) 020010 (Scopus cited).
35. M. Ahmadipour, T.A. Otitoju, M. Arjmand, Z.A.A. Ahmad and S.Y. Pung "Microstructure and mechanical behavior of CCTO ceramics hollow fiber fabricated prepared via dry/wet spinning method", *Materials Science Forum*, 1010 (2020) 239-243 (ISI cited).
36. M. Ahmadipour, M. Arjmand, M.Z.A. Thirmizir, A.T. Le, S.L. Chiam and S.Y. Pung "Synthesis of Core-Shell-structured CaCu₃Ti₄O₁₂/SiO₂ Composites for effective degradation of rhodamine B under ultraviolet light", *Journal of Materials Science: Materials in Electronics*, 31 (2020) 19587-19598 (ISI cited, impact factor: 2.478, Q3).
37. M.Z. Toe, S.S. Han, K. Yaacob, and S.Y. Pung, "Silver nanoparticles coupled ZnO nanorods array prepared using photo-reduction method for localized surface plasmonic effect study", *Journal of Crystal Growth*, 547 (2020) 125806 (ISI cited, impact factor: 1.797, Q3).
38. A.T. Le, M. Ahmadipour, and S.Y. Pung, "A review on ZnO-based Piezoelectric Nanogenerators: Synthesis, Characterization techniques, Performance Enhancement and Applications" *Journal of Alloys and Compounds* 844 (2020) 156172 (ISI cited, impact factor: 5.316, Q1).
39. M.Z. Toe, A. Matsuda, S.S. Han, K. Yaacob, W.K. Tan and S.Y. Pung, "Effect of TiO₂ sol on the conversion efficiency of dye-sensitized solar cell using Anatase TiO₂ paste treated with TiCl₄", *Journal of Sol-Gel Science and Technology*, 95(2) (2020) 439-446 (ISI cited, impact factor: 2.326, Q2).

40. M.T. Thien and S.Y. Pung, “A comparison of photocatalytic performance of ZnO nanorods prepared using solution precipitation method and thermal decomposition method”, *Journal of Aerospace, Science, Technology and Innovation*, 1 (2020) 156-160.
41. M. Ahmadipour, M. Arjmand, A.T. Le, S.L. Chiam, Z.A.A. Ahmad, and S.Y. Pung “Effects of multiwall carbon nanotubes on dielectric and mechanical properties of CaCu₃Ti₄O₁₂ composite”, *Ceramics International* 46 (2020) 20313-20319 (ISI cited, impact factor: 4.527, Q1).
42. A.T. Le and S.Y. Pung, “Reusability of zinc oxide particles collected after heavy metal ions removal”, *Pigment & Resin Technology*, 50 (1) (2020) 10-18 (ISI cited, impact factor: 1.263, Q4).
43. J.S. Ho, A. AzzahraaIzzati, Y.F. Pung, H.Y. Chew, S.Y. Pung, Y.L. Ying, D.N.D Nguyen and C.S. Lim, “Potent antifungal activity of ZnO Nanoparticles on R. mucilaginosa is mediated by reactive oxygen species and zinc ion”, *IOSR Journal of Engineering*, 10 (2020) 44-57.
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37. M.T. Thein, S.Y. Pung, A. Aziz, M. Itoh. “The role of polyvinylpyrrolidone (PVP) in the synthesis of stacked ZnO nanorods using solution precipitation method”, 5th International Conference on Recent Advances in Materials, Minerals & Environment (RAMM) & 2nd International Postgraduate Conference on Materials, Mineral and Polymer (MAMIP), Penang, Malaysia (4-6 Aug 2015).

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42. C.H. Chang, S.Y. Pung, M.N. Ahmad Fauzi and S.R. Kasim, “Effect of Excitation Wavelength on the Blue Emitting $\text{Sr}_2\text{MgSi}_2\text{O}_7$ Phosphor”, Conference proceeding of International Conference on X-Rays & Related Techniques & Industry 2014 (ICXRI 2014), Johor Bahru, Malaysia (11-13 August 2014).
43. S.Y. Pung and S.N.Q.A. Abd Aziz and Z. Lockman “Fe-doped ZnO nanorods prepared by aerosol-assisted chemical vapour deposition (in-situ doping) and their photocatalytic activity of in degradation of RhB dye”, Proceedings of the 4th International Conference on Environmental Pollution and Remediation (ICEPR 2014), Prague, Czech Republic (11-13 August 2014).
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48. K.G. Saw, S.S. Tneh, S.Y. Pung, S.S. Ng, F.K. Yam and Z. Hassam, “Ultraviolet photoresponse properties of zinc oxide on heavily boron-doped diamond heterojunction”, NANO-SciTech 2013 (1-4 Mar 2013).
49. S.N.Q.A. Abd Aziz, S.Y. Pung, Z. Lockman, N.A. Hamzah, and Y.L. Chan, “Structural and optical properties of Fe-doped ZnO nanorods”, Proceeding of the 5th Regional Conference on Materials Engineering and the 5th Regional Conference on Natural Resources and Materials 2013 (RCM5 & RCNRM5) (21-23 Jan 2013).
50. Y.L. Chan, S.Y. Pung and S. Sreekantan, “Comparative Study Of ZnO And V₂O₅ Nanoparticles As Heterogeneous Photocatalysts In Degrading Organic Pollutants”, Proceeding of the 5th Regional Conference on Materials Engineering and the 5th Regional Conference on Natural Resources and Materials 2013 (RCM5 & RCNRM5) (21-23 Jan 2013).

51. Y.L. Chan, S.Y. Pung, F.Y. Yeo, S. Sreekantan and N.S. Hussain, "Degradation of Rhodamine B using Semiconductor Nanoparticles with Different Bandgap Energy as photocatalyst", The 3rd ISESCO International Workshop and Conference on Nanotechnology (IWCN 2012), Kuala Lumpur, Malaysia (5-7 Dec 2012).
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56. Nur Atiqah binti Hamzah, S.Y. Pung, Srimala Sreekantan and Siti Nor Qurratu Aini binti Abd Aziz, "Synthesis and growth mechanism of catalyst-free ZnO nanowires using chemical vapour deposition", International Conference on X-Rays & Related Techniques & Industry 2012 (ICXRI 2012), Penang, Malaysia (3-5 Jul 2012).
57. S.Y. Pung, K.L. Choy and X. Hou, "Structural and optical properties of ZnO thin films deposited using Atomic Layer Deposition technique", *Proceedings of 3rd International Workshop on Nanotechnology & Application 2011 (3rd IWNA 2011)*, Vung Tau, Vietnam, (10-12 Nov 2011).
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59. S.Y. Pung, C.C. Tee, K.L. Choy and X. Hou, "Growth mechanism of Au-catalyzed ZnO NWs: VLS or VS-VLS?", *Proceedings of The International Conference for Nanomaterials Synthesis and Characterization (INSC 2011)*, Kuala Lumpur, Malaysia, (4-5 Jul 2011).
60. S.Y. Pung, X.H. Hou and K.L. Choy, "Controlled growth of ZnO nanowires using ZnO seed layers", Proceeding of Joint Research Seminar between USM and Nagaoka University of Technology, Malaysia (17 Oct. 2011).
61. E.Rebrov, L.N. Protasova, J.C. Schouten, K.L. Choy, S.Y. Pung, V. Engels, M. Cabaj, and A.E.H. Wheatley, "CVD deposited Pd/ZnO nanowires for selective hydrogenation of acetylene alcohols", *Proceedings of 22th North American Meeting: "Driving Catalyst Innovation"*, Detroit, Michigan, USA (5-10 Jun 2011).
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63. S.Y. Pung, K.L. Choy and X.H. Hou, "Homoepitaxial growth of vertically aligned ZnO NWs by CVD technique", *Proceedings of 216th ECS Meeting, Vienna, Austria (4-9 Oct 2009)*.
64. S.Y. Pung and K.L. Choy, "Aluminium doped ZnO films by a modified chemical vapour deposition technique." *Proceedings of Nanotech Conference & Expo 2009, Technical Proceedings – Nanotechnology 2009: Fabrication, particles, characterization, MEMS, electronics and photonics*, **1** (2009) 212-215 (ISI cited).

Book chapter (International)

1. S.L. Chiam, S.Y. Pung, and M. Ahmadipour, in Photocatalysts and electrocatalysts in water remediation: from fundamentals to full scale applications, edited by Prasenjit Bjunia, Kingshuk Dutta, and S. Vadivel, "Photocatalytic removal of heavy metal ions from water", Wiley, 105-134, Jan (2023) (ISBN: 978-1119855316)
2. S.Y. Pung, K.L. Choy, X. Hou and C. Shan, in: Crystal Growth: Theory, Mechanisms and Morphology, edited by N.A. Mancuso and J.P. Issac , "Growth and morphology evolution of ZnO nanowires synthesized by chemical vapor deposition", Nova Science Publisher, Inc., New York, 155-212 (2012) (ISBN: 978-1-61324-529-3).
3. L.B. Hussain and S.Y. Pung, "Influence of chlorine and humidity on mechanical strength of tin lead solders", *Proceedings of Processing and fabrication of advanced materials VIII (2001) 41-49*, doi: 10.1142/9789812811431_0005.

Monograph

1. S.L. Chiam, H.Q. Chan and S.Y. Pung, "Synthesis and application of manganese dioxide particles" (6 June 2023) USM publisher (ISBN: 9789674617445).

Patent

1. Y.Q. Jiang, M. Ancheta, S.Y. Pung, W.K. Cheou, "Manufacturing method of liquid crystal cells for liquid display used in computer, involves assembling, liquid crystal material dispensing, aligning and adhering processes under substantially atmospheric conditions" (Publication number: WO/2005/036248, US2005105040-A1, EP1676171-A1, JP2007507756-W, KR2006108645-A, CN1890598-A, IN200602401-P1, US7349059-B2).

Trade secret

1. S.Y. Pung, S.L. Chiam "PRG-P3" (Registration number: TS/IO/2020/080) Jan 2020.

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2. S.Y. Pung, S.L. Chiam, F.Y. Yeoh, CRLY2022P00987, PRG-P3-OR, 30 Nov 2022.
3. S. Ramakrishnan, S.Y. Pung, CRLY2022P05109, "Metal coupled photocatalytic Ag-TiO₂ photodegradation performance in Rhodamine B (RhB) dye removal, Nov 2022.
4. S.Y. Pung, S.L. Chiam, M. Ahmadipour, FM2020007292, "Density and porosity measurement", Dec 2020.
5. S.Y. Pung, S.L. Chiam, Q.Y. Soo, M. Ahmadipour, CRLY00027975, "Visible light driven polycrystalline TiO₂ photocatalyst", 18 Jan 2021.
6. S.Y. Pung, S.L. Chiam, A.T. Le, F.Y. Yeoh, CRLY00027976, "PRG-P3a particles", 28 Oct 2021.
7. W.S. Chow, K. Lim, S.Y.Pung, "Ultraviolet-protective transparent poly(lactic acid) nanocomposite packaging film, LY2020000171, Jan 2020.
8. S.Y. Pung, "Training Modules (Volume 1): Statistic and Design of Experiments for Material Engineering", CRLY00018045, 26 Nov 2019
9. S.Y. Pung, "ZDISK particles", Intellectual Property Corporation of Malaysia", CRLY00013291, 16 Apr 2019.
10. S.Y. Pung, "ZROD particles", Intellectual Property Corporation of Malaysia", CRLY00013290, 16 Apr 2019.

INVITED TALK

1. Invited speaker, 7th International Symposium on Advanced Materials and Nanotechnology (iSAMN 2023) “Immobilization of ZnO microrods on rigid meshes using hydrothermal” (12-13 Sep 2023)
1. Plenary speaker, 30th Scientific Conference Microscopy Society Malaysia 2022 (SCMSM 2022), “Development and challenges of ZnO photocatalysts”, Shah Alam, Malaysia (30 Nov – 1 Dec 2022).
2. Invited speaker, “Engineering of ZnO nanomaterials”, Civil Aviation University of China, China (on-line) (14 Oct 2022).
3. Keynote speaker, 2022 Joint International Conference on Nanoscience & Nanoengineering (BOND21 2022) jointly organized with the National Nanotechnology Centre (NNC) Ministry of Science, Technology & Innovation (MOSTI), IPB University, University of Technology (UOT), and AIMST University, Kuala Perlis, Perlis, Malaysia, 22-23 Sep 2022. “Immobilization of zinc oxide-based nanomaterials on supporting substrates for photocatalyst applications”.
4. Invited speaker, MaTD talk, “ZnO nanomaterials: From synthesis to photocatalytic applications”, The Institution of Engineers, Malaysia (IEM), (9 Mar 2022).
5. Invited speaker, Institute of Nano Electronic Engineering (INEE) Weekly Research Talk, “Structural, optical and photocatalytic properties of ZnO based nanomaterials”, Universiti Malaysia Perlis, Perlis, Malaysia (18 Dec 2020).
6. Invited speaker, Shimadzu Seminar on Material Characterisation and Analysis Techniques, “Identification of deposits on ZnO particles using XPS”, Penang, Malaysia (7 Aug 2019).
7. Invited speaker, BIT’s 7th Annual World Congress of Advanced Materials (WCAM-2018), “Synthesis, characterization and photocatalytic performance of ZnO based nanomaterials”, Xiamen, China (13-15 Sep 2018).
8. Invited speaker, Nano-Micro Conference 2017, “Highly effective ZnO based nanocomposites for organic dyes removal”, Shanghai, China, 19-23 June 2017.
9. Keynote speaker, Advances in Materials and Processing Technologies Conference 2016 (AMPT 2016), Kuala Lumpur, Malaysia, 8-11 Nov 2016. “Photodegradation efficiency of ZnO nanorods in removal of different types of organic dyes”.
10. Invited speaker, Energy Materials Nanotechnology (EMN) 2016 Qingdao Meeting, “Sunlight driven semiconductor photocatalyst for organic dyes removal”, Qingdao, China, 7-10 June 2016.
11. Nanostructures & Nanomaterials; synthesis, properties and application (5-6 July 2012), School of Materials and Mineral Resources Engineering, Universiti Sains Malaysia. “Engineering of ZnO nanomaterials”.

Participants: Prof. Dr. Md. Aminul Islam and Prof. Dr. A.K.M. Bazlur Rashid, Dept. of Materials and Metallurgical Engineering, Bangladesh University of Engineering and Technology, Bangladesh.

TRAINING

1. Short Course on Analysis of Materials Properties Using Various Characterization Methods (18 & 19 May 2023), Speakers: Prof. Chow Wen Shyang, Assoc. Prof. Ts. Ir. Dr Pung Swee Yong, Audiences: industry and academic staffs (8 pax), School of Materials and Mineral Resources Engineering, Universiti Sains Malaysia.
2. Short Course on Analysis of Materials Properties Using Various Characterization Methods (25 May 2022), Speakers: Prof. Chow Wen Shyang, Assoc. Prof. Ts. Ir. Dr Pung Swee Yong, Audiences: industry and academic staffs (10 pax), On-line training.

3. Introduction to statistics (1 Aug 2019), Speakers: Dr Sivakumar and Assoc. Prof. Ir. Dr Pung Swee Yong, Audiences: postgraduate students of School of Materials and Mineral Resources Engineering, Universiti Sains Malaysia.
4. Engineering Statistics (29 & 31 Jan 2019), Speakers: Dr Sivakumar and Assoc. Prof. Ir. Dr Pung Swee Yong, Audiences: postgraduate students of School of Materials and Mineral Resources Engineering, Universiti Sains Malaysia.
5. Control Chart Basic Training (27 Apr 2018), Speaker: Assoc. Prof. Ir. Dr Pung Swee Yong, Audiences: Staffs (MS ISO/IEC 17025) of Science & Engineering Research Centre (SERC), Universiti Sains Malaysia.
6. Introduction to Minitab 17 (11 Oct 2017), Speakers: Dr Sivakumar and Assoc. Prof. Ir. Dr Pung Swee Yong, Audiences: Academic staffs and postgraduate students of School of Materials and Mineral Resources Engineering, Universiti Sains Malaysia.
7. Effective teaching for Outcome-Based-Higher-Education (12 Feb 2015), Speaker: Dr Pung Swee Yong, Audiences: Academic staffs of School of Materials and Mineral Resources Engineering, Universiti Sains Malaysia.

CONFERENCES/WORKSHOPS/OTHERS

2. The International Conference on Chemical Engineering & Sustainability 2023 (ICCHES), (15-16 Aug 2023)
Oral presentation: "Role of hydroxide ions in the growth of 1-D zinc oxide on wires using direct heating method", A.T. Le, T.D. Hanh Le, N.A. Tuan Huynh, K.Y. Cheong, C.M. Koe, S.Y. Pung
3. 30th Scientific Conference of the Microscopy Society Malaysia (30th SCMSM 2022), Shah Alam, Malaysia, (30 Nov – 1 Dec 2022).
Oral presentation: "Synthesis and characterization of titanium dioxide particles by direct heating technique for photodegradation of methylene blue solution", C.M. Koe, G.S. Ng and S.Y. Pung.
4. 5th International Conference on Advances Manufacturing and Materials Engineering (ICAMME '22) Kuala Lumpur, Malaysia (9-10 August 2022).
"Structural, optical and photocatalytic performance of ZnO particles synthesized via direct heating technique for Rhodamine B removal", C.M. Koe, S.Y. Pung, and S. Sabar.
5. 7th International Conference on Recent Advances in Materials, Minerals & Environment (RAMM), Penang, Malaysia (19-20 July 2022).
Oral presentation: "Influence of annealing on the structural, optical and electrical properties of ZnO layers deposited using dip-coating method", M.Z. Toe, S.Y. Pung, A. Matsuda, and K. Yacob.
6. Materials Research Meeting (MRM) 2021, Yokohama, Japan (13-17 December 2021).
Oral presentation: "Effects of metals/metal oxides coupling on ZnO nanorods' structural and optical properties using photo-redox process" S.Y. Pung, S.K. Soo, A.T. Le, M.Z. Toe.
7. 1st Malaysia International Conference on Nanotechnology & Catalysis (MICNC) Langkawi, Kedah, Malaysia. (1-3 September 2021)
Oral presentation: "Facile one step synthesis of MnO₂ nanostructure using rapid heating method for Rhodamine B dye removal", S.L. Chiam and S.Y. Pung.
8. 28th Scientific Conference of the Microscopy Society Malaysia (28th SCMSM 2019), Kuantan, Pahang, Malaysia, (18-20 Dec 2019).
Oral presentation: "Reusability of zinc oxide particles collected after heavy metal ions removal", A.T. Le and S.Y. Pung.
9. The 3rd International Postgraduate Conference on Materials, Minerals & Polymer (MAMIP) 2019, Penang, Malaysia (31 Oct – 1 Nov 2019)
 - (i) Oral presentation: "Heavy metal ions removal using β -MnO₂ particles under UV irradiation", S.L. Chiam and S.Y. Pung.

- (ii) Oral presentation: “Effect of annealing temperature on the performance of zinc oxide thin film-based dye sensitized solar cell”, M.Z. Toe, A. Matsuda, S.S. Han, K. Aisha and S.Y. Pung, and
 - (iii) Oral presentation: “Photocatalytic performance of titanium dioxide particles in degradation of various organic dyes under visible and UV light irradiation”, A.T. Le, S.Y. Pung, S.L. Chiam, N.A.H.N. Josoh, T.Y. Koay, J.S. Lee and N.B. Mustar.
10. Conference on Advanced Materials Characterization Techniques, Kangar, Perlis, Malaysia (23-24 July 2019)
 Poster presentation: “Microstructure and mechanical behavior of CCTO ceramics hollow fiber fabricated using dry/wet spinning method”, M. Ahmadipour, M. Arjmand, M.F. Fadzil Ain, Z.A.A. Ahmad, S.Y. Pung.
11. 30th Intersarsity Biochemistry Seminar University of Nottingham Malaysia, Kuala Lumpur, Malaysia (4 May 2019)
 Oral presentation: “Mechanism underlying the antimicrobial activity of Zinc oxide (ZnO) nanoparticles against Gram-positive and Gram-negative bacteria”, N. Sian Tanchu, Y.F. Pung, S.Y. Pung, O. Taku and J. Hobman.
12. 6th International Conference on Recent Advances in Materials, Minerals & Environment (RAMM), Penang, Malaysia (27-29 Nov 2018).
 (i) Oral presentation: “Effect of ZnO seed layer on the growth of ZnO nanorods on silicon substrates”, M.Z. Toe, N.A.H. Nik Jusoh, A. Matsuda, S.S. Han, K. Yaacob, W.K. Tan and S.Y. Pung
 (ii) Poster presentation: “Structural and antibacterial activity of WO_x/ZnO nanocomposites against pathogenic bacteria”, Y.L. Ying, S.Y. Pung, M.T. Ong and Y.F. Pung.
13. 29th Intersarsity Biochemistry Seminar Taylor’s University, Kuala Lumpur, Malaysia (12 May 2018).
 (i) “Comparative study on the antifungal properties of the in-house synthesized ZnO, WO_x and ZnO/WO_x nanoparticles and the nano hybrids on *Rhodotorula mucilaginosa*”, J.S. Ho, Y.L. Ying, N.D.N. Diem, S.Y. Pung, Y.F. Pung
 (ii) “Comparing antibacterial activities of newly engineered Zinc oxide nanoparticles, Tungsten oxide nanoparticles and Zinc oxide-Tungsten oxide nanohybrids against *Staphylococcus aureus*”, H.Y. Chew, Y.F. Pung, N.D. Diem, Y.L. Ying, S.Y. Pung.
14. Regional Conference on Materials and ASEAN Microscopy Conference 2017 (RCM & AMC 17), Penang, Malaysia (12-13 Dec 2017).
 (i) Oral presentation: “Effect of co-dopant on the phase structure and photoluminescence properties of Sr₂MgSi₂O₇: Eu²⁺ phosphors”, S.Y. Pung, C.H. Chang, M.N. Ahmad Fauzi and S.R. Kasim,
 (ii) Oral presentation: “Processing Temperature dependent morphologies and Photocatalytic activity of ZnO nanorods”, M.T. Thein and S.Y. Pung,
 (iii) Poster presentation: “Effectiveness of heavy metals removal by ZnO nanorods under UV irradiation”, L.A. Thi, S.Y. Pung, S. Sreekantan, A. Matsuda and H.D. Phu.
 (iv) Poster presentation: “Inactivation of bacterial by WO_x/ZnO particles”, Y.L. Ying, S.Y. Pung, M.T. Ong and Y.F. Pung.
15. 4th Postgraduate Colloquium for Environmental Research 2017 (POCER 2017), Melaka, Malaysia (25 - 27 July 2017).
 Oral presentation: “Antibacterial study of tungsten oxide particles on Staphylococcus Aureus and Pseudomonas Aeruginosa”, Y.L. Ying, S.Y. Pung, M.T. Ong and Y.F. Pung.
16. 28th Intersarsity Biochem Seminar, University Pertanian Malaysia, Malaysia, (14 May 2017),
 (i) Poster presentation: “Ultrafine particle induces oxidative stress and impairs the ability of peripherals blood mononuclear cells to differentiate into circulating angiogenic cells”, Y.C. Wong, D.N.D. Nguyen, S.Y. Pung, M. William, and Y.F. Pung.
 (ii) Poster presentation: “Assessing antimicrobial properties of newly synthesized WO_x and ZnO/ WO_x Nanoparticles”, K. Disha, Y.L. Ying, S.Y. Pung, and Y.F. Pung.

17. International Corrosion Prevention Symposium for Research Scholars (CORSYM 2017), Kuala Lumpur, Malaysia, (3-4 May 2017).
Poster presentation: "Synthesis and characterization of ZnO particles with different morphology as potential UV shielding agent in textile industry", L.A. Thi, S.Y. Pung, S. Sreekantan, A. Matsuda and H.D. Phu.
18. 25th Scientific Conference of the Microscopy Society Malaysia (25th SCMSM 2016), Putrajaya, Malaysia, 7-9 Dec 2016.
Oral presentation: "A Comparison between ZnO Nanorods and WO₃/ZnO Nanorods Photocatalysts in RhB Dye Removal", Y.L. Ying, S.Y. Pung, T.H. Ong and Y.F. Pung.
19. Advances in Materials and Processing Technologies Conference 2016 (AMPT 2016), 8-11 Nov 2016.
Oral presentation: "The photocatalytic activity in removal of organic dye by tungsten oxide layer grown on polyethylene terephthalate fibers", S.N.Q.A. Abd Aziz, R.A. Kamazahruman, S. Sreekantan, M.T. Ong, G. Sahgal, S.Y. Pung.
20. 27th Intersarsity Biochem Seminar, University Pertanian Malaysia, Malaysia, (14 May 2016),
Poster presentation: "Assessing antifungal activity of zinc oxide nanoparticles against *Saccharomyces Cerevisiae*", S.G. Ling, M.T. Thien, C.F. Le, Y. Zailan, Y.H. Leong, T.S. Mohammad, S.Y. Pung and Y.F. Pung.
21. International Conference of Global Network for Innovative Technology 2016 (IGNITE 2016), Penang, Malaysia, 26-29 Jan 2016.
 - (i) Oral presentation: "Effect of calcination temperature on the photodegradation efficiency of NiO coupled ZnO rods", M.T. Thein, S.Y. Pung, A. Aziz, Z. Lockman, and M. Itoh.
 - (ii) Poster presentation: "The photocatalytic activity of tungsten oxide layer grown on polyethylene terephthalate fiber", S.N.Q.A.A. Aziz, R.A. Kamazahruman, S.Y. Pung, S. Sreekantan, M.T. Ong and G. Sahgal.
22. The 24th Scientific Conference of The Microscopy Society Malaysia (SCMSM 2015), Melaka, Malaysia (2-4th Dec 2015)
Oral presentation: "Photocatalytic study of WO₃ particles in removal of organic dye", S.Y. Pung, R.A. Kamazahruman, S. Sreekantan, M.T. Ong and G. Sahgal.
23. 11th International Conference of Pacific Rim Ceramic Societies (PacRim-11), Jeju Island, Korea, (30 Aug – 4 Sep 2015).
Oral presentation: "Burstein-Moss effect and band gap narrowing in ZnO", K.G. Saw, N.M. Aznan, F.K. Yam, S.S. Ng, S.Y. Pung.
24. 5th International Conference on Recent Advances in Materials, Minerals & Environment (RAMM) & 2nd International Postgraduate Conference on Materials, Mineral and Polymer (MAMIP), Penang, Malaysia (4-6 Aug 2015).
Oral presentation: "The role of polyvinylpyrrolidone (PVP) in the synthesis of stacked ZnO nanorods using solution precipitation method" M.T. Thein, S.Y. Pung, A. Aziz, M. Itoh.
25. The Second International Conference on Nano-Electronic Technology Devices and Materials (IC-NET 2015), Shah Alam, Malaysia, (27 Feb. - 2 Mar 2015)
Oral presentation: "Insights on semiconductor-metal transition in indium-doped zinc oxide from X-ray photoelectron spectroscopy, time-of-flight secondary ion mass spectroscopy and X-ray diffraction", K.G. Saw, N.M. Aznan, F.K. Yam, S.S. Ng, S.Y. Pung.
26. International Conference of Global Network for Innovative Technology (IGNITE 2014) Penang, Malaysia (15-16 Dec 2014).
Oral presentation: "Synthesis of ZnO nanomaterials and their application as photocatalyst for organic pollutant removal", S.Y. Pung, Y.L. Chan, W.P. Lee, M.T. Thein and S.N.Q.A. Abd Aziz.
27. Malaysia Toray Science Foundation Research Grant Symposium 2014 (MTSF Symposium 2014), Kuala Lumpur, Malaysia (3 December 2014).

- Oral presentation: “Photocatalytic study of manganese oxide nanowires with different polymeric phase”, S.Y. Pung and F.Y. Yeo.
28. International Science, Technology and Engineering Conference 2014 (ISTEC 2014), Langkawi, Malaysia (19-21 September 2014).
Oral presentation: “Preparation of a blue light emitting $\text{Sr}_2\text{MgSi}_2\text{O}_7$ -based photoluminescent phosphor”, S.Y. Pung, C.H. Tan, M.N. Ahmad Fauzi, S.R. Kasim.
29. International Conference on X-Rays & Related Techniques & Industry 2014 (ICXRI 2014), Johor Bahru, Malaysia (11-13 August 2014).
Poster presentation: “Effect of Excitation Wavelength on the Blue Emitting $\text{Sr}_2\text{MgSi}_2\text{O}_7$ Phosphor”, C.H. Chang, S.Y. Pung, M.N. Ahmad Fauzi and S.R. Kasim.
30. 4th International Conference on Environmental Pollution and Remediation (ICEPR 2014), Prague, Czech Republic (11-13 August 2014).
Oral presentation: “Fe-doped ZnO nanorods prepared by aerosol-assisted chemical vapour deposition (*in-situ* doping) and their photocatalytic activity of in degradation of RhB dye”, S.Y. Pung and S.N.Q.A. Abd Aziz and Z. Lockman.
31. International Conference on the Advancement of Materials and Nanotechnology 2013 (ICAMN III 2013), Penang, Malaysia (19-21 November 2013).
(i) Poster presentation: “Growth mechanism of ZnO hexagonal nanodisks synthesized using sol-gel technique”, M.T. Thein, S.Y. Pung, A. Aziz, M. Itoh.
(ii) Poster presentation: “Effects of synthesis parameters on the luminescence of $\text{Sr}_2\text{MgSi}_2\text{O}_7$ phosphor prepared by solid state reaction”, S.Y. Pung, C.H. Tan, M.N. Ahmad Fauzi, S.R. Kasim.
32. Mini Symposium USM-NUT (Nagaoka University Technology), Universiti Sains Malaysia, Penang, Malaysia (21-22 Oct. 2013).
Poster presentation: “Growth of Fe-doped ZnO nanorods using aerosol assisted-chemical vapour deposition via *in-situ* doping”. S.N.Q.A. Abd Aziz and S.Y. Pung, Z. Lockman.
33. 223rd ECS Meeting, Toronto, Ontario, Canada (May 12-16, 2013)
Poster presentation: “ZnO-MnO₂ Core-Shell Nanocomposites as a Promising Visible-Light Driven Photocatalyst for Pollutants Removal”, Y.L. Chan, S.Y. Pung, S. Sreekantan and F.Y. Yeoh.
34. NANO-SciTech 2013, Shah Alam, Malaysia (1-4 Mar 2013).
Oral presentation: “Ultraviolet photoresponse properties of zinc oxide on heavily boron-doped diamond heterojunction”, K.G. Saw, S.S. Tneh, S.Y. Pung, S.S. Ng, F.K. Yam and Z. Hassam.
35. Mesoporous hydroxyapatite derived from surfactant-templating system for p-Cresol adsorption: Physicochemical properties, formation process and adsorption performance
The 5th Regional Conference on Materials Engineering and the 5th Regional Conference on Natural Resources and Materials 2013 (RCM5 & RCNRM5), Penang, Malaysia (21-23 Jan 2013).
(i) Oral presentation: “Structural and optical properties of Fe-doped ZnO nanorods”, S.N.Q.A. Abd Aziz, S.Y. Pung, Z. Lockman, N.A. Hamzah, and Y.L. Chan.
(ii) Poster presentation: “Comparative Study Of ZnO And V₂O₅ Nanoparticles As Heterogeneous Photocatalysts In Degrading Organic Pollutants”, Y.L. Chan, S.Y. Pung and S. Sreekantan.
36. The 3rd IESCO International Workshop and Conference on Nanotechnology (IWCN 2012), Kuala Lumpur, Malaysia (5-7 Dec 2012)
(i) Poster presentation: “Synthesis and characterization of Cu-doped of ZnO nanorods”, S.Y. Pung, C.S. Ong, K. Mohd Isha and M.H. Othman.
(ii) Oral presentation: “Degradation of Rhodamine B using Semiconductor Nanoparticles with Different Bandgap Energy as photocatalyst”, Y.L. Chan, S.Y. Pung, F.Y. Yeo, S. Sreekantan and N.S. Hussain
(iii) Poster presentation: “Effect of CVD synthesis parameters on the growth of catalyst-free ZnO NRs”, N.A. Hamzah, S.Y. Pung, S. Sreekantan and S.N.Q.A. Abd Aziz

- (iv) Poster presentation: “Ex-situ doping of ZnO nanorods using spray pyrolysis technique”, S.N.Q.A. Abd Aziz, S.Y. Pung, Z. Lockman, N.A. Hamzah, and Y.L. Cham.
37. Workshop on Nanostructures & Nanomaterials; synthesis, properties and application (5-6 July 2012), School of Materials and Mineral Resources Engineering, Universiti Sains Malaysia, Malaysia.
Oral presentation: “Engineering of ZnO nanomaterials”.
38. International Conference on X-Rays & Related Techniques & Industry 2012 (ICXRI 2012), Penang, Malaysia (3-5 Jul 2012)
(i) Poster presentation: “Efficiency of ZnO particles with different morphology in degrading organic dye”, S.Y. Pung, W.P. Lee and A. Aziz.
(ii) Poster presentation: “Synthesis and growth mechanism of catalyst-free ZnO nanowires using chemical vapour deposition”, Nur Atiqah binti Hamzah, S.Y. Pung, Srimala Sreekantan and Siti Nor Qurratu Aini binti Abd Aziz.
39. 2012 International Conference on Applied Materials & Electronics Engineering (AMEE 2012), Hong Kong, (18-19 Jan 2012), S.Y. Pung and K.L. Choy.
Oral presentation: “Growth of vertically aligned ZnO nanowires on iron oxide layer”.
40. 3rd International Workshop on Nanotechnology & Application 2011 (3rd IWNA 2011), Vung Tau, Vietnam, (10-12 Nov 2011), S.Y. Pung, X.H. Hou and K.L. Choy.
Oral presentation: “Structural and optical properties of ZnO thin films deposited using atomic layer deposition technique”.
41. 4th AUN/SEED-Net Regional Conference on Natural Resources and Materials (RC-NRM) and MetCon 2011, Olongapo City, Zambales, Philippines (27-28 Oct. 2011) S.Y. Pung, K.L. Choy and X.H. Hou.
Oral presentation: “Structural and Optical Properties of ZnO nanostructures”.
42. Joint Research Seminar between USM and Nagaoka University of Technology, Malaysia (17 Oct. 2011)
Poster presentation: “Controlled growth of ZnO nanowires using ZnO seed layers”, S.Y. Pung, X.H. Hou and K.L. Choy.
43. The International Conference for Nanomaterials Synthesis and Characterization (INSC 2011), Kuala Lumpur, Malaysia, (4-5 Jul 2011), S.Y. Pung and C.C. Tee.
Oral presentation: “Growth mechanism of Au-catalyzed ZnO NWs: VLS or VS-VLS?”
44. 22th North American Meeting: "Driving Catalyst Innovation", Detroit, Michigan, USA (5-10 Jun 2011), E.Rebrov, L.N. Protasova, J.C. Schouten, K.L. Choy, S.Y. Pung, V. Engels, M. Cabaj, and A.E.H. Wheatley.
Oral presentation: “CVD deposited Pd/ZnO nanowires for selective hydrogenation of acetylene alcohols”.
45. Nanotech Malaysia 2010: International Conference on Enabling Science and Nanotechnology, Kuala Lumpur, Malaysia (1-3 Dec 2010), S.Y. Pung, K.L. Choy and X.H. Hou.
Oral presentation: “Growth of Au-catalyzed and Self-catalyzed ZnO Nanowires using Chemical Vapor Deposition Technique”.
46. Proceedings of the XIth Netherlands Catalysis and Chemistry Conference (NCCC XI), Noordwijkerhout, Netherlands (1-3 Mar 2010), L.N. Protasova, E.Rebrov, J.C. Schouten, K.L. Choy, S.Y. Pung, V. Engels, M. Cabaj, and A.E.H. Wheatley.
Oral presentation: “Zinc oxide nanowires doped with Pd nanoparticles for selective hydrogenation of acetylene alcohols”.
47. 216th ECS Meeting, Vienna, Austria (4–9 Oct 2009), S.Y. Pung, K.L. Choy and X.H. Hou
Oral presentation: “Homoepitaxial growth of vertically aligned ZnO NWs by CVD technique”.
48. 2009 NSTI Nanotechnology Conference and Trade Show, Houston, USA (3-7 May 2009), S.Y. Pung and K.L. Choy
Oral presentation: “Aluminium doped ZnO films by a modified chemical vapour deposition technique”.

49. International workshop on Advanced Nanostructured Materials and Thin films for industry applications, Nottingham, United Kingdom (10–13 Nov 2008).
Poster presentation: “Structural and IR analysis of ZnO films and nanowires” - S.Y. Pung, K.L. Choy, Evgeny A. Vinogradov, Nadezhda N. Novikova and Vladimir A. Yakovlev.
 - (i) “Photoluminescence properties of ZnO films and nanowires” – S.Y. Pung, K.L. Choy, A.J. Kent and A. Andrey.
 - (ii) “Controlled growth of ZnO nanowires by self-catalyzed approach” – S.Y. Pung, K.L. Choy and X.H. Hou
50. 1st International on Functional Nanocoatings, Budapest, Hungary (28 Mar – 2 Apr 2008), S.Y. Pung, C.X. Shan, X.H. Hou and K.L. Choy.
Oral presentation: “Controlling of preferential growth of ZnO seed layers by the atomic layer deposition technique for vertically aligned growth of ZnO nanowires”.
51. 8th International Conference on Processing and Fabrication of Advanced materials (PFAMVIII), Singapore (8-10 Sep. 1999), L.B. Hussain and S.Y. Pung.
Oral presentation “Influence of chlorine and humidity on mechanical strength of tin lead solders”.
52. 3rd European XFEL Users’ meeting, Hamburg, Germany (28–29 Jan 2009), S.Y. Pung, K.L. Choy and X.H. Hou
Poster presentation: “Controlled growth of ZnO nanowires by self-catalyzed approach”
53. I-Nano Summer School “Nanomaterials and Nanosynthesis”, Århus, Denmark (9–16 June 2007), S.Y. Pung, K.L. Choy and X.H. Hou.
Poster presentation: “Growth of ZnO nanorods by aerosol assisted chemical vapour deposition method”.
54. Nano Malaysia Summit & Expo 2011 (14-16 Jun 2011) S.Y. Pung, K.L. Choy and X.H. Hou.
Poster presentation “Controlled growth of ZnO nanowires using seed layers”.
55. Fuel and Power Technology Research Division, Faculty of Engineering, University of Nottingham, U.K. (1 Apr 2009), S.Y. Pung, K.L. Choy and X.H. Hou.
Oral presentation “Controlled growth of ZnO nanowires by self-catalysed approach”.

REVIEWER FOR BOOK CHAPTER

1. Jul 2015, book chapter in “*Two-Dimensional Nanostructures for Energy Related Applications*” Science Publishers).

REVIEWER FOR JOURNALS

1. ACS Omega
2. ACS Applied Nano Materials
3. Advances in Applied Ceramics: Structural, Functional and Bioceramics
4. Advances in Natural Sciences: Nanoscience and Nanotechnology
5. Advanced Materials Characterization Technique
6. Advanced Materials Research
7. American Chemical Science Journal
8. ASEAN Engineering Journal
9. Ceramics International
10. Chemical Engineering Journal
11. Chemical Vapour Deposition
12. Current Nanoscience
13. Current Research in Green and Sustainable Chemistry
14. Dyes and pigments

15. Environmental Engineering Science
16. Environmental Nanotechnology, Monitoring & Management
17. European Physical Society
18. Fullerenes, Nanotubes and Carbon Nanostructures
19. IETE Journal of Research
20. Inorganic Chemistry Communications
21. International Journal of Environmental Analytical Chemistry
22. International Journal of Organic Chemistry
23. International Journal of Photoenergy
24. Journal of Chemical Intermediates
25. Journal of Experimental Nanoscience
26. Journal of Hazardous Materials
27. Journal of Materials Chemistry C
28. Journal of Metals, Materials and Minerals
29. Journal of Materials Research
30. Journal of Materials Science: Materials in Electronics
31. Journal of Mechanical Material Engineering
32. Journal of Physics and Chemistry of Solids
33. Journal of Physics D: Applied Physics
34. Journal of Water Process Engineering
35. Journal of Physical Science
36. Kastamonu University Journal of Forestry Faculty
37. Materials Characterization
38. Materials Chemistry and Physics
39. Materials Letters
40. Materials Research Express
41. Materials Science in Semiconductor Processing
42. Materials Today: Proceeding
43. Nano Express
44. Nanotechnology
45. Philosophical Magazine
46. Polymer Composites
47. Results in Engineering
48. RSC Advances
49. Semiconductor Science and Technology
50. SN Applied Science
51. Solar Energy
52. Thin Solid Films
53. The Korean Journal of Chemical Engineering Physical Scripta

REVIEWER FOR CONFERENCE PAPERS

1. Materials Today: Proceeding (26 Nov 2022)
2. Proceeding of 7th International Conference On Recent Advances In Materials, Minerals & Environment (RAMM) 2022, Penang, Malaysia (19-20 Jul 2022).
3. Open Access Conference Proceeding, Proceedings of Regional Conference on Materials 2021 (RCM 21), Penang, Malaysia (1-2 Dec 2021).
4. Proceedings of International Conference on X-Rays and Related Techniques in Research and Industry 2021, Malaysia.
5. AIP Conference Proceedings, The 3rd International Postgraduate Conference on Materials, Minerals & Polymer (MAMIP) 2019, Penang, Malaysia (31 Oct – 1 Nov 2019)
6. Proceedings of The 9th International Conference on Key Engineering Materials (ICKEM 2019), University of Oxford, United Kingdom, 29 Mar – 1 Apr 2019.

7. Proceedings of The 6th International Conference on Recent Advances in Materials, Minerals & Environment (RAMM), Penang, 27-29 November, 2018.
8. Proceedings of The ninth International Conference on Science and Engineering 2018 (9th ICSE 2018), Myanmar, December, 2018.
9. Proceedings of The 3rd International Conference on New Material and Chemical Industry (NMCI), Sanya, China, 17-19 November 2018.
10. Journal of Physics: Conference Series, Proceedings of Regional Conference on Materials and ASEAN Microscopy Conference 2017 (RCM & AMC 17), Penang, Malaysia (12-13 Dec 2017).
11. Proceedings of The 8th International Conference on Nanotechnology: Fundamentals and Applications, Marid, Spain, 21-23 August, 2018.
12. Proceedings of 5th Annual International Conference on Materials Science, Metal & Manufacturing (M3 2018) Singapore, 12 - 13 March 2018.
13. Proceedings of the Research Scholar's Corrosion Symposium 2017 (CROSYM'17), Perak, Malaysia, 3-4 May 2017.
14. Proceedings of the 2nd International Conference on Advanced Functional Materials (ICAFM 2017), Los Angeles, United States, 4-6 August 2017.
15. Proceedings of the 3rd World Congress on New Technologies (NewTech'17), Rome, Italy, 6-8 June 2017.
16. Proceedings of the 25th Scientific Conference of the Microscopy Society Malaysia 2016 (SCMSM 2016), Putrajaya, Malaysia.
17. Proceedings of International Conference on X-Ray & Related Techniques in Research and Industry, Putrajaya, Malaysia, August 2016.
18. Proceedings of the 2nd World Congress on New Technologies (NewTech'16) Budapest, Hungary, August 19 – 20, 2016.
19. Proceedings of the International Conference of Global Network for Innovative Technology 2016 (IGNITE 2016), Penang, Malaysia, 26-29 Jan 2016.
20. Proceedings of the International Conference on Material Technology and Environmental Engineering (MTEE 2015), Shanghai, China, 14-15 Aug 2015.
21. Proceedings of the 5th International Conference on Recent Advances in Materials, Minerals & Environment (RAMM), Penang, 4-6 August, 2015.
22. Proceedings of The 6th International Conference on Nanotechnology: Fundamentals and Applications, Barcelona, Spain, 15-17 July, 2015.
23. Proceedings of The Engineering Technology International Conference 2015 (ET 2015), Surabaya, Indonesia, 31st Jul – 1st Aug 2015.
24. Proceedings of The 23rd Scientific Conference of the Microscopy Society Malaysia 2014 (SCMSM 2014), Tronoh, Perak, Malaysia.
25. Proceedings of the International Conference on Advanced Material Engineering & Technology 2013 (ICAMET 2013), Bandung, Malaysia.
26. Proceedings of The 3rd International Malaysia-Ireland joint Symposium on Engineering, Science and Business 2013, Penang, Malaysia.
27. Proceedings of the Second International Conference on Advances In Materials Processing and Characterization (AMPC 2013), Chennai, India.
28. Proceedings of The 2nd International Conference on Chemical, Material and Metallurgical Engineering (ICCMME 2012).
29. Proceedings of the International Conference on Advanced Material Engineering & Technology 2012.

REVIEWER FOR RESEARCH GRANT PROPOSAL

1. IPT grant evaluation panel (FRGS) (USM) (1/12/2023 – 31/1/2024).
2. IPT grant evaluation panel (FRGS 2024) (SMMRE level) (23-26 Nov 2023).
3. IPT grant evaluation panel (FRGS) (National level) (29 May – 12 June 2023).

4. Research University (RUI) Grant, USM (10 Apr 2023).
5. IPT grant evaluation panel (FRGS) (USM) (17/3/2023 – 14/4/2023).
6. IPT grant evaluation panel (FRGS) (SMMRE level) (3-20 Jan 2022).
7. IPT grant evaluation panel (FRGS) (USM) (12/10/2022).
8. IPT grant evaluation panel (FRGS) (USM) (26/1/2022-16/3/2022).
9. IPT grant evaluation panel (FRGS) (SMMRE level) (3-20 Jan 2022).
10. Research University (RUI) Grant (Top-done), Science Cluster, USM (16 Nov 2021).
11. IPT grant evaluation panel (TRGS) (USM) (4/10/2021).
12. IPT grant evaluation panel (Short Term – Non-academic staff) (USM) (19/3/2021).
13. IPT grant evaluation panel (FRGS) (National level) (2021).
14. IPT grant evaluation panel (FRGS) (USM) (19/1/2021).
15. IPT grant evaluation panel (FRGS) (National level) (20-28/4/2020).
16. IPT grant evaluation panel (FRGS) (USM) (20-26/2/2020).
17. YUTP Fundamental Research Grant (FRG) 2020, University Technology Petronas (UTP) (26 Aug 2019 – 25 Aug 2024).
18. YUTP Fundamental Research Grant (FRG) 2020, University Technology Petronas (UTP) (23 Aug 2019).
19. Short Term Grant (Cluster: Engineering), USM (30 Jan 2019).
20. IPT grant evaluation panel (FRGS) (UMK) (11/2/2018 to 13/3/2018).
21. IPT grant evaluation panel (PRGS) (USM) (19/02/2018 to 26/02/2018)
22. Research University (RUI) Grant, Science Cluster, USM (17 Nov 2016).
23. Geran Sangkutan Penyelidikan, USM (2011).

PANEL FOR RESEARCH GRANT PROGRESS MONITORING

1. RUI (USM) (16/11/2021)

REVIEWER FOR MyTalent USM

1. MyTalent USM (30/7/2018).
2. MyTalent USM (23/7/2019).
3. MyTalent USM (13/11/2019)
4. MyTalent USM (27/7/2021)
5. MyTalent USM (27/9/2021)
6. MyTalent USM (01/11/2021)
7. MyTalent USM (12/10/2023)

AUDITOR/ASSESSOR

1. Evaluator For Engineering Accreditation Council (EAC), Board of Engineers Malaysia (2021 -).
 - (i) UIAM, 9-10 May 2023 (Bachelor of Materials Engineering with Honours)
2. Technical assessor of Department Standard of Malaysia (MS ISO17025: 2017)
 - (i) Petronas Chemicals Fertiliser Kedah Sdn. Bhd. (25 Oct 2023).
3. Internal auditor (MS ISO17025: 2017)
 - (i) HBPTU USM (10 Aug 2022).
 - (ii) HBPTU USM (22 Dec 2020).
 - (iii) SERC USM (23 Jul 2020)
2. Assessor (membership) of Malaysia Board of Technologist.
 - (i) Interview 2 candidates (Professional Technologist), Session 575/2023, 6 Dec 2023.

- (ii) Interview 3 candidates (Professional Technologist), Session 516/2023, 31 Oct 2023.
 - (iii) Interview 2 candidates (Professional Technologist), Session 370/2023, 10 Aug 2023.
 - (iv) Interview 2 candidates (Professional Technologist), Session 158/2023, 5 Apr 2023.
 - (v) Interview 3 candidates (Professional Technologist), Session 413/2022, 11 Oct 2022.
 - (vi) Interview 5 candidates (Professional Technologist), Session 374/2022, 15 Sep 2022.
 - (vii) Interview 2 candidates (Professional Technologist), Session 286/2022, 27 Jul 2022.
 - (viii) Interview 8 candidates (Professional Technologist), Session 243/2022, 30 Jun 2022.
 - (ix) Interview 8 candidates (Professional Technologist), Session 180/2022, 31 May 2022.
 - (x) Interview 3 candidates (Professional Technologist), Session 387/2021, 14 Oct 2021.
 - (xi) Interview 2 candidates (Professional Technologist), Session 232/2021, 10 Jun 2021.
 - (xii) Interview 7 candidates (Professional Technologist), Session 73/2021, 25 Feb 2021.
 - (xiii) Interview 6 candidates (Professional Technologist), Session 27/2021, 21 Jan 2021.
 - (xiv) Interview 8 candidates (Professional Technologist), Session 53/2020, 4 June 2020.
 - (xv) Interview 5 candidates (Professional Technologist), Session 18/2020, 24 Mar 2020.
3. Assessor (Technology and Technical Accreditation Council, TTAC) of Malaysia Board of Technologist (2020 -)

THESIS EXAMINER

(a) Master (Internal examiner, Mixed mode)

1. Kaviratnam A/L Rajaretnam, "Optimization of argon ion milling parameter to reduce curtaining effect on silicon wafer". (Supervisor: Assoc. Prof. Dr. Khatijah Yaacob), 18 Sep 2023.
2. Kishen Kumar Balakrishnan, "Oxide charges and contamination characterization of silicon dioxide using Semilab Fast 330". (Supervisor: Assoc. Prof. Dr. Khatijah Yaacob), 21 Sep 2022.
3. Sharifah Farhana Hamdan, "Fabrication of Mn_xO_y nanoparticles modified electrode for lead ions and cadmium ions detection", (Supervisor: Prof. Dr Khairunisak Abdul Razak), 2 Sep 2021.
4. Nurul Hidayah bt Ramlu, "Fabrication for nanocomposites for heavy metal ions detection", (Supervisor: Prof. Dr Khairunisak Abdul Razak), 2 Sep 2020.
5. Sarasijah A/P Arivalakan, "Fabrication of iron oxide nanoparticles modified electrode for heavy metal detection", (Supervisor: Prof. Dr Khairunisak Abdul Razak), 31 July 2019.
6. Ilias Ait Tayeb, "Development of gold nanoparticles modified electrodes for the electrochemical detection of mercury and lead", (Supervisor: Assoc. Prof. Dr Khairunisak Abdul Razak) 7 Aug 2017.
7. Nurhuda bt Marzuki, "Synthesis and characterization of CCTO/CuO laminate layers ceramic", (Supervisor: Prof. Dr. Hj. Zainal Arifin Ahmad, Co-supervisor: Dr Shah Rizal Kasim) 20 Jul 2016.

8. Suriyati bt Mohamed Ansari, "Formation of zirconia nanotube sheets in the presence of carbonates by anodization of zirconium", (Supervisor: Assoc. Prof. Dr Zainovia Lockman) 4 Aug 2014.
9. Norlailatullaili bt Mazuki, "Effect of aluminium (Al) and nickel (Ni) addition on formation of titanium silicon carbide (Ti_3SiC_2) via arc melting", (Supervisor: Dr Julie Juliewatty bt Mohamed, Co-supervisor: Prof. Dr. Hj. Zainal Arifin Hj. Ahmad) 17 Jul 2012.

(b) Master (Internal examiner, Research mode)

1. Lim Ruo Xuen, "Ion source-modified polycarbonate substrate for promoting adhesion of inorganic thin film", (Supervisor: Prof. Ir Dr. Cheong Kuan Yew) 14 Nov 2023.
2. Muhammad Balyan, "Energy harvesting from water vapour using chitosan film", (Supervisor: Prof. Dr. Hj. Zainal Arifin Ahmad), 30 Dec 2019.
3. Nurhafizi Zakaria, "Reliability study on the effectiveness of sacrificial anode cathodic protection (SACP) on corrosion protection for Royal Malaysian Navy (RMN) ships", (Supervisor: Assoc. Prof. Ahmad Badri, co-supervisor: Assoc. Prof. Dr. Nurulakmal bt Mohd Sharif), 18 Sep 2018.
4. Chan Yi Hoong, "Formation of nanowire WO_3 for dynamic/electro-chromic window application", (Supervisor: Assoc. Prof. Zainovia Lockman) 12 Feb 2018.
5. Tuan Nur Izzah bt Tuan Ab Rashid, "Lead zirconate titanate (PZT) doped produced in solid state reaction method" (Supervisor: Assoc. Prof. Dr Hasmaliza Mohamad, co-supervisor: Prof. Zainal Arifin Ahmad) 8 Feb 2018.
6. Maliha Siddiqui, "Effect of Li_2CO_3 addition on the piezoelectric and dielectric properties of $Pb_{0.93}La_{0.02}Sr_{0.05}(Zr_{0.52}Ti_{0.48})O_2$ ceramics", (Supervisor: Prof. Zainal Arifin Ahmad, Co-supervisor: Dr Shah Rizal Kasim) 17 Jul 2016.
7. Faizal Budiman, "The formation of iron oxide nanowires by thermal oxidation for Cr (VI) removal by adsorption, (Supervisor: Assoc. Prof. Zainovia Lockman) 22 Sep 2015.
8. Syazwani bt Mohd Zaki, "Studies on the effect of Cu incorporation TiO_2 nanotubes arrays for heavy metal removal", (Supervisor: Assoc. Prof. Srimala Sreekantan) 26 Nov 2013.
9. Nur Syafinaz bt Ridhuan, "Feasibility study of ZnO nanorods for gas sensor application", (Supervisor: Assoc. Prof. Khairunisak) 29 Jan 2013.

(c) Master (External examiner, Research mode)

1. Dzilal Binti Amir, "Roles of stabilizers in the synthesis and immobilization of silver nanocatalysts on activated carbon from durian skin for methylene blue removal", Kulliyah Of Engineering, International Islamic University Malaysia (UIAM), Malaysia (Supervisor: Dr. Ricca Rahman Nasaruddin) 8 Jan 2024.
2. Teoh Min Wei, "Synthesis and sintering of biowaste-derived hydroxyapatite", Tunku Abdul Rahman University of Management and Technology (TAR UMT), Malaysia (Supervisor: Ir. Dr. Ng Chui Kim) 21 Aug 2023.
3. Lee Wai Hong, " WO_3 -loaded TiO_2 nanotubes via electrochemical anodization technique for efficient photocatalytic removal of mercury", University of Malaya, Malaysia (Supervisor: Dr Lai Chin Wei, Prof. Dr. Sharifah Bee Abd Hamid) 3 Nov 2015.
4. Kalyani Nadarajah, "Fundamental properties of zinc oxide nanostructures and their photovoltaic application", University Malaya, Malaysia (Supervisor: Dr Chin Yern Chee) 7 June 2014.

(d) PhD (Internal examiner)

1. Najwa binti Ibrahim, "Fabrication and characterization of silver nanoparticles conductive inks for inkjet-printed electrode in electrochemical applications", (Supervisor: Prof. Ir Dr. Mariatti Jaafar) 25 Sep 2023.

2. Nurhaswani Binti Alias, "Anodic niobium oxide on niobium and its alloy for photoreduction of hexavalent chromium, (Cr (VI))", (Supervisor: Prof. Dr. Zainovia) 7 August 2023.
3. Nurain Najihah Alias, "Self-limiting oxidation of scaling down of silicon sub-micron wires fabricated using atomic force microscope lithography for biosensor", (Supervisor: Assoc. Prof. Dr Khatijah Aisha Yaaob) 9 Mar 2023.
4. Ilias Ait Tayeb, "Investigation of the resistive switching properties and mechanisms of polymanose based memory devices", (Supervisor: Prof. Ir Dr. Cheong Kuan Yew) 27 Nov 2022.
5. Muhammad Esmad Alif Bin Samsudin, "Epitaxial growth of III-V nitrides based light emitting diodes by metal organic chemical vapor deposition", Institut Penyelidikan dan Teknologi Nano Optoelektronik (INOR) (Supervisor: Assoc. Prof. Dr. Dr. Norzaini Zainal) 8 June 2022.
6. Muralidharan Sundarajan, "Performance of nano porous assisted anodic aluminium oxide, electroless nickel alloy and composite coatings for electronic packaging application", (Supervisor: Prof. Ir. Dr. Mariatti Jaafar) 15 Oct 2021.
7. Michael Raj A/L Marks, "Fabrication and characterization of copper-stabilized ultrathin silicon dies using ultrashort-pulsed laser dicing", (Supervisor: Prof. Ir Dr. Cheong Kuan Yew) 15 Sep 2021.
8. Melvin Ng Hau Kwan, "Immobilization of TiO₂ and N-carbon dot with micro-fibrillated cellulose in poly(vinyl alcohol)/poly(2-dimethylamine) ethyl methacrylate thin film with photocatalytic and photoluminescent properties", (Chemical School) (Supervisor: Assoc Prof. Ir. Dr. Leo Choe Peng) 26 Feb 2021.
9. Norfatehah binti Basiron, "Synthesis, characterization and antimicrobial activities of metal oxide incorporated linear low-density polyethylene composites", (Supervisor: Prof. Ir. Dr. Srimala Sreekantan) 20 Jan 2021.
10. Haslinda binti Abdul Hamid, "Development of modified electrodes for chloroform and lead ions detection", (Supervisor: Prof. Dr. Khairunisak) 7 Sep 2020.
11. Ramarao A/L Poliah, "Synthesis, characterization and carbon dioxide adsorption of printine and alkaline metal incorporated magnesium oxide", (Supervisor: Prof. Ir. Dr. Srimala Sreekantan) 27 Aug 2020.
12. Hay Mar Aung Kyaw, "Electrophoretic deposition of nanoparticles for quantum dot sensitized solar cell (QDSSC)", (Supervisor: Assoc. Prof. Dr Khatijah Aisha Yaaob, co-supervisor: Prof. Dr. Ahmad Fauzi), 8 Nov 2019.
13. Noorhashimah binti Mohamad Nor, "Development of iron oxide nanoparticles modified electrodes for glucose biosensor applications", (Supervisor: Prof. Dr. Khairunisak) 7 Sep 2018.
14. Mohsen Ahmadipour, "Fabrication, characterization and humidity sensing property of radio frequency magnetron sputtered calcium copper titanate (CCTO) thin film", (Supervisor: Prof. Dr. Zainal Arifin Ahmad) 14 May 2018.
15. Mohd Nizam bin Ishak, "Formation and characterization of CdSe quantum-dot films deposited by electrophoretic deposition for quantum dots sensitised solar cell", (Supervisor: Dr Khatijah Aisha Yaacob, co-supervisor: Prof. Dr. Ahmad Fauzi) 13 Feb 2018.
16. Mohd Fariz bin AB Rahman, "Dielectric properties modification of CaCu₃Ti₄O₁₂ (CCTO) by various glasses addition for dielectric resonator antenna (DRA) application", (Supervisor: Prof. Dr. Zainal Arifin Ahmad) 28 Aug 2017.
17. Nyein Nyein, "Characterization of silver modified TiO₂ nanotube arrays from solar cell applications", (Supervisor: Assoc Prof. Zainovia Lockman) 31 Mar 2017.
18. Quah Hock Jin, "Investigation of RF-Magnetron sputtered Y₂O₃Al₂O₃ 2-dimentional nanostructure on silicon and gallium nitride substrates", (Supervisor: Assoc Prof. Ir Cheong Kuan Yew) 24 Apr 2014.

(e) PhD (External examiner)

1. Sangeetha M, “Investigations on pure and doped (Bi, B, Bi-B, Ce, Ce-Bi, Ce-B and Bi-B-Ce) TiO₂ nanoparticles for photocatalytic applications”, Anna University, India, May 2023.
2. Anamitra Chattopadhyay, “Synthesis of oxide based high-k electro-ceramic nanoparticles for application in sensors”, Indian Institute of Technology (Indian School of Mines) Dhanbad, India, Feb 2023.
3. C. Subashini, “Effect of transition metal ions on the mechanical, structural and thermal properties of calcium borate-based glasses”, Bharathiar University, Coimbatore, Tamilnadu, India, 2022.
4. K.R. Jyothi, “Low temperature synthesis and characterization of some inorganic nanophosphors for white light emitting diode applications”, Faculty of Physics, Visvesvaraya Technological University, 14 Jun 2022.
5. D. John Williams, “Synthesis, characterization and photocatalytic applications of polycarbazole based nanocomposites for the degradation of various textiles dyes”, Dept. of Chemistry, Chikkaiah Naicker College, Bharathiar University, 11 Dec 2021.
6. D. Bhattacharya, “Synthesis, Characterizations and Applications of Multifunctional Delafossite type CuCo_{0.5}Ti_{0.5}O₂ Material”, Indian Institute of Engineering Science and Technology, Shibpur, West Bengal, India, Sep 2021.
7. D. Ghoshal, “Synthesis, characterization of dye incorporated PVA films for laser filter applications”, Indian Institute of Engineering Science and Technology, Shibpur, West Bengal, India, Sep 2021.
8. N. Suresh, “Effect of different doping concentration on the properties of L-Alanine single crystal for nonlinear optical applications”, Periyar University, Salem, Tamil Nadu, India, 15 Aug 2021.
9. J. Prakash, “Phytochemical investigation, pharmacological studies, biosynthesis, characterization of nanoparticles and applications of carbon derived from bulb of zephyranthes citrina for removal of dyes”, Periyar University, Salem, Tamil Nadu, India, 15 Aug 2020.
10. Siew Qi Yan, “One-step green hydrothermal synthesis of biocompatible graphene/titanium dioxide nanocomposites: Towards the development of highly sensitive and selective electrochemical immunosensor for dengue diagnosis”, University of Nottingham, Malaysia Campus, 17 Jan 2020.
11. Ibrahim Khalil, “Solar selective performance, opto-dielectric and mechanical characteristics of vacuum fabricated metal nitride thin film coatings”, (Supervisor: Dr Zhong-Tao Jiang) Murdoch University, Perth, Australia, May 2018.
12. Vidhya S.N., “Deposition and characterization of telluride, sulfide and oxide thin films for various technological applications”, Research And Development Centre, Bharathiar University, Coimbatore – 641 046, Tamil Nadu, India, Mar 2018.
13. Gobinathan L, “Synthesis, crystal growth and characterization of hydrochloride, cobalt chloride and barium chloride based glycine complexes”, Anna University, India, Sep 2017.
14. Srinivasan N, “Synthesis, characterization and antimicrobial investigation of pure ZnO and some doped ZnO nanoparticles”, Anna University, India, Oct 2015.

SUPERVISING RESEARCH PROJECTS

(a) Post doctoral

1. Dr. Mohsen Ahmadipour, "Development of metal oxide nanoparticles by direct heating technique", Oct 2018 – Sep 2020.

(b) Postgraduate (PhD) (Main supervisor)

1. Siti Nur Asiah binti Mahamood, (2022-) "Synthesis and characterization of zinc oxide based photocatalysts immobilized on glass substrates using direct heating technique", (co-supervisors: Ts Dr Wan Maryam binti Wan Ahmad Kamil, Dr Mohsen Ahmadipour).
2. Liu Jiao, "Development of ZnO based nanocomposites grown on kanthal mesh using direct heating technique for photocatalytic study", (2022 -) (co-supervisor: Assoc. Prof. Dr Yeoh Fei Yee) (in progress)
3. Le Anh Thi, "Synthesis and characterization of ZnO based nanocomposite grown by localized heating technique for wastewater treatment", (2019 -) (co-supervisor: Prof. Ir Dr. Cheong Kuan Yew) (Completed).
4. Siti Nor Qurratu Aini Binti Abd Aziz, "Synthesis and characterization of doped ZnO nanowires" (2015-2023) (co-supervisor: Prof. Dr. Zainovia Lockman, Dr Ong Ming Thiong) (Completed).
5. Chiam Sin Ling, "Ultra rapid direct heating synthesis of MnO₂ nanorods for the efficient degradation of Rhodamine-B", (2018 - 2022) (co-supervisor: Assoc. Prof. Dr Yeoh Fei Yee). (Completed)
6. May Zin Toe, "Impacts of ZnO electron transport layer on photocurrent enhancement of organic photovoltaic cells", (2017- 2021) (co-supervisor: Prof. Dr. Atsunori Matsuda, Assoc. Prof. Dr Khatijah Yaacob) (Completed).
7. Myo Thuya Thein, "Synthesis and characterization of WO_x/ZnO nanocomposites grown on PET fibre for photocatalytic application" (2012-2016). (co-supervisors: Assoc. Prof. Dr. Zainovia Lockman, Prof. Dr. Azizan bin Aziz, Prof. Mitsuru Itoh) (Completed).

(c) Postgraduate (PhD) (Co-supervisor)

1. Alnajati Ibrahim Ali Hameed (student #): Design of a piezoelectric energy harvester for application in flexible systems (2020 -) (Main supervisor: Dr. Chan Keng Wai) (In progress).
2. Oii Chee Heong (student #): Functionalized of Nanoporous Materials for Urea Adsorption (2015 - 2019) (Main supervisor: Assoc. Prof. Dr Yeoh Fei Yee) (Completed).
3. Nelvi Sutanto (student #): Photodegradation performances of low density polyethylene (LDPE) composites loaded with photocatalysts (2015 - 2019) (Main supervisor: Prof. Ir. Dr Srimala Sreekantan) (Completed).

(d) Postgraduate (Master, Research mode) (Main supervisor)

1. Koe Chee Meng, "Synthesis and characterization of ZnO nanorods grown on kanthal mesh using direct heating technique for photocatalysis application", (2020/2021) (In progress).
2. Ying Yuet Lee, "Synthesis and characterization of semiconductor coupling photocatalyst for inactivation of bacteria", (2016 - 2018) (co-supervisor: Dr Ong Ming Thong) (Completed).
3. Le Anh Thi, "Reusability of ZnO nanoparticles for organic dyes removal after heavy metal deposition", (2016 - 2018) (co-supervisor: Prof. Ir Dr. Srimala Skreetan, Assoc. Prof. Dr. Huynh Dai Phu, Prof. Dr. Atsunori Matsuda) (Completed).
4. Siti Nor Qurratu Aini Binti Abd Aziz, "Synthesis and characterization of doped ZnO nanowires" (2011- 2014) (co-supervisor: Assoc. Prof. Dr. Zainovia Lockman) (Completed).

5. Chan Yim Leng, "Synthesis of semiconductor nanomaterials for photocatalytic study", (2012 - 2014) (co-supervisor: Assoc. Prof. Dr. Srimala Sreekantan) (Completed).
- (e) **Postgraduate (Master, Research mode) (Co-supervisor)**
1. Chuah Mui Ling, "Preparation of activated carbon and synthetic diamond from durian shell wastes using simplified chemical and physical activation", (2023-) (Supervisor: Assoc. Prof. Dr. Yeoh Fei Yee).
 2. Lim Keemi, "Poly(lactic acid)/holloysite nanotube loaded zinc oxide for UV resistance film applications", (2017 - 2019) (Supervisor: Prof. Dr. Chow Wen Shyang) (Completed).
- (f) **Postgraduate (Master, Mixed mode) (Main supervisor)**
1. Sarengaowa, "Synthesis and characterization of Fe₂O₃ nanorods using direct heating technique", (2021/2022) (Completed).
 2. Liu Jiao, "Development of ZnO nanorods grown on kanthal mesh using hydrothermal method for photocatalytic study", (2020 - 2021) (Completed).
 3. Rabiatul Adawiyah Kamazahruman, "Synthesis and characterization of WO₃ layer grown on PET fiber" (2014- 2015) (co-supervisor: Assoc. Prof. Ir. Dr. Srimala Sreekantan, Dr Ong Ming Thong) (Completed).
- (g) **Postgraduate (Master, Mixed mode) (Co-supervisor)**
1. Megeruben A/L Munuswami, "Synthesis and characterization of co-metal oxides coupling on titanium dioxide (TiO₂) particles for photocatalytic study", (2021/2022) (Main supervisor: Dr Sivakumar A/L Ramakrishnan) (In progress).
- (h) **Undergraduate (Degree) (Main supervisor)**
1. Wong Jia Yu, "Development of direct heating technique for the synthesis of Fe₂O₃ nanorods", (2022/2023) (Completed)
 2. Ong Ai Ling, "Development of direct heating technique for the synthesis of MgO nanorods", (2022/2023) (Completed)
 3. Liong Kai Ming, "Synthesis and characterization of Al-based nanostructures prepared by using direct heating technique", (2021/2022) (Completed)
 4. Ng Guan Sheng, "Synthesis and characterization of TiO₂ nanotubes using direct heating technique", (2021/2022) (Completed)
 5. Kok Kai Lin, "Synthesis and characterization of MgO nanostructures prepared by using direct heating technique", (2021/2022) (Completed)
 6. Muhamad Haiqal bin Mohd Nor, "Synthesis and Characterization of Titanium Dioxide Nanoparticles using Rapid Heating Technique", (2020/2022) (Completed).
 7. Liang Shao Liang, "Synthesis and characterization of ZnO nanorods grown on metal mesh using hydrothermal technique for photocatalytic application", (2020/2021) (Completed).
 8. Chan Huan Quan, "Manganese dioxide based hybrid particles for organic dye and metal ions removal", (2019/2020) (Completed).
 9. Teo Ling Wey, "Synthesis of Calcium Copper Titanate (CCTO) by solid state reaction for energy storage application", (2019/2020) (Completed).
 10. Soo Qian Yee, "Synthesis and characterization of TiO₂ nanotubes grown by direct heating technique", (2018/2019) (Completed).
 11. Nurul Syuhada Binti Samsuddin, "Effect of pH on the photocatalytic performance of ZnO particle in removal of Rhodamine B", (2018/2019) (Completed).
 12. Wong Chee Leong, "Synthesis and characterization of manganese dioxide nanoparticles via direct heating method", (2017/2018) (Completed).
 13. Nik Anis Hafiza Nik Jusoh, "Effect of ZnO seed layer on the growth of ZnO nanorods on Si substrate via solution precipitation method", (2017/2018) (Completed).

14. Soo Sock Kuan, "Synthesis and characterization of metal-couple ZnO nanocomposites with plasmonic effect", (2016/2017) (Completed).
 15. Nur Atiqah Binti Saharuddin, "Synthesis and characterization of core-shell semiconductor nanocomposites using sol-gel method", (2016/2017) (Completed).
 16. Wong Si Min, "Site specific growth of ZnO nanorods using LPCVD", (2015/2016) (Completed).
 17. Low Jiong Xiong, "Synthesis and characterization of manganese oxide nanoparticles for organic dye removal", (2015/2016) (Completed).
 18. Maizatul Syima Nur Bt Noraini, "Heavy metals and organic dye removal using ZnO nanoparticles", (2015/2016) (Completed).
 19. Muhammad Azim B. Zulkifli, "Identification of defects in silicon wafers using copper deposition technique", (2015/2016) (Completed).
 20. Goh Theng Tyng, "Synthesis and characterization of ZnO particles for bacteria inactivation" (co-supervisor: Assoc. Prof. Ir. Dr Srimala, Dr Ong Ming Thong) (2014/2015) (Completed).
 21. Chim Jia Ern, "Synthesis of tungsten oxide coated zinc oxide particles and their photocatalytic study in removal of RhB dye", (2014/2015) (Completed).
 22. Siti Nur Hajar Bt. Abdul Salim, "Synthesis of green phosphors using solid state reaction for LED application" (2014/2015) (Completed).
 23. Chang Chi Hsiung, "Synthesis of phosphor material with long afterglow property using solid state reaction" (2013/2014) (Completed).
 24. Aida Fitri Samsuddin, "Photocatalytic study of silver/silver oxide coated zinc oxide nanorods in degradation of RhB dye" (2013/2014) (Completed).
 25. Tan Chuan Hwai "Synthesis and characterization of Sr₂MgSi₂O₇:Eu:Dy phosphors" (2012/2013) (Completed).
 26. Nurul Najiah binti Ramli, "Synthesis and characterization of ZnO NRs grown on iron wires" (2012/2013) (Completed).
 27. Wong Chee Ken, "Effect of YAG phosphor on LEDs' optical performance" (Co-supervisor: Mr. Ng Wai Hoo, SILQ (Malaysia) Sdn. Bhd., Prof. M. Nazarov) (2012/2013) (Completed).
 28. Wong Sok Han, "Bias assisted deposition of titanium film on the backside of n-type silicon wafers" (Infineon Malaysia Sdn. Bhd., co-supervisor: Lee Kok Eng, (2011/2012) (Completed).
 29. Ong Cheng Shian, Synthesis and characterization of Cu-doped ZnO nanostructures (2011/2012) (Completed).
 30. Chan Yim Leng, Synthesis and characterization of ZnO nanostructures via Sol-gel method for photocatalytic study (2011/2012) (Completed).
 31. Nur Syafiqah Binti Hussain, Synthesis and characterization of manganese dioxide nanowires (2010/2011) (Completed).
 32. Thee Chee Chee, Synthesis and characterization of zinc oxide nanostructures (2010/2011) (Completed).
 33. Lee Wen Pei, Control of zinc oxide nanoparticles morphology using solution approach (2010/2011) (Completed).
- (i) **Undergraduate (Degree) (Co-supervisor)**
1. Christina Chin Kai Qi, "Investigation of encapsulant discoloration mechanism in uv/blue light-emitting diode with metal doped titanium dioxide (TiO₂) Particles filler using Response Surface Methodology (RSM)", (Main supervisor: Dr Sivakumar A/L Ramakrishnan) (2021/2022) (Completed).
 2. Tan Zhuang Min, "Synthesis and characterization of TiO₂/Cu₂O, TiO₂/ZnO and TiO₂/SnO₂ coupled photocatalysts for Batik dye degradation, and local optimization with Response Surface Methodology (RSM) and reaction kinetic modelling", (Main supervisor: Dr Sivakumar A/L Ramakrishnan) (2021/2022) (Completed).
 3. Teo Yin Xin, "Predicting photocatalytic and reflectance properties of metal coupled MnO-TiO₂ particle using Response Surface Methodology (RSM) for Light Emitting

- Diodes (LED) applications”, (Main supervisor: Dr Sivakumar A/L Ramakrishnan) (2020/2021) (Completed).
4. Lau Xian Jin, “Kinetics model for photocatalytic degradation of hybrid AgO- TiO₂ particles”, (Main supervisor: Dr Sivakumar A/L Ramakrishnan) (2020/2021) (Completed).
 5. Ngo Jia Yoeng, “Metal Coupled TiO₂ Nanoparticles as Filler in LED Encapsulation Development: A Review”, (Main supervisor: Dr Sivakumar A/L Ramakrishnan) (2019/2020) (Completed).
 6. Tan Zhi Hui, Assessing optical and photocatalytic properties of metal coupled TiO₂ particles using Design of Experiment (DOE), (Main supervisor: Dr Sivakumar A/L Ramakrishnan) (2018/2019) (Completed)
 7. Atiikah binti Ishak, Assessing optical and photocatalytic properties of metal coupled TiO₂ particles, (Main supervisor: Dr Sivakumar A/L Ramakrishnan) (2017/2018) (Completed)

TEACHING SUBJECTS

1. SHE 101/2: Ethnic relationship: 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2021, 2022, 2023
2. EBB 113/3 Engineering Materials: 2010, 2011, 2012
3. EBB 115/2 Introduction to Engineering Materials laboratory (Exp. 3: Porosity and density of materials): 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023
4. EBB 250/2 Computer methods for engineer: 2010, 2011, 2012, 2013, 2014, 2015, 2016
5. EBB 300/2 Engineering Statistics: 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023
6. HFE Ethical and civilization appreciation: 2022, 2023
7. EBB 316/3 Corrosion and degradation: 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2022, 2023
8. EBB 317/2 Materials Processing Laboratory
(i) Exp. 8: Cathodic protection: 2010, 2011, 2012
(ii) Semiconductor related experiments (open ended) (solders, semiconductor photocatalysts, copper deposition technique): 2013, 24014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023
9. EBB 323/3 Semiconductor fabrication technology: 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023
10. EBB 338/3 Process control: 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021
11. EBB 408/4 Materials Selection: 2020, 2021, 2022
12. EBB 522/3 Corrosion and prevention: 2017, 2018, 2019, 2020
13. EKC 500/2 Science and Engineering: 2021 (Sem. 1), 2021 (Sem. 2), 2022 (Sem. 1), 2022 (Sem. 2), 2023 (Sem. 1), 2023 (Sem. 2)
14. EBB 525/3 Electronic materials and devices: 2021, 2022, 2023

MEMBER OF PROFESSIONAL BODY

1. Ahli Majlis Profesor Negara (Membership no: MPN02614) (2022 -).
2. Certified TTT exempted trainer from Human Resource Development Corporation, Malaysia (cert. no: 10579) (2022 -).
3. Professional Technologist of Malaysia Board of Technologist (Membership #: PT18050222) (2018 -)
4. Graduate Technologist of Malaysia Board of Technologist (Membership #: GT18051617) (2018 -)

5. Professional Engineer of Board of Engineer Malaysia (Membership #: 18347) (2017 -)
6. Member of the Institution of Mechanical Engineers (Chartered Engineer) (Membership #: 80179207) (2013 –).
7. Graduate member of Board of Engineer Malaysia (2010 –)
8. Member of Nanotechnology Malaysia Association (2011/2012)
9. Student member of Electrochemical Society (2009/2010)

EDITORS

1. Section editor, Malaysian Journal of Microscopy (Scopus cited), (Apr 2021/ May 2022).
2. Editor, *Enjinier*, Bulletin for the SMMRE (2016-2018).
3. Editors: S.Y. Pung, M. Jaafar, Z. Hussain, Programme book and Abstract book of International Conference of Global Network for Innovative Technology (IGNITE 2016) Penang, Malaysia (27-29 Jan 2016).
4. Editor, *Enjinier*, Bulletin for the SMMRE (2013-2015)
5. Guest Editors: R. Othman, N. Baharun, S.Y. Pung, “Frontier in Materials and Mineral Engineering”, Advanced Materials Research, Vol. 858 (2014).
6. Editors: R. Othman, N. Baharun, S.Y. Pung, Conference proceeding of The 5th Regional Conference on Materials Engineering and the 5th Regional Conference on Natural Resources and Materials 2013 (RCM5 & RCNRM5), Penang, Malaysia (21-23 Jan 2013).
7. Editors: Z.A. Ahmad, Z. Lockman, K.A. Razak, S.Y. Pung, N.S. Abdullah, S.R. Kasim, M.A. Sulaiman, A.Z.A. Azhar, A.R. Jamaludin, W.F.F Wan Ali, M.F.A. Rahman, M.J. Abu, S.A.S Salim, N. Mazuki, 2012, Programme & Proceeding Book International Conference on X-Rays and Related Techniques in Research and Industry 2012 (ICXRI 2012).

SERVICES TO SOCIETY

1. Session chair of Conference proceeding of 7th International Conference on Recent Advances in Materials, Minerals & Environment (RAMM), Penang, Malaysia (19-20 July 2022).
2. Session chair of 28th Scientific Conference of the Microscopy Society Malaysia (28th SCMSM 2019), Kuantan, Pahang, Malaysia, (18-20 Dec 2019).
3. Committee member, 2nd International Conference on Mechanical, Electrical and Material Application (MEMA2019), Xi’an, China (25-27 Oct 2019).
4. Committee member (Promotion), NACE Corrosion Camp 2019, organized by USM NACE Student Chapter, School of Materials and Mineral Resources Engineering, USM, Penang, Malaysia (20-22 Sep 2019).
5. Scientific Committee of International Conference on Nanotechnology: Fundamentals and Applications 2019 (ICNFA'19), Lisbon, Portugal (18-20 Aug 2019).
6. Technical Committee of 9th International Conference on Key Engineering Materials (ICKEM 2019), University of Oxford, United Kingdom (29 Mar – 1 Apr 2019).
7. Organizing Committee, Cathodic Protection Training UTHM, School of Materials and Mineral Resources Engineering, USM, Penang, Malaysia (3-4 Dec 2018).
8. Scientific Committee of International Conference on Nanotechnology: Fundamentals and Applications 2018 (ICNFA'18), Marid, Spain (19-21 Aug 2018).
9. Technical Committee of 3rd International Conference on Advanced Functional Materials (ICAFM 2018), San Francisco, United States (3-5 Aug 2018).
10. Technical Programme Committee of 5th Annual International Conference on Materials Science, Metal & Manufacturing (M3 2018) Singapore (12 - 13 March 2018).
11. Co-advisor, NACE Corrosion Camp 2018, organized by USM NACE Student Chapter, School of Materials and Mineral Resources Engineering, USM, Penang, Malaysia (23-25 Jan 2018).

12. Advisor, USM NACE Student Chapter, School of Materials and Mineral Resources Engineering, USM, Penang, Malaysia, 2015/2016, 2016/2017, 2017/2018.
13. Session chair of the Regional Conference on Materials and ASEAN Microscopy Conference 2017 (RCM & AMC 17), Penang, Malaysia (12-13 Dec 2017).
14. Transport and Logistic Committee of Regional Conference on Materials and ASEAN Microscopy Conference 2017 (RCM & AMC 17), Penang, Malaysia (12-13 Dec 2017).
15. Scientific Committee of International Conference on Nanotechnology: Fundamentals and Applications 2017 (ICNFA'17), Rome, Italy (7-8 June 2017).
16. Session chair of the Advances in Materials and Processing Technologies Conference 2016 (AMPT 2016), Kuala Lumpur, Malaysia (8-11th November 2016).
17. Scientific Committee of International Conference on Nanotechnology: Fundamentals and Applications 2016 (ICNFA'16), Budapest, Hungary (Aug 2016).
18. Scientific Committee of the 2016 International Conference on Research Progress of Material Science and Engineering (RPMSE 2016), Guangzhou, China (Aug 2016).
19. Visit to Permatang Tinggi Old Folk Home (Penang), School of Materials and Mineral Resources Engineering, Universiti Sains Malaysia, Penang, Malaysia (2 Feb 2016).
20. Poster judge of the International Conference of Global Network for Innovative Technology (IGNITE 2016) Penang, Malaysia (27-29 Jan 2016).
21. Session chair of the International Conference of Global Network for Innovative Technology (IGNITE 2016) Penang, Malaysia (27-29 Jan 2016).
22. Co-Chairman of International Conference of Global Network for Innovative Technology (IGNITE 2016) Penang, Malaysia (27-29 Jan 2016).
23. Scientific Committee of International Conference on Nanotechnology: Fundamentals and Applications 2015 (ICNFA'15), Barcelona, Spain (Jul. 2015).
24. Facilitator, Short course on “One dimensional materials towards a new dimension of nanotechnology world”, NanoMIG, School of Materials and Mineral Resources Engineering, Universiti Sains Malaysia, Penang, Malaysia (22-24 Apr 2015).
25. Treasurer, Short course on “One dimensional materials towards a new dimension of nanotechnology world”, NanoMIG, School of Materials and Mineral Resources Engineering, Universiti Sains Malaysia, Penang, Malaysia (22-24 Apr 2015).
26. Judge, “Encouraging science education through innovative science camps”, NanoMig, School of Materials and Mineral Resources Engineering, Universiti Sains Malaysia, Penang, Malaysia (26 Sep. 2014).
27. Organizing committees, “Encouraging science education through innovative science camps”, NanoMig, School of Materials and Mineral Resources Engineering, Universiti Sains Malaysia, Penang, Malaysia (26 Sep. 2014).
28. Reviewer of International Conference on X-Rays & Related Techniques & Industry 2014 (ICXRI 2014), Johor Bahru, Malaysia (11-13 August 2014).
29. Session chair of the 4th International Conference on Environmental Pollution and Remediation (ICEPR 2014), Prague, Czech Republic (11-13 August 2014).
30. Organizing committees (Conference website) of 3rd International Conference On The Advancement Of Materials and Nanotechnology 2013 (ICAMN III 2013), Penang, Malaysia (19-22 Nov 2013).
31. Session Chair of 3rd International Conference On The Advancement Of Materials and Nanotechnology 2013 (ICAMN III 2013), Penang, Malaysia (19-22 Nov 2013).
32. Organizing committees, Mini Symposium USM-NUT (Nagaoka University Technology), Universiti Sains Malaysia, Penang, Malaysia (21-22 Oct. 2013).
33. Treasurer, Young Persons' Lecture Competition (USM level) (May 2013).
34. Technical and Organizing committee, International Conference on Advanced Material Engineering & Technology 2013 (ICAMET 2013), Penang, Malaysia.
35. Member of 2013 National Science Challenge Young Scientist Network – Academic of Science Malaysia (YSN-ASM) Question Committee, Feb 2013.
36. Organizing committees (Scientific section) of The 5th Regional Conferences on Materials Engineering (RCM-5) and Natural Minerals & Materials (RCNMM-5), Penang, Malaysia (21-23 Jan 2013).

37. Technical and Organizing committee, International Conference on Advanced Material Engineering & Technology 2012 (ICAMET 2012), Penang, Malaysia.
38. Treasurer of workshop “Nanostructures & Nanomaterials; synthesis, properties and application” (5-6 July 2012), School of Materials and Mineral Resources Engineering, Universiti Sains Malaysia.
39. Panel of judges, poster presentation of International Conference on X-ray and related techniques (ICXRI) 2012, Penang, Malaysia (3-5 Jul 2012).
40. Session chairman of International Conference on X-ray and related techniques (ICXRI) 2012, Penang, Malaysia (3-5 Jul 2012).
41. Committee (scientific) of International Conference on X-ray and related techniques (ICXRI) 2012, Penang, Malaysia (3-5 Jul 2012).
42. Treasurer of NanoMig workshop on: “Nanotechnology: Through old-school approach Part II, Break the barriers: Micro to Nano world”, Universiti Sains Malaysia, Penang, Malaysia (14-16 Feb 2012).
43. Treasurer of Joint Research Seminar between USM-NUT (Nagaoka University Technology), Universiti Sains Malaysia, Penang, Malaysia (17 Oct. 2011).
44. Committee of Young Persons' Lecture Competition (National level) (Mar 2011).
45. Committee of Young Persons' Lecture Competition (USM level) (Mar 2011).

SERVICES TO USM

1. Committee (Technical), Materials and Product Design Eco-Challenge (MPDEC) 2023, SMMRE, 6 Jan 2024.
2. Committee, Corrosion Camp 2023, 3 & 4 Nov 2023.
3. Committee of Sports and Recreation, SMMRE (2023/2025).
4. Chair of viva session, MSc, Wang Yue, “Effective Control Measures To Minimize Cost Overrun During Construction Phase Of High-Rise Residential Building Projects In Chongqing, China”, Civil Engineering (6 Sep 2023).
5. Laboratory visit (Mechanical school, ISO MTS lab) – preparation for audit from Dept. Standard Malaysia, 3 July 2023.
6. Organize and chair Plexus Industry Talk “Development of SMT technology” at SMMRE (Mr Naiweng, Ms Koh Chee Lin) (20 June 2023)
7. Dean representative in PhD viva, “Effect of strontium phosphate activation pre-treatment on corrosion behaviour of zinc phosphate coating formed on magnesium alloy”, Nurul Nadzirah binti Ismail, supervisor: Prof. Dr. Zuhailawati (19 June 2023).
8. Auditor (Facilities), Mock EAC visit, Engineering Campus (1 – 7 June 2023).
9. Chair of viva session, MSc, Soo Yan Hao, “Numerical Study of Heat Transfer and Fluid Flow Characteristics of Microchannel Heat Sink With Staggered Water-Droplet Geometries”, Mechanical Engineering (29 May 2023).
10. 1st year students team building, SMMRE at CEMACS@USM (12 & 13 May 2023).
11. Internal lab safety auditor, SMMRE (2023).
12. Assessor for EKC 500 presentation, School of Materials and Mineral Resources Engineering (20 Feb 2023).
13. Chair of viva session, MSc, Lee Wen Si, “Removal Of Iron And Manganese From Groundwater By Using Limestone And Zeolite Immobilized With Iron –Oxidising Bacteria (IOB)”, Civil Engineering (8 Feb 2023).
14. Committee of KPI and Scorecard, SMMRE (2022/2023).
15. As representative of SMMRE to attend 60th convocation USM (Main Campus, 10 Dec 2022).
16. Chair of viva session, MSc, Tong Yin Syuen, “A deep learning approach for image-based recognition of ginger seed growth stages for germination monitoring”, Mechanical Engineering (7 Nov 2022).
17. Chair of viva session, MSc, Teoh Theng Kah, “Evaluation of UAV based lora wireless communication with different antenna and settings”, EE Engineering (13 Oct. 2022).

18. Chair of viva session, MSc, Ahmad Muhseen Firdaus Bin Mohd Firdaus, "Development Of Risk Management Index For Landslide Hazards In Malaysia", Civil Engineering (29 Aug 2022).
19. Chair of viva session, MSc, Khoo Wei Chieh, "Demand response and dynamic thermal ratings for optimum power network reliability and ageing", EE Engineering (16 Mar 2022).
20. Head of Materials Testing Laboratory, ISO/IEC 17025 Committee, School of Materials and Mineral Resources Engineering (2022/2024).
21. Quality Manager of Materials Testing Laboratory, ISO/IEC 17025 Committee, School of Materials and Mineral Resources Engineering (2022/2024).
22. Signatory of Materials Testing Laboratory, ISO/IEC 17025 Committee, School of Materials and Mineral Resources Engineering (2022/2024).
23. Committee member of Sebutharga, USM level (2022/2023).
24. Committee member of Chemical safety officer, SMMRE (2022/2024).
25. Committee member of COSHH, SMMRE (2022/2024).
26. Committee member of Penolong Pegawai Pengosongan Bangunan, SMMRE (2022/2024).
27. MSc Mix-mode research proposal evaluation panel, SMMRE (16 Feb 2022).
28. Committee member of Sebutharga, SMMRE (2022/2024).
29. Chair of viva session, MSc, Najib Mukhtar, "The microscale effect of fillers from industrial by-products on the rheological, physicochemical and bonding behaviours of asphalt mastics", Civil Engineering (1 Dec 2021).
30. Dean representative in MSc viva, "Pectin-Based Artificial Synapse For Energy-Efficient Neuromorphic Computing Application", Yap Poh Liang, supervisor Assoc. Prof. Dr. Nurulakmal (24 Nov 2021).
31. Chair of viva session, MSc, Cheah Yi Tong, "Microalgal Biofilm Adhesion and Development: Role of Algal Organic Matter and Substratum Properties", Chemical Engineering (26 Oct 2021).
32. Dean representative in PhD viva, "Utilization of Electric ARC Furnace (EAF) Slag As Agricultural Fertilizer", Kong Ern Hun, supervisor Assoc. Prof. Dr. Nurulakmal (18 August 2021).
33. Chair of viva session, MSc, Anas Abdullah [P-JM0011/19(R)], "Gas phase glycerol oxydehydration to acrylic acid over zeolite-based catalyst", Chemical Engineering (3 Aug 2021).
34. Chair of viva session, MSc, Tavayogeshwary a/p Thangadurai, "Catalytic cracking of waste cooking oil using activated carbon supported metal oxides", Chemical Engineering (26 Jan 2021).
35. Chair of viva session, MSc, Ahmad Afiq Bin Muhammad Zahir [P-LM0010/17(R)], "PI Controller Design of a Brushed DC Motor for a Cart Follower System", School of Electronic and Electrical Engineering (21 Oct 2020).
36. Chair of viva session, MSc, Ali Zaiter [P-WM0009/18(R)], "Effects of jacket height and jacket reinforcement on seismic retrofitting of reinforced concrete columns using concrete jacketing", School of Civil Engineering (10 June 2020).
37. Chair of viva session, MSc, Asmaa Nur Aqilah binti Zainal Badri, "Impact of Geometry, DC Biasing, Layout and Frequency Variations on 0.13 μ m CMOS Noise Parameters", School of Electronic and Electrical Engineering (18 May 2020).
38. MSc Mix-mode research proposal evaluation panel, SMMRE (22 Jan 2020).
39. Chair of viva session, MSc, Muhamad Sharafee Shamsudin, "Thin adsorbent coating for the removal of contaminant of emerging concern", Chemical Engineering (7 Nov 2019).
40. Judge, Industry training poster presentation (3rd students, Materials Programme) SMMRE (23 Oct 2017).
41. Chair of viva session, MSc, Lim Yong Liang, "An improved wavelet methods with Discrete Cosine Transform for PAPR reduction in OFDM systems", School of Electronic and Electrical Engineering (8 Oct 2019).
42. Chemical safety officer (Materials Programme), SMMRE (2019/2021).

43. Chair of viva session, MSc, Julianiza Binti Ariffin, Characterization Of Quaternary Deposits In Seberang Perai Selatan, Pulau Pinang Using Combined Shear Wave Velocity (Vs) With Cpt, Civil engineering (8 Apr 2019).
44. Committee member of OSHA, SMMRE (2019/2021).
45. MSc Mix-mode research proposal evaluation panel, SMMRE (25 Feb 2019).
46. Member of Higher Degree and Research Committee, School of Materials and Mineral Resources Engineering (2019/2020).
47. Head and Quality Manager of Materials Testing Laboratory, ISO/IEC 17025 Committee, School of Materials and Mineral Resources Engineering (2019/2020).
48. Examiner for Assessment form and COSHH form of final year project, SMMRE, Nov 2018.
49. Assisted school in obtaining accredited status for MS ISO/IEC 17025:2005, acted as Head, Quality Manager and Signatory of Materials Testing Laboratory, School of Materials and Mineral Resources Engineering, 26 Nov 2018.
50. As representative of SMMRE to attend 56th convocation USM (Main Campus, 25 Oct 2018).
51. Judge, Industry training poster presentation (3rd students, Materials Programme) SMMRE (3 Oct 2018).
52. Materials Engineering Programme representative, COSHH form inspection (FYP) (29 Nov 2017, SMMRE).
53. Judge, Industry training poster presentation (3rd students, Materials Programme) SMMRE (4 Oct 2017).
54. MSc Mix-mode research proposal evaluation panel, SMMRE (8 Mac 2017).
55. As representative of SMMRE to attend 54th convocation USM (Main Campus, 27 Oct 2016).
56. USM representative for AUN/SEED-Net's Promotional Visit to Cambodia, Laos, Myanmar and Vietnam (CLMV), 7-10 Sep 2016.
57. Member of Engineering Accreditation Council (EAC) Committee, School of Materials and Mineral Resources Engineering (2016/2018).
58. Chairman and Quality Manager, ISO/IEC 17025 Committee, School of Materials and Mineral Resources Engineering (2016/2018).
59. Scientific Advisory Committee of Science and Engineering Research Centre (SERC), Engineering Campus, USM (2016).
60. Panel of judges, Industrial Training Poster Presentation, SMMRE, USM (7 Oct 2015).
61. Treasurer, Quality day of School of Materials and Mineral Resources Engineering, USM, (12 Sep 2015).
62. As representative of SMMRE to attend Majlis Sambutan Siswa, Engineering Campus (3 Sep 2015).
63. Treasurer, Sports and Recreation Club of School of Materials and Mineral Resources Engineering, USM, (1 Apr 2015 – 31 Mar 2017).
64. Representative of SMMRE to attend “The 3rd AUN/SEED-net Working Group Meeting”, Bangkok, Thailand (9-10 Jul 2015).
65. Interviewer of Mock Job Interview organized by USM Engineering Campus as pre-event for Career Fair 2015 (11 Mar 2015, PUMA Hall, USM Engineering Campus).
66. MSc Mix-mode research proposal evaluation panel, SMMRE USM (25 Feb 2015).
67. Panel of judges, USM Staffs Day 2014, (15 Nov 2014).
68. Panel of judges, Industrial Training Poster Presentation, SMMRE, USM (15 Oct 2014).
69. Committee member of Engineering Accreditation Council (EAC) for SMMRE (2014/2015).
70. Committee of Self-Assessment Report for Engineering Accreditation Council (EAC), SMMRE (2014/2015).
71. Interviewer of Mock Interview organized by USM Engineering Campus as pre-event for Career Fair 2014 (12 Mar 2014, PUMA Hall, USM Engineering Campus).
72. Committee of Final Year Project, SMMRE (2013-2015).
73. Panel of judges, Industrial Training Poster Presentation, SMMRE, (25 Sep 2013).

74. Chemical safety officer, SMMRE, 2013/2014.
75. Committee of Self-Assessment Report for Engineering Accreditation Council (EAC), SMMRE (Mar-Apr 2012).
76. Committee of Energy Usage Management, SMMRE (2012)
77. Group leader of zone 2 safety officer, OSHA Committee, SMMRE (2011/2012).
78. Committee of Alumni for Celebration of 25th Anniversary of School of Materials and Mineral Resources Engineering (2011).
79. Committee of ICT for Celebration of 25th Anniversary of School of Materials and Mineral Resources Engineering (2011).
80. Deputy Quality Manager of ISO/IEC 17025 Committee, School of Materials and Mineral Resources Engineering (2010/2011).
81. Committee of OSHA, School of Materials and Mineral Resources Engineering (2010/2011).
82. Committee of Publicity Kit Preparation, School of Materials and Mineral Resources Engineering (2010/2011).

EXHIBITION

1. Virtual Research and Innovation Exhibition UNIMAP 2020 (eREKA 2020), product titled: “PRG-P3: highly effective catalyst for waste water treatment”, Pung Swee Yong, Chiam Sin Ling, Siti Nor Qurratu Aini Binti Abd Aziz and Wong Chee Leong, UNIMAP, Perlis, 5 – 8 Aug 2020.
2. Malaysia Technology Expo 2020 (MTE 2020), product titled: “PRG-P3: highly effective catalyst for organic dyes removal”, Pung Swee Yong, Chiam Sin Ling, Siti Nor Qurratu Aini Binti Abd Aziz and Wong Chee Leong, Pusat Dagangan Dunia Putra (PWTC), Kuala Lumpur, 20 - 22 Feb 2020.
3. Students Innovation Showcase in conjunction with Career Fair 2016, product titled: “Visible light responsive metal oxide photocatalyst for organic compounds removal”, Siti Nor Qurratu Aini Binti Abd Aziz, Pung Swee Yong, Engineering Campus, Universiti Sains Malaysia, 16 Mac 2016.
4. Inventor 2015 organized by Ministry of Higher Education, Malaysia, product entitled: “Sunlight activated metal oxide photocatalysts for organic pollutant removal”, Pung Swee Yong, Siti Nor Qurratu Aini Binti Abd Aziz, Myo Thuya Thien, Srimala Skreetan and Chan Yim Leng, Kuala Lumpur Conventional Centre, Kuala Lumpur, 4-6 Dec 2015.

AWARDS

1. Hadiah Sanjung 2021, Universiti Sains Malaysia (Journal: Morphological and optical properties of ZnO NRs coupled with metal oxides with various bandgap energies by photo-oxidation technique, *Journal of Luminescence*, 229 (2021) 117649, Corresponding author) (29 Oct 2022).
2. Hadiah Sanjung 2021, Universiti Sains Malaysia (Journal: Efficient dye-removal via Ni-decorated graphene oxide/carbon nanotube composites”, *Materials Chemistry and Physics*, 260 (2021) 124117, Co-author) (29 Oct 2022).
3. Hadiah Sanjung 2021, Universiti Sains Malaysia (Journal: Polycrystalline TiO₂ particles synthesized via one step rapid heating method as electrons transfer intermediate for Rhodamine B removal, *Materials Chemistry and Physics* 257, (2021) 123784, Corresponding author) (29 Oct 2022).
4. Hadiah Sanjung 2021, Universiti Sains Malaysia (Journal: Effect of pH on the photocatalytic removal of silver Ions by β -MnO₂ particles, *International Journal of Minerals, Metallurgy and Materials*, 28 (2) (2021) 325-334, Corresponding author) (29 Oct 2022).

5. Hadiah Sanjung 2021, Universiti Sains Malaysia (Journal: Effect of dip-coating cycles on the structural and performance of ZnO thin film-based DSSC, *Arabian Journal for Science and Engineering*, 46 (2021) 6741-6751, Corresponding author) (29 Oct 2022).
6. Hadiah Sanjung 2021, Universiti Sains Malaysia (Journal: Photodegradation of Rhodamine B-dye pollutant using $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ -multiwall carbon nanotube nanocomposites, *Journal of Environmental Chemical Engineering*, 9 (3) 2021, 105185, Co-author) (29 Oct 2022).
7. Hadiah Sanjung 2021, Universiti Sains Malaysia (Journal: Predicting photocatalytic performance of metal coupled TiO_2 particles using response surface methodology (RSM), *Materials Chemistry and Physics* 269 (2021) 1234739, Co-author) (29 Oct 2022).
8. Hadiah Sanjung 2021, Universiti Sains Malaysia (Journal: Amino-functionalized MXene nanosheets doped with Ce (III) as potent nanocontainers toward self-healing epoxy nanocomposite coating for corrosion protection of mild steel, *ACS Applied Materials & Interfaces*, 13(35) (2021) 42074–42093, Corresponding author) (29 Oct 2022).
9. Sanggar Sanjung 2020, Universiti Sains Malaysia (Journal: A review on ZnO-based Piezoelectric Nanogenerators: Synthesis, Characterization techniques, Performance Enhancement and Applications” *Journal of Alloys and Compounds* 844 (2020) 156172, Corresponding author) (28 Feb 2022).
10. Sanggar Sanjung 2020, Universiti Sains Malaysia (Journal: Effects of multiwall carbon nanotubes on dielectric and mechanical properties of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ composite”, *Ceramics International* 46 (2020) 20313-20319, Corresponding author) (28 Feb 2022).
11. Hadiah Sanjung 2020, Universiti Sains Malaysia (Journal: Effect of TiO_2 sol on the conversion efficiency of dye-sensitized solar cell using Anatase TiO_2 paste treated with TiCl_4 ”, *Journal of Sol-Gel Science and Technology*, 95(2) (2020) 439-446, Corresponding author) (28 Feb 2022).
12. Hadiah Sanjung 2020, Universiti Sains Malaysia (Journal: Recent developments on MnO_2 based photocatalyst in organic pollutant removal: A review”, *Environmental Science and Pollution Research*, 27(6) (2020) 5759-5778, Corresponding author) (28 Feb 2022).
13. Sanggar Sanjung 2019, Universiti Sains Malaysia (Journal: Effect of Ar:N_2 flow rate on morphology, optical and electrical properties of CCTO thin films deposited by RF magnetron sputtering, Corresponding author) (30 August 2021).
14. Sanggar Sanjung 2019, Universiti Sains Malaysia (Journal: Influence of annealing temperature on morphological and photocatalytic activity of sputter-coated $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ thin film under ultraviolet light irradiation”, *Ceramics International*, 45 (2019) 20697-20703, Corresponding author) (30 August 2021).
15. Hadiah Sanjung 2019, Universiti Sains Malaysia (Journal: Effect of WO_3 loading on structural, electrical and dielectric properties of $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ ceramic composites” *Journal of Materials Science: Materials in Electronics*, 30(7) (2019) 6806-6810, Corresponding author) (30 August 2021).
16. Hadiah Sanjung 2019, Universiti Sains Malaysia (Journal: Enhancement of thermal stability and UV resistance for halloysite nanotube using zinc oxide functionalization via solvent free approach”, *International Journal of Minerals, Metallurgy, and Materials*, 26(6), (2019) 787-795, Co-author) (30 August 2021).
17. Hadiah Sanjung 2019, Universiti Sains Malaysia (Journal: Physicochemical evaluation and In Vitro hemocompatibility study on nanoporous hydroxyapatite” *Journal of Materials Science: Materials in Medicine* 30 (2019) 40, Co-author) (30 August 2021).
18. Hadiah Sanjung 2019, Universiti Sains Malaysia (Journal: Accelerated weathering and UV protection-ability of poly(lactic acid) nanocomposites containing zinc oxide treated halloysite nanotube”, *Journal of Polymers and the Environment*, 27(8) (2019) 1746-1759, Co-author) (30 August 2021).
19. “Recognized Reviewer” awarded by “Solar Energy”, Elsevier, 2021.
20. “Recognized Reviewer” awarded by “Materials Chemistry and Physics”, Elsevier, 2020.
21. “Recognized Reviewer” awarded by “Ceramics International”, Elsevier, 2018.
22. “Recognized Reviewer” awarded by “Chemical Engineering Journal”, Elsevier, 2018.
23. “Recognized Reviewer” awarded by “Dyes and Pigments”, Elsevier, 2018.

24. "Recognized Reviewer" awarded by "Journal of Hazardous Materials", Elsevier, 2017.
25. "Recognized Reviewer" awarded by "Journal of Water Process Engineering", Elsevier, 2014.
26. "Recognized Reviewer" awarded by "Materials Characterization", Elsevier, 2014.
27. "Recognized Reviewer" awarded by "Materials Science in Semiconductor Processing", Elsevier, 2014.
28. "Recognized Reviewer" awarded by "Environmental Nanotechnology Monitoring and
29. Gold medal, Virtual Research and Innovation Exhibition UNIMAP 2020 (eREKA 2020), product titled: "PRG-P3: highly effective catalyst for waste water treatment", Pung Swee Yong, Chiam Sin Ling, Siti Nor Qurratu Aini Binti Abd Aziz and Wong Chee Leong, UNIMAP, Perlis, 5 – 8 Aug 2020.
30. Bronze medal, Malaysia Technology Expo 2020 (MTE 2020), product titled: "PRG-P3: highly effective catalyst for organic dyes removal", Pung Swee Yong, Chiam Sin Ling, Siti Nor Qurratu Aini Binti Abd Aziz and Wong Chee Leong, Pusat Dagangan Dunia Putra (PWTC), Kuala Lumpur, 20 - 22 Feb 2020.
31. Anugerah Kualiti 2018, Universiti Sains Malaysia (on behalf of Materials Testing Laboratory, obtained MS ISO/IEC 17025 accredited status) (22 Sep 2019).
32. Hadiah Sanjung 2018, Universiti Sains Malaysia (Journal: Antibacterial activity of WO_x nanoparticles against Gram-positive bacteria and Gram-negative bacteria", *Journal of Industrial and Engineering Chemistry*, 67 (2018) 437-447, Corresponding author) (22 Sep 2019).
33. Recognition award: Publication, SMMRE 2017/2018, 15 Dec 2018.
34. Best Ad-hoc Committee (MS ISO/IEC 17025) of SMMRE 2017/2018, 15 Dec 2018.
35. Sanggar Sanjung 2017, Universiti Sains Malaysia (Journal: Highly UV light driven WO_x@ ZnO nanocomposites synthesized by liquid impregnation method", *Journal of Industrial and Engineering Chemistry*, 46 (2017) 119-129, Corresponding author) (22 Oct 2018).
36. Sanggar Sanjung 2016, Universiti Sains Malaysia (Journal: Effect of cetyl trimethyl ammonium bromide concentration on structure, morphology and carbon dioxide adsorption capacity of calcium hydroxide based sorbents", *Applied Surface Science* 363 (2016) 586–592, co-author).
37. Recipient of Excellent service award of USM 2016 (10 Apr 2017).
38. Bronze medal under category of Agriculture, Aquaculture and Environmental, Inventor 2015, "Sunlight activated metal oxide photocatalysts for organic pollutant removal", Kuala Lumpur Conventional Centre, Malaysia 4-6 Dec 2015.
39. Research proposal entitled "Wastewater purifier driven by sunlight" is selected as Top 53 Proposals in the Green and Sustainable Chemistry Challenge organized by Elsevier 2015 (Total research proposal 495) One-year free access to Knowel data base system was given by Elsevier.
40. "Outstanding Reviewer" awarded by "Materials Science in Semiconductor Processing", Elsevier, 2014.
41. 9th International Materials Technology Conference and Exhibition (IMTCE 2014) Green Materials Award entitled "Solar Photocatalytic Waste Water Purifier" Category: Development of Green Materials / Others, PWTC, Kuala Lumpur (14 May 2014).
42. "Recognized Reviewer" awarded by "Materials Science in Semiconductor Processing", Elsevier, 2013.
43. Best poster presentation, "Synthesis and characterization of Cu-doped of ZnO nanorods", The 3rd IESCO International Workshop and Conference on Nanotechnology (IWCN 2012), Kuala Lumpur, Malaysia (5-7 Dec 2012).
44. Travel grant (TPLN) 2012, Universiti Sains Malaysia to attend 2012 International Conference on Applied Materials & Electronics Engineering (AMEE 2012) at Hong Kong, 18-19 Jan 2012.
45. Travel grant (TPLN) 2011, Universiti Sains Malaysia to attend 3rd International Workshop on Nanotechnology & Application 2011 (IWNA 2011) at Vung Tau, Vietnam, 10-12 Nov 2011.

46. Hadiah Sanjungan 2010, Universiti Sains Malaysia (Journal: Tip-growth mode and base-growth mode of Au-catalysed ZnO NWs using CVD technique, J. Crys. Growth)
47. Hadiah Sanjungan 2010, Universiti Sains Malaysia (Journal: Structural and IR properties of ZnO film and nanowires, J. Crys. Growth)
48. Travel grant from Fuel and Power Technology Research Division, Faculty of Engineering, University of Nottingham, to attend 2009 NSTI Nanotechnology Conference and Trade Show, Houston, USA (2009) [University of Nottingham].
49. Travel grant to attend 3rd European XFEL Users' meeting, Hamburg, Germany (2009) [XFEL].
50. 2nd prize, "ZnO garden: flowers & grass", Wolfson Micrograph Competition 2007 [University of Nottingham].
51. University Research Studentship (2006/2009) [University of Nottingham].
52. Academic Staff Training Fellowship (2006/2009) [Universiti Sains Malaysia].
53. Potential Student Award, School of Material Engineering and Mineral Resources Engineering (1996/1997) [Universiti Sains Malaysia].