

CURRICULUM VITAE



Assoc. Prof. Ts. ChM. Dr. Nik Ahmad Nizam Nik Malek

BSc (Ind. Chem), MSc (Chem), PhD (Chem) (UTM), CChem, MRSC, MMIC, P.Tech(MT)

DIRECTOR

Centre for Sustainable Nanomaterials (CSNANO),
Ibnu Sina Insitute for Scientific and Industrial Research (ISI-ISIR),
Universiti Teknologi Malaysia (UTM).

Associate Professor,

Department of Biosciences,
Faculty of Science,
Universiti Teknologi Malaysia.

Tel: +6075536061, Tel: +6013-7805466

Email: niknizam@fbb.utm.my, niknizam@utm.my

Website: <http://people.utm.my/niknizam/>

Facebook: <http://www.facebook.com/NikAhmadNizam>

Google Scholar ID: [Ctg_1VsAAAAJ&hl](https://scholar.google.com/citations?user=Ctg_1VsAAAAJ&hl)

ResearcherID: K-5227-2016

Scopus ID: 191123-028005

H-Index (Web of Science): 10

H-Index (Scopus): 12

H-Index (Google Scholar): 14

ACADEMIC QUALIFICATIONS

- **PhD in Chemistry (2011)**, Universiti Teknologi Malaysia, Skudai, Johor, Malaysia
- **M.Sc. in Chemistry (2007)**, Universiti Teknologi Malaysia, Skudai, Johor, Malaysia
- **B.Sc in Industrial Chemistry (2004)**, Universiti Teknologi Malaysia, Skudai, Johor, Malaysia
- **Malaysian Certificate of Education (2000)**, SMKA Sheikh Abdul Malek, Terengganu

FIELD OF EXPERTISE:

Applied Materials Science: Application of Chemistry to Biology and Medical Areas specializing in Bio-Organic Chemistry, Inorganic Antimicrobial Agents, Adsorption, Controlled Release System, Biomaterials, Zeolites, Clays, Nanomaterials

APPOINTMENT (University/Faculty/College Level) :

- **Associate Professor** (Since 2018)
Department of Biosciences, Faculty of Science, UTM.
- **Director** (2019-DATE)
Centre for Sustainable Nanomaterials (CSNANO), Ibnu Sina Institute for Scientific and Industrial Research (ISI-ISIR), UTM
- **Fellow Researcher** (2018-DATE), **Head of Technical Division** (2019), **Associate Fellow Researcher** (2015 – 2017)
Centre for Sustainable Nanomaterials (CSNANO), Ibnu Sina Institute for Scientific and Industrial Research (ISI-ISIR), UTM
- **Member of Management Committee Faculty** (2020)
Faculty of Science, UTM
- **Member of Management Committee Institute** (2020-DATE)
Ibnu Sina Institute for Scientific and Industrial Research (ISI-ISIR), UTM
- **Member of Management Committee Research Centre** (2020-DATE)
Centre for Sustainable Nanomaterials (CSNANO)
- **Associate Editor** (2015-DATE)
Malaysian Journal of Fundamental and Applied Sciences (ISSN: 1823-626X), UTM.
- **Committee Member of Research, Innovation, Publication and Commercialization** (2018-2020).
Faculty of Science, UTM
- **Coordinator for Task Force Innovation** (2018-2020).
Faculty of Science, UTM
- **Head of Department** (2015 – 2018)
Department of Biotechnology and Medical Engineering, Faculty of Biosciences and Medical Engineering (FBME), Universiti Teknologi Malaysia (UTM).
- **Researcher** (2015-2018), **Research Group Leader** (2015–2018)
Novel Materials Research Group, Frontier Materials Research Alliance, UTM
- **Associate Professor** (2018-2019)
Department of Biotechnology and Medical Engineering, FBME, UTM.
- **Senior Lecturer** (2012–2018)

Department of Biotechnology and Medical Engineering, FBME, UTM.

- **Senior Lecturer** (2011–2012)
Department of Biotechnology Industry, Faculty of Biosciences and Bioengineering (FBB), UTM
- **Lecturer** (2008–2011)
Department of Biotechnology Industry, Faculty of Biosciences and Bioengineering (FBB), UTM
- **Internal Member of Innovation and Commercialization Committee** (2016-2018)
Innovation and Commercialization Centre (ICC-UTM) and FBME, UTM
- **Liaisons Officer for UTM Technology Entrepreneurship Centre (UTMTEC)** (2015-2017)
- **Committee Member of Occupational Safety, Health and Environmental (OSHE)** (2015-2018)
Occupational Safety, Health and Environmental (OSHE), FBME, UTM
- **Internal Member of Research and Innovation Committee FBME** (2015-2018)
Deputy Dean of Research and Innovation, FBME, UTM
- **Internal Member of Academic Committee, FBME** (2015-2018)
Deputy Dean of Academic, FBME, UTM
- **Internal Member of Management Committee, FBME** (2015-2018)
Dean, FBME, UTM
- **Internal Member of Programme Academic Committee (Biology/Biology Industry), FBME** (2016-2018)
Dean, FBME
- **MQT/MMBT (Master of Science (Biotechnology)) Coordinator** (2014-2015)
FBME, UTM
- **Researcher** (2012-2014), **Research Group Leader** (2014)
Novel Materials Research Group, Nanotechnology Research Alliance, UTM
- **Fellow: Program Saintis Agenda Nobel (PSAN), UTM** (2013-2016)
Program Saintis Agenda Nobel (PSAN), UTM, Office of Deputy Vice Chancellor (Research & Innovation), UTM
- **Director of Program Saintis Agenda Nobel (PSAN), Faculty Level, FBME, UTM** (2014-2015)
- **Principal Researcher of Ibnu Sina Institute for Fundamental Science Studies,**
Universiti Teknologi Malaysia (UTM). (2011 – 2012).
- **Academic Advisor for 16 Undergraduate Students in FBB session 2011/2012.**
- **Fellow Residential College Student** (2010-2012)
College 10, UTM
- **Advisor for Student Committee** (2010-2012), Faculty of Biosciences and Bioengineering, UTM, for symBIOSiS (Society of Biosciences Students) and POSTGRAD (Society of Biosciences Postgraduates)
- **Advisor for Academic and Counselling Bureau** (2010-2011)
Jawatankuasa Kolej Mahasiswa (JKM) Kolej 10, UTM
- **Advisor for Kelab Bakti Siswa, KBS** (2010-2012)
Jawatankuasa Kolej Mahasiswa (JKM), Kolej 10, UTM
- **Treasurer for Institut Pembangunan Felo (IPF), UTM** (2011 – 2012)
Institut Pembangunan Felo, UTM

- **Representative of Academic staff in FBB for Persatuan Kakitangan Akademik UTM (PKA-UTM) (2011 – 2012)**
- **Representative of FBB in Center of Student Innovation (CSI), UTM (2011-2012)**
- **Representative of FBB in Professional Qualification Development Program (PQDP), University Level (2011-2012).**
- **Advisor for Academic, Innovation and R&D Bureau (2012)**
Jawatankuasa Kolej Mahasiswa (JKM), Kolej 9&10, UTM

PROFESSIONAL MEMBERSHIP:

1. **Chartered Chemist (CChem), Royal Society of Chemistry, Membership No: 534140.**
(Since 2017)
2. **Member of Royal Society of Chemistry (MRSC), Membership No: 534140.** (Since 2014)
3. **Professional Chemist (ChM), Associate of Malaysian Institute of Chemistry (AMIC), Reg. No: A/3270/6095/11.** (Since 2011)
4. **Graduate Technologist (Material Science Technology), Malaysia Board of Technologists (MBOT), No: GT19120332.** (Since 2019)
5. **Professional Technologist (Ts), P.Tech(Material Science Technology), Malaysia Board of Technologists (MBOT), No: PT20080102.** (Since 2020)

MEMBERSHIP IN INTERNATIONAL BODIES/ASSOCIATION

1. Member, **International Society for Development and Sustainability (ISDS)**, (Member ID: M007767) (Since 2018).
2. Reviewers committee of IICBE (**International Institute of Chemical, Biological & Environmental Engineering**) (Since 2015)
3. Member, **American Chemical Society (ACS)** (Member No: 30726933) (Since 2014).
4. Member, **American Society for Research (ASR)** (Member Number: R214123001) (Since 2014).
5. Member, **Science and Engineering Institute (SCIEI)** (Member No: 20130613002) (Since 2013)
6. Senior Member, **Asia-Pacific Chemical, Biological and Environmental Engineering Society (APCBEEES)** (Member No: 100470) (Since 2012)
7. Member, **International Zeolite Association, IZA.** (Since 2012)
8. Member, **AsiaFlux** (Since 2011)

MEMBERSHIP IN NATIONAL BODIES/ASSOCIATION

1. Member, **Royal Society of Chemistry (RSC) – Malaysia Section** (Since 2017).
2. Member, **American Chemical Society (ACS) – Malaysia Chapter** (Since 2015).
3. Member, **Persatuan Saintis Muslim Malaysia** (Membership No: 127) (Since 2014).
4. Lifetime Member, **Persatuan Analis Malaysia (ANALIS)** (No: A 290) (Since 2006)
5. Research Group Leader, **Novel Materials Research Group**, Nanotechnology Research Alliance, UTM (2013 – 2014).
6. Member, **Koperasi Alumni UTM** (Since 2012).
7. Representative of Academic staff in FBB for **Persatuan Kakitangan Akademik UTM (PKA-UTM)** (2011 – 2013)
8. Member, **Alumni Jabatan Kimia (ALCHEMY)**, Fakulti Sains, UTM.
9. Treasurer, **Institut Pembangunan Felo (IPF)**, UTM (2011 - 2012)
10. Member, **Zeolite and Nanostructured Materials Research Group (ZNMR)**, Nanotechnology Research Alliance, UTM (2011 - 2013)
11. Member, **Nano and Mesoporous Materials for Biological Application Research Group (NAMBAR)**, Sustainability Research Alliance, UTM (2009 – 2011)
12. Member, **Malaysian Society of Microbiology (MSM)** (Since 2008)

RESEARCH GRANT (PROJECT LEADER)

INTERNATIONAL GRANT

1. ***Kurita Water and Environment Foundation (KWEF), Japan.*** Development of Silver-Zeolite-LDH (Layered Double Hydroxide) Composite for the Removal of Bacteria, Cationic and Anionic Compounds in Water. 01/10/2019 - 30/09/2020. RM 15,280.22 (400,000 Yen). Vot No: 4B410.

NATIONAL GRANT

1. ***Fundamental Research Grant Scheme (FRGS) from Ministry of Higher Education (MoE) Malaysia.*** Green Biosynthesis, Characterization and Antimicrobial Mechanism of Silver Nanoparticles using *Ficus deltoidea* (Mas Cotek). 01/11/2020 – 31/10/2022. RM 152,000.00. Vot No: 5F291.
2. ***Fundamental Research Grant Scheme (FRGS) from Ministry of Higher Education (MoE) Malaysia.*** Synthesis and Characterization of Aminoglycoside Antibiotic Loaded Organo-Silver-Kaolinite as Biocompatible Antimicrobial Agent. 15/08/2017 - 14/08/2019. RM 76,000.00. Vot No: 4F967.
3. ***Fundamental Research Grant Scheme (FRGS) from Ministry of Education (MoE) Malaysia.*** Synthesis and Characterization of Hydroxyapatite Encapsulated Silica Nanospheres as Novel Bioactive Material. 01/07/2014 - 30/06/2016. RM 108,500.00. Vot No: 4F514.
4. ***Prototype Research Grant Scheme (PRGS) from Ministry of Education (MoE) Malaysia.*** Prototype Development of DUAL-ANTIBAX (Organo-Metal-Clay as Antimicrobial Agent). 01/08/2013–31/07/2015. RM 159,000.00. Vot No: 4L619.
5. ***Sciencefund, Ministry of Science, Technology and Innovation Malaysia (MOSTI),*** Development of Organo-Zeolite as Advanced Controlled Release Fertilizer. 01/08/2012–31/01/2015. RM 254,600.00. Vot No: 4S038.

UTM GRANT

1. Industry-International Incentive Grant (IIIG). ***In Vitro Cytotoxicity Study of Organo-Silver-Kaolinite against Normal Human Cells.*** 01/11/2020 – 31/10/2021. RM 10,000.00. Vot No: 02M61.
2. ***Prototype Development Research Grant scheme-ICC (PRGS-ICC).*** Prototype Development of Dual-Antibax Compact Powder: Antibacterial Wound Healing Agent. 01/04/2020 – 30/09/2021. RM 20,000.00. Vot No: 4J442.
3. Program leader for ***UTM Transdisciplinary Research Grant.*** UTM-TDR17: Antibacterial Wound Healing Application of Bio-Inspired Green Silver Nanoparticles. 01/12/2018 – 31/05/2022. RM 240,000. Vot No: 06G72 (5 Projects under this program)
4. ***UTM Transdisciplinary Research Grant. UTM-TDR 17.3 (T2):*** Fabrication and Characterization of Biosynthesized Green Silver Nanoparticles Immobilized on Synthesized Zeolite. 01/12/2018 – 31/05/2022. RM 37,640.00 Vot No: 06G71
5. ***Professional Development Research University (Postdoctoral Grant).*** Visible Light Active Crystalline Carbon Nitride Based Materials for Photocatalytic Hydrogen Production and Photooxidation of Alcohols. 01/07/2018-30/06/2020. RM 138,460.00. Vot. No: 04E39.
6. ***Prototype Development Research Grant Scheme-ICC (PRGS-ICC).*** Prototype Development of Bag Containing NPK-Organo-Zeolite as Advanced Controlled Released Fertilizer. 15/07/2018-

- 14/07/2019. RM 20,000.00. Vot No: 4J323
7. **Research University Grant (RUG), UTM, Tier 1.** Preparation and Characterization of Chlorhexidine Loaded Zinc-Kaolinite as Antimicrobial Agent. 01/02/2018–31/01/2020. RM 50,000.00. Vot. No: 18H87.
 8. **UTMShine (Flagship) from UTM.** Silver-Zeolite Composite with Layered Double Hydroxide (LDH) as Versatile Adsorbent and Antibacterial Agent. 15/11/2017 – 14/11/2019. RM 50,000.00. Vot No. 03G81.
 9. **Research University Grant (RUG), UTM, Tier 1.** Re-Generated NPK-Organic-Zeolite as Repeated Controlled Release Fertilizer for Mulberry Plant. 01/07/2016–30/06/2018. RM 50,000.00. Vot. No: 13H53.
 10. **Research University Grant (RUG), UTM, Tier 1.** Surfactant Modified Crop Waste as Biosorbent. 01/04/2014–31/03/2016. RM 45,100.00. Vot. No: 08H01.
 11. **Research University Grant (RUG), UTM, Tier 2.** Nanozeolites from Rice Husk Ash as Nanofertilizer. 01/12/2012–30/12/2013. RM 32,000.00. Vot. No: 07J45.
 12. **Research University Grant (RUG), UTM, Tier 2.** Modification of Organo-Clay with Silver and Copper as Antibacterial Agent. 01/05/2012–30/04/2013. RM 31,800.00. Vot. No: 05J05.
 13. **New Academic Staff with PhD grant, UTM.** Combination of Cationic Surfactant and Silver Ion as Antimicrobial Agents. 01/04/2011–31/03/2012. RM 20,000.00. Vot. No: 4P005.
 14. **Research University Grant (RUG), UTM, Tier 2.** Quaternary Ammonium Compound (QAC) Modified Silver-Zeolites as Antimicrobial Agents. 01/04/2011–31/03/2012. RM 40,000.00. Vot No. 00J49.

RESEARCH GRANT (CORESEARCHER)

INTERNATIONAL GRANT

1. **UM (Universitas Negeri Malang, Indonesia) PNPB Research Grant 2020.** The Exploration of Green Material Moringa oleifera and Drugs Discovery for Liver Fibrosis and Hepatocellular Carcinoma Development. Jan-Dec 2020. Project Leader: Assist. Professor Dr Hendra Susanto, FMIPA, UM. IDR. 78 million.
2. **UM (Universitas Negeri Malang, Indonesia) PNPB Research Grant 2020.** Fabrication and Characterization of Hybrid catalyst based Fe₃O₄ Nanoparticles and Potential Application as Adsorbent for Textile Dye Material. Jan-Dec 2020. Project Leader: Dr Sunaryono, IDR. 74 million.

NATIONAL GRANT

1. **Fundamental Research Grant Scheme (FRGS),** Ministry of Higher Education (MOHE). Investigating Freshwater Harmful Algal Bloom (FHAB) Control Mechanism using Fungal Bioflocculation Mixed with Plant Derivatives. 01/11/2020 – 31/10/2023. RM 99,000.00. Project Leader: Dr Mohd Farizal Ahmad Kamaroddin. Vot No: 5F367.
2. **Fundamental Research Grant Scheme (FRGS),** Ministry of Higher Education (MOHE). Synthesis of Hydrophilic polymer/Hydrophobic polymer Nanofiber Blended with Antimicrobial Agents through Emulsion Electrospinning for Potential Skin Scaffolding and Wound Dressing Application. 01/01/2019–31/12/2020. RM 88,200.00. Project Leader: Prof Dr Abdull Rahim Mohd Yusoff, Dept. of Chemistry, Faculty of Science, UTM Vot. No: 5F115.
3. **HICOE (Hi-Centre of Excellence) Research Grant.** Assessing Drinking Water Quality: Do Commercial Water Vending Machines meet the Standard to Provide Clean Water during

- Emergency? 01/01/2016 – 31/12/2018. RM 50,000. Project Leader: Mr Mohamad Abdul Razis Saidin. AMTEC. Vot No: 4J198
4. **Fundamental Research Grant Scheme (FRGS), Ministry of Higher Education (MOHE).** Synthesis and Antibacterial Study of Light Activated Star Shaped Polymeric Photosensitizers for Antimicrobial Coating. 02/11/2015–01/11/2017. RM 98,200.00. Project Leader: Dr Mohd Bakri Bakar, Dept. of Chemistry, Faculty of Science, UTM Vot. No: 4F724.
 5. **Fundamental Research Grant Scheme (FRGS), Ministry of Higher Education (MOHE).** Governing Equation for Spiral Flow Inducing Cannula. 01/07/2014–30/06/2016. RM 87,200. Project Leader: Dr Ahmad Zahran B. Ahmad Khudzari, UTM-IJN Cardiovascular Engineering Centre, UTM Vot. No: 4F588.
 6. **Fundamental Research Grant Scheme (FRGS), Ministry of Higher Education (MOHE).** Synthesis and characterization of Trametes versicolor immobilized in silica matrices (TV Biocers). 01/04/2013–31/03/2016. RM 108,000.00. Project Leader: Assoc Prof Dr Hanapi Bin Mat, Faculty of Chemical Engineering. Vot. No: 4F218.
 7. **Sciencefund, Ministry of Science, Technology and Innovation Malaysia (MOSTI).** Nanostructured Herbs Delivery System. 01/12/2011–30/11/2013. RM 200,000.00. Project Leader: Prof Datuk Dr Halimation Hamdan. Vot No: 4S009.

UTM GRANT

1. UTM-High Impact Research (UTM-HR), UTM. **Safety Concern Related to Consumer Products containing Radioactive Materials in Malaysia.** 01/01/2020-30/06/2023. RM 100,000.00. Project Leader: Assoc. Prof. Dr Suhairul Hashim, Dept. of Physic, Faculty of Science, UTM. Vot No: 09G08.
2. **Research University Grant (RUG), UTM, Tier 2.** The Mechanism of Biological Algaecide using Locally Isolated Fungi in Controlling Harmful Algal Bloom. 01/11/2019-31/01/2021. RM 30,000.00 Project Leader: Dr Mohd Farizal Ahmad Kamaroddin, Dept. of Biosciences, Faculty of Science, UTM. Vot No: 18J66.
3. **Research University Grant (RUG), UTM, Tier 2.** Formulation and Characterization of Mitragyna speciosa korth Alkaloid Extract Microemulsions for Tropical Antimicrobial Drug Delivery. 01/11/2019 – 30/04/2022. RM 30,000.00. Project Leader: Dr Norjihada Izzah Ismail. School of Health Science and Biomedical Engineering, UTM. Vot No: 17J40.
4. **UTMSHINE Signature Grant, UTM.** SHSHINE 3.3: Environmental Friendly Anti-Radon Building Materials for Mitigating Indoor Radon Concentration. 01/04/2019 – 30/09/2021. RM 30,000.00. Program Leader: Professor Dr. Zainura Binti Zainon Noor, School of Chemical and Energy Engineering, Faculty of Engineering, UTM. Vot No: 07G91.
5. **UTMSHINE Signature Grant, UTM.** SHSHINE 3: Correlation between Radon/Thoron Concentrations with Commercially Available Used Building Materials. 01/04/2019 – 31/03/2021. RM 160,000.00. Program Leader: Assoc Prof Dr Suhairul Hashim, Dept. of Physics, Faculty of Science, UTM. Vot No: 07G82.
6. **Research University Grant (RUG), UTM, Tier 2.** Fruit Waste Mediated Synthesis of Silver Nanoparticles for its Bioremediation Potential. 01/08/2019 – 31/01/2022. RM 30,000.00. Project Leader: Dr Nurliyana Ahmad Zawawi, Dept. of Biosciences, Faculty of Science, UTM. Vot. No: 15J87.
7. **Research University Grant (RUG), UTM, Tier 2.** Carbon Nanotubes Mediated-Hyperthermia as Potential Less Invasive Treatment Modality for Breast Cancer. 01/08/2019 – 31/07/2021. RM 30,000.00. Project Leader: Dr Khairunadwa Jemon, Dept. of Biosciences, Faculty of Science, UTM. Vot. No: 15J87.
8. **Research University Grant (RUG), UTM, Tier 2.** Performance of Eco-Friendly Antifungal Nano-

- Paint. 01/08/2019 – 31/07/2021. RM 30,000.00. Project Leader: Dr Wan Rosmiza Zana Wan Dagang, Dept. of Biosciences, Faculty of Science, UTM. Vot. No: 16J69.
9. **UTM Transdisciplinary Research Grant. UTM-TDR 17.1(T2):** Enhancement of bioactive compounds from cell and organ cultures of selected Malaysian herbs. 01/12/2018 – 30/11/2021. Project Leader: Dr Azman Abd Samad. RM 40,380.00 Vot No: 06G70.
 10. **UTM Transdisciplinary Research Grant. UTM-TDR 17.2(T1):** Biomediated Shape and Size Control Synthesis of Silver Nanoparticles using Malaysian Herbal Plant Extract. 01/12/2018 – 30/11/2020. Project Leader: Prof Dr Mustaffa Shamsuddin. RM 50,550.00 Vot No: 05G57.
 11. **UTM Transdisciplinary Research Grant. UTM-TDR 17.4(T1):** Cytotoxicity and Wound Healing Activity of Biosynthesized Green Silver Nanoparticles. 01/12/2018 – 30/11/2020. Project Leader: Dr Khairunadwa Jemon. RM 74,200.00 Vot No: 06G86.
 12. **UTM Transdisciplinary Research Grant. UTM-TDR 17.5(T2):** Halalan Tayyiban Documentation of Bioinspired Green Silver Nanoparticles. 01/12/2018 – 30/11/2020. Project Leader: Assoc Prof Dr Ahmad Che Yaacob. RM 37,280.00. Vot No: 05G40.
 13. **Research University Grant (RUG), UTM, Tier 1.** Fabrication and Characterization of Electrospun Poly (vinyl Alcohol)-(PVA)/Polycaprolactone-(PCL)-Antibacterial Agent Composite Nanofiber for Potential Skin Scaffold. 01/02/2018 – 31/01/2020 RM 50,000.00. Project Leader: Prof Dr Abdull Rahim Mohd Yusoff. Vot No: 20H51.
 14. **Research University Grant (RUG), UTM, Tier 1.** Preparation and Antibacterial Activity of PMMA/Silver and Photosensitizer Nanoparticles for Antimicrobial Latex Lubricant. 01/07/2017– 30/06/2019 RM 40,000.00. Project Leader: Dr Mohd Bakri Bakar. Vot No: 16H88.
 15. **Research University Grant (RUG), UTM, Tier 1.** Application of Ultraviolet Light for Disinfection Medical Devices. 01/07/2017–31/12/2018 RM 40,000.00. Project Leader: PM Dr IR Tan Tian Swee. Vot No: 00336
 16. **Research University Grant (RUG), UTM, Tier 1.** Morphological and Photosynthetic Characteristics of Oil Palm (*Elaeis guineensis*) Applied with Different Levels of Chemical Fertilizer. 01/07/2016–30/06/2018 RM 50,000.00. Project Leader: Dr Fazilah Abul Manan. Vot No: 13H92.
 17. **Research University Grant (RUG), UTM, Tier 2 Encouragement Grant.** Synthesis of Calcium Phosphate Bone Cement from Crabshell. 01/05/2015 – 31/07/2016. RM 20,000.00. Project Leader: Dr Syafiqah saidin. Vot No: 10J77.
 18. **Research University Grant (RUG), UTM, Tier 2 Encouragement Grant.** Histological Study of Wound Healing Potential of Senduduk Ointments (*Melastoma Malabathricum*). 01/04/2014- 30/06/2015. RM 30,000.00. Project Leader: Dr Khairunadwa Jemon. Vot No: 10J17.
 19. **Research University Grant (RUG), UTM, Flagship.** Novel Cannulae Design for Medical Operation – Simulation and Flow Visualization Study. 01/04/2014–31/03/2015. RM 27,985.72. Project Leader: Dr Ahmad Zahran B. Ahmad Khudzari, UTM-IJN Cardiovascular Engineering Centre, UTM. Vot No: 01G70.
 20. **Research University Grant (RUG), UTM, Tier 2 Encouragement Grant.** Adhesion Forces between Surface-Modified Atomic Force Microscopy Tips to a Microbial-Influenced-Corrosion (MIC). 01/04/2014–31/06/2015 RM 35,000.00. Project Leader: Dr Wan Rosmiza Zana Wan Dagang. Vot No: 10J21
 21. **Research University Grant (RUG), UTM, Flagship.** Decellularization of Tissue to Prepare Bioscaffolds for Cardiac Repair. 01/04/2013–31/03/2014. RM 30,000.00. Project Leader: Dr Azran Azhim B. Noor Azmi. Vot No: 00G76.
 22. **Research University Grant (RUG), UTM, Flagship.** Novel Cannula Design for Medical

- Operation – A pilot Study. 01/04/2013–31/03/2014. RM 79,000.00. Project Leader: Dr Ahmad Zahran B. Ahmad Khudzari. UTM-IJN Cardiovascular Engineering Centre, UTM. Vot No: 00G71.
23. **Research University Grant (RUG), UTM, Tier 2.** Synthesis of Silica Aerogel-Hydroxyapatite Composite as New Biomaterial Nanoparticles 01/04/2013–3/03/2014. RM 50,000.00. Project Leader: Nor Suriani Sani. Vot. No: 09J42.
24. **Research University Grant (RUG), UTM, Tier 1.** Bioremediation Process of Textile Azo Dyes Using Nanoporous Silica Support System in a Sequential Anaerobic Bioreactor 01/04/2011–31/03/2013 RM 175,400.00. Project Leader: Prof Noor Aini Abd Rashid. Vot No: 01H61.
25. **Research University Grant (RUG), UTM, Tier 1.** Photocatalytic Degradation and Clean Up of Some Organoarsenics and Pesticides using Modified Hollow Silica Surfactant Modified Zeolites. 01/04/2011–31/03/2013 RM 198,400.00. Project Leader: Prof Dr Alias Mohd Yusof. Vot No: 01H50.
26. **Research University Grant (RUG), UTM, Tier 2.** Utilization of Yeasts from Effective Microorganism for Bioattraction of Golden Apple Snail. 01/04/2011–31/07/2012. RM 50,000.00. Project Leader: Dr Chan Giek Far. Vot No: 02J23.

MAIN SUPERVISION (Post-Graduate Students) – PhD

1. Atieya Abdul Hadi (2019-DATE). **Biomediated Shape and Size Control Synthesis of Silver Nanoparticles using Malaysian Herbal Plant Extract**. PhD (Biosciences), Faculty of Science, UTM. (Cosupervisor: Prof Dr Mustaffa Shamsuddin, Dept. Chemistry, Faculty of Science, UTM; Prof Gopinathan Sankar, Dept of Chemistry, Faculty of Maths & Physical Sciences, University College London; Prof. Dr.agr. Mohamad Amin, Universitas Negeri Malang, Indonesia; Dr Syazwani Itri Amran, Dept. Biosciences, Faculty of Science, UTM)
2. ChM Shahrulnizahana Mohamad Din (2019-DATE). **Biosynthesis of Silver Nanoparticles using *Ficus deltoidea* VAR. *Jack Moraceae***. PhD (Biosciences), Faculty of Science, UTM. (Cosupervisor: Prof Dr Mustaffa Shamsuddin, Dept. Chemistry, Faculty of Science, UTM)
3. Muhammad Hariz Asraf Hassan (2018-DATE). **Fabrication and Characterization of Biosynthesized Green Silver Nanoparticles Immobilized on Synthesized Zeolite**. PhD (Biosciences), Zamalah UTM, Faculty of Science, UTM. (Cosupervisor: Dr Khairunadwa Jemon, Dept. Biosciences, Faculty of Science, UTM)
4. Siti Nabihan Ishak (2018-DATE). **Silver-Zeolite Composite with Layered Double Hydroxide (LDH) as Versatile Adsorbent and Antibacterial Agent**. PhD (Biosciences), Zamalah UTM, Faculty of Science, UTM. (Cosupervisor: Prof Dr Mustaffa Shamsuddin, Dept. Chemistry, Faculty of Science, UTM; Prof Gopinathan Sankar, Dept of Chemistry, Faculty of Maths & Physical Sciences, University College London).
5. Auni Afiqah Kamaru (2014-2018). **Removal of Methylene Blue, Methyl Orange and Hexavalent Chromium by Surfactant Modified Pineapple Leaf**. PhD (Biosciences), Zamalah UTM, FBME, UTM. – **Graduated**.
6. Mashitah Mad Salim (2011-2018). **Cetyltrimethylammonium Bromide- and Ag-Modified NaY Zeolites for Antibacterial Applications**. PhD (Biosciences), Fast-track PhD, Zamalah UTM, FBME, UTM. (Cosupervisor: Dr Salehuddin Hamdan). – **Graduated**.
7. Siti Aishah Mohd Hanim (2012-2017). **Functionalized-Silver-Zeolite Y as Antibacterial Agent**. PhD (Biosciences), Fast-track PhD, MyPhD MOSTI, FBME, UTM. (Cosupervisor: Prof Dr Zaharah Ibrahim). – **Graduated**.

MAIN SUPERVISION (Post-Graduate Students) – Master By Research

1. Muhammad Zulhilmi Amir Awaluddin (2017-DATE). **Synthesis and Characterization of Aminoglycoside Antibiotic Loaded Organo-Silver-Kaolinite as Biocompatible Antimicrobial Agent**. MSc (Biosciences), FBME. (Cosupervisor: Dr Khairunadwa Jemon & Dr Syafiqah Saidin).
2. Loo Yan Jie (2016-2018). **Effects of Surfactant Modified Clinoptilolite in Peat Substrate on Growth of *Orthosiphon stamineus***. MSc (Biosciences), FBME, UTM, MyBrain (MoHE) – **Graduated**.
3. Noor Asyraf Noor Azman (2015-2018). **Improving the Growth of *Centella asiatica* using Modified Natural Zeolite**. MSc (Biosciences), FBME, UTM. (Cosupervisor: Dr Muhammad Arshad Javed) – **Graduated**.
4. Norfarah Syuhaidah Mohd Noor (2015-2018). **NPK-Organo-Zeolite as Regenerated Controlled Release Fertilizer for *Morus alba***. MSc (Biosciences), FBME, UTM. (Cosupervisor: Dr Muhammad Arshad Javed) – **Graduated**.
5. Nur Hidayah Abdullah (2014-2017). **Characterization and Antibacterial Activity of Acid-**

- Functionalized Multi-Walled Carbon Nanotubes.** MSc (Biosciences). FBME, UTM, Scholarship from MyBrain (MoHE). (Cosupervisor: Assoc Prof Dr Mohd Asyadi Azam Mohd Abid, UTeM and Dr Khairunadwa Jemon, FBME, UTM) – **Graduated.**
6. Aishveneetha Manogaran (2015-2017). **Silver-Modified Local Minerals as Antibacterial Wound Healing Agents.** MSc (Bioscience), FBME, UTM, Scholarship from MyBrain (MoHE). (Cosupervisor: Mrs Hamizah Abdul Samad and Dr Rashita Abd Rashid, Mineral Research Centre and Dr Khairunadwa Jemon, FBME) - **Graduated**
 7. Nor Syafawani Sarah Bt Md Saad (2012-2017). **Dual Functional Actions of Hexadecyltrimethylammonium-Metal-Kaolinite as Adsorbent and Antibacterial Agent.** MSc (Biosciences) (Part-time) FBME, UTM. (Cosupervisor: Dr Chong Chun Shiong). – **Graduated.**
 8. Niza Syafiqah Hamzah. (2012-2016). **Nutrient Loaded Surfactant Modified Zeolites as Controlled Release Fertilizer for *Abelmoschus esculentus*.** MSc (Biosciences). FBME, UTM, Research Student Grant (RSG) from Sciencefund (4S038) (Cosupervisor: Dr Salehuddin Hamdan). – **Graduated.**
 9. Nurul Syakina Malek (2012-2016). **Synthesis, Characterization and Antioxidant Activity of *Centella Asiatica* Encapsulated Silica Aerogel.** MSc (Biosciences). FBME, UTM, Scholarship from MyBrain (MoHE). (Cosupervisor: Prof Datuk Dr Halimatun Hamdan and Dr Salehuddin Hamdan). – **Graduated.**
 10. Nur Isti'annah Ramli (2012-2016). **The Preparation of Cetylpyridinium Bromide-Silver-Kaolinite and Its Physical Characterization and Antibacterial Activity.** MSc (Biosciences). FBME, UTM, Scholarship from MyBrain (MoHE) (Cosupervisor: Dr Salehuddin Hamdan). – **Graduated.**
 11. Noor Hidayah Dzulkfli (2012-2015). **Improving the Growth of *Clinacanthus nutans* using Modified Clinoptilolite Zeolite.** MSc (Biosciences). FBME, UTM, Research Student Grant (RSG) from Sciencefund (4S038) (Cosupervisor: Dr Salehuddin Hamdan). – **Graduated.**
 12. W Mohd Madhi W Abdullah (2012-2014). **Effect of Clinoptilolite Supplement on the Nutritive Values of Selected Feedstuff for Growing Beef Cattle.** MSc (Biosciences). FBME, UTM, Academic Trainee from UIA (SLAB). (Cosupervisor: Prof Dr Wan Zahari Mohamed, UMK) – **Graduated.**

MAIN SUPERVISION (Post-Graduate Students) – Master (Mixed Mode)

1. Ibrahim Khaleel Ibrahim Al-Sammarraie (2020-DATE). **Biosynthesis of Silver Nanoparticles using Microalgae.** MSc (Biotechnology) (Mixed Mode, FS, UTM). (Co-Supervisor: Dr M. Farizal Kamaruddin)
2. Salahaedin Waiezi (2019-2020). **Biosynthesis of Silver Nanoparticles using *Clinacanthus nutans* Extract and its Antimicrobial Activity.** MSc (Biotechnology) (Mixed Mode, FS, UTM). – Completed.
3. Mustapha Isah (2018-2019). **Preparation and Characterization of Chlorhexidine Loaded Zinc-Kaolinite as Antimicrobial Agent.** MSc (Biotechnology) (Mixed Mode, FS, UTM).-Completed
4. Atieya Abdul Hadi (2017-2019). **Characterization and Antibacterial Activity of Streptomycin Loaded Synthesized Zeolite from Natural Kaolinite.** MSc (Biotechnology) (Mixed Mode, FS, UTM). - Completed
5. Muhammad Hariz Asraf bin Hassan (2017-2018). **Antibacterial and Cytotoxicity Studies of Amine-Functionalized-Zeolite.** MSc (Biotechnology) (Mixed Mode, FBME, UTM). - Completed
6. Salisu Mustapha Muhammad (2017-2018). **Antibacterial Activity of Organo-Metal-Kaolinite**

- against Bacterial Cultures from Vending Machines.** MSc (Biotechnology) (Mixed Mode, FBME, UTM). - Completed
7. Nur Syafiqah Darus (2016-2017). **Characterization, Antibacterial and Wound Healing Activities of Hexadecyltrimethyl Ammonium Modified Silver-Kaolinite.** MSc (Biotechnology) (Mixed Mode, FBME, UTM). – Completed.
 8. Seow Khai Jou (2015-2016). **Characterization and Antibacterial Activity of Chlorhexidine Loaded Silver-Kaolinite.** MSc (Biotechnology) (Mixed Mode, FBME, UTM). – Completed.
 9. Haryani Abdullah (2014-2015). **The Study of Controlled Release Propagating Substrate (CRPS) and NPK-Organic-Zeolite Performance on *Clinacanthus nutans*.** MSc (Biotechnology) (Mixed Mode, FBME, UTM). – Completed.
 10. Navitra Muthoovaloo (2014-2015). **Characterization and Antibacterial Activity of Hexadecyltrimethylammonium Modified Silver Kaolinite.** MSc (Biotechnology) (Mixed Mode, FBME, UTM). – Completed.
 11. Nurul Soraya Ahmad Jani (2013-2014). **Biosorption of Methylene Blue and Acid Orange 7 by Rice Husk Modified with Hexadecyltrimethyl Ammonium Bromide** MSc (Biotechnology) (Mixed Mode, FBME, UTM). Completed.
 12. Auni Afiqah Kamaru (2013-2014). **Adsorption of Dyes by Hexadecyltrimethyl Ammonium Modified Pineapple Leaf Powder.** MSc (Biotechnology) (Mixed Mode, FBME, UTM). -Completed.
 13. Ali Yektaye Farimani (Iran) (2011-2013). **Characterization of Sugarcane Bagasse from Different Pretreatment Methods by FTIR.** MSc (Biotechnology) (Mixed Mode), FBME, UTM. - Completed.
 14. Mahmoud A. S. Khalifa (Palestine) (2012-2013). **Biosorption of Methylene Blue and Methyl Orange by Sugarcane Bagasse Treated with Cetylpyridinium Bromide.** MSc (Biotechnology) (Mixed Mode), FBME, UTM. -Completed.
 15. Parisa Sanati (Iran) (2012-2013). **Effect of Silver-Based Products in Simulated Body Fluids.** MSc (Biotechnology) (Mixed Mode), FBME, UTM. -Completed.
 16. Hooria Mazaheri (Iran) (2012-2013). **Sulfonamide Immobilized Zeolite and Kaolinite as Antibacterial Agents.** MSc (Biotechnology) (Mixed Mode), FBME, UTM. -Completed.
 17. Hoda Hosseinpour (Iran) (2012-2013). **Adsorption of Antibiotic on Surfactant Modified Zeolites and its Antibacterial Activity.** MSc (Biotechnology) (Mixed Mode), FBME, UTM. - Completed.

MAIN SUPERVISION (Final Year Undergraduate Project)

1. Nur Filzah Amira (2020-2021). **Antibacterial Activity of Kaolinite Incorporated with Kesum Leaf Biosynthesized Silver Nanoparticles.** BSc (Biology).
2. Shareen Suzanna Wiji (2020-2021). **Simultaneous Action of Silver-Zeolite/Mg-Al Layered Double Hydroxide Nanocomposite: Antibacterial and Removal of Dyes in Aqueous Solution.** BSc (Biology Industry).
3. Siti Aishah Zulkifli (2020-2021). **Biosynthesis of Silver Nanoparticles Loaded Zeolite Y using *Persicaria odorata*.** BSc (Biology Industry).
4. Noor Azalina Abd Aziz (2020-2021). **Antibacterial Activity of Clinoptilolite Incorporated with Kesum Leaf-Biosynthesized Silver Nanoparticles.** BSc (Biology).
5. Ibrahimul Qamil Ismail (2019-2020). **Antibacterial and Adsorptive Activity of Silver Loaded**

- Zeolite Y composite with Layered Double Hydroxide.** BSc (Biology).
6. Nur Hidayah Ab Razak (2019-2020). **Antibacterial Activity of Biosynthesized Green Silver Nanoparticles from *Orthosiphon aristatus* against Marine Bacteria.** BSc (Industrial Biology).
 7. Muhammad Fadhli Amnan Muhammad Isa. (2019-2020). **Antifungal Activity of Biosynthesized Green Silver Nanoparticles from *Persicaria odorata*.** BSc (Biology).
 8. Nurul Ain Sallehuddin (2018-2019). **Biosorption of Anionic Dyes by Cetyltrimethyl ammonium Bromide Modified Oil Palm Leaf Powder.** BSc (Industrial Biology).
 9. Farah Eizzaty Ahmad Tajuddin (2018-2019). **Antibacterial Activity of Chlorhexidine-Modified Kaolinite against Oral Bacteria.** BSc (Biology).
 10. Nurul Atilia Amaleena Rosli (2018-2019). **Antibacterial Activity of Silver Modified Synthesized Zeolite from Kaolinite.** BSc (Industrial Biology).
 11. Wan Nur Aryantie Wan Othman (2017-2018). **Adsorption of Streptomycin on Organo-Kaolinite and Its Antibacterial Agent.** BSc (Industrial Biology).
 12. Muhd Hafiz Jusoh (2017-2018). **Biosorption Study of Herbicide Paraquat by Pineapple Leaves Powder.** BSc (Industrial Biology).
 13. Lim Chai Hui (2017-2018). **Preparation, Characterization and Antibacterial Activity of Gentamicin Loaded Surfactant-Kaolinite.** BSc (Industrial Biology).
 14. Mohd Haziq Izzuddin Rosli (2016-2017). **Surfactant Modified Clinoptilolite Loaded with Ammonium, Phosphate and Potassium as Controlled Release Fertilizer for *Orthosiphon stameneus*.** BSc (Industrial Biology).
 15. Ahmad Ardani Alili Mohamed (2016-2017). **Adsorption of Sulfamethoxazole on Organo-Kaolinite and Its Antibacterial Activity.** BSc (Industrial Biology).
 16. Nur Fitri Ismail (2016-2017). **Hexadecyltrimethyl Ammonium Bromide (HDTMA-Br) Modified Rice Husks Powder as Adsorbent for Dyes and Antibacterial Agent.** BSc (Biology)
 17. Muhamad Zaidil Hayat Rusli (2015-2016). **Application of NPK-Organo-Zeolite as Controlled Released Fertilizer for the Growth of *Morus alba*.** BSc (Industrial Biology).
 18. Muhammad Syarafuddin Huzlan (2015-2016). **Simultaneous Action of Surfactant Modified Kaolinite: Adsorbent and Antibacterial Agent.** BSc (Industrial Biology).
 19. Muhammad Hafizuddin (2015-2016). **Simultaneous Action of Surfactant Modified Sugarcane Bagasse: Adsorbent and Antibacterial Agent.** BSc (Industrial Biology).
 20. Muhammad Syafiq Abd Aziz (2015-2016). **Simultaneous Action of Surfactant Modified Zeolite as Adsorbent and Antibacterial Agent.** BSc (Industrial Biology).
 21. Lai Chong Pau (2014-2015). **Bio-Compost Added Organo-Zeolite as Controlled Release Fertilizer for *Brassica rapa* and *Ipomoea aquatica*.** BSc (Industrial Biology).
 22. Loo Yan Jie (2014-2015). **Effect of Surfactant-Modified Zeolite (SMZ) Added in Propagating Substrate for the Germination of some Vegetables.** BSc (Industrial Biology).
 23. Cheng Min Min (2014-2015). **Influence of Ammonium-Exchanged Zeolite on the Growth of *Ipomoea aquatica*.** BSc (Industrial Biology).
 24. Teo Wee Siang (2014-2015). **NPK-Organo-Zeolite as Controlled Release Fertilizer for The Growth of *Clinacanthus nutans*.** BSc (Industrial Biology).
 25. Nurain Bt Mat Sihat (2013-2014). **Adsorption of Acid Orange 7 by Cetylpyridinium Bromide (CPBr) Modified Sugarcane Bagasse.** BSc (Industrial Biology).
 26. Wong Shi Ting (2013-2014). **Biosorption of Methylene Blue by Sugarcane Bagasse using Two factorial Design and Response Surface Methodology.** BSc (Industrial Biology).

27. Nur Arifah Azhari (2013-2014). **Optimization of adsorption of chromate on surfactant modified sugarcane bagasse by two-level factorial design.** BSc (Industrial Biology).
28. Wan Nur Azalisa Wan Mohd Nasir (2012). **Antibacterial Activity of Quaternary Ammonium Compound (QACs) Modified Silver Encapsulated Bentonite.** BSc (Industrial Biology)
29. Nur Najiha Saarani (2012). **Bactericidal Activities of the Modified Kaolinite with Silver, Copper and QAC.** BSc (Industrial Biology)
30. Farhanah 'Aqilah Mansor (2012). **Bactericidal Activities of Surfactants, Metals and Their Combination.** BSc (Biology)
31. Micheal S/O Moses (2012). **Effect of the Surfactant on the Bactericidal Activity of Inorganic Antibacterial Materials.** BSc (Biology).
32. Nurul Syakina Malek (2012). **Quaternary Ammonium Compounds (QACs) Modified Zeolites as Antibacterial Agents against Bacillus subtilis.** BSc (Biology)
33. Siti Amirah Ishak (2012). **Quaternary Ammonium Compound (QAC)-Copper(Cu)-Clay as Antibacterial Agents.** BSc (Industrial Biology)
34. Hardave Singh Bhall (2011). **Cetylpyridinium Chloride (CPC) modified Ag-zeolites as Antibacterial Agents against Escherichia coli and Staphylococcus aureus.** BSc (Industrial Biology)
35. Sivabalan s/o Dhanabal (2011). **Antibacterial Activity of Cetylpyridinium Chloride (CPC)-Ag-Natural Zeolites Composites against Gram Positive Bacillus subtilis and Gram Negative Pseudomonas aeruginosa.** BSc (Industrial Biology)

CO-SUPERVISION (Post-Graduate Students) - PhD

1. Siti Fadilla Md Noor (2020-DATE). **Development of Magnetic Metal-Doped Zirconia for Visible Light Degradation of Microplastics.** PhD (Environmental Engineering), School of Chemical and Energy Engineering, Faculty of Engineering. (Main Supervisor: Assoc. Prof. Dr Norzita Ngadi).
2. Mohamed Bello (2019-DATE). **Fabrication and Characterization of Electrospun Nanofibre Blended with Natural Antibacterial Agents for Wound Dressing.** PhD (Chemistry), Faculty of Science, UTM (Main Supervisor: Prof Dr Abdull Rahim Mohd Yusoff)
3. Oyedeji Michael Olubukola (2019-DATE). **Modification of Carbon Sink Concrete for Carbon Dioxide Capture using Mesoporous Nanosilica Supported Polyethyleneimine.** PhD (Civil Engineering), School of Civil Engineering, UTM (Main Supervisor:
4. Faridah Aminullah Lubis (2019-DATE). **Cytotoxicity and Wound Healing Activity of Biosynthesized Green Silver Nanoparticles.** PhD (Bioscience), Faculty of Science, UTM (Main Supervisor: Dr Khairunadwa Jemon)
5. Nurul Asyikin Kamaruzaman (2018-DATE). **Fabrication and Characterization of Hybrid Polymer Nanofiber Scaffolds for Skin Tissue Regeneration.** PhD (Chemistry), Faculty of Science, UTM (Main Supervisor: Prof Dr Abdull Rahim Mohd Yusoff)
6. Tan Yong Chee (2018-DATE). **Fabrication and Characterization of Electrospun Poly(vinyl alcohol)-Polycaprolactone-Antibacterial Agent Composite Nanofiber Scaffolds for Skin Tissue Regeneration.** PhD (Chemistry), Faculty of Science, UTM (Main Supervisor: Prof Dr Abdull Rahim Mohd Yusoff)
7. Noor Hidayah Dzkulfli (2017-DATE). **Development of Polypropylene Silver Zeolite Composite Film to Extend the Shelf Life of Food Product.** PhD, Faculty of Science and Food Technology,

- Universiti Putra Malaysia, UPM, Serdang. (Main Supervisor: Dr Nur Hanani Zainal Abidin)
8. Mohd Faiz Othman (2017-DATE). **Synthesis and Antibacterial Study of Light Activated Star Shaped Polymeric Photosensitizers for Antimicrobial Coating.** PhD (Chemistry), Faculty of Science, UTM. (Main supervisor: Dr Mohd Bakri Bakar).
 9. Mahsa Khoshkhooy Yazdi (2015-DATE). **Preparation of PMMA/Silver/Porphyrin Nanoparticles for Fabrication of Antibacterial Natural Rubber Latex Glove.** PhD (Chemistry), Faculty of Science, UTM. (Main supervisor: Dr Mohd Bakri Bakar).
 10. Murni Noor Al-Amin (2014-DATE). **Organo-Silver-Kaolinite Anti-biofilm Paint for Marine Application.** PhD (Biosciences), Faculty of Science, UTM. (Main Supervisor: Dr Wan Rosmiza Wan Dagang).
 11. Sameen Ahmed Malek (2017-2020). **Ultraviolet LEDs for Disinfection of Medical Devices.** PhD (Biomedical Engineering), FBME, UTM. (Main Supervisor: Assoc Prof Dr Tan Tian Swee). – **Graduated.**
 12. Nurizzati Mohd Daud (2015-2019). **Integrated Antibacterial Chlorhexidine System on Stainless Steel Implant for Osseointegration Application.** PhD (Biomedical Engineering), FBME, UTM. (Main supervisor: Dr Syafiqah Saidin). – **Graduated.**
 13. Jamuna Thevi A/P Kalitheertha Thevar (2012-2017). **Functionally graded barrier membrane for guided bone regeneration in periodontal applications.** PhD (Biomedical Engineering), FBME, UTM. (Main Supervisor: Prof Dr Mohammed Rafiq Abdul Kadir, FBME, UTM) – **Graduated.**
 14. Noor Azhana Ghazi (2011-2017). **Synthesis and Characterization of Nanozeolite NaY and its Potential as Alternative Adjuvant Therapy for Cancer.** PhD (Biosciences), FBME, UTM. (Main Supervisor: Dr Salehuddin Hamdan, FBME, UTM) – **Graduated.**

CO-SUPERVISION (Post-Graduate Students) - Master

1. Kavetha Shanmugam (2020-DATE). **In silico study of Biosynthesis Silver Nanoparticles using *Ficus Deltoidea*.** MSc (Biotechnology), Faculty of Science, UTM. (Main Supervisor: Dr Syazwani Itri Amran).
2. Nur Kamilah Mohd Nordin (2019-DATE). **Enhancement of Bioactive Compounds from Cell and Organ Cultures of *Orthosiphon stamineus* and *Justicia gendarussa*.** MSc (Bioscience), Faculty of Science, UTM (Main Supervisor: Dr Azman Abd Samad)
3. Nur Alia Johari (2018-DATE). **Investigating the Effect of Organo-Kaolinite on the Isolated Fungi.** MSc (Bioscience), Faculty of Science, UTM (Main Supervisor: Dr Wan Rosmiza Zana)
4. Nur Diyana Suzaimi (2017-2020). **Synthesis of Porous Silica Functionalized with Branched Polyethyleneimine for Nitrate and Phosphate Adsorption.** MPhil, Faculty of Chemical and Energy Engineering, UTM. (Main Supervisor: Dr Goh Pei Sean). - **Graduated.**
5. Nurezzaati Othman (2016-2017). **Antibiofilm Activities of Metal Modified Kaolinite Incorporated Paint against *Marinomonas Communis* and *Alteromonas Sp.*** MSc (Biotechnology) Mixed Mode, FBME, UTM (Main Supervisor: Dr Wan Rosmiza Zana Wan Dagang). - **Graduated.**
6. Nurul Hanisah Hamidon (2012-2015). **Dendrimer Encapsulated with Silver and Gold Nanoparticles (Dens-P) as Antibacterial Agents.** MSc (Chemistry), Department of Chemistry, Faculty of Science, UTM. (Main Supervisor: Prof Dr Salasiah Endud, FS). - **Graduated.**
7. Methodius Anak Nawog (2012-2013). **Synthesis and Characterization of Nano-Sized Zeolite A**

- and Its Application as Ammonium Removal.** Master Mixed Mode (Chemistry), FS, UTM (Main Supervisor: Assof Prof Mohd Nazlan Mohd Muhid, FS) - **Graduated.**
8. Radhiahtul Raehan Mustafa (2011-2014). **Identification of Porcine-based source in Antibiotics Drug of Pharmaceuticals using Chemical Analysis Method.** MSc (Halal Science), Faculty of Islamic Civilization, UTM. (Main Supervisor: PM Dr Aminuddin Ruskam al-Dawamy, FTI) – **Graduated.**

CO-SUPERVISION (Final Year Undergraduate Project)

1. Nazrul Nizam Ab Halim (2016-2017). **Medical Equipment Disinfection using Ultraviolet Light-Emitting Diode.** B.Eng. (Medical Engineering), FBME, UTM (Main Supervisor: Assoc Prof Dr Tan Tian Swee). - Graduated
2. Afiq Amsyar Ahmad (2016-2017). ***In vivo* Wound Healing Activity of Silver Modified Kaolinite.** BSc (Biology Industry), FBME, UTM. (Main Supervisor: Dr Khairunadwa Jemon). - Graduated
3. Intan Shazleen Ibrahim (2019-2020). ***In Vitro* Inhibitory Activity of Green Synthesis Silver Nanoparticles on Breast Cancer Cells.** BSc (Biology). Dept of Biosciences, Faculty of Science, UTM (Main Supervisor: Dr Khairunadwa Jemon).
4. Nurfarah Diyana Zulkarnain (2019-2020). **Controlling Harmful Marine Algal Bloom through Fungal Bioflocculation.** BSc (Biology). Dept. of Biosciences, Faculty of Science, UTM (Main Supervisor: Dr Mohd Farizal Ahmad Kamaroddin). - Graduated
5. Nur Fatini Samsulkahar (2019-2020). **Biosynthesis of Gold Nanoparticles using *Stobilanthes crispus* Leaf Extract and Evaluation of its Antibacterial Activity.** BSc (Chemistry). Dept. of Chemistry, Faculty of Science, UTM. (Main Supervisor: Prof Dr Mustaffa Shamsuddin).

PUBLICATIONS (Indexed Journals)

1. Mahsa Khoshkhooy Yazdi, Mohd Bakri Nakar, Nik Ahmad Nizam Nik Malek (2020). **One Pot Synthesis of PMMA/Silver Nanoparticles and its Antibacterial Properties**. Malaysian Journal of Fundamental and Applied Sciences, 16(6): 360-365 (Indexed Scopus and WOS)
2. Siti Nabihan Ishak, Nik Ahmad Nizam Nik Malek, Zulkifli Yusop, Craig D. Williams, Suhartono Suhartono, Achmad Syafiuddin (2020). **Evaluation of Phase Transformation Behaviors of Zeolite and Antibacterial Properties against Gram-Positive and -Negative Bacteria**. Journal of the Chinese Chemical Society, 67(11): 1931-2153.
3. Nur Diyana Suzaimi, Pei Sean Goh, Ahmad fauzi Ismail, Stanley Chinedu Mamah, Nik Ahmad Nizam Nik Malek, Jun Wei Lim, Kar Chun Wong, Nidal Hilal (2020). **Strategies in forward Osmosis Membrane Substrate Fabrication and Modification: A Review**. Membranes, 10: 332.
4. Nor Suriani Sani, Nik Ahmad Nizam Nik Malek, Khairunadwa Jemon, Mohammed Rafiq Abdul Kadir, Halimatun Hamdan (2020). **In vitro Bioactivity and Osteoblast Cell Viability Studies of Hydroxyapatite-Incorporated Silica Aerogel**. Journal of Sol-Gel Science and Technology, 96: 166-177.
5. Nik Ahmad Nizam Nik Malek, Muhammad Syarafuddin Huzlan, Chun Shiong Chong, Nor Syafawani Sarah Md Saad (2020). **Simultaneous Adsorption and Antibacterial Activities of Surfactant Modified Kaolinite**. Jurnal Teknologi, 82: 67-72.
6. Nur Diyana Suzaimi, Pei Sean Goh, Nik Ahmad Nizam Nik Malek, Jun Wei Lim, AhmadFauzi Ismaila (2020). **Enhancing the Performance of Porous Rice Husk Silica through BranchedPolyethyleneimine Grafting for Phosphate Adsorption**. Arabian Journal of Chemistry. 13: 6682-6695. (Indexed WoS)
7. Mustapha Salisu Muhammad, Mohd Firdaus Abdul-Wahab, Mohammad Abdul Razis Saidin, Muhammad Hariz Asraf, Nik Ahmad Nizam Nik Malek (2020). **Microbiological Analysis of Drinking Water from Water Vending Machines**. Malaysian Journal of Fundamental and Applied Sciences. 16: 186-189. (Indexed WoS)
8. Mustapha Isah, Muhammad Hariz Asraf, Nik Ahmad Nizam Nik Malek, Khairunadwa Jemon, Nor Suriani Sani, Mustapha Salisu Muhammad, Mohd Firdaus Abdul Wahab, and Mohammad Abdul Razis Saidin (2020) **Preparation and Characterization of Chlorhexidine Modified Zinc-Kaolinite and its Antibacterial Activity against Bacteria Isolated from Water Vending Machine**. Journal of Environmental Chemical Engineering, 8(2): 103545. (Indexed Scopus)
9. Nazerah Ahmad, Nik Abdul Hadi Md Nordin, Juhana Jaafar, Nik Ahmad Nizam Nik Malek, Ahmad Fauzi Ismail, Muhammad Nabil Fikri Yahya, Siti Aishah Mohd Hanim, and Mohd Sohaimi Abdullah (2020). **Eco-friendly Method for Synthesis of Zeolitic Imidazolate Framework 8 Decorated Graphene Oxide for Antibacterial Activity Enhancement**. Particuology, 49: 24-32. (Indexed WOS)
10. Tan Yong Chee, Abdull Rahim Mohd Yusoff, Nik Ahmad Nizam Nik Malek (2020). **Characterization of Poly(vinyl alcohol)-Polycaprolactone Hybridized Scaffold for Potential Skin Tissue Regeneration**. Malaysian Journal of Fundamental and Applied Sciences. 16: 6-9.
11. Nazerah Ahmad, Alireza Samavati, Nik Abdul hadi Md Nordin, Juhana Jaafar, Ahmad Fauzi Ismail, Nik Ahmad Nizam Nik Malek (2020). **Enhanced Performance and Antibacterial Properties of Amine-Functionalized ZIF-8-Decorated GO for Ultrafiltration Membrane**. Separation and Purification Technology. 239: 116554.

12. Muhammad Noer Fajar, Endarko Endarko, Agus Rubiyanto, Nik Ahmad Nizam Nik Malek, Tony Hadibarata, Achmad Syafiuddin (2020). **A Green Deposition Method of Silver Nanoparticles on Textiles and Their Antifungal Activity**. *Biointerface Research in Applied Chemistry*, 10(1): 4902-4907.
13. Lim Chai Hui, Nik Ahmad Nizam Nik Malek, Muhammad Zulhilmi Amir Awaluddin, Muhammad, Hariz Asraf, Siti Nabihan Ishak, Atieya Abdul Hadi (2019). **Adsorption of Gentamicin on Surfactant-Kaolinite and its Antibacterial Activity**. *Malaysian Journal of Fundamental and Applied Sciences*, 15(5): 686-689. (Indexed WOS)
14. Sameen Ahmed Malik, Tan Tian Swee, Nik Ahmad Nizam Nik Malek, Azli Yahya, Takahiro Emoto, Masatake Akutagawa, Leong Kah Meng, Tan Jia Hou, Tengku Ahmad Iskandar Tengku Alang, Kelvin Ling Chia Hiik (2019). **Effectiveness of Visible and Ultraviolet Light Emitting Diodes for Inactivation of *Staphylococcus aureus*, *Pseudomonas aeruginosa*, and *Escherichia coli*: A Comparative Study**. *Malaysian Journal of Fundamental and Applied Sciences*, 15(4): 572-576. (Indexed WOS)
15. Nik Ahmad Nizam Nik Malek, Mohd Hafiz Jusoh, Auni Afiqah Kamaru (2019). **Removal of Paraquat Herbicide by Cetyltrimethyl Ammonium Bromide Modified Pineapple Leaves**. *Malaysian Journal of Analytical Sciences*, 23: 604-612. (Indexed WOS)
16. Nur Diyana Suzaimi, Pei Sean Goh, Nik Ahmad Nizam Nik Malek, Jun Wei Lim, Ahmad Fauzi Ismail (2019). **Performance of Branched Polyethyleneimine Grafted Porous Rice Husk Silica in Treating Nitrate-Rich Wastewater via Adsorption**. *Journal of Environmental Chemical Engineering*, 7: 103235. (Indexed Scopus)
17. Nik Ahmad Nizam Nik Malek, Nur Isti'annah Ramli (2019). **Preparation and Antibacterial Properties of Cetylpyridinium Bromide Modified Silver-Loaded Kaolinite**. *Materials Research Express*, 6: 094006. (Indexed WOS)
18. Tan Yong Chee, Abdull Rahim Mohd Yusoff, Nur Atika Rahmat, Nik Ahmad Nizam Nik Malek (2019). **Solution Parameter Effect on Polysulfone Fibers via Electrospinning: Fabrication, Characterization and Water Flux Property**. *Jurnal Teknologi*, 81: 69-74. (Indexed WOS)
19. Muhammad Hariz Asraf, Nik Ahmad Nizam Nik Malek, Khairunadwa Jemon, Nor Suriani Sani, Mustapha Salisu Muhammad (2019). **Antibacterial, Cytotoxicity and Wound Healing Assessments of Amine-Functionalised Zeolite Y**. *Particuology*, 45: 116-123. (Indexed WOS)
20. Yanuardi Raharjo, Ahmad Fauzi Ismail, Mohd Hafiz Dzarfan Othman, Nik Ahmad Nizam Nik Malek, Djoko Santoso (2019). **Preparation and Characterization of Imprinted Zeolite-Y for p-cresol Removal in Haemodialysis**. *Materials Science and Engineering C*, 103: 109722 (Indexed WOS)
21. Nor Suriani Sani, Nik Ahmad Nizam Nik Malek, Khairunadwa Jemon, Mohammed Rafiq Abdul Kadir, Halimatun Hamdan (2019). **Preparation and Characterization of Hydroxyapatite Incorporated Silica Aerogel and Its Effect on Normal Human Dermal Fibroblast Cells**. *Journal of Sol-Gel Science and Technology*, 90: 422-433. (Indexed WOS)
22. Nik Ahmad Nizam Nik Malek, Muhammad Hafizuddin Yusof, Auni Afiqah Kamaru (2019). **Simultaneous Action of Surfactant Modified Sugarcane Bagasse: Adsorbent and Antibacterial Agent**. *Malaysian Journal of Fundamental and Applied Sciences*, 15(1): 32-37. (Indexed WOS)
23. Jamuna-Thevi Kalitheertha Thevar, Nik Ahmad Nizam Nik Malek, Mohammed Rafiq Abdul Kadir (2019). **In vitro Degradation of Triple Layered Poly (lactic-co-glycolic acid) Composite**

- Membrane Composed of Nanoapatite and Lauric Acid for Guided Bone Regeneration Applications.** Materials Chemistry and Physics, 221: 501-514. Indexed WOS)
24. Loo Yan Jie, Nik Ahmad Nizam Nik Malek (2018). **Application of Surfactant-Modified Clinoptilolite in Peat Substrate on the Growth of Orthosiphon stamineus.** Communications in Soil Science and Plant Analysis. 49 (19): 2465-2477. (Indexed Scopus)
 25. Muhammad Syafiq Abd Aziz, Nik Ahmad Nizam Nik Malek, Siti Nabihan Ishak, Muhammad Hariz Asraf, Atieya Abdul Hadi, Muhammad Zulhilmi Amir Awaluddin (2018). **Simultaneous Action of Surfactant Modified Clinoptilolite: Adsorbent of Dyes and Antibacterial Agent.** Malaysian Journal of Fundamental and Applied Sciences, Special Issue on Natural Sciences and Mathematics (ESCon 2018): 477-481. (Indexed WOS)
 26. Nik Ahmad Nizam Nik Malek, Nurul Ain Azid, Atieya Abdul Hadi, Siti Nabihan Ishak, Muhammad Hariz Asraf, Muhammad Zulhilmi Amir Awaluddin (2018). **Antibacterial Activity of Copper Exchanged Zeolite Y Synthesized from Rice Husk Ash.** Malaysian Journal of Fundamental and Applied Sciences, Special Issue on Natural Sciences and Mathematics (ESCon 2018): 450-453. (Indexed WOS)
 27. Nurizzati Mohd Daud, Nabillah Athirah Masri, Nik Ahmad Nizam Nik Malek, Saiful Izwan Abd Razak, Syafiqah Saidin. (2018). **Long-Term Antibacterial and Stable Chlorhexidine-Polydopamine Coating on Stainless Steel 316L.** Progress in Organic Coatings, 122: 147-153. (Indexed WOS)
 28. Noor Asyraf Noor Azman, Nik Ahmad Nizam Nik Malek, Norfarah Syuhaidah Mohd Noor, Muhammad Arshad Javed (2018). **Improving the Growth of *Centella asiatica* using surfactant modified natural zeolite loaded with NPK nutrients.** Asian Journal of Agriculture and Biology, 6: 55-65. (Indexed Scopus)
 29. Sameen Ahmed Malik, Tan Tian Swee, Nik Ahmad Nizam Nik Malek, Mohammed Rafiq Abdul Kadir, Takahiro Emoto, Masatake Akutagawa, Leong Kah Meng, Tan Jia Hou, Tengku Ahmad Iskandar Tengku Alang (2017). **Comparison of Standard Light-Emitting Diode (LED) and 385 nm Ultraviolet A LED (UVA-LED) for Disinfection of *Escherichia coli*.** Malaysian Journal of Fundamental and Applied Sciences, Special Issue on Medical Device and Technology (IMEDITECH 2017), 430-437. (Indexed WOS)
 30. Siti Aishah Mohd Hanim, Nik Ahmad Nizam Nik Malek, Zaharah Ibrahim (2017). **Analyses of Surface Area, Porosity, Silver Release and Antibacterial Activity of Amine-Functionalized, Silver-Exchanged Zeolite NaY.** Vacuum, 143:344-347 (Elsevier, Indexed WOS).
 31. Nor Suriani Sani, Nik Ahmad Nizam Nik Malek, Khairunadwa Jemon, Mohammed Rafiq Abdul Kadir, Halimatun Hamdan (2017). **Effect of mass concentration on bioactivity and cell viability of calcined silica aerogel synthesized from rice husk ash as silica source.** Journal of Sol-Gel Science and Technology, 82:120-132 (Springer Nature, Indexed WOS)
 32. Hoda Hosseinpour Nasirmahaleh, Sher Zaman Safi, Mohammad Reza Sazegar, Rajes Qvist, Ikram Shah Bin Ismail, Muhammad Aqeel Ashraf, Nik Ahmad Nizam Nik Malek (2016). **Adsorption of amoxicillin on surfactant modified zeolites and their antibacterial activity.** Research Journal of Biotechnology, 11: 75-78 (World Research Journals, Indexed WOS).
 33. Auni Afiqah Kamaru, Nor Suriani Sani, Nik Ahmad Nizam Nik Malek (2016). **Raw and surfactant-modified pineapple leaf as adsorbent for removal of methylene blue and methyl orange from aqueous solution.** Desalination and Water Treatment, 57: 18836-18850. (Taylor & Francis Online, Indexed WOS).

34. Nurizzati Mohd Daud, Ihda Fithriyana, Nik Ahmad Nizam Nik Malek, Hendra Hermawan, Syafiqah Saidin (2016). **Immobilization of antibacterial chlorhexidine on stainless steel using crosslinking polydopamine film: Towards infection resistant medical devices.** *Colloids and Surfaces B: Biointerfaces*, 145: 130-139. (Elsevier, Indexed WOS)
35. Seow Khai Jou, Nik Ahmad Nizam Nik Malek (2016). **Characterization and Antibacterial Activity of Chlorhexidine Loaded Silver-Kaolinite.** *Applied Clay Science*, 127-128: 1-9 (Elsevier, Indexed WOS)
36. Nor Syafawani Sarah Md Saad, Nik Ahmad Nizam Nik Malek, Chun Shiong Chong (2016). **Antimicrobial Activity of Copper Kaolinite and Surfactant Modified Copper Kaolinite against Gram Positive and Gram Negative Bacteria.** *Jurnal Teknologi*, 78:3-2 (127-132). (Penerbit UTM, Indexed WOS).
37. Auni Afiqah Kamaru, Nurul Soraya Ahmad Jani, Nik Ahmad Nizam Nik Malek, Nor Suriani Sani (2016). **Adsorptive Removal of Methylene Blue and Acid Orange 7 by Hexadecyltrimethyl Ammonium Bromide Modified Rice Husk.** *Jurnal Teknologi*, 78:3-2 (113-119). (Penerbit UTM, Indexed Scopus)
38. Nik Ahmad Nizam Nik Malek, Nurain Mat Sihat, Mahmud AS Khalifa, Auni Afiqah Kamaru, Nor Suriani Sani (2016). **Adsorption of Acid Orange 7 by Cetylpyridinium Bromide Modified Sugarcane Bagasse.** *Jurnal Teknologi*, 78:(1-2) 97-103. (Penerbit UTM, Indexed WOS).
39. Wan Nurul Izyani Wan Mohd Zawawi, Azmi Fadziyana Mansor, Nurul Sakinah Othman, Nur Atikah Mohidem, Nik Ahmad Nizam Nik Malek, Hanapi Mat (2016). **Synthesis and characterization of immobilized white-rot fungus *Trametes versicolor* in sol-gel ceramics.** *Journal of Sol-Gel Science and Technology*, 77:28-38. (Springer, Indexed WOS).
40. Siti Aishah Mohd Hanim, Nik Ahmad Nizam Nik Malek, Zaharah Ibrahim (2016). **Amine-functionalized, silver-exchanged zeolite NaY: Preparation, characterization and antibacterial activity.** *Applied Surface Science*, 360: 121-130. (Elsevier, Indexed WOS)
41. Mashitah Mad Salim, Nik Ahmad Nizam Nik Malek (2016). **Characterization and antibacterial activity of silver exchanged regenerated NaY zeolite from surfactant-modified NaY zeolite.** *Materials Science and Engineering C*. 59:70-77. (Elsevier, Indexed WOS)
42. Musa Ahmed Abubakar, Razauden Mohamed Zulkifli, Wan Nur Atiqah Wan Hassan, Amir Husni Mohd Shariff, Nik Ahmad Nizam Nik Malek, Zarita Zakaria, Farediah Ahmad (2015). **Antibacterial properties of *Persicaria minor* (Huds.) ethanolic and aqueous-ethanolic leaf extracts.** *Journal of Applied Pharmaceutical Science*, 2: 050-056. (Indexed Scopus)
43. Nor Suriani Sani, Nik Ahmad Nizam Nik Malek, Mohammed Rafiq Abdul Kadir Halimatun Hamdan (2015). **FTIR Study on the Preliminary Development of Synthesis Methods for Hydroxyapatite Modified Silica Aerogel.** *Applied Mechanics and Materials*, 799-800: 493-499. (Trans Tech Pub, Indexed Scopus)
44. Nik Ahmad Nizam Nik Malek, Nur Isti'annah Ramli (2015). **Characterization and antibacterial activity of cetylpyridinium bromide (CPB) immobilized on kaolinite with different CPB loadings.** *Applied Clay Science*, 109-110: 8-14. (Elsevier, Indexed WOS)
45. Siti Aishah Mohd Hanim, Nik Ahmad Nizam Nik Malek, Zaharah Ibrahim, Mashitah Mad Salim, Nur Isti'annah Ramli, Nor Syafawani Sarah, Mohd Asyadi Azam (2015). **Antibacterial Activity of Amine-Functionalized Zeolite NaY against *Staphylococcus aureus* ATCC6538 and *Escherichia coli* ATCC11229.** *Applied Mechanics and Materials*, 761:402-406. (Trans Tech Pub, Indexed Scopus)

46. Mashitah Mad Salim, Nik Ahmad Nizam Nik Malek, Nur Isti'anah Ramli, Siti Aishah Mohd Hanim, Salehuddin Hamdan (2014). **Antibacterial activity of CTAB-modified zeolite NaY with different CTAB loading**. Malaysian Journal of Fundamental and Applied Sciences (ISSN:2289-5981). 10(3): 129-133. (Indexed WOS)
47. Nik Ahmad Nizam Nik Malek, Craig D. Williams, Sivabalan Dhanabal, Hardave Singh Bhall and Norahim Ibrahim (2014). **Natural clinoptilolite and chabazite as carrier for antibacterial agents of cetylpyridinium chloride (CPC) and silver**. Applied Mechanics and Materials, 606:29-34. (Trans Tech Pub, Indexed Scopus).
48. Nik Ahmad Nizam Nik Malek, Niza Syafiqah Hamzah, Noor Hidayah Dzkulfli, W Mohd Madhi W Abdullah, Salehuddin Hamdan (2014). **Effect of Natural Zeolite (Clinoptilolite) and Urea on the Growth of *Amaranthus gangeticus*, *Clinachantus nutans* and *Capsicum annuum***. Jurnal Teknologi, 68(1): 141-145. (Indexed Scopus).
49. Methodius Anak Nawog, Mohd Nazlan Mohd Muhid, Nik Ahmad Nizam Nik Malek, Halimaton Hamdan (2014). **Eco-Friendly Synthesis of Nanozeolite NaA from Rice Husk Ash and Its Efficiency in Removing Ammonium Ions**. Key Engineering Materials. 594-595: 168-172. (Trans Tech Pub, Indexed Scopus).
50. Nida Iqbal, Mohammed Rafiq Abdul Kadir, Nik Ahmad Nizam Nik Malek, Nasrul Humaimi Bin Mahmood, Malliga Raman Murali, T. Kamarul (2013). **Characterization and Antibacterial Properties of Stable Silver Substituted Hydroxyapatite Nanoparticles Synthesized through Surfactant assisted Microwave Process**. Materials Research Bulletin. 48:3172-3177. (Elsevier, Indexed WOS)
51. Nida Iqbal, Mohammed Rafiq Abdul Kadir, Nasrul Humaimi Mahmood, Micheal Moses, Mashitah Binti Mad Salim, Nik Ahmad Nazim Nik Malek (2013). **Effect of Silver Ions on the Structural and Antibacterial Properties of Bone Replacement Material**. Advanced Materials Research, 795: 692-696. (Trans Tech Pub, Indexed Scopus).
52. Nik Ahmad Nizam Nik Malek, Siti Amirah Ishak, Mohammed Rafiq Abdul Kadir (2013). **Antibacterial activity of copper and CTAB modified clays against *Pseudomonas aeruginosa***. Advanced Materials Research, 626: 178-182. (Trans Tech Pub, Indexed Scopus).
53. Noor Azhana Ghazi, Nik Ahmad Nizam Nik Malek, Salehuddin Hamdan (2013). **Cytostatic activity of clinoptilolite against human cervical cancer cell lines using three different media-sterilization techniques**. Advanced Materials Research, 626: 667-671. (Trans Tech Pub, Indexed Scopus).
54. Nida Iqbal, Mohammed Rafiq Abdul Kadir, Nik Ahmad Nizam Nik Malek, Nasrul Humaimi Mahmood, Malliga Raman Murali and Tunku Kamarul (2012). **Rapid microwave assisted synthesis and characterization of nanosized silver-doped hydroxyapatite with antibacterial properties**, Materials Letters, 89: 118-122. (Elsevier, Indexed WOS)
55. Alias Mohd Yusof, Nik Ahmad Nizam Nik Malek, Nurul Asyikin Kamaruzaman, Muhammad Adil (2010), **Removal of Ca²⁺ and Zn²⁺ from aqueous solutions by zeolites NaP and KP zeolites**. Environmental Technology. 31: 41-46. (Taylor & Francis Ltd, Indexed WOS).
56. Alias Mohd Yusof, Lee Kian Keat, Zaharah Ibrahim, Zaiton Abdul Majid, Nik Ahmad Nizam Nik Malek (2010). **Kinetic and equilibrium studies of the removal of ammonium ions from aqueous solution by rice husk ash-synthesized zeolite Y and powdered and granulated forms of mordenite**. Journal of Hazardous Materials. 174: 380-385. (Elsevier, Indexed WOS)).

57. Alias Mohd Yusof, Nik Ahmad Nizam, Noor Aini Abdul Rashid (2010). **Hydrothermal conversion of rice husk ash to faujasite-types and NaA type of zeolite**. Journal of Porous Materials. 17: 39-47. (Springer, Indexed WOS)
58. Alias Mohd Yusof, Nik Ahmad Nizam (2009). **Removal of Cr(VI) and As(V) from aqueous solutions by HDTMA-modified zeolite Y**. Journal of Hazardous Materials, 162: 1019-1024. (Elsevier, Indexed WOS)
59. A. M. Yusof, N. H. Idris, N. A. N. N. Malek, A. K. H. Wood (2009). **Use of granulated modified zeolite Y for the removal of inorganic arsenic and selenium species**. Journal of Radioanalytical and Nuclear Chemistry. 281: 269-272. (Springer, Indexed WOS).

JOURNALS (NON-INDEXED)

1. Nor Suriani Sani and Nik Ahmad Nizam Nik Malek (2019). **Overview of Hybrid Silica Aerogel as Biomaterial**. PERINTIS eJournal, 9: 48-64.
2. N.D. Suzaimi, P.S. Goh, N.A.N.N. Malek (2019). **Modified-Nano-Adsorbents for Nitrate Efficient Removal: A Review**. Journal of Applied Membrane Science and Technology, 23: 65-81.
3. Mashitah Mad Salim, Nik Ahmad Nizam Nik Malek (2017). **Review of Modified Zeolites by Surfactant and Silver as Antibacterial Agents**. Journal of Advanced Research in Materials Science, 36: 1-20.
4. Loo Yan Jie, Nik Ahmad Nizam Nik Malek, Teo Wee Siang Niza Syafiqah Hamzah, Noor Hidayah Dzkulfli (2015). **Effect of Surfactant Modified Zeolite (SMZ) Added in Propagating Substrate for the Germination of Some Vegetables**. International Journal of Advances in Science, Engineering and Technology (IJASEAT), 3: 96-100.
5. Noor Azhana Ghazi, Khairina 'Izzati Amir Hussain, Nik Ahmad Nizam Nik Malek and Salehuddin Hamdan (2012). **The effect of zeolite X and Y on Cancer Cell Lines**. Journal of Science and Technology (ISSN 2229-8460), 4(1): 33-40.
6. Nik Ahmad Nizam Nik Malek, Alias Mohd Yusof (2007). **Removal of Cr(III) from aqueous solutions using zeolite NaY prepared from rice husk ash**. Malaysian Journal of Analytical Sciences (ISSN: 1394-2506), 11(1): 76-83.
7. Nik Ahmad Nizam Nik Malek, Alias Mohd Yusof (2006). **The Effect of Seeding and Ageing Techniques in the Synthesis of the Zeolite NaY from Rice Husk Ash**. Journal of Solid State Science and Technology Letters (ISSN 0128-8393), 12 (1): 249-253

EDITED CHAPTER

1. Nik Ahmad Nizam Nik Malek, Muhammad Zulhilmi Amir Awaluddin, Atieya Abdul Hadi (2020). **Organo-Modified Metal-Loaded Zeolites as a Hybrid Antibacterial Agent**. In Nik Ahmad Nizam Nik Malek (Ed) (2020). *Antibacterial Agents* (pp. 215-232). Johor Bahru: Penerbit UTM Press.
2. Muhammad Hariz Asraf, Atieya Abdul Hadi, Faisal Hussin, Nik Ahmad Nizam Nik Malek (2020). **Antibacterial Metal-Loaded Kaolinites and Zeolites**. In Nik Ahmad Nizam Nik Malek (Ed) (2020). *Antibacterial Agents* (pp. 81-100). Johor Bahru: Penerbit UTM Press.
3. Nik Ahmad Nizam Nik Malek (2020). **Issues and Development of Antibacterial Agents: Introduction**. In Nik Ahmad Nizam Nik Malek (Ed) (2020). *Antibacterial Agents* (pp. 1-19). Johor Bahru: Penerbit UTM Press.
4. Auni Afiqah Kamaru, Nik Ahmad Nizam Nik Malek, Ho Soon Min, Nor Suriani Sani (2020). **Surfactant Modified Crop Wastes as Adsorbent for Dyes and Heavy Metals**. In Mohamed Hafiz Puteh, Noorul Hudai Abdullah (Eds). (2020). *Issues and Technology in Water Contaminants*. (pp. 49-68). Johor Bahru: Penerbit UTM Press.
5. Sameen Ahmed Malik, Tan Tian Swee, Nik Ahmad Nizam Nik Malek, Tan Jia Hou (2019). **Microorganisms Disinfection using Ultraviolet Light Emitting Diodes (UV LEDs)**. In Tan Tian Swee, Leong Kah Meng (Eds). (2019). *Biomedical Research and Applications (Volume II)* (pp. 55-75). Johor Bahru: Penerbit UTM Press.
6. Nik Ahmad Nizam Nik Malek. (2018). **Current Progress in Applied Materials Science**. In Nik Ahmad Nizam Nik Malek (Ed). (2018). *Progress in Applied Materials Science* (pp. 1-17). Johor Bahru: Penerbit UTM Press.
7. Nik Ahmad Nizam Nik Malek, Muhammad Zulhilmi Amir Awaluddin, Ahmad Ardani Mohamed. (2018). **Organo-Clay Loaded Sulphonamide as Antibacterial Agent**. In Nik Ahmad Nizam Nik Malek (Ed). (2018). *Progress in Applied Materials Science* (pp. 81-100). Johor Bahru: Penerbit UTM Press.
8. Nur Hidayah Abdullah, Nik Ahmad Nizam Nik Malek, Mohd Asyadi Azam, Khairunadwa Jemon. (2018). **Acid-Functionalized Multi-Walled Carbon Nanotubes as Antibacterial Agent**. In Nik Ahmad Nizam Nik Malek (Ed). (2018). *Progress in Applied Materials Science* (pp. 101-120). Johor Bahru: Penerbit UTM Press.
9. Zaidah Rahmat, Nik Ahmad Nizam Nik Malek. (2018). **Chapter 1: Introduction**. In Zaidah Rahmat, Nik Ahmad Nizam Nik Malek (Eds). (2018). *Plant Science and Its Application* (pp. 1-8). Johor Bahru: Penerbit UTM Press.
10. Nor Suriani Sani, Nik Ahmad Nizam Nik Malek, Sharifah Awang, Halimaton Hamdan (2018). **Nanostructured Herbs Carrier System**. In Zaidah Rahmat, Nik Ahmad Nizam Nik Malek (Eds). (2018). *Plant Science and Its Application* (pp. 233-261). Johor Bahru: Penerbit UTM Press.
11. Nik Ahmad Nizam Nik Malek, Loo Yan Jie, Noor Hidayah Dzkulfli, Niza Syafiqah Hamzah (2018). **Propagating Substrate Added Surfactant Modified Clinoptilolite as Plant Growth Medium**. In Zaidah Rahmat, Nik Ahmad Nizam Nik Malek (Eds). (2018). *Plant Science and Its Application* (pp. 29-49). Johor Bahru: Penerbit UTM Press.
12. Samiullah Khan, Nusrat Jahan, Nik Ahmad Nizam Nik Malek, Fazilah Abd Manan (2018). **Mechanism, Effects and Strategies to Live with Salinity**. In Muhammad Arshad Javed, Nik Ahmad Nizam Nik Malek (Eds) (2018). *Crop Plants and Abiotic Toxicities* (pp. 73-84). Johor Bahru: Penerbit UTM Press.

13. Nik Ahmad Nizam Nik Malek, Niza Syafiqah Hamzah, Haryani Abdullah, Noor Hidayah Dzkulfli (2017). **Surfactant Modified Natural Zeolite Loaded with Ammonium, Potassium and Phosphate as a controlled Release Fertilizer**. In Nik Ahmad Nizam Nik Malek, Syazwani Itri Amran (Eds). *Advances in Biosciences (Plant Related Science)* (pp. 27-52). Johor Bahru: Penerbit UTM Press.
14. Noor Azhana Ghazi, Nik Ahmad Nizam Nik Malek, Salehuddin Hamdan (2017). **Zeolite as a Potential Alternative Adjuvant Therapy for Cancer**. In Ho Soon Min, Nik Ahmad Nizam, Ahmed Osumanu Haruna, Peter Adeniyi Alaba (Eds). *Zeolites: Synthesis, Characterisation & Practices* (pp. 8-25). Ideal International E-Publication Pvt. Ltd., India.
15. Mashitah Mad Salim, Noor Azhana Ghazi, Nik Ahmad Nizam Nik Malek, Salehuddin Hamdan (2017). **Overview of the Synthesis of Nanozeolite from Agro-Waste**. In Ho Soon Min, Nik Ahmad Nizam, Ahmed Osumanu Haruna, Peter Adeniyi Alaba (Eds). *Zeolites: Synthesis, Characterisation & Practices* (pp. 26-36). Ideal International E-Publication Pvt. Ltd., India.
16. Nik Ahmad Nizam Nik Malek, Nurul Syakina Malek, Nor Suriani Sani, Halimatun Hamdan (2017). **Silica Aerogel as Nanostructured Herb Delivery System**. In Zaidah Rahmat (Ed). *Recent Advances in Biosciences* (pp.65-87). Johor Bahru: Penerbit UTM Press.
17. Wan Rosmiza Zana Wan Dagang, Rabiul Salihu, Nik Ahmad Nizam Nik Malek, Murni Noor Al-Amin (2017). **Antibacterial Activity of Copper and Silver Kaolinite on Isolated Marine Bacteria**. In Zaidah Rahmat (Ed). *Recent Advances in Biosciences* (pp.49-63). Johor Bahru: Penerbit UTM Press.

BOOKS

1. Nik Ahmad Nizam Nik Malek (Ed) (2020). **Antibacterial Agents**. Johor Bahru: Penerbit UTM Press. (ISBN: 978-983-52-1705-0)
2. Nik Ahmad Nizam Nik Malek (Ed). (2018). **Progress in Applied Materials Science**. Johor Bahru: Penerbit UTM Press. (ISBN: 978-983-52-1580-3)
3. Zaidah Rahmat, Nik Ahmad Nizam Nik Malek (Eds). (2018). **Plant Science and Its Application**. Johor Bahru: Penerbit UTM Press. (ISBN: 978-983-52-1573-5)
4. Muhammad Arshad Javed, Nik Ahmad Nizam Nik Malek (Eds) (2018). **Crop Plants and Abiotic Toxicities**. Johor Bahru: Penerbit UTM Press (ISBN: 978-983-52-4562-9)
5. Nik Ahmad Nizam Nik Malek, Syazwani Itri Amran (Eds) (2017). **Advances in Biosciences (Plant Related Science)**. Johor Bahru: Penerbit UTM Press (ISBN: 978-983-52-1464-6)
6. Ho Soon Min, Nik Ahmad Nizam, Ahmed Osumanu Haruna, Peter Adeniyi Alaba (Eds). (2017). **Zeolites: Synthesis, Characterisation & Practices**. Ideal International E-Publication Pvt. Ltd., India. (ISBN: 978-93-86675-16-3).

EDITORS

1. Nik Ahmad Nizam Nik Malek, Atieya Abdul Hadi. *Book of Abstracts of 1st Bionanotechnology Research Seminar (BioNanoSem2020)*.
2. *E-Proceeding, Biosciences Symposium Final Year Undergraduate Project 2019*, eISBN 978-967-2401-07-0, Johor Bahru, Johor.
3. *E-Proceeding, Biosciences Symposium Final Year Undergraduate Project 2018*, eISBN 978-967-2171-51-5, Johor Bahru, Johor.

INVITED/KEYNOTE/PLENARY SPEAKERS

1. Nik Ahmad Nizam Nik Malek (2020). **Immobilization of Nanoparticles**. Bionanotechnology Research Seminar (BioNanoSem2020), T02 Building, Centre for Sustainable Nanomaterials (CSNano), UTM, 05 Oct 2020 (Keynote).
2. Nik Ahmad Nizam Nik Malek (2019). **Hybrid Organic-Inorganic Antibacterial Agents**. 2nd International Conference on Life Sciences and Technology (ICoLiST), Universitas Negeri Malang, Malang, Indonesia, 12 Sep 2019. (Keynote)
3. Nik Ahmad Nizam Nik Malek (2018). **Bionanotechnology: Current Progress in Applied Nanomaterials Research**. Annual International Conference on Life Sciences and Technology (ICoLiST), Universitas Negeri Malang, Malang, Indonesia, 4 Sep 2018.(Plenary)
4. Nik Ahmad Nizam Nik Malek, Nur Isti'annah Ramli (2018). **Preparation and Antibacterial Properties of Cetylpyridinium Bromide Modified Silver-Loaded Kaolinite**. 3rd International Conference of Materials Research Society of Indonesia (3rd MRS-id Meeting 2018), Aston Denpasar Hotel & Convention Center, Bali, Indonesia, 31 Jul – 2 Aug 2018. (Keynote)
5. Nik Ahmad Nizam Nik Malek (2018). **An Overview of Bench to Market**. International Seminar on Biosciences and Medical Engineering (ISBME) 2018, Seminar Room, T02 Building, FBME, 12 Apr 2018. (Plenary)
6. Norfarah Syuhaidah Mohd Noor, Nik Ahmad Nizam Nik Malek, Noor Asyraf Noor Azman, Muhammad Arshad Javed (2017). **Surfactant Modified Zeolite with Ammonium, Phosphate and Potassium as Re-generated Controlled Release Fertilizer**. Malaysia Separation Science Conference 2017 (MySSC2017), Pulau Spring Resort, Johor Bahru, Johor, 23-25 Oct 2017. (Keynote)

PROCEEDINGS

1. Siti Nabihan Ishak, Nik Ahmad Nizam Nik Malek, Mustaffa Shamsuddin, Juan Matmin and Gopinathan Sankar. **Removal of Ammonium and Phosphate by Mg-Al Layered Double Hydroxide Nanocomposite with Synthesized Zeolite A**. Proceeding of 8th International Graduate Conference on Engineering, Science and Humanities (IGCESH2020). (pp. 81-84), SPS UTM, eISSN 2735-055X.
2. Muhammad Hariz Asraf and Nik Ahmad Nizam Nik Malek. **In Situ Synthesis of Silver Nanoparticles Immobilized on Synthesized Zeolite using Bio-Green Method from *Orthosiphon aristatus* and Its Antibacterial Activity**. Proceeding of 8th International Graduate Conference on Engineering, Science and Humanities (IGCESH2020). (pp. 187-190), SPS UTM, eISSN 2735-055X.
3. Mohammed Bello, Abdull Rahim Mohd Yusoff, Nik Ahmad Nizam Nik Malek, Khairunadwa Jemon, Faizuan Abdullah, Tan Yong Chee, Pui Wei Wei. **Fabrication of Polymeric Nanofibres of Poly(ϵ -Caprolactone) Blended with Curcumin using Electrospinning Technique**. Proceeding of 8th International Graduate Conference on Engineering, Science and Humanities (IGCESH2020). (pp. 273-276), SPS UTM, eISSN 2735-055X.
4. Muhammad Hariz Asraf and Nik Ahmad Nizam Nik Malek. **Effect of Different HDTMA Loading on Silver Modified Kaolinite on its Antibacterial Activity**. AIP Conference Proceedings 2231 (2020) 0420003.
5. Siti Imroatul Maslikah, Sri Rahayu Lestari, Nursasi Handayani, Nik Ahmad Nizam Nik Malek, Khairunadwa Binti Jemon, Atikah Amalia, and Solichatul Affiah. **Study on Molecular Docking of**

- Red Betel (*Piper crocatum* Ruiz & Pav.) Active Compound and Tamoxifen Drug as an Inhibitor of Estrogen Receptor- α (ER- α) that Plays a Role in Breast Cancer.** AIP Conference Proceedings 2231 (2020) 040001.
6. Nurul Ain Sallehuddin and Nik Ahmad Nizam Nik Malek. **Biosorption of Anionic Dye by Cetyltrimethylammonium Bromide Modified Oil Palm Leaf Powder.** E-Proceeding Biosciences Symposium of the Final Year Undergraduate Project 2019. (pp. 44), FS, UTM. eISBN 978-967-2401-07-0.
 7. Farah Eizzaty Ahmad Tajuddin and Nik Ahmad Nizam Nik Malek. **Antibacterial Activity of Chlorhexidine Modified Kaolinite against Oral Bacteria.** E-Proceeding Biosciences Symposium of the Final Year Undergraduate Project 2019. (pp. 78), FS, UTM. eISBN 978-967-2401-07-0.
 8. Nurul Ateia Amaleena Rosli and Nik Ahmad Nizam Nik Malek. **Antibacterial Activity of Silver Modified Synthesized Zeolite from Kaolinite.** E-Proceeding Biosciences Symposium of the Final Year Undergraduate Project 2019. (pp. 79), FS, UTM. eISBN 978-967-2401-07-0.
 9. Wan Nur Aryantie, Muhammad Zuhilmi Amir Awaluddin, Nik Ahmad Nizam Nik Malek. **Characterization and Antibacterial Activity of Streptomycin Antibiotic Loaded Organo-Kaolinite.** IOP Conf. Series: Earth and Environmental Science 276 (2019) 012001
 10. Wan Nur Aryantie Wan Othman, Nik Ahmad Nizam Nik Malek. **Adsorption of Streptomycin on Organo-Kaolinite and Its Antibacterial Activity.** E-Proceeding Biosciences Symposium Final Year Undergraduate Project 2018 (pp. 85), FS, UTM. eISBN: 978-967-2171-51-5.
 11. Lim Chai Hui, Nik Ahmad Nizam Nik Malek. **Preparation, Characterization and Antibacterial Activity of Gentamicin Loaded Surfactant-Kaolinite.** E-Proceeding Biosciences Symposium Final Year Undergraduate Project 2018 (pp. 84), FS, UTM. eISBN: 978-967-2171-51-5.
 12. Muhd Hafiz Jusoh, Nik Ahmad Nizam Nik Malek. **Removal of Herbicide Paraquat by Cetyltrimethyl Ammonium Bromide Modified Pineapple Leaves.** E-Proceeding Biosciences Symposium Final Year Undergraduate Project 2018 (pp. 37), FS, UTM. eISBN: 978-967-2171-51-5.
 13. Nur Fitri Ismail, Nik Ahmad Nizam Nik Malek. **Hexadecyltrimethyl Ammonium Bromide (HDTMA-Br) Modified Rice Husks Powder as Adsorbent for Dyes and Antibacterial Agent.** Proceedings of the Final Year Undergraduate Project Symposium on Biosciences 2017, FBME, UTM.
 14. Nazrul Nizam Ab Halim, Tan Tian Swee, Nik Ahmad Nizam Nik Malek. **Medical Equipment Disinfection Using Ultraviolet Light-Emitting Diode.** Proceeding of the Biosciences & Medical Engineering (BME) Students Conference (Biomedical) 2017, FBME, UTM.
 15. Nurizzati Mohd Daud, Nik Ahmad Nizam Nik Malek, Syafiqah Saidin. **Influence of Coating Time on Immobilization of Chlorhexidine on Polydopamine Grafted Stainless Steel 316L: Adsorption and Cytotoxicity Analyses.** Proceedings of the 2017 International Conference on Computational Biology and Bioinformatics (pp. 97-100), Seoul, Republic of Korea, 20-22 Oct 2017.
 16. Sameen Ahmed Malik, Tan Tian Swee, Nik Ahmad Nizam Nik Malek, Mohammed Rafiq Abdul Kadir, Leong Kah Meng, Tan Jia Hou, Tengku Ahmad Iskandar Tengku Alang, Takahiro Emoto, Masatake Akutagawa. **Effects of Ultraviolet Light-Emitting Diodes (UVA-LEDs) Irradiation on *Escherichia coli* for Inactivation of Microorganisms.** Proceeding of International Medical

- Device and Technology Conference (IMEDITEC2017), Universiti Teknologi Malaysia, Johor, eISBN: 978-967-0194-93-6, 6-7 Sep 2017, Page 207-210.
17. Nor Suriani Sani, Nik Ahmad Nizam Nik Malek, Khairunadwa Jemon, Mohammed Rafiq Abdul Kadir, Halimaton Hamdan. **Cell Viability and Migration Study of Hydroxyapatite Encapsulated Silica Aerogel (HAESA) towards Normal Human Fibroblast Cells**. Proceeding of International Medical Device and Technology Conference (IMEDITEC2017), Universiti Teknologi Malaysia, Johor, eISBN: 978-967-0194-93-6, 6-7 Sep 2017, Page 54-59.
 18. Nik Ahmad Nizam Nik Malek, Mohamad Zakil Hayat Rusli, Noor Asyraf Noor Azman, Norfarah Syuhaidah Mohd Noor. **Application of Surfactant Modified Natural Zeolite Loaded NPK for the Growth of *Morus alba***. Proceeding of International Conference on Biosciences and Medical Engineering (ICBME) 2016, Page 191-204, ISBN 978-967-0194-83-7, Faculty of Biosciences and Medical Engineering, UTM, 10 Nov 2016.
 19. Loo Yan Jie, Nik Ahmad Nizam Nik Malek, Teo Wee Siang Niza Syafiqah Hamzah, Noor Hidayah Dzkulfi. **Effect of Surfactant Modified Zeolite (SMZ) Added in Propagating Substrate for the Germination of Some Vegetables**. In Proceedings of The IRES – 2nd International Conference on Food and Agricultural Engineering (ICFAE), Page 88-92, ISBN: 978-93-85465-56-7, Flamingo by the lake, Kuala Lumpur, 16 July 2015.
 20. Wong Shi Ting, Nik Ahmad Nizam Nik Malek, Auni Afiqah Kamaru, Mahmud A. S. Khalifa, Nor Suriani Sani. **Optimization Study on Adsorption of Methylene Blue on Sugarcane Bagasse using Two Level Full Factorial Design**. Proceedings of International Conference on Chemistry and Environmental Science Research 2014 (ICCESR 2014), Page 202-208, e-ISBN : 978-967-11647-5-4, Park Royal Penang Resort, Penang, 17-18 Sept 2014.
 21. Siti Shilatul Najwa Sharuddin, Jimmy Lye Wei Ping, Nurul Sakinah Othman, Safia Mokhtar, Norasikin Saman, Khairiraihanna Johari, Song Xiao Tian, Nik Ahmad Nizam Nik Malek, Hanapi Mat. **Natural Zeolite Characterization for Adsorptive Coagulation Flocculation (ACF) Removal of Ammonium in Drinking Water Treatment Process**. Proceedings of the 8th SEATUC Symposium, page [0S06] 37-42. 8th South East Asian Technical University Consortium (SEATUC) Symposium, M-Suites Hotel, Johor Bahru, Malaysia, 4-5 Mar 2014
 22. W Mohd Madhi W Abdullah, Niza Syafiqah Hamzah, Noor Hidayah Dzkulfi, Nik Ahmad Nizam Nik Malek, Wan Zahari Mohamed. **Effect of Clinoptilolite Supplementation on the Nutritive Value of Oil Palm Frond**. 2nd International Science Postgraduate Conference 2014 (ISPC 2014), Institute Ibnu Sina for Fundamental Science Studies, UTM, 10-12 Mar 2014. In Proceeding. Pg 1172-1179. ISBN: 978-967-0194-39-4.
 23. Niza Syafiqah Hamzah, Noor Hidayah Dzkulfi, W Mohd Madhi W Abdullah, Nik Ahmad Nizam Nik Malek, Salehuddin Hamdan. **Effect of Ammonium-Clinoptilolite on the Growth of *Amaranthus gangeticus***. 2nd International Science Postgraduate Conference 2014 (ISPC 2014), Institute Ibnu Sina for Fundamental Science Studies, UTM, 10-12 Mar 2014. In Proceeding. Pg 1211-1223. ISBN: 978-967-0194-39-4.
 24. Sharifah Binti Awang @ Saibun, Nurul Syakina Binti Malek, Nik Ahmad Nizam Nik Malek, Nor Suriani Sani, Halimaton Hamdan. **Encapsulation of *Andrographis paniculata* and *Melastoma malabathricum* on Silica Aerogel**. 2nd International Science Postgraduate Conference 2014 (ISPC 2014), Institute Ibnu Sina for Fundamental Science Studies, UTM, 10-12 Mar 2014. In Proceeding. Pg 1180-1190. ISBN: 978-967-0194-39-4.

25. Parisa Sanati, Nik Ahmad Nizam Nik Malek, Chua Lee Suan. **Effect of Silver Based Products on Simulated Body Fluid**. 2nd International Science Postgraduate Conference 2014 (ISPC 2014), Institute Ibnu Sina for Fundamental Science Studies, UTM, 10-12 Mar 2014. In Proceeding. Pg 1324-1341. ISBN: 978-967-0194-39-4.
26. Nur Isti'annah Ramli, Mashitah Mad Salim, Siti Aishah Mohd Hanim and Nik Ahmad Nizam Nik Malek. **Characterization of Cetylpyridinium Bromide (CPB) Loaded Kaolinite with FTIR Spectroscopy: Effect of CPB Loading**. The Fourth International Conference and Workshops on Basic and Applied Sciences (4th ICOWOBAS) and Regional Annual Fundamental Science Symposium 2013 (11th RAFSS), Le Grandeur Palm Resort, Senai, Johor, Malaysia, Sept 3rd - 5th, 2013. In Proceeding of 4th ICOWOBAS-RAFSS 2013, pg 40-44.
27. Nik Ahmad Nizam Nik Malek, Nurul Syakina Malek (2012). **Modification of synthetic zeolites by quaternary ammonium compounds and its antibacterial activity against *Bacillus subtilis***. APCBEE Procedia, 3:134-139.
28. Nik Ahmad Nizam Nik Malek, Alias Mohd Yusof, Noor Aini Abdul Rashid. **Adsorption of Acetylsalicylic Acid Drug on Surfactant-Synthetic Zeolites A and Y**. In Proceedings of Second International Conference and Workshops on Basic and Applied Sciences and Regional Annual Fundamental Science Seminar 2009 (ICORAFSS 2009), The ZON Regency Hotel, Johor Bahru, Johor, 2-4 June 2009. pg 40-44
29. Nur Hidayani Shaffe, Noor Aini Abd Rashid, Alias Mohd Yusof, Nik Ahmad Nizam Nik Malek. **Decolourisation of Amaranth Azo Dye by Bacterial Consortium Immobilized onto Zeolite NaX and Surfactant Modified Zeolite NaX**. In Proceedings of Second International Conference and Workshops on Basic and Applied Sciences and Regional Annual Fundamental Science Seminar 2009 (ICORAFSS 2009), The ZON Regency Hotel, Johor Bahru, Johor, 2-4 June 2009. pg 144-147.

CONFERENCES

1. Nur Kamilah Mohd Nordin, Nur Aini Aqilah Mohd Usri, Azman Abd Samad, Nik Ahmad nizam Nik Malek. **Effect of Plant Growth Regulators on the Shoot Biomass and Antioxidant Activity of *Persicaria odorata***. Bionanotechnology Research Seminar (BioNanoSem2020), T02 Building, Centre for Sustainable Nanomaterials (CSNano), UTM, 05 Oct 2020.
2. Siti Nabihan Ishak, Nik Ahmad Nizam Nik Malek, Mustaffa Shamsuddin, Juan matmin, Gopinathan Sankar. **The Synergistic Effect of Nanocomposite Zeolite/Silver/LDH for Dyes Removal and Bacterial Colonization Inhibition**. Bionanotechnology Research Seminar (BioNanoSem2020), T02 Building, Centre for Sustainable Nanomaterials (CSNano), UTM, 05 Oct 2020.
3. Muhammad Hariz Asraf, Nik Ahmad Nizam Nik Malek. **Antibacterial Assessment of in situ Synthesised Synthesised Bio-Inspired Silver Nanoparticles using *Orthosiphon aristatus* Leaf Extract Immobilised on Synthesized Zeolite A**. Bionanotechnology Research Seminar (BioNanoSem2020), T02 Building, Centre for Sustainable Nanomaterials (CSNano), UTM, 05 Oct 2020.
4. Faridah Aminullah, Khairunadwa Jemon, Nik Ahmad Nizam Nik Malek. **Green Synthesized Silver Nanoparticles: A Future Intervention to Minimize Antibiotics Resistance**. Bionanotechnology Research Seminar (BioNanoSem2020), T02 Building, Centre for Sustainable Nanomaterials (CSNano), UTM, 05 Oct 2020.

5. Atieya Abdul Hadi, Nik Ahmad Nizam Nik Malek, Mustaffa Shamsuddin, Juan Matmin, Syazwani Itri Amran, Mohammad Amin. **Comparative Study of Phyto-Synthesized Silver Nanoparticles from Malaysian Plant Leaf Extract.** The 3rd International Conference on Life Sciences and Technology (ICOLIST 2020), Virtual Conference, 29 Sep 2020.
6. Faridah Aminullah, Nik Ahmad Nizam Nik Malek, Khairunadwa Jemon. **Antibacterial Activity of Silver Nanoparticles Synthesized from *Persicaria Odorata* (L.) Sojak Leaves Extract.** The 3rd International Conference on Life Sciences and Technology (ICOLIST 2020), Virtual Conference, 29 Sep 2020.
7. Muhammad Hariz Asraf, Nik Ahmad Nizam Nik Malek. **Green in situ Immobilization of Biosynthesized Silver Nanoparticles using *Orthosiphon Aristatus* on Synthesized Zeolite from Kaolinite for Antibacterial Activity.** The 3rd International Conference on Life Sciences and Technology (ICOLIST 2020), Virtual Conference, 29 Sep 2020.
8. Hendra Susanto, Fariz Nizarghazi, Lita Neldya Putri, Ahmad Taufiq, Wira Eka Putra, Nik Ahmad Nizam Nik Malek. **Green Materials *Moringa Oleifera* Leaf Powder may Attenuate Liver Fibrosis Development.** The 3rd International Conference on Life Sciences and Technology (ICOLIST 2020), Virtual Conference, 29 Sep 2020.
9. Nik Ahmad Nizam Nik Malek, Khairunadwa Jemon, Muhammad Hariz Asraf, Nor Suriani Sani, Nur Syafiqah Darus. ***In Vitro* Cytotoxicity Study of Organo-Silver-Kaolinite against Normal Human Fibroblast Cells.** The 3rd International Conference on Life Sciences and Technology (ICOLIST 2020), Virtual Conference, 29 Sep 2020.
10. Sarah Syafiqah Jajuli, Nurliyana Ahmad Zawawi, Nik Ahmad Nizam Nik Malek. **Fruit Waste Mediated Synthesis of Silver Nanoparticles.** The 3rd International Conference on Life Sciences and Technology (ICOLIST 2020), Virtual Conference, 29 Sep 2020.
11. Sri Rahayu Lestari, Abdul Gofur, FauziatulFajaroh, Siti Imroatul Maslikah, Nik Ahmad Nizam Nik Malek, Yuslinda Annisa. **Self-Nanoemulsifying Drug Delivery System (SNEEDS) for Improved Bioavailability of Active Compound on Single Clove Garlic: Study of Antioxidant Capacity and Physical Stability.** The 3rd International Conference on Life Sciences and Technology (ICOLIST 2020), Virtual Conference, 29 Sep 2020.
12. Mahmoud A.S. Khalifa, Nik Ahmad Nizam Nik Malek, Ali Yektaye Farimani, Nor Suriani Sani, Auni Afiqah Kamaru. **Cetylpyridinium Bromide (CPB)-Treated Sugarcane Bagasse for the Removal of Chromate in Aqueous Solution.** The 3rd International Conference on Separation Technology (ICoST 2020), Virtual Conference., 15 Aug 2020.
13. Faridah Aminullah, Khairunadwa Jemon and Nik Ahmad Nizam Nik Malek. **Biosynthesis of Silver Nanoparticles using *Persicaria odorata* (L.) Sojak and Their Antibacterial Activity: A Preliminary Finding.** AFOB Malaysia Chapter International Symposium (AFOBMCIS) 2019, The Everly Hotel, Putrajaya, 20-23 Oct 2019.
14. Nazerah Ahmad, Nik Abdul Hadi Md Nordin, Juhana Jaafar, Nik Ahmad Nizam Nik Malek, Ahmad Fauzi Ismail, Mohd Khairul Naim Ramli. **Modification of Zeolitic Imidazolate Framework-8 with Ammonium Hydroxide for Improved Antibacterial Activity.** International Conference of Sustainable Environment Technology (ISET2019), Double Tree by Hilton Hotel, Johor Bahru, 20-22 August 2019.
15. Muhammad Hariz Asraf, Nik Ahmad Nizam Nik Malek. **Effect of Different HDTMA Loading on Silver Modified Kaolinite on Its Antibacterial Activity.** 2nd International Conference on Life Sciences and Technology (ICoLiST), Universitas Negeri Malang, Malang, Indonesia, 12th September 2019.

16. Mustaffa Shamsuddin, Ng Jia Ya, Atieya Abdul Hadi, Nik Ahmad Nizam Nik Malek. **Green Synthesis of Silver Nanoparticles using *Diplazium esculentum* Extract and its Catalytic, Sorption and Antibacterial Activities.** 2nd International Conference on Life Sciences and Technology (ICoLiST), Universitas Negeri Malang, Malang, Indonesia, 12th September 2019.
17. Tan Yong Chee, Abdull Rahim Mohd Yusoff, Nik Ahmad Nizam Nik Malek. **Fabrication of Electrospun Natural-Synthetic Polymers Blended Nanofibrous Mat with Antibacterial Activity for Potential Scaffold Application.** 2nd International Conference on Life Sciences and Technology (ICoLiST), Universitas Negeri Malang, Malang, Indonesia, 12th September 2019.
18. Siti Imroatul Maslikah, Sri Rahayu Lestari, Nursasi Handayani, Nik Ahmad Nizam Nik Malek, Khairunadwa Binti Jemon, Atikah Amalia, Solichatul Afifah. **Molecular Docking Study of Red Betel Active Compounds (*Piper Crocatum* Ruiz & Pav) and Tamoxifene Medications as Estrogen- α (ER- α) Receptors that Play a Role in Breast Cancer.** 2nd International Conference on Life Sciences and Technology (ICoLiST), Universitas Negeri Malang, Malang, Indonesia, 12th September 2019.
19. Siti Nabihan Ishak, Nik Ahmad Nizam Nik Malek. **Silver Loaded Hydrothermal Synthesized Zeolite from Kaolinite and its Performance in Bacterial Inhibition.** 2nd International Conference on Life Sciences and Technology (ICoLiST), Universitas Negeri Malang, Malang, Indonesia, 12th September 2019.
20. Faisal Hussin, Nur Ain Atiqah Mohd Amin, Tan Yong Chee, Nik Ahmad Nizam Nik Malek, Abdull Rahim Mohd Yusoff. **Fabrication and Characterization of Electrospun Polyvinylalcohol/Poly- ϵ -Caprolactone Nanofiber Coated Natural Antibacterial Agent for Potential Scaffold.** 2nd International Conference on Life Sciences and Technology (ICoLiST2019), Universitas Negeri Malang, Malang, Indonesia, 12th September 2019.
21. Atieya Abdul Hadi, Nik Ahmad Nizam Nik Malek, Muhammad Zulhilmi Amir Awaluddin, Siti Nabihan Ishak, Muhammad Hariz Asraf, Faisal Hussin. **Characterization and Antibacterial Activity of Synthesized Zeolite from Natural Kaolinite Loaded with Streptomycin.** 7th International Conference and Workshop on Basic and Applied Sciences (ICOWOBAS2019), KSL Resort, Johor Bahru, 16-17 Jul 2019.
22. Nik Ahmad Nizam Nik Malek, Nurul Atilea Amaleena Rosli, Siti Nabihan Ishak, Faisal Hussin, Muhammad Hariz Asraf, Muhammad Zulhilmi Amir Awaluddin, Atieya Abdul Hadi. **Silver-Loaded Synthesized Sodalite from Natural Kaolinite as Antibacterial Agent.** 7th International Conference and Workshop on Basic and Applied Sciences (ICOWOBAS2019), KSL Resort, Johor Bahru, 16-17 Jul 2019.
23. Farah Eizzaty Ahmad Tajuddin, Nik Ahmad Nizam Nik Malek, Muhammad Hariz Asraf, Nurriza Ab Latif, Khairunadwa Jemon, Muhammad Zulhilmi Amir Awaluddin, Faisal Hussin. **Antibacterial Activity of Chlorhexidine-Loaded Kaolinite against Oral-Type Bacteria.** 7th International Conference and Workshop on Basic and Applied Sciences (ICOWOBAS2019), KSL Resort, Johor Bahru, 16-17 Jul 2019.
24. Siti Nabihan Ishak, Nik Ahmad Nizam Nik Malek, Mustaffa Shamsuddin, Gopinathan Sankar. **Biosynthesis of Silver Nanoparticles from *Polygonum minus* as Antibacterial Agent.** 7th International Conference and Workshop on Basic and Applied Sciences (ICOWOBAS2019), KSL Resort, Johor Bahru, 16-17 Jul 2019.
25. Muhammad Zulhilmi Amir Awaluddin, Nik Ahmad Nizam Nik Malek and Syafiqah Saidin. **Streptomycin Loaded Hexadecyltrimethylammonium Bromide-Silver-Treated Kaolinite as**

- Antimicrobial Agent.** 7th International Conference and Workshop on Basic and Applied Sciences (ICOWOBAS2019), KSL Resort, Johor Bahru, 16-17 Jul 2019.
26. Tan Yong Chee, Abdull Rahim Mohd Yusoff, Nik Ahmad Nizam Nik Malek. **Characterisation of Poly(Vinyl-Alcohol)-Polycaprolactone Hybridized Scaffold Toward Potential Skin Tissue Regeneration.** National Congress on Membrane Technology (NATCOM) 2018, Pulau Springs Resort, Johor Bahru, 30-31 Oct 2018.
27. Nurul Hazreen Wanie Hazmo, Fadina Amran, Rosmawati Naim, Aizi Nor Mazila Ramli, Ahmad Fauzi Ismail, Woei Jye Lau, Nik Ahmad Nizam Nik Malek. **Composite Membrane with Antibacterial Properties for Wastewater Treatment.** National Congress on Membrane Technology (NATCOM) 2018, 30-Pulai Springs Resort, Johor Bahru, 30-31 Oct 2018.
28. Nur Diyana Suzaimi, Pei Sean Goh, Nik Ahmad Nizam Nik Malek, Ahmad Fauzi Ismail. **Branched Polyethyleneimine Functionalized Rice Husk Porous Silica for Adsorption of Phosphate from Aqueous Solution.** National Congress on Membrane Technology (NATCOM) 2018, Pulau Springs Resort, Johor Bahru, 30-31 Oct 2018.
29. Nazerah Ahmad, Nik Abdul Hadi Md Nordin, Ahmad Fauzi Ismail, Juhana Jaafar, Muhammad Nabil Fikri Yahya, Mohd Khairul Naim Ramli, Nik Ahmad Nizam Nik Malek, Siti Aishah Mohd Hanim. **Biofouling Control of Ultrafiltration Membrane Modified with Zeolitic Imidazole Framework 8 Decorated Graphene Oxide (ZIF-8/GO).** National Congress on Membrane Technology (NATCOM) 2018, Pulau Springs Resort, Johor Bahru, 30-31 Oct 2018.
30. Yanuardi Raharjo, Ahmad Fauzi Ismail, Mohd Hafiz Dzarfan Othman, Nik Ahmad Nizam Nik Malek. **Synthesis, Characterization and Adsorption Studies of Zeolite Y by using Molecularly Imprinted Technology for p-cresol Removal in Hemodialysis Application.** National Congress on Membrane Technology (NATCOM) 2018, Pulau Springs Resort, Johor Bahru, 30-31 Oct 2018.
31. Mustapha Salisu Muhammad, Nik Ahmad Nizam Nik Malek, Mohd Firdaus Abdul Wahab, Mohammad Abdul Razis Saidin, Muhammad Hariz Asraf. **Isolation of Bacteria from Drinking Water Vending Machines.** National Congress on Membrane Technology (NATCOM) 2018, Pulau Springs Resort, Johor Bahru, 30-31 Oct 2018.
32. Nik Ahmad Nizam Nik Malek, Mohd Hafiz Jusoh, Auni Afiqah Kamaru. **Removal of Herbicide Paraquat by Cetyltrimethyl Ammonium Bromide Modified Pineapple Leaves.** International Conference of Analytical Sciences (SKAM-31), Vistana Hotel, Kuantan, Pahang, 17-18th August 2018.
33. Mohamad Faiz Othman, Mohd Bakri Bakar, Nik Ahmad Nizam Nik Malek. **Synthesis, Photophysical and Antibacterial Study of Polymeric Photosensitizers.** UTM-Emerging Scientist Conference (UTM-ESCon) 2018, Pulau Spring Resort, Johor, 2-3 May 2018
34. Lim Chai Hui, Nik Ahmad Nizam Nik Malek, Muhammad Zulhilmi Amir Awaluddin, Muhammad Hariz Asraf, Siti Nabihan Ishak, Atieya Abdul Hadi. **Adsorption of Gentamicin on Organo-Kaolinite and its Antibacterial Activity.** UTM-Emerging Scientist Conference (UTM-ESCon) 2018, Pulau Spring Resort, Johor, 2-3 May 2018
35. Nik Ahmad Nizam Nik Malek, Nurul Ain Azid, Atieya Abdul Hadi, Siti Nabihan Ishak, Muhammad Hariz Asraf, Muhammad Zulhilmi Amir Awaluddin. **Antibacterial Activity of Copper Exchanged Zeolite Y Synthesized from Rice Husk Ash.** UTM-Emerging Scientist Conference (UTM-ESCon) 2018, Pulau Spring Resort, Johor, 2-3 May 2018

36. Muhammad Hariz Asraf, Nik Ahmad Nizam Nik Malek, Nor Suriani Sani, Khairunadwa Jemon, Siti Nabihan Ishak, Atieya Abdul Hadi, Muhammad Zulhilmi Amir Awaluddin. **Antibacterial, Cytotoxicity and Wound Healing Studies of Amine-Functionalized Zeolite Y.** UTM-Emerging Scientist Conference (UTM-ESCon) 2018, Pulau Spring Resort, Johor, 2-3 May 2018
37. Muhammad Syafiq Abd Aziz, Nik Ahmad Nizam Nik Malek, Siti Nabihan Ishak, Muhammad Hariz Asraf, Atieya Abdul Hadi and Muhammad Zulhilmi Amir Awaluddin. **Simultaneous Action of Surfactant Modified Clinoptilolite: Adsorbent of Dyes and Antibacterial Agent.** UTM-Emerging Scientist Conference (UTM-ESCon) 2018, Pulau Spring Resort, Johor, 2-3 May 2018
38. Nik Ahmad Nizam Nik Malek, Muhammad Hafizuddin Yusof, Auni Afiqah Kamaru. **Simultaneous Action of Surfactant Modified Sugarcane Bagasse: Adsorbent and Antibacterial Agent.** Regional Post-Graduate Conference on Environmentally Sustainable Technology 2017 (RCET2017), UTM, 16-17 Oct 2017
39. Nik Ahmad Nizam Nik Malek, Muhammad Syarafuddin Huzlan, Chun Shiong Chong, Nor Syafawani Sarah Md Saad. **Simultaneous Action of Surfactant Modified Kaolinite: Adsorbent for Dyes and Antibacterial Agent.** 8th Mineral Symposium 2017 (SIMPOMIN2017), Ipoh, Perak, 26th – 27th September 2017.
40. Aishveneetha Manogaran, Nik Ahmad Nizam Nik Malek, Khairunadwa Jemon, Hamizah Abd Samad, Rashita Abd Rashid. **Characterization and Antibacterial Activity of Silver Loaded Kaolin Akima A35.** 8th Mineral Symposium 2017 (SIMPOMIN2017), Ipoh, Perak, 26th – 27th September 2017. (Poster)
41. Nor Syafawani Sarah Md Saad, Nik Ahmad Nizam. **Hexadecyltrimethylammonium-Silver Kaolinite as Antibacterial Agent.** Seminar Perkongsian TACIT Knowledge (Seminar TACIT), Universiti Teknologi Malaysia, Johor 25-26 July 2017.
42. Mahsa Khoshkhooy Yazdi, Mohamad Faiz Othman, Nik Ahmad Nizam Nik Malek, Mohd Bakri Bakar. **Threefold Antimicrobial Treatment via Polymeric Silver Photosensitizers,** Applied Science Symposium, Faculty of Applied Sciences, UCSI University, 20-21 July 2017.
43. Tan Tian Swee, Nik Ahmad Nizam Nik Malek, Sameen Ahmed Malik, Leong Kah Meng, Tan Jia Hou, Tengku Iskandar, Nazrul Nizam Bin Ab Halim. **A Comparison of Standard LED and 385 nm UVA-LED for Inactivation of Pathogens.** Asia International Multidisciplinary Conference 2017 (AIMC2017), Universiti Teknologi Malaysia, Johor 1-2 May 2017.
44. Noor Asyraf Noor Azman, Nik Ahmad Nizam Nik Malek, Norfarah Syuhaidah Mohd Noor, Muhammad Arshad Javed, Niza Syafiqah Hamzah and Noor Hidayah Zulkifli. **Improving the Growth of *Centella asiatica* Using Surfactant Modified Natural Zeolite Loaded with NPK Nutrients.** International Conference on Agricultural Extension (AGREX'17), Universiti Putra Malaysia (UPM), Serdang, Selangor, 14-16 Feb 2017.
45. Norfarah Syuhaidah Mohd Noor, Nik Ahmad Nizam Nik Malek, Noor Asyraf Noor Azman, Muhamad Javed Arshad, Niza Syafiqah Hamzah, Noor Hidayah Dzkulfli. **Effects of Bag Slow Release Fertilizer Containing NPK-Organo-Zeolite on the Growth of *Morus alba*.** International Conference on Agricultural Extension (AGREX'17), Universiti Putra Malaysia (UPM), Serdang, Selangor, 14-16 Feb 2017.
46. Nik Ahmad Nizam Nik Malek, Wan Nur Azalisa and Clara Chong Yieh Lin. **Antibacterial Activity of Cetyltrimethylammonium Bromide Modified Silver-Bentonite.** 2016 3rd International Conference on Chemical and Biological Sciences (ICCBS2016), Amsterdam, Netherlands, 23-25 March 2016. MATEC Web of Conferences 60, 03005 (2016).

47. Hamizah Abd Samad, Aishvaneetha Manogaran, Nik Ahmad Nizam Nik Malek, Rashita Abd Rashid. **Study on the Potential Use of Silver Modified Malaysian Clay Minerals as Antibacterial Agents**. Regional Annual Fundamental Science Symposium (RAFSS2016), UTM KL, 19-20 May 2016.
48. Muhammad Arshad Javed, Nik Ahmad Nizam Nik Malek. **Climate Change, Agriculture and Rice Production**. 5th International/10th National Conference of Pakistan Phytopathological Society, Insitute of Agricultural Sciences, University of the Punjab Lahore, Pakistan, 23-25 November 2015.
49. Nik Ahmad Nizam Nik Malek, Nurain Mat Sihat, Mahmud A.S. Khalifa, Auni Afiqah Kamaru, Nor Suriani Sani. **Adsorption of Acid Orange 7 Cetylpyridinium Bromide Modified Sugarcane Bagasse**. PAWEES-INWEPF (Paddy and Water Environment Engineering Society-International Network for Water and Ecosystems in Paddy Field) Joint International Conference 2015, Kuala Lumpur, Malaysia, 19-21 August 2015.
50. Nik Ahmad Nizam Nik Malek, Lai Chong Pau, Niza Syafiqah Hamzah, Noor Hidayah Dzkulfi, Norlukmal Mat Ghani. **Use of Surfactant Modified Zeolite in Controlling the Nutrients Release from Bio-Compost (BIONIK) Fertilizer**. 5th International Conference on Environment 2015 (ICENV 2015), Penang, Malaysia, 18-19 August 2015.
51. Nik Ahmad Nizam Nik Malek, Cheng Min Min, Niza Syafiqah Hamzah, Noor Hidayah Dzkulfi. **Influence of Zeolite Exchanged Ammonium on the Growth of *Ipomoea aquatica***. 5th International Conference on Environment 2015 (ICENV 2015), Penang, Malaysia, 18-19 August 2015.
52. Nik Ahmad Nizam Nik Malek, Teo Wee Siang, Niza Syafiqah Hamzah, Noor Hidayah Dzkulfi. **Evaluation of NPK-Organo-Zeolite as Controlled Release Fertilizer for the Growth of *Clinacanthus nutans***. 5th International Conference on Environment 2015 (ICENV 2015), Penang, Malaysia, 18-19 August 2015.
53. Lai Chong Pau, Nik Ahmad Nizam Nik Malek. **Bio-Compost Added Organo-Zeolite as Controlled Release Fertilizer for *Brassica rapa* and *Ipomoea aquatica***. Biosciences and Medical Engineering Sudents Conference (BME15), FBME, T02 Building, UTM, Johor, 26-27 May 2015.
54. Loo Yan Jie, Nik Ahmad Nizam Nik Malek. **Effect of Surfactant-Modified Zeolite (SMZ) Added in Propagating Substrate for the Germination of some Vegetables**. Biosciences and Medical Engineering Sudents Conference (BME15), FBME, T02 Building, UTM, Johor, 26-27 May 2015.
55. Cheng Min Min, Nik Ahmad Nizam Nik Malek. **Influence of Ammonium-Exchanged Zeolite on the Growth of *Ipomoea aquatica***. Biosciences and Medical Engineering Sudents Conference (BME15), FBME, T02 Building, UTM, Johor, 26-27 May 2015.
56. Teo Wee Siang, Nik Ahmad Nizam Nik Malek. **NPK-Organo-Zeolite as Controlled Release Fertilizer for The Growth of *Clinacanthus nutans***. Biosciences and Medical Engineering Sudents Conference (BME15), FBME, T02 Building, UTM, Johor, 26-27 May 2015.
57. Nor Suriani Sani, Nik Ahmad Nizam Nik Malek, Mohammed Rafiq Abdul Kadir and Halimaton Hamdan. **Preliminary FTIR Study on the Development of Synthesis Methods for Hydroxyapatite Modified Silica Aerogel**. 6th International Conference on Material and Manufacturing Technology (ICMMT2015), American Society for Research, Bali, Indonesia, 9-11 May 2015.

58. Nor Syafawani Sarah Md Saad, Nik Ahmad Nizam Nik Malek, Chong Chun Shiong, Nur Isti'annah Ramli, Siti Aishah Mohd Hanim, Mashitah Mad Salim, Nur Hidayah Abdullah. **Antimicrobial Activity of Copper Kaolinite and Surfactant Modified Copper Kaolinite against Gram positive and Gram negative bacteria**. 3rd International Science Postgraduate Conference (ISPC 2015), Ibnu Sina Institute for Fundamental Science Study, UTM, 24-26 Feb 2015.
59. Auni Afiqah Kamaru, Nurul Soraya Ahmad Jani, Nik Ahmad Nizam Nik Malek, Nor Suriani Sani. **Adsorptive Removal of Methylene Blue and Acid Orange 7 by Hexadecyltrimethyl ammonium Bromide Modified Rice Husk**. 3rd International Science Postgraduate Conference (ISPC 2015), Ibnu Sina Institute for Fundamental Science Study, UTM, 24-26 Feb 2015.
60. Siti Aishah Mohd Hanim, Nik Ahmad Nizam Nik Malek, Zaharah Ibrahim, Mashitah Mad Salim, Nur Isti'annah Ramli, Nor Syafawani Sarah, Mohd Asyadi Azam. **Antibacterial Activity of Amine-Functionalized Zeolite NaY against *Staphylococcus aureus* ATCC6538 and *Escherichia coli* ATCC11229**. International Conference on Design and Concurrent Engineering (IDECON2014), Avillion Legacy Hotel, Melaka, 22-23 Sept 2014.
61. Nur Isti'annah Ramli, Nik Ahmad Nizam Nik Malek, Siti Aishah Mohd Hanim, Mashitah Mad Salim and N. S. Sarah Md Saad. **Bactericidal Effect of Kaolinite Modified with Cetylpyridinium Bromide and Silver Ions against *Staphylococcus aureus* (ATCC 6538)**. Regional Annual Fundamental Science Symposium 2014 (RAFSS 2014), Persada Johor, Malaysia, 9-10 Sept 2014.
62. Mashitah Mad Salim, Nik Ahmad Nizam Nik Malek, Siti Aishah Mohd Hanim, Nur Isti'annah Ramli and Nor Syafawani Sarah Md Saad. **Antibacterial Activity of Silver Exchanged Regenerated Zeolite from Surfactant Modified Zeolite**. Regional Annual Fundamental Science Symposium 2014 (RAFSS 2014), Persada Johor, Malaysia, 9-10 Sept 2014.
63. Nor Suriani Sani, Nik Ahmad Nizam Nik Malek, Mohammed Rafiq Abdul Kadir and Halimatun Hamdan. **Formation of Apatite on Silica Aerogel Synthesized from Rice Husk Ash after Immersion in Simulated Body Fluid**. Regional Annual Fundamental Science Symposium 2014 (RAFSS 2014), Persada Johor, Malaysia, 9-10 Sept 2014.
64. Nik Ahmad Nizam Nik Malek, Mahmud A. S. Khalifa, Auni Afiqah Kamaru, Nurul Soraya Ahmad Jani, Wong Shi Ting, Nurain Mat Sihat, Nur Arifah Azhari and Nor Suriani Sani. **Modification of Crop Wastes (Sugarcane Bagasse, Pineapple Leaves and Rice Husk) by Cationic Surfactant Enhance the Adsorption towards Anionic Compounds**. Regional Annual Fundamental Science Symposium 2014 (RAFSS 2014), Persada Johor, Malaysia, 9-10 Sept 2014.
65. Mahmud A.S. Khalifa, Nik Ahmad Nizam Nik Malek, Auni Afiqah Kamaru and Nor Suriani Sani. **Removal of Methyl Orange from Aqueous Solution by Surfactant Modified Sugarcane Bagasse**. BIO JOHOR 2014, Johor Biotechnology Conference and Exhibition, Persada Johor, Malaysia, 25-27 August 2014.
66. Niza Syafiqah Hamzah, Nik Ahmad Nizam Nik Malek, Noor Hidayah Dzkulfi, W Mohd Madhi W Abdullah, Salehuddin Hamdan. **Effect of NPK-Organo-Zeolite on the Growth of Okra (*Abelmoschus esculentus* L.)**. BIO JOHOR 2014, Johor Biotechnology Conference and Exhibition, Persada Johor, Malaysia, 25-27 August 2014.
67. W Mohd Madhi W Abdullah, Nik Ahmad Nizam Nik Malek, Wan Zahari Mohamed, Niza Syafiqah Hamzah and Noor Hidayah Dzkulfi. **Comparison the Effects of Clinoptilolite Supplementation**

- on the Nutritive Value of Rice Bran and Rice Husk.** BIO JOHOR 2014, Johor Biotechnology Conference and Exhibition, Persada Johor, Malaysia, 25-27 August 2014.
68. Noor Hidayah Dzkulfli, Nik Ahmad Nizam Nik Malek, Niza Syafiqah Hamzah, W Mohd Madhi W Abdullah and Salehuddin Hamdan. **Effects of NH₄-Clinoptilolite on Growth of *Clinacanthus nutans*.** BIO JOHOR 2014, Johor Biotechnology Conference and Exhibition, Persada Johor, Malaysia, 25-27 August 2014.
69. Nurain Mat Sihat, Nik Ahmad Nizam Nik Malek. **Adsorption of Acid Orange 7 by Cetylpyridinium Bromide (CPBr) Modified Sugarcane Bagasse.** Biosciences and Medical Engineering Students Conference (BME14), FBME, T02 Building, UTM, Johor, 14-15 May 2014.
70. Nur Arifah Azhari, Nik Ahmad Nizam Nik Malek. **Optimization of Adsorption of Chromate on Surfactant Modified Sugarcane Bagasse by Using Two-Level Factorial Design.** Biosciences and Medical Engineering Students Conference (BME14), FBME, T02 Building, UTM, Johor, 14-15 May 2014.
71. Wong Shi Ting, Nik Ahmad Nizam Nik Malek. **Biosorption Studies of Methylene Blue by Sugarcane Bagasse using Two Factorial Design and Response Surface Methodology.** Biosciences and Medical Engineering Students Conference (BME14), FBME, T02 Building, UTM, Johor, 14-15 May 2014.
72. Nurul Sakinah Othman, Azmi Fadziayan Mansor, Wan Nurul Izyani Wan Mohd Zawawi, Nor Atikah Mohidem, Nik Ahmad Nizam Nik Malek, Hanapi Mat. **The Catalytic Activity of Laccase Immobilize onto Free and Surfactant Modified Silica Aerogel.** 8th South East Asian Technical University Consortium (SEATUC) Symposium, M-Suites Hotel, Johor Bahru, Malaysia, 4-5 Mar 2014.
73. Noor Hidayah Dzkulfli, Niza Syafiqah Hamzah, W Mohd Madhi W Abdullah, Nik Ahmad Nizam Nik Malek, Salehuddin Hamdan. **Effect of Surfactant Modified Clinoptilolite added Propagating Substrate in the Growth of *Clinacanthus nutans*.** 2nd International Science Postgraduate Conference 2014 (ISPC 2014), Institute Ibnu Sina for Fundamental Science Studies, UTM, 10-12 Mar 2014.
74. Nur Isti'annah Ramli, Mashitah Mad Salim, Siti Aishah Mohd Hanim, Nor Syafawani Sarah Md Saad, Salehuddin Hamdan, Nik Ahmad Nizam Nik Malek. **Zeta Potential Analysis: Effect of CPB-Kaolinite to the Growth of Bacteria.** 2nd International Science Postgraduate Conference 2014 (ISPC 2014), Institute Ibnu Sina for Fundamental Science Studies, UTM, 10-12 Mar 2014
75. Nurul Syakina Binti Malek, Sharifah Binti Awang @ Saibun, Nik Ahmad Nizam Nik Malek, Nor Suriani Sani, Halimatun Hamdan. ***Centella asiatica* (Pegaga) Encapsulated Silica Aerogel: Preliminary Study of Encapsulation Process.** 2nd International Science Postgraduate Conference 2014 (ISPC 2014), Institute Ibnu Sina for Fundamental Science Studies, UTM, 10-12 Mar 2014.
76. Nik Ahmad Nizam Nik Malek, Craig D. Williams, Sivabalan Dhanabal, Hardave Singh Bhall, Norahim Ibrahim. **Natural Clinoptilolite and Chabazite as Carrier for Antibacterial Agents of Cetylpyridinium Chloride (CPC) and Silver.** 1st International Materials, Industrial, and Manufacturing Conference (MIMEC2013), Johor Bahru, Malaysia, 4-6 Dec 2013 (Published in Applied Mechanics and Materials).
77. Methodius Anak Nawog, Mohd Nazlan Mohd Muhid, Nik Ahmad Nizam Nik Malek, Halimatun Hamdan. **Eco-Friendly Synthesis of Nanozeolite NaA from Rice Husk Ash and Its Efficiency in Removing Ammonium Ions.** 2nd International Conference on Advanced Material Engineering

- & Technology (ICAMET 2013), Bandung, Indonesia, 28-29 Nov 2013 (Published in: Key Engineering Materials. 594-595: 168-172)
78. Wan Nurul Izyani Wan Mohd Zawawi, Azmi Fadziyana Mansor, Nurul Sakinah Othman, Nur Atikah Mohidem, Nik Ahmad Nizam Nik Malek, Hanapi Mat. **Synthesis and Characterization of Immobilized *Trametes versicolor* in Sol Gel Silica (TV Biocer) as High Performance Nanocomposite Biocatalysts**. The Fourth International Conference and Workshops on Basic and Applied Sciences (4th ICOWOBAS) and Regional Annual Fundamental Science Symposium 2013 (11th RAFSS), Le Grandeur Palm Resort, Senai, Johor, Malaysia, Sept 3rd - 5th, 2013
79. Mashitah Mad Salim, Nik Ahmad Nizam Nik Malek, Nur Isti'annah Ramli, Siti Aishah Mohd Hanim and Salehuddin Hamdan. **Antibacterial Activity of CTAB-Modified Zeolite NaY with Different CTAB Loading**. The Fourth International Conference and Workshops on Basic and Applied Sciences (4th ICOWOBAS) and Regional Annual Fundamental Science Symposium 2013 (11th RAFSS), Le Grandeur Palm Resort, Senai, Johor, Malaysia, Sept 3rd - 5th, 2013.
80. Nik Ahmad Nizam Nik Malek, Niza Syafiqah Hamzah, Noor Hidayah Dzkulffi, W Mohd Madhi W Abdullah, Salehuddin Hamdan and Mohamad Subhi Mohamad Musuri. **Effects of Natural Zeolite (Clinoptilolite) With Urea on Growth of *Amaranthus gangeticus*, *Clinachantus nutans* and *Capsicum annuum***. The Fourth International Conference and Workshops on Basic and Applied Sciences (4th ICOWOBAS) and Regional Annual Fundamental Science Symposium 2013 (11th RAFSS), Le Grandeur Palm Resort, Senai, Johor, Malaysia, Sept 3rd - 5th, 2013.
81. Nida Iqbal, Mohammed Rafiq Abdul Kadir, Nik Ahmad Nizam Nik Malek, Nasrul Humaimi Mahmood. **Effect of Metal Ions on the Antibacterial Properties of Hydroxyapatite: Synthesis and Characterization**. 3rd International Symposium on Biomedical Materials: Recent Advances and Challenges, COMSATS Institute of Information Technology, Lahore, Pakistan, 18-20 December 2012.
82. Nik Ahmad Nizam Nik Malek, Nurul Syakina Malek. **Antibacterial Activity of Zeolite AgX against *Bacillus subtilis* in Distilled Water and Saline Solution**. Regional Annual Fundamental Science Symposium (RAFSS2012), Persada Johor International Convention Centre, Malaysia, 10-13 December 2012
83. Nik Ahmad Nizam Nik Malek, Siti Amirah Ishak, Mohammed rafiq Abdul Kadir. **Antibacterial Activity of Copper and CTAB Modified Clays against *Pseudomonas aeruginosa***. International Conference on Advanced Material Engineering & Technology (ICAMET2012), Batu Feringghi, Penang, 28-30 November 2012.
84. Noor Azhana Ghazi, Nik Ahmad Nizam Nik Malek, Salehuddin Hamdan. **Cytostatic Activity of Clinoptilolite against Human Cervical Cancer Cell Lines using Three Different Media-Sterilization Techniques**. International Conference on Advanced Material Engineering & Technology (ICAMET2012), Batu Feringghi, Penang, 28-30 November 2012.
85. Nida Iqbal, Mohammed Rafiq Abdul Kadir, Nusrul Humaimi Bin Mahmood, Micheal Moses, Mashitah Binti Mad Salim, Nik Ahmad Nizam Nik Malek. **Effect of Silver Ions on the Structural and Antibacterial Properties of Bone Replacement Material**. International Conference on Advanced Material Engineering & Technology (ICAMET2012), Batu Feringghi, Penang, 28-30 November 2012.
86. Radhiahtul Raehan Mustafa, Aminuddin Ruskam and Nik Ahmad Nizam. **Detection of Porcine Based in Capsule by Using Scientific Method and Awareness of Consumer about the Halal**

- Authentication.** World Conference on Islamic Thoughts 2012 (WCIT 2012). Kinta Riverfront, Ipoh, Perak, 11-12 September 2012.
87. Nik Ahmad Nizam Nik Malek, Mashitah Mad Salim and Mohammed Rafiq Abdul Kadir. **Antibacterial Activity of Zeolite AgY against *Escherichia coli* with Different Ag Loading.** The 3rd International Biotechnology and Biodiversity Conference & Exhibition (BIOJOHOR 2012), Persada Johor, 9-8 June 2012.
88. Nik Ahmad Nizam Nik Malek, Nurul Syakina Malek. **Modification of Synthetic Zeolites by Quaternary Ammonium Compounds and Its Antibacterial Activity against *Bacillus Subtilis*.** 2nd International Conference on Chemistry and Chemical Process (ICCCP2012), Concorde Inn, KLIA Sepang, Malaysia, 6 May 2012.
89. Alias Mohd Yusof, Noramin Mohd Nor, Farida Katimin, Norfariha Hassan and Nik Ahmad Nizam Nik Malek. **Removal of Sb(III), Se(VI) and As(III) from Aqueous Solution by HDTMA-Zeolite A.** The 24th Regional Symposium Malaysia Analytical Sciences (SKAM-24), One Hotel Helang, Padang Matsirat, Langkawi, 21-23 Nov 2011.
90. Nik Ahmad Nizam Nik Malek, Mashitah Mad Salim, Nurul Syakina Malek. **Chabazite as Carrier for Antibacterial Agents of Silver Cations and Quaternary Ammonium Compound.** International Congress on the Malaysian Society for Microbiology 2011 (ICMSM2011), 8-11 Dec 2011, Bayview Beach Resort, Batu Feringghi, Penang.
91. Nik Ahmad Nizam Nik Malek, Micheal Moses, Radhiahtul Raehan Mustafa. **Effect of Quaternary Ammonium Compounds on the Bactericidal Activity of Inorganic Antibacterial Materials.** International Congress on the Malaysian Society for Microbiology 2011 (ICMSM2011), 8-11 Dec 2011, Bayview Beach Resort, Batu Feringghi, Penang.
92. Noor Azhana Ghazi, Khairina 'Izzati Amir Hussain, Nik Ahmad Nizam Nik Malek, Salehjudin Hamdan. **The Effects of Zeolite X and Y on Cancer Cell Lines.** International Seminar on the Application of Science & Mathematics (ISASM2011), 1-3 Nov 2011, Putra World Trade Centre (PWTC), Kuala Lumpur.
93. Nik Ahmad Nizam Nik Malek, Alias Mohd Yusof, Noor Aini Abd Rashid, Craig Denver Williams. **Surfactant Modified Synthetic Zeolite NaX as Simultaneous Antacid and Drug Release System for Acetylsalicylic Acid.** 1st Pharmaceutical Sciences Conferences and Exhibition (PSCE 2010). Vistana Hotel, Penang, 27-28 Sept. 2010.
94. Alias Mohd Yusof, Rabiatul Adawiyah Mohd Shah, Nik Ahmad Nizam Nik Malek, Nur Hidayani Shaffee, Noor Aini Abdul Rashid. **Adsorption of Orange II and Amaranth by Surfactant Modified Zeolite X: Effect of Surfactant Loading.** 10th Asian Conference on Analytical Sciences 2009 (ASIANALYSIS X). PWTC, Kuala Lumpur, 11th – 13th August 2009.
95. Alias Mohd Yusof, Nik Ahmad Nizam Nik Malek, and Rashidah Abdul Rashid. **Removal of As(V) and As(III) in Water by Aluminum-Loaded Zeolite P.** 10th Asian Conference on Analytical Sciences 2009 (ASIANALYSIS X). PWTC, Kuala Lumpur, 11th – 13th August 2009
96. Alias Mohd Yusof, Nik Ahmad Nizam Nik Malek and Siti Soleha Jonit. **Comparison of the Sorption Capacity of Organo-Zeolite Y towards As(V), Sb(V) and Cr(VI) from River Water, Groundwater and Tap Water.** 1st Conference on Water Chemistry and Health: Quality Water for Health (CWCH1). Putrajaya Marriot Hotel, 24-25 Nov 2009.
97. Alias Mohd Yusof, Nik Ahmad Nizam Nik Malek and Noor Aini Abdul Rashid. **Antibacterial Activity of QAC-Loaded Zeolite A against *Escherichia Coli*: Effect of QAC Loading.**

- International Congress of Malaysian Society for Microbiology (ICMSM 2009). Parkroyal Hotel, Penang, 1-4 Dec 2009.
98. Noor Aini Abdul Rashid, Alias Mohd Yusof and Nik Ahmad Nizam Nik Malek. **Antibacterial Activity of Silver-Zeolites A, X and Y against *Escherichia Coli* and *Staphylococcus Aureus***. International Congress of Malaysian Society for Microbiology (ICMSM 2009). Parkroyal Hotel, Penang, 1-4 Dec 2009.
99. Nik Ahmad Nizam Nik Malek, Nur Hidayani Mohd Shafee, Noor Aini Abdul Rashid and Alias Mohd Yusof. **Effect of Zeolite NaX on the Decolourization of Amaranth by Bacterial Consortium**. 17th Scientific Meeting of the Malaysian Society for Molecular Biology and Biotechnology, (17th MSMBB), Saujana Hotel, Kuala Lumpur, 23 – 25 June 2008.
100. Alias Mohd Yusof, Noor Aini Abdul Rashid, Nik Ahmad Nizam Nik Malek and Nur Hidayani Shaffe. **The Possible Application of Surfactant Modified Zeolite NaX as Antibacterial Agent**. 30th Symposium of Malaysian Society for Microbiology, Hyatt Regency Resort Kuantan, Pahang, 16th -19th Aug 2008.
101. Noor Aini Abdul Rashid, Alias Mohd. Yusof, Madihah Md. Salleh, Nik Ahmad Nizam Nik Malek, Muhammad Adil and Nur Hidayani Shaffe. **Interfacing Inorganic Chemistry with Biotechnology: Current Trends and Challenges**. 30th Symposium of Malaysian Society for Microbiology, Hyatt Regency Resort Kuantan, Pahang, 16th -19th Aug 2008.
102. A. M. Yusof, N. H. Idris, N. A. N. N. Malek and A. K. H. Wood. **The Use of Granulated Modified Zeolite Y for the Removal of Inorganic Arsenic and Selenium Species**. 9th International Conference on Nuclear Analytical Methods in the Life Sciences (NAMLS-9), Portugal, 7-12 Sept 2008
103. Nik Ahmad Nizam Nik Malek, Alias Mohd Yusof, Noor Aini Abdul Rashid. **Removal of Quaternary Ammonium Compounds (QAC) by Faujasite-Type Zeolites**. Simposium Kimia Analisis Ke-21 (SKAM-21), Universiti Malaysia Sabah (UMS), Kota Kinabalu, Sabah, 25 – 27 Nov 2008.
104. Alias Mohd Yusof, Nurul Asyikin Kamaruzaman, Nik Ahmad Nizam Nik Malek and Muhammad Adil. **Removal of Ca²⁺ and Zn²⁺ from Water by Zeolites NaP and KP**. Simposium Kimia Analisis Ke-21 (SKAM-21), Universiti Malaysia Sabah (UMS), Kota Kinabalu, Sabah, 25 – 27 Nov 2008.
105. Alias Mohd Yusof, Rozaina bt. Saleh, Muhammad Adil and Nik Ahmad Nizam Nik Malek. **The removal of Cd(II) from Aqueous Solutions using Steam Activated Sulphurised Carbon Prepared from Palm Shell: Kinetics and Equilibrium Studies**. Simposium Kimia Analisis Ke-21 (SKAM-21), Universiti Malaysia Sabah (UMS), Kota Kinabalu, Sabah, 25 – 27 Nov 2008.
106. Nik Ahmad Nizam, Alias Mohd Yusof and Noor Aini Abdul Rashid. **Conversion of Rice Husk Ash to Faujasite-Type and A-Type of Zeolites**. International Conference & Exhibition on Waste to Wealth (W2W) 2007, Putra World Trade Center, Kuala Lumpur, Malaysia. 26-28 Nov. 2007.
107. Nik Ahmad Nizam and Alias Mohd Yusof. **The Use of Surfactant Modified Zeolite Y as a Sorbent for Arsenic Species in Aqueous Solution**. Regional Postgraduate Conference on Engineering and Science (RPCES 2006). UTM, Skudai, Johor, 26-27 July 2006.
108. Nik Ahmad Nizam and Alias Mohd Yusof. **Removal of Cr(III) from Aqueous Solution by Zeolite NaY Prepared from Rice Husk Ash**. 19th Malaysian Analytical Chemistry Symposium 2006 (SKAM-19), Tanjung Kling, Melaka, 21-24 Aug 2006.

109. Nik Ahmad Nizam and Alias Mohd Yusof. **The Modification of Zeolite NaY by Cationic Surfactant for the Sorption of Inorganic Anions from Aqueous Solutions**. International Conference on Environment 2006 (ICENV2006), Penang, 13-15 Nov 2006.
110. Alias Mohd Yusof and Nik Ahmad Nizam Nik Malek. **Adsorption of Chromate Anion from Aqueous Solution by Surfactant Modified Zeolite Y**. 18th Malaysian Analytical Chemistry Symposium (SKAM-18), 2005, Johor Bahru, 12-14 Sept. 2005.
111. Nik Ahmad Nizam and Alias Mohd Yusof. **The Effect of Seeding and Ageing Techniques in the Synthesis of the Zeolite NaY from Rice Husk Ash**. Regional Conference on Solid State Science and Technology 2005 (RCSST'05), Kuantan, Pahang, 18-21 Dec 2005.

PUBLICATIONS/ARTICLES/TECHNICAL REPORTS (Unpublished):

1. Nik Ahmad Nizam Nik Malek (2020). **Technical End Report for Research University Grant Scheme (RUG Tier 1)**, Preparation and Characterization of Chlorhexidine Loaded Zinc-Kaolinite as Antimicrobial Agent. Vot No: 18H87.
2. Fazilah Abd Manan, Nik Ahmad Nizam Nik Malek, Chai Tsun Thai, Lim Choon Kiat (2019). **Project profile of Morphological and Photosynthetic Characteristics of Oil Palm (*Elaeis guineensis*) Applied with Different Levels of Chemical Fertiliser**. Vot No: 13H92.
3. Nik Ahmad Nizam Nik Malek (2019). **Technical End Report for Prototype Research Grant scheme-Innovation and Commercialization Centre (PRGS-ICC)**, Prototype Development of Bag Containing NPK-Organo-zeolite as Advanced Controlled Released Fertilizer. Vot No: 4J323.
4. Nik Ahmad Nizam Nik Malek (2019). **Technical End Report for Research University Grant (RUG Tier 1)**, Re-Generated NPK-Organo-Zeolite as Repeated Controlled Release Fertilizer for Mulberry Plant. Vot No. 13H53.
5. Nik Ahmad Nizam (2017). **Technical End Report for Fundamental Research Grant Scheme (FRGS)**, Synthesis and Characterization of Hydroxyapatite Encapsulated Silica Nanosphere as Novel Bioactive Materials, Vot No. 4F514.
6. Nik Ahmad Nizam Nik Malek (2016). **Technical End Report for Research University Grant (RUG Tier 1)**, Surfactant Modified Crop Waste as Biosorbent, Vot No. 08H01.
7. Nik Ahmad Nizam Nik Malek (2015). **Technical End Report for PRGS (Prototype Research Grant Scheme, MOHE)**, Prototype Development of DUAL-ANTIBAX (Organo-Metal-Clay as Antimicrobial Agent, Vot No: 4L619
8. Nik Ahmad Nizam Nik Malek (2015). **Technical End Report for Sciencefund Project, MOSTI**, Development of Organo-Zeolite as Advanced Controlled Release Fertilizer, Vot No, 4S038.
9. Yusnizam Samsudin, Nik Ahmad Nizam Nik Malek (2014). **Kesan Penggunaan Zeolit Berlainan Jenis dan Saiz ke atas Ammonia pada Ikan Akuarium (*Betta splendens*)**. (*The effects of Different Zeolite Types and Sizes on Ammonia in Aquarium Fish*) Final project for transition course for the post of laboratory assistant to scientific officer.
10. Nik Ahmad Nizam Nik Malek (2013). **Zeolit (Zeolite) – Bahagian 1 hingga Bahagian 6**.
<http://www.staff.blog.utm.my/niknizam/category/zeolit/>
11. Nik Ahmad Nizam Nik Malek (2013). **Pencegahan dan Rawatan Penyakit Moko Pisang**. Article for Provet Group of Companies Sdn Bhd.
<http://www.staff.blog.utm.my/niknizam/2013/09/28/pencegahan-dan-rawatan-penyakit-moko-pisang/>

12. Nik Ahmad Nizam Nik Malek (2012). **Laporan: Analisis Sampel Zeolit Menggunakan Kaedah Nanoteknologi**. Report to Provet Group of Companies Sdn Bhd.
13. Nik Ahmad Nizam Nik Malek (2012). **Laporan: Kajian Keberkesanan IMO-PLUS sebagai Baja terhadap Pokok Bayam Merah dan Pokok Herba Belalai Gajah**. Report to Provet Group of Companies Sdn Bhd.
14. Nik Ahmad Nizam Nik Malek (2011). **Surfactant Modified Zeolites as Drug Support System and Antibacterial Agent**. PhD (Chemistry), PhD Thesis, Universiti Teknologi Malaysia.
15. Nik Ahmad Nizam Nik Malek (2007). **Surfactant Modified Zeolite Y as Sorbent for Some Chromium and Arsenic Species in Water**. MSc (Chemistry), Master Thesis, Universiti Teknologi Malaysia.
16. Nik Ahmad Nizam Nik Malek (2004). **Preconcentration of Inorganic Arsenic and Antimony from Surface Water for Determination by Neutron Activation Analysis**. BSc (Industrial Chemistry), Final Year Undergraduate Thesis, Universiti Teknologi Malaysia.

PATENT FILED

1. Nik Ahmad Nizam Nik Malek, Muhammad Hariz Asraf Hassan, Mustapha Isah (2019). **Method for Obtaining Chlorhexidine Immobilized on Zinc Loaded Kaolinite and Composition Thereof**. PI2019005038.
2. Tan Tian Swee, Tan Jia Hou, Nik Ahmad Nizam Nik Malek, Sameen Ahmed Malik, Takahiro Emoto, Masatake Akutagawa (2018). **A Method and Apparatus for Disinfecting a Medical Device**. PI2018703788.
3. Nik Ahmad Nizam Nik Malek, Norfarah Syuhaidah Mohd Noor, Noor Asyraf Noor Azman (2018). **Re-Generated Surfactant Modified Zeolite Loaded with Ammonium Phosphate and Potassium and Method to Produce Thereof**. PI2018700119.
4. Nik Ahmad Nizam Nik Malek, Khairunadwa Jemon (2015). **Antimicrobial Wound Healing Agent**. PI 2015703164
5. Nik Ahmad Nizam Nik Malek, Noor Hidayah Dzkulfli, Niza Syafiqah Hamzah (2014). **NPK- Organo-Zeolite as Advanced Controlled Release Fertilizer**. PI 2014703213.
6. Nik Ahmad Nizam Nik Malek, Noor Hidayah Dzkulfli, Niza Syafiqah Hamzah (2014). **Controlled Release Propagating Substrate**. PI 2014702589.
7. Mohammed Rafiq Abdul Kadir, Nida Iqbal, Nik Ahmad Nizam Nik Malek, Nusrul Humaimi Bin Mahmood (2013). **A Method of Producing Nanosized Hydroxyapatite Particles**. PI 2013701549.
8. Alias Mohd Yusof, Noor Aini Abd Rashid, Nik Ahmad Nizam Nik Malek (2012). **Surfactant Modified Synthetic Zeolites as Drug Support System**. PI 2012004525.
9. Alias Mohd Yusof, Nik Ahmad Nizam Nik Malek, Mohammad Adil. (2009). **Heavy Metal Scavenger-Granular Acid Activated Carbon (AAC) for Drinking Water Filtering Apparatus**. PI 20091028.
10. Alias Mohd Yusof, Nik Ahmad Nizam Nik Malek, Mohammad Adil (2009). **Domestic Water Filter Using Customized Product of Zeolites and Activated Carbon as Filtering Media**. PI 20091029.

UTILITY INNOVATION

1. Nik Ahmad Nizam Nik Malek, Nur Isti'anah. (2017). **Antibacterial agent**. UI2013700023.
2. Mohammed Rafiq Abdul Kadir, Nida Iqbal, Nasrul Humaimi Mahmood, Nik Ahmad Nizam Nik Malek. (2013). **A Method of Producing Nanosized Hydroxyapatite Particles**. UI2013701549.

COPYRIGHTS

1. Copyright on "**Crystalline Carbon Nitride-Tungsten Oxide for Photocatalytic Oxidation of Phenol Under Visible Light Irradiation**" (2020). Ref No. IP/CR/2019/1240 (MyIPO: LY2020005467).
2. Copyright on "**Module for Cytocompatibility and Cell Migration Testing of Inorganic Materials**". (2020). Ref. No: IP/CR/00200 (MyIPO: LY2020005452).
3. Copyright on "**Chlorhexidine Modified Kaolinite as Antibacterial Agent for Oral Bacteria**". (2020). Ref. No: IP/CR/00476 (MyIPO: LY2020004319).
4. Copyright on "**Biosynthesis of Silver Nanoparticles Using Kesum (*Persicaria Odorata*) Leaf Extract**" (2020). Ref. No: IP/CR/00142 (MyIPO No: L Y2020004347)

5. Copyright on "**Aminoglycoside Antibiotic Immobilized on Silver Loaded Acid Treated-Kaolinite as Antibacterial Agent**" (2020). Ref. No.: IP/CR/2019/1267 (MyIPO: LY2020004334)
6. Copyright on "**Silver-Loaded Synthesized Zeolite from Natural Kaolinite as Antibacterial Agent**". (2019) Ref. No.: IP/CR/2019/0364 (MyIPO: LY2019007522).
7. Copyright on "**Streptomycin Loaded Zeolite Type-A as Antibacterial Agent**". (2019). Ref No: IP/CR/2019/0622 (MyIPO No: LY2019007749)
8. Copyright on "**Palm Oil Leaves Powder Modified with Surfactant as Adsorbent for Anionic Dye**". (2019). Ref. No: IP/CR/2019/0593 (MyIPO No: LY201905495).
9. Copyright on "**Surfactant Modified Pineapple Leave's Powder as Adsorbent for Chromate (Hexavalent Chromium)**". (2019). Ref. No: IP/CR/2019/0343 (MyIPO No: LY2019005500)
10. Copyright on "**Process of Preparation of Zeolite from Local Malaysian Kaolinite**". (2019). Ref. No: IP/CR/2019/0116 (MyIPO No: LY2019002443)
11. Copyright on "**Surfactant Modified Silver Zeolites as Antibacterial Agent**". (2019). Ref No: IP/CR/2019/0177 (MyIPO No: LY2019002419)
12. Copyright on "**Removal of Paraquat Herbicide by Cetyltrimethyl Ammonium Bromide Modified Pineapple Leaves Powder**". (2018). Ref No: IP/CR/2018/0506 (MyIPO No: LY2018006581)
13. Copyright on "**Module For Short Course Of Microbes World: Facts And Practical**" (2018). Ref. No: IP/CR/2017/0632 (MyIPO No: LY2018001377).
14. Copyright on "**Biosciences Symposium e-proceeding**" (2018). Ref. No: LY2018006346.
15. Copyright on "**Propagating Substrate Containing Surfactant Modified Clinoptilolite**" (2018). Ref No: IP/CR/2018/0058 (MyIPO No: LY2018002694).
16. Copyright on "**Sulfamethoxazole Attached Organo-Kaolinite as Antibacterial Agent**" (2018). Ref No: IP/CR/2017/1081 (MyIPO No: LY2018002019)
17. Copyright on "**Paint Incorporated Organo-Silver-Kaolinite as Anti-Biofouling Paint**" (2018). Ref No: IP/CR/2017/0624 (MyIPO No: LY2018001378).
18. Copyright on "**Simultaneous Action of HDTMA Hexadecyltrimethyl Ammonium Modified Sugarcane Bagasse as Adsorbent and Antibacterial Agent**" (2018). Ref No: IP/CR/2017/0614 (MyIPO No: LY2018001379).
19. Copyright on "**Kaolinite loaded with chlorhexidine acetate and silver cations as antibacterial agent**" (2017). Ref No: IP/CR/2017/0069 (MyIPO No: LY2017005947)
20. Copyright on "**Bag Slow Release Fertilizer Containing NPK-Organo-Zeolite**" (2017) Ref No: IP/CR/2017/0255 (MyIPO No: LY2017003128).
21. Copyright on "**Dual Functional Actions of Surfactant Modified Kaolinite as Adsorbent and Antibacterial Agent**" (2017) Ref No: IP/CR/2017/0151 (MyIPO No: LY2017003145).
22. Copyright on "**Hydroxyapatite Encapsulated Silica Aerogel as Bioactive Material**" (2016) Ref. No: IP/CR/2016/1155 (MyIPO No: LY2016003397).
23. Copyright on "**Process of making ammonium exchanged natural zeolite and its application as controlled release N-fertilizer**" (2016) Ref No: IP/CR/2016/0930 (MyIPO No: LY2016003386).
24. Copyright on "**Amine-Functionalized Silver-Exchanged Zeolite NaY as Antibacterial Agent**" (2016) Ref No: IP/CR/2016/0833 (MyIPO No: LY2017001316).
25. Copyright on "**Amine-Functionalized Zeolite NaY as Inorganic Antibacterial Agent**" (2016). Ref No: IP/CR/2016/0793 (MyIPO No: LY2016003370).

26. Copyright on “**Surfactant Modified Rice Husk as Adsorbent for Removal of Anionic and Cationic Dyes from Aqueous Solution**” (2016) Ref. No: IP/CR/2016/0347 (MyIPO No: LY2016003355).
27. Copyright on “**Synthesized Silica Aerogel from Rice Husk Ash as Bioactive Material**” (2016) Ref. No: IP/CR/2016/0208 (MyIPO No: LY2016003321).
28. Copyright on “**Surfactant Modified Sugarcane Bagasse as Adsorbent for Cationic and Anionic Dyes and Chromate Anions**” (2016) Ref No: IP/CR/2016/0086 (MyIPO No: LY2016003353).
29. Copyright on “**Surfactant Modified Pineapple Leaf as Adsorbent for Removal of Anionic and Cationic Dye from Aqueous Solution**” (2016) Ref. No: IP/CR/2016/0085. (MyIPO No: LY2016003377).
30. Copyright on “**Synthesized Nanozeolite NaY Nano-NaY from Rice Husk Ash RHA via Organic-free Template Method and Its Cytotoxicity against WRL-68**” (2016) Ref. No (UTM): IP/CR/2016/0075. (MyIPO No: LY2016003379).
31. **Lecture note for Introduction to Scientific Research.** In Open Courseware (OCW), Centre of Teaching and Learning (CTL), UTM. Filing date: 01-Aug-2013 (Ref No: IP/CP/2013/4190)
32. **Lecture note for Overview of Biological Research.** In Open Courseware (OCW), Centre of Teaching and Learning (CTL), UTM. Filing date: 01-Aug-2013 (Ref No: IP/CP/2013/4191)
33. **Lecture note for Literature Review.** In Open Courseware (OCW), Centre of Teaching and Learning (CTL), UTM. Filing date: 01-Aug-2013 (Ref No: IP/CP/2013/4192)
34. **Lecture note for Formulate Research Problem and Research Objectives.** In Open Courseware (OCW), Centre of Teaching and Learning (CTL), UTM. Filing date: 01-Aug-2013 (Ref No: IP/CP/2013/4193)
35. **Lecture note for Research Methodology Design.** In Open Courseware (OCW), Centre of Teaching and Learning (CTL), UTM. Filing date: 01-Aug-2013 (Ref No: IP/CP/2013/4194)
36. **Lecture note for Research Proposal.** In Open Courseware (OCW), Centre of Teaching and Learning (CTL), UTM. Filing date: 01-Aug-2013 (Ref. No: IP/CP/2013/4195)
37. **Lecture note for Scientific Articles.** In Open Courseware (OCW), Centre of Teaching and Learning (CTL), UTM. Filing date: 01-Aug-2013 (Ref No: IP/CP/2013/4196)
38. **Lecture note for Introduction to SQG 1603.** In Open Courseware (OCW), Centre of Teaching and Learning (CTL), UTM. Filing date: 31-Dec-2012
39. **Lecture note for Introduction to Organic Chemistry.** In Open Courseware (OCW), Centre of Teaching and Learning (CTL), UTM. Filing date: 31-Dec-2012 (Ref No: IP/CP/2012/3334)
40. **Lecture note for Alkanes.** In Open Courseware (OCW), Centre of Teaching and Learning (CTL), UTM. Filing date: 31-Dec-2012 (Ref No: IP/CP/2012/3335)
41. **Lecture note for Alkenes, Alkynes and Aromatic.** In Open Courseware (OCW), Centre of Teaching and Learning (CTL), UTM. Filing date: 31-Dec-2012 (Ref. No: IP/CP/2012/3336)
42. **Lecture note for Organic Compounds containing Oxygen.** In Open Courseware (OCW), Centre of Teaching and Learning (CTL), UTM. Filing date: 31-Dec-2012 (Ref No: IP/CP/2012/3337)
43. **Lecture note for Organic Compounds containing Nitrogen.** In Open Courseware (OCW), Centre of Teaching and Learning (CTL), UTM. Filing date: 31-Dec-2012 (Ref. No: IP/CP/2012/3338)
44. **Lecture note for Organic Compounds.** In Open Courseware (OCW), Centre of Teaching and

- Learning (CTL), UTM. Filing date: 31-Dec-2012 (Ref No: IP/CP/2012/3339)
45. **Lecture note for Basic Compounds in Biomolecules: Amino Acids in Protein.** In Open Courseware (OCW), Centre of Teaching and Learning (CTL), UTM. Filing date: 31-Dec-2012 (Ref. No: IP/CP/2012/3340)
46. **Lecture note for Basic Compounds in Biomolecules: Saccharides in Carbohydrate.** In Open Courseware (OCW), Centre of Teaching and Learning (CTL), UTM. Filing date: 31-Dec-2012 (Ref No: IP/CP/2012/3341)
47. **Lecture note for Basic Compounds in Biomolecules: Nucleic Acids.** In Open Courseware (OCW), Centre of Teaching and Learning (CTL), UTM. Filing date: 31-Dec-2012 (Ref. No: IP/CP/2012/3342)
48. **Lecture note for Basic Compounds in Biomolecules: Lipids.** In Open Courseware (OCW), Centre of Teaching and Learning (CTL), UTM. Filing date: 31-Dec-2012 (Ref No: IP/CP/2012/3343)

JOURNAL/CONFERENCE REVIEWER

1. **Jurnal Teknologi (E-ISSN: 2180-3722)**
2. **1st International Conference on Advanced Materials Engineering and Technology (ICAMET 2012)**
3. **Advanced Materials Research (ISSN: 1022-6680)**, Trans Tech Publications.
4. **Materials Letters (Elsevier, Impact factor: 2.307)**
5. **Journal of Asian Scientific Research (JASR)** from IMiEJS2013
6. **The 3rd International Malaysia-Ireland joint Symposium on Engineering, Science and Business 2013**
7. **2nd International Conference on Advanced Materials Engineering and Technology (ICAMET 2013)**
8. **Key Engineering Materials (ISSN: 1662-9795)**, Trans Tech Publications.
9. **International Conference on Chemistry and Environmental Sciences Research (ICCESR) 2014**
10. **2nd International Conference in Agricultural and Food Engineering (CAFEi2014)**
11. **Malaysian Journal Fundamental and Applied Sciences (MJFAS) ISSN: 1823-626X.**
12. **Desalination and Water Treatment**, Taylor & Francis (ISSN: 1944-3994).
13. **International Conference on Waste Management, Ecology and Biological Sciences (WMEBS-2015)**
14. **International Conference on Nanoscience, Nanoengineering and Applications (ICNNA2015)**
15. **Nanomedicine: Nanotechnology, Biology, and Medicine (Nanomedicine: NBM)**, Elsevier. (ISSN: 1549-9634)
16. **Applied Surface Science**, Elsevier. (ISSN: 0169-4332)
17. **Malaysian Research Conference and Innovation Exhibition (MRCIE) 2015.**
18. **Research on Chemical Intermediates**, Springer. (ISSN: 1568-5675)
19. **Microporous and Mesoporous Materials**, Elsevier. (ISSN: 1387-1811)
20. **The Natural Products Journal**, Bentham Science. (ISSN: 2210-3163)
21. **3rd Advanced Materials Conference 2016**
22. **Chemical and Engineering Technology**, Wiley-VCH Verlag GmbH & Co (ISSN: 1521-4125).
23. **ACS Applied Materials & Interfaces**, American Chemical Society (ACS) Publications (ISSN: 1944-8244)
24. **International Journal of Pharmaceutics**, Elsevier. (ISSN: 0378-5173)
25. **Environmental Technology**, Taylor & Francis (ISSN: 0959-3330)
26. **ACS Omega**, American Chemical Society (ACS) Publications (ISSN: 2470-1343)
27. **Journal of Oral Health and Dental Science**, Scholarena.
28. **Conference on Biomedical and Advanced Materials 2017 (Bio-CAM2017)**
29. **Particuology**, Elsevier (ISSN: 1674-2001).
30. **Applied Clay Science**, Elsevier (ISSN: 0169-1317)
31. **Journal of Hazardous Materials**, Elsevier (ISSN: 0304-3894)
32. **3rd 'International Science, Technology and Engineering Conference 2018 (ISTEC 2018)**
33. **Vacuum**, Elsevier (ISSN: 0042-207X)
34. **7th International Graduate Conference on Engineering, Science and Humanities**

(IGCESH2018)

35. **4th Advanced Materials Conference 2018 (AMC2018)**
36. **RSC Advances**, Royal Society of Chemistry (ISSN: 2046-2069)
37. **Water Environment Research**, John Wiley & Sons (ISSN:1554-7531)
38. **2nd International Conference on Life Sciences and Technology (ICoLiST2019)**
39. **Science Letter**, Faculty of Applied Science, UiTM (ISSN: 1675-7785)
40. **Inorganic Chemistry Communications**, Elsevier (ISSN: 1387-7003)
41. **Materials Today Communications**, Elsevier (ISSN: 2352-4928)

EXAMINER VIVA STUDENTS

1. Aida Rasyidah Azman. Novel Green Nanobio-Based Reagent for Rapid Visualization of Latent Fingerprints on Non-Porous Substrates Immersed in a Natural Outdoor Pond. PhD (Generic), Faculty of Science, Dec 2020.
2. Mohammed Jibrin Ndejiko. Bioflocculant Production using Hydrolysate Chicken Viscera by *Aspergillus flavus*. PhD ((Biosciences), Faculty of Science, Oct 2019.
3. Mohd Amir Asyraf Mohd Hamzah, Production of bacterial-based violacein nanoparticles using sonication technique, M.Phil. (Chemistry), Faculty of Science, Mar 2018.
4. Nurliyana Ahmad Zawawi, Functionalized Carbon Nanotubes for Delivery of Curcumin in Cancer Cells, PhD (Bioscience), 2 Feb 2017, FBME, UTM
5. Nadia Syahirah Safuan, Bioactive and Biocompatibility Evaluation of Hydroxyapatite-Coated and Un-Coated Porous Tantalum for Biomedical Application, M.Eng (Biomedical Eng), 2016.
6. Nur Najih Saarani, Biological Assessment of Guided Tissue Regeneration Membrane for Periodontal Application, M.Eng (Biomedical Engineering), Dec 2015.

INTERNAL EXAMINER FOR POSTGRADUATE ASSESSMENT

1. Hilzaiti Ahmad Shhari, MSc (Biotechnology – Mixed Mode), Mini Viva, Biological Responses in Oil Palm Post-Treatment with NK Fertilizer, 18 June 2017, FBME, UTM.
2. Mgeenka Luchenna Regina, PhD (Bioscience) First Year Assessment, Isolation and Characterisation of Cellulase and Xylanase-Producing Fungal Strains for the Bioremediation of Oil Palm Fronds Through Solid State Fermentation, May 2017, FBME, UTM.
3. Nor Syuhada Azmi, M.Eng (Biomedical Engineering) Mini Viva Evaluation, Preparation and Characterization of Halloysite Nanotubes Loaded Polyvinyl Alcohol Hydrogel for Potential Drug Delivery Applications, 26 Dec 2016, FBME, UTM.
4. Mohd Syahir Anwar Hamzah, M.Eng (Biomedical Engineering) Proposal presentation, Evaluation on Poly-lactic Acid/Pectin Scaffold Potential for Tissue Engineering, Dec 2016, FBME, UTM.
5. Emmanuel Onoja, PhD (Chemistry) First Assessment Presentation, entitled Fabrication of *Candida antarctica* lipase b oil palm fronds ash magnetite nanobioconjugates for nonaqueous catalysis, 8 Nov 2016, Faculty of Science, UTM.
6. Mohd Amir Asyraf Mohd Hamzah, MSc (Chemistry) First Assessment, Integrated bacterial natural pigment as an alternative agent in fabrication of nanofiber for antimicrobial wound dressing, 8 Nov 2016, Faculty of Science, UTM.
7. Fatin Myra Abd Manan, PhD conversion Assessment, *Rhizomucor miehei* Lipase Supported on Chitosan/Chitin Nano Whiskers Polymer Matrix for Aqueous Biocatalysis, 28 Aug 2016, Faculty of Science, UTM.
8. Foong Choi Yee, M.Eng (Biomedical Engineering) First Stage Evaluation, Preparation and Characterization of Saffron Loaded Electrospun Polyvinyl Alcohol for Potential Drug Delivery Applications, 9 June 2016, FBME, UTM.
9. Nor Syuhada Azmi, M.Eng (Biomedical Engineering) First Stage Evaluation, Preparation and Characterization of Halloysite Nanotubes Loaded Polyvinyl Alcohol Hydrogel for Potential Drug Delivery Applications, 9 June 2016, FBME, UTM.
10. Asrizuan Jauri, M.Eng (Biomedical Engineering) First Stage Evaluation, Preparation and Characterization of Electrospun Poly (Lactid Acid) Nanofibers coated with Carrageenan-

- Polyethylene Glycol, 9 June 2016, FBME, UTM.
11. Izzati Fatimah Wahab, M.Eng (Biomedical Engineering) First Stage Evaluation, Preparation and Characterization of Carrageenan / Halloysite Nanotube Nanocomposite Films for Potential Drug Delivery Applications, 9 June 2016, FBME, UTM.
 12. Ameera Syaheerah Abdul Aziz, MSc (Bioscience) Mini-Viva Presentation, Decolourization of AR-27 Dye with Simultaneous Electricity Generation in Microbial Fuel Cell, 19 Apr 2016, FBME, UTM.
 13. Fatin Myra Abd Manan, MSc (Chemistry) First Assessment Presentation, The biotechnological approach in synthesizing eugenol benzoate using immobilized rhizomucor miehei lipase, 19 Apr 2016, Faculty of Science, UTM.
 14. Nurul Faizah Abd Ghapar, MSc (Chemistry) First Assessment Presentation, Preparation of Chitosan and Chitisan with Modified Polymer for Controlled Release Fertilizer, 4 Apr 2016, Faculty of Science, UTM.
 15. Wan Nur Hazirah W. Kadir, MSc (Biotechnology – Mixed Mode) Mini Viva, entitled Antibacterial Activities of Polygonum Minus Extract, 6 Jan 2016, FBME, UTM.
 16. Abdul Hakim Md Yusop, PhD (Biomedical Engineering) Mini Viva Evaluation, Drug Eluting Porous Biodegradable Metal for Bone Cancer Scaffolds, 21 Dec 2015, FBME, UTM.
 17. Elham Khalili, PhD (Bioscience) Proposal defend, Investigation on Genetic Diversity of Soybean Charcoal Rot Pathogen (*Macrophomina phaseolina*) using ISSR and URP-PCR Markers in Mazandaran (Iran), 29 April 2015, FBME, UTM.
 18. Mohamad Amin Jumat, MSc (Bioscience) Proposal defend, Biofilm Development on Modified Biomaterial Surface, 28 April 2015, FBME, UTM.
 19. Alexander Ray Rayiappan, MSc (Bioscience) Proposal defend, Genotypic Responses of Different Heavy Metals on Variety of Capsicum Species, 28 April 2015, FBME, UTM.
 20. Siti Atiqah Zainul Alam, MSc (Bioscience) First Year Assessment, Association Mapping for Seed Germination Traits under Salinity Stress in Rice (*Oryza sativa* L.), 5 May 2015, FBME, UTM.
 21. Rosliana Rusli, MSc (Chemistry) First Assessment Research Proposal, Molecular Imprint Calcium Mesoporous for Electronic and Electric Waste Sensor and renewal, 8 April 2015, Faculty of Science, UTM.
 22. Abdulrahman Idris, MSc (Biotechnology – Mixed Mode) Dissertation, Hydrogen Production from Marine Photosynthetic Bacteria, 9 July 2014, FBME, UTM.
 23. Karzan Mohammed Khalid, (Biotechnology – Mixed Mode) Dissertation, Hydrogen Production by Photosynthetic Bacteria Isolated from Aquaculture Waste Water, 23 June 2014, FBME, UTM.
 24. Soheila Manshad, MSc (Biotechnology – Mixed Mode) Dissertation, Biosorption of Arsenite from Aqueous Solution from a Non-Living Biomass of *Pseudoalcaligenes*, 22 Jan 2014, FBME, UTM.
 25. Siti Nurul Fasehah Ismail, MSc (Biotechnology – Mixed Mode) Dissertation, Degradation of 2,2-Dichloropropionic Acid by using Cow Dung, 15 Jan 2014, FBME, UTM.
 26. Nadia Syahirah Safuan, M.Eng (Biomedical Engineering) Mini Viva, Bioactive and Biocompatibility Evaluation of Hydroxyapatite-Coated and Uncoated Porous Tantalum for Biomedical Applications, 27 Dec 2014, FBME, UTM.
 27. Zafirah Tapsir, M.Eng (Biomedical Engineering) proposal defend, Incorporation of Collagen Type I and Biomaterialised Nano-Hydroxyapatite on Polydopamine Grafted Metal, 26 Nov 2014, FBME, UTM.
 28. Zarith Nadira Zamal, M.Eng (Biomedical Engineering) proposal defend, Biomaterialisation of Nano-Hydroxyapatite on Polydopamine Grafted Metal using Magnetic Approach for Bone

- Integration, 26 Nov 2014, FBME, UTM.
29. Nurliyana Ahmad Zawawi, PhD (Bioscience) Mini Viva, Functionalized Carbon Nanotubes for Delivery of Curcumin in Cancer Cells, 5 Jan 2012, FBB, UTM.
 30. Hasima Mustafa Bamadhaj, MSc (Bioscience) First Year Presentation, Inhibition Mechanism of Surfactant Silver-Modified Zeolites against Human Fungal Skin Pathogen, 2 Jan 2012, FBB, UTM.
 31. Nur Eyuni Mohd Salleh, MSc (Biotechnology – Mixed Mode) Dissertation, COX-2 Inhibition and Antioxidant Activities of Safrole and Piper Species Pure Compounds, 19 Jan 2012, FBB, UTM.
 32. Nor Azlina Ahmad, MSc (Biotechnology – Mixed Mode) Dissertation, Antityrosine and Cytotoxicity Effects of Synthetic Compound 2-Hydroxy-3,4,3,4-tetramethoxychalcone.
 33. Masyitah Aalia Mohd Ramlan, MSc (Biotechnology – Mixed Mode) Dissertation, The Optimization of Azoreductase Activity Produced by *Brevibacillus panacihumi* using Reactive Black 5, 2 Feb 2012, FBB, UTM.

PRODUCT EXHIBITION AND AWARD:

1. Abdull Rahim Mohd Yusoff, Tan Yong Chee, Nik Ahmad Nizam Nik Malek, Khairunadwa Jemon, Nor Hasrul Akhmal Ngadiman. Product Title: **Fabrication of Electrospun Nanofibrous Scaffold with Natural Antibacterial Agent for Potential Skin Tissue Regeneration**. Asia International Innovation Exhibition (AIINEX2020), Virtual, 18-20 Sep 2020 (**Silver Medal**).
2. Nik Ahmad Nizam Nik Malek, Mohammed Rafiq Abdul Kadir, Khairunadwa Jemon, Halimaton Hamdan, Nor Suriani Sani, Muhammad Hariz Asraf Hassan. Product Title: **SOOTHE: Silica Incorporated Hydroxyapatite as Bioactive Material**. 21st Industrial Art and Technology Exhibition (INATEX) 2019, UTM, Johor, 30 Sep 2019 – 3 Oct 2019. (**Bronze Medal**)
3. Nik Ahmad Nizam Nik Malek, Khairunadwa Jemon, Mustapha Isah, Muhammad Zulhilmi Amir Awaluddin, Muhammad Hariz Asraf Hassan. Product Title: **Antimicrobial Compact Technology (ACT): Organo-Zinc-Kaolinite as Antimicrobial Agent**. 21st Industrial Art and Technology Exhibition (INATEX) 2019, UTM, Johor, 30 Sep 2019 – 3 Oct 2019.
4. Syafiqah Saidin, Nurizzati Mohd Daud, Mohd Izzat Hassan, Nik Ahmad Nizam Nik Malek. Product Title: **Antibacterial Chlorhexidine Coating**. International Conference and Exposition on Inventions by Institutions of Higher Learning (PECIPTA'19), UTHM, Johor, 22-23 Sep 2019 (**Silver Medal**).
5. Nurul Asyikin Kamaruzaman, Abdull Rahim Yusoff, Nik Ahmad Nizam Nik Malek, Marina Talib. Product Title: **PCL-SeNPs Nanofiber: Innovative Hybrid Polymer Nanofiber**. Malaysia Technology Expo (MTE) 2019, PWTC, Kuala-Lumpur. 21 – 23 Feb 2019 (**Bronze Medal**).
6. Wan Rosmiza Zana Wan Dagang, Haryati Jamaluddin, Nik Ahmad Nizam Nik Malek, Murni Noor Al Amin. Product Title: **Organo-Silver-Kaolinite (OSK) Antifouling Paint**. 20th Industrial Art & Technology Exhibition (INATEX) 2018, Dewan Sultan Iskandar, UTM. 29 – 31 Okt 2018. (**Bronze Medal**)
7. Syafiqah Saidin, Nik Ahmad Nizam Nik Malek, Nurizzati Mohd Daud. Product Title: **Antibacterial Chlorhexidine Coating**. 20th Industrial Art & Technology Exhibition (INATEX) 2018, Dewan Sultan Iskandar, UTM. 29 – 31 Okt 2018. (**Bronze Medal**)
8. Tan Tian Swee, Sameen Ahmed Malik, Nik Ahmad Nizam Nik Malek, Azli Yahya, Tan Jia Hou. Invention title: **UVLEDs Based Medical Device Disinfection System**. 1st Digitalised International Invention, Innovation and Design Competition (DIID JOHOR 2018), Dewan Jubli Intan, Johor Bahru, UiTM (Cawanagn Johor). 28 August 2018 (**Silver Medal**).
9. Nik Ahmad Nizam Nik Malek, Muhammad Hariz Asraf Hassan. Product Title: **Antibacterial, Cytotoxicity and Wound Healing Studies of Amine-Functionalized zeolite Y**. Research Exhibition & Competition, FBME International Innovation day 2018, UTM. 18 April 2018. (**Silver Medal**)
10. Nik Ahmad Nizam Nik Malek, Norfarah Syuhaidah Mohd Noor, Noor Asyraf Noor Azman, Rohaizat Baharun, Zuraidah Sulaiman. Product Title: **Re-Generated NPK Fertilizer as Recycled Repeated Controlled Released Fertilizer**. 19th Industrial Art & Technology Exhibition (INATEX) 2017, Dewan Sultan Iskandar, UTM. 21 – 23 Nov 2017. (**Bronze Medal**)
11. Nik Ahmad Nizam Nik Malek, Khairunadwa Jemon, Mohamad Shah Kassim, Mohamed Fuad Ahmad, Nur Isti'annah Ramli, Nor Syafawani Sarah Md Saad. Product Title: **DUAL-ANTIBAX Compact Powder: Antibacterial Wound Healing Agent**. 18th Industrial Art & Technology Exhibition (INATEX) 2016, Dewan Sultan Iskandar, UTM. 04 – 06 Okt 2016. (**Gold Medal**)
12. Nik Ahmad Nizam Nik Malek, Noor Asyraf Noor Azman, Niza Syafiqah Hamzah, Noor Hidayah Dzkulfli, Norfarah Syuhaidah Mohd Noor. Product Title: **NPK-Organo-Zeolite: Advanced Controlled Release Fertilizer**. 17th Industrial Art & Technology Exhibition (INATEX) 2015, Dewan

- Sultan Iskandar, UTM. 03 – 05 Nov 2015. **(Bronze Medal)**
13. Nik Ahmad Nizam Nik Malek, Noor Asyraf Noor Azman, Niza Syafiqah Hamzah, Noor Hidayah Dzkulfi, Norfarah Syuhaidah Mohd Noor. Product Title: **CRPS: Controlled Release Propagating Substrate**. 17th Industrial Art & Technology Exhibition (INATEX) 2015, Dewan Sultan Iskandar, UTM. 03 – 05 Nov 2015.
 14. Salasiah Endud, Nur Izzatie Hannah Razman, Hendrik Oktendy Lintang, Nik Ahmad Nizam Nik Malek, Izan Izwan Misnon. Product Title: **Corrosion Resistant Mesoporous Carbon-Based Nanocomposite Conductive Coating**. Invention & Innovation Award. Malaysia Technology Expo (MTE) 2014, Kuala Lumpur, 20-22 Feb 2014. **(Bronze Medal)**
 15. Salasiah Endud, Nik Ahmad Nizam, Hendrik O. Lintang, Nurul Hanisah Hamidon and Rosliana Rusli. Product Title: **Colloidal Dendrimer Based Nanosilver Antimicrobial Additives in Paint and Coatings**. 15th Industrial Art & Technology Exhibition (INATEX) 2013, Dewan Sultan Iskandar, UTM. 02 – 04 Oct 2013.
 16. Nik Ahmad Nizam and Nur Isti'annah. Product Title: **DUAL-ANTIBAX: Organo-Metal-Clay as Antibacterial Agents**. 24th International Invention, Innovation and Technology Exhibition (ITEX) 2013, Kuala Lumpur Convention Centre (KLCC). 9 – 11 May 2013 **(Gold Medal)**.
 17. Nik Ahmad Nizam and Nur Isti'annah. Product Title: **DUAL-ANTIBAX: Organo-Metal-Clay as Antibacterial Agents**. 14th Industrial Art & Technology Exhibition (INATEX) 2012, Dewan Sultan Iskandar, UTM. 03 – 05 Oct 2012 **(Bronze Medal)**.
 18. Alias Mohd Yusof, Noor Aini Abdul Rashid and Nik Ahmad Nizam. Product title: **ZEO-NIQUE, a Unique Zeolite for the Removal of Various Contaminants in Water and Wastewater**. International Technology Exhibition (ITEX 2011) Kuala Lumpur Convention Centre (KLCC), 20 May 2011 – 22 May 2011.
 19. Alias Mohd Yusof, Abdull Rahim Mohd Yusoff, Noor Aini Abdul Rashid, Shafinaz Shahir, Shakil Muhammad Arif, Nurul Asyikin Kamaruzaman and Nik Ahmad Nizam. Product title: **CHOL-E-SENSE a Cholesterol Biosensor Based on Cholesterol Oxidase Immobilized onto Functionalized Mesoporous Silica**. International Technology Exhibition (ITEX 2011) Kuala Lumpur Convention Centre (KLCC), 20 May 2011 – 22 May 2011. **(Silver Medal)**
 20. Alias Mohd Yusof, Noor Aini Abdul Rashid and Nik Ahmad Nizam. Product title: **ZEO-NIQUE, a Unique Zeolite for the Removal of Various Contaminants in Water and Wastewater**. Industrial Art and Technology Exhibition (INATEX 2010), Universiti Teknologi Malaysia, Skudai, Johor, Malaysia, 5 Aug 2010 – 7 Aug 2010. **(Bronze Medal)**
 21. Alias Mohd Yusof, Abdull Rahim Mohd Yusoff, Noor Aini Abdul Rashid, Shafinaz Shahir, Nurul Asyikin Kamaruzaman and Nik Ahmad Nizam. Product title: **HyperSiliSel: Glucose Oxidase-Functionalized-Selenium Nanoparticles-Mesoporous Silica as a Glucose Biosensor**. Industrial Art and Technology Exhibition (INATEX 2010), Universiti Teknologi Malaysia, Skudai, Johor, Malaysia, 5 Aug 2010 – 7 Aug 2010.
 22. Alias Mohd Yusof, Abdull Rahim Mohd Yusoff, Noor Aini Abdul Rashid, Shafinaz Shahir, Shakil Muhammad Arif, Nurul Asyikin Kamaruzaman and Nik Ahmad Nizam. Product title: **CHOL-E-SENSE a Cholesterol Biosensor Based On Cholesterol Oxidase Immobilized onto Functionalized Mesoporous Silica**. Industrial Art and Technology Exhibition (INATEX 2010), Universiti Teknologi Malaysia, Skudai, Johor, Malaysia, 5 Aug 2010 – 7 Aug 2010. **(Silver Medal)**
 23. Noor Aini Abdul Rashid, Alias Mohd Yusof, Nur Hidayani Shaffe and Nik Ahmad Nizam. Product title: **ZEBIOLITE, a Composite of Modified Support Material of Alumina-Silicate with**

- Immobilized Bacterial Consortium for Decolourization of Azo Dye Amaranth.** Industrial Art and Technology Exhibition (INATEX 2010), Universiti Teknologi Malaysia, Skudai, Johor, Malaysia, 5 Aug 2010 – 7 Aug 2010. **(Gold Medal)**.
24. Alias Mohd Yusof, Muhammad Adil and Nik Ahmad Nizam. Product title: **Domestic Water Filter using Customized Product of Zeolite and Activated Carbon as Filtering Media (ZeoAC-filter)**. 35th International Invention, New Techniques and Products, Palexpo, Geneva, Switzerland, 18-22 April 2007. **(Gold Medal)**
25. Alias Mohd Yusof, Muhammad Adil and Nik Ahmad Nizam. Product title: **Domestic Water Filter using Customized Product of Zeolite and Activated Carbon as Filtering Media (ZeoAC-filter)**. SMIDEX SME Networking: Local Link, Global. (SMIDEX 2007), Kuala Lumpur Convention Centre (KLCC), Kuala Lumpur, 5-8 June 2007. (Showcase)
26. Alias Mohd Yusof, Muhammad Adil and Nik Ahmad Nizam. Product title: **Domestic Water Filter using Customized Product of Zeolite and Activated Carbon as Filtering Media (ZeoAC-filter)**. Ekspo Penyelidikan dan Ciptaan IPT Antarabangsa (PECIPTA) 2007, Kuala Lumpur Convention Centre (KLCC),
27. Alias Mohd Yusof, Muhammad Adil and Nik Ahmad Nizam. Product title: **Domestic Water Filter using Customized Product of Zeolite and Activated Carbon as Filtering Media (ZeoAC-filter)**. Malaysia Technology Exhibition (MTE 2006), Putra World Trade Centre (PWTC), Kuala Lumpur, 29-31 Mar 2007. **(Bronze medal)**
28. Alias Mohd Yusof, Muhammad Adil and Nik Ahmad Nizam. Product title: **Domestic Water Filter using Customized Product of Zeolite and Activated Carbon as Filtering Media (ZeoAC-filter)**. Industrial Art and Technology Exhibition (INATEX 2006), Universiti Teknologi Malaysia, Skudai, Johor, Malaysia, 29 Aug 2006 – 5 Sept 2006.

OTHER APPOINTMENT AND RESPONSIBILITIES:

INTERNATIONAL LEVEL

1. **Conference Co-Chair for 6th International Online Conference on Science, Technology, and Interdisciplinary Research (IC-STAR2020)**. Organized by Universitas Lampung, Virtual Conference, 8 Dec 2020.
2. **Chairperson for 2nd Plenary Speaker of 6th International Online Conference on Science, Technology, and Interdisciplinary Research (IC-STAR2020)**. Organized by Universitas Lampung, Virtual Conference, 8 Dec 2020.
3. **Technical Committee for International Conference on Materials Science and Technology (ICMSET2020)**, Virtual, 9-12 Oct 2020.
4. **Advisory Board Member for 3rd International Conference on Life Sciences and Technology (ICOLIST2020)**, Organized by Department of Biology, Faculty of Mathematics and Natural Sciences, Universitas Negeri Malang, Indonesia (Virtual, 29 Sep 2020).
5. **Chief Judge in International Research Conference and Innovation Exhibition 2019 (IRCIE2019)**, Organized by Universiti Kuala Lumpur, Malaysian Institute of Industrial Technology (MITEC), Johor bahru (KSL Resort, Johor Bahru, 25-27 Nov 2019).
6. **Advisory Board Member for 2nd International Conference on Life Science and Technology (ICOLIST2019)**, Organized by Department of Biology, Faculty of Mathematics and Natural Sciences, Universitas Negeri Malang, Indonesia (Malang, Indonesia, 12-13 Sep 2019).
7. **Scientific Committee and Chairperson for Parallel Session for 7th International Conference and Workshop on Basic and Applied Sciences (ICOWOBAS 2019)**, Organized by Faculty of Science, UTM (KSL Resort Johor Bahru, 16-17 July 2019).
8. **Judge for 4th International Innovation Day**, Organized by School of Biomedical Engineering & Health Sciences, UTM (UTM, 9th Apr 2019).
9. **Reviewer for 7th International Graduate Conference on Engineering, Science and Humanity (IGCESH 2018)**, Organized by School of Graduate Studies, UTM. (UTM, 13-15 August 2018).
10. **Guest Lecture** (Title: Biochemistry and Advanced Bionanotechnology) at Fakultas Matematika & Ilmu Pengetahuan Alam (FMIPA), Universitas Negeri Malang, 5 Sep 2018.
11. **Technical Committee for 3rd International Sciences, Technology and Engineering Conference (ISTEC2018) – Material Chemistry**, Organized by Research, Industry, Community & Alumni Network (RICAN), Universiti Teknologi MARA, UiTM. (Hotel Royal, Georgetown, Penang, 17-18 Apr 2018).
12. **Organizing Committee Unit** (Head of Technical Unit; and Transportation/Logistic Unit) of the **ACS Global Innovation Imperatives (Gii) Forum**, organized by the ACS Malaysia International Chemical Science Chapter. UTM (V01 Building, UTM, 20-21 Nov 2017).
13. **Organizing Committee for International Medical Device and Technology Conference (IMEDITEC2017)**, Organized by Medical Device and Technology Group, Faculty of Biosciences and Medical Engineering, UTM (V01 Building, UTM, 6-7 Sep 2017).
14. **Technical Committee for International Conference on Biological and Medical Sciences (ICBMS 2017)**, Organized by Chemical, Biological & Environmental Engineering Society (CBEES) (Kitakyushu, Japan, 23-25 Aug 2017).
15. **Reviewer Committee for Advanced Materials Conference**, Organized by SIRIM (Langkawi, 28-29 Nov 2016).

16. **Organizing Committee Member** (Head of Gifts and Certificates Unit) of the **Asean Global Innovation Challenges (A-GIC) Competition**, organized by the ACS Malaysia International Chemical Science Chapter, 19 Nov 2016.
17. **Committee Member for International Conference on Biosciences and Medical Engineering (ICBME) 2016**, Faculty of Biosciences and Medical Engineering (FBME), UTM (ICBME2016, 10 Nov 2016, FBME, UTM)
18. **Chairperson for International Conference on Biosciences and Medical Engineering (ICBME) 2016**, Faculty of Biosciences and Medical Engineering (FBME), UTM (ICBME2016, 10 Nov 2016, FBME, UTM)
19. **Chairperson for Keynote Lectures 1 for Regional Annual Fundamental Science Symposium 2016 (RAFSS 2016)** by Centre of Sustainable Nanomaterials (CSNano), Ibnu Sina Institute for Scientific and Industrial Research (ISI-ISIR), UTM (RAFSS2016, 19-20 May 2016, UTMKL).
20. **Event Manager and Head of Logistic, Main Event and Transportation for I'M (Indonesia-Malaysia) Research Consortium Forum and Regional Annual Fundamental Science Symposium 2016 (RAFSS 2016)**, 18-20 May 2016, UTMKL by Director of Centre of Sustainable Nanomaterials (CSNano), Ibnu Sina Institute for Scientific and Industrial Research (ISI-ISIR), UTM. (Date of Appointment: 6 Jan 2016).
21. **Director of the South East Asian Global Innovation Challenges (SEAGIC) Competition**, 7 Nov 2015, UTM, by Malaysia International Chemical Science Chapter American Chemical Society (ACS). (Date of appointment: 06 Aug 2015).
22. **Reviewer Committee for International Conference on Waste Management, Ecology and Biological Sciences (WMEBS-2015)**, Emirates Association of Chemical, Biological & Environment Engineers (EACBEE), 13-14 April 2015, Kuala Lumpur, Malaysia
23. **Technical Committee for International Conference on Nanoscience, Nanoengineering and Applications (ICNNA2015)**, 24-25 April 2015, Penang, Malaysia by International Postgraduate Network (IPN). (Date of appointment: 20 Mac 2015).
24. **Director of the Global Innovation Challenges (GIC) Competition**, organized by the **ACS (American Chemical Society) Malaysia International Chemical Science Chapter**, (8 Nov 2014, UTM, Johor).
25. **Chairperson for Parallel Session 2 for Regional Annual Fundamental Science Symposium 2014 (RAFSS 2014)** by Institute Ibnu Sina for Fundamental Science Studies, UTM (RAFSS2014, 09-10 Sept 2014, Persada Johor). (Date of Appointment: 03 Sept 2014).
26. **Scientific Committee/Reviewer for 4th International Biotechnology & Biodiversity Conference & Exhibition (BIOJOHOR2014)** by Johor Biotechnology & Biodiversity Corporation (J-Biotech) (25 – 27 Aug 2014, Persada Johor). (date of Appointment: 7 Apr 2014).
27. **Moderator for Parallel Session A3 for SEATUC2014 (Sout East Asian Technical University Consortium) Symposium** (SEATUC2014, 10-12 Mar 2014). Date of Appointment: 20 Feb 2014)
28. **Technical Paper Reviewer for The 3rd International Malaysia-Ireland Joint Symposium on Engineering, Science and Business 2013 (IMiEJS2013)** by Technical Manager of IMiEJS2013 (11-13 June 2013, Aathlone Institute of Technology, Athlone Ireland). (Date of appointment: 27 Mar 2013)
29. **Technical Committee (Reviewer) and Advisory Member for International Conference on Advance Material Engineering & Technology (ICAMET 2013)**, by Universiti Malaysia Perlis (ICAMET2013, 28-29 Nov 2013, Bandung, Indonesia).(Date of Appointment: 17 Mar 2013).

30. **Chairperson for Parallel Session 3 for Regional Annual Fundamental Science Symposium 2012 (RAFSS 2012)** by Institute Ibnu Sina for Fundamental Science Studies, UTM (RAFSS2012, 11-12 Dec 2012, Persada Johor). (Date of Appointment: 20 Nov 2012).
31. **Technical Committee (Reviewer) for International Conference on Advance Material Engineering & Technology (ICAMET 2012)**, by Universiti Malaysia Perlis (ICAMET2012, 28-30 Nov 2012, Batu Feringghi, Penang).(Date of Appointment: 28 Feb 2012).
32. **Director for Hospitality, Logistic and On-Site Division Management, AsiaFlux Workshop 2011**, by Asiaflux Committee.(Asiaflux Workshop, 11 Nov 2011, UTM) (Date of appointment: 4 Nov 2011)

NATIONAL LEVEL

1. **Guest Editor** for Malaysian Journal of Analytical Sciences Vol 24 No 6 2020.
2. **Evaluator Panel for Research Proposal Scheme under Ministry of Education 2020**, Deputy Vice Chancellor (Research and Innovation), UTM
3. **Jury for Apprentice Innovation & Research Exhibition (8th AIREx 2020)**, Organized by Malaysian Institute of Marine Engineering Technology, Universiti Kuala Lumpur (MIMET UNIKL), 30 Sept 2020.
4. **Evaluator Panel for Fundamental Research Grant Scheme (FRGS)** (Session 2019-1) and **Prototype Research Grant Scheme (PRGS)** (Session 1/2019) proposals. Ministry of Education (MoE) Malaysia
5. **Regional Representative (Southern) and Director of Student Activity (Southern)** (June 2014-July 2016) ACS (**American Chemical Society**) Malaysia International Chemical Science Chapter.
6. **Committee Member (Southern Branch)**. Malaysia International Chemical Science Chapter of the American Chemical Society (**ACS Malaysia Chapter**). (2016 – DATE)
7. **Fellow, Johor Biotalent Development Centre** (2016 – DATE), Johor Biotalent Development Centre, Johor Biotechnology & Biodiversity Corporation

UNIVERSITY LEVEL

1. **Lecturer Advisor for Sustainable Entrepreneurial Mindset Showcase (SEMS) 4.0**. Organized by UTM Centre for Student Innovation and Technology Entrepreneurship (UTM XCITE), UTM, 12 Oct 2020 – 31 Dec 2020.
2. **Advisor for 1st Bionanotechnology Research Seminar (BioNaoSem2020)**. Organized by Centre for Sustainable Nanomaterials (CSNano) and Postgraduate Student Society Faculty of Science (PGSSFS), UTM, 5 oct 2020.
3. **Speaker for structured course PGSS “Life After PhD”**. School of Graduate Studies (SPS), 12 May 2020, UTM.
4. **Speaker for “Sharing Session – Securing KWEF Grant”**. Faculty of Science, UTM, 07 May 2020.
5. **Evaluator Panel for Proposal FRGS (Fundamental Research Grant Scheme) and PRGS (Prototype Research Grant Scheme) Grants**. RMC, UTM (2020).
6. **Evaluator Panel for Research Proposal** of UTM-Fundamental Research (UTM-FR) and UTM-

- Encouragement Research (UTM-ER), UTM (2019)
7. **Committee member of ENVISION 2025.** Task Force Envision 2025, UTM (Date of Appointment: 11 Mar 2019).
 8. **Member of Talent Pool.** UTM Academic Leadership (UTMLead). (Date of Appointment: 3 Mar 2019).
 9. **Speaker in Structured Course Faculty of Science “Knowing your PhD Journey”.** School of Post-Graduate Studies (SPS), 30 Oct 2018, UTM,
 10. **Speaker in Infrared Spectroscopy Workshop.** Organized by Centre for Sustainable Nanomaterials (CSNano), Ibnu Sina Institute for Scientific and Industrial Research (ISI-SIR), 17th – 18th Oct 2018, UTM.
 11. **Judge for Competition of UTM Maker Fair 2018,** UTM Centre for Student Innovation & Technology Entrepreneurship (UTMXCITE), 15 May 2018, UTM.
 12. **Speaker and Facilitator for an Intellectual Property Right (IPR) 2018 : Do and Don’t Workshop.** IJN-UTM Cardiovascular Engineering Centre, FBME, 24 Jan 2018, UTM.
 13. **Academic Advisor for UTM Student Exchange Program from Brunei and Myanmar,** 2017.
 14. **Deputy Director (Technical),** Program Johor Entrepreneurship and Innovation Day (JEnID) 2016, UTM Technology Entrepreneurship Centre (UTMTEC), 4-6 Oct 2016, UTM.
 15. **Evaluator Panel for International Technobiz & Ideas Innovation Challenge 2016 (I-TIIC 2016)** by Faculty of Computing, UTM, 25 May 2016 (Date of Appointment: 13 Apr 2016).
 16. **Member of Task Force Strategic Implementation of Innovation and Commercialization UTM 2015-2017** by Deputy Vice Chancellor (Research & Innovation), UTM (Date of Appointment: 14 Feb 2016).
 17. **Deputy Director for PSAN (Program Saintis Agenda Nobel)-UTM Summer School 2015** (15-30 August 2015) by Director of PSAN-UTM (Date of Appointment: 30 July 2015).
 18. **Panel Auditor for the Non-Professional Pre-Graduate Programs** UTM by Centre for Quality and Risk Management (UTM QRiM). (date of Appointment: 20 Apr 2015)
 19. **Judge for 8th Innovation Competition** organized by Centre for Student Innovation (UTM CSI). (Date of Appointment: 9th May 2015)
 20. **Panel examiner for technical evaluation of Research University Grants (GUP tier 1, Tier 3 and PAS)** by Dean of Research, Nanotechnology Research Alliance, UTM. (Date of appointment: 4 Dec 2014).
 21. **Secretary for Introduction Program for Young Excellent Scientist (UTM-YES), FBME, UTM** by Director of Program Scientist Nobel Agenda, UTM, 5-6 Feb 2014.
 22. **Member of Human Capital Development Division in Program of Nobel Scientist Agenda (Ahli Jawatankuasa Kerja Bahagian Pembangunan Modal Insan: Program Saintis Agenda Nobel)** by Dean of Research, Nanotechnology Research Alliance, UTM. (Date of Appointment: 08 Oct 2013).
 23. **Committee Member of Preparation of Biology Modul for Olympiad Camp of Nanomalaysia** by Director of Institute Ibnu Sina for Fundamental Science Studies, UTM, 26-30 Nov 2012 (Date of appointment: 09 Nov 2012).
 24. **Facilitator for a program One-Day Workshop on Hands-On e-Sciencefund Application,** organized by Nanotechnology Research Alliance (NRA), Universiti Teknologi Malaysia (28 Nov 2012).
 25. **Reviewer of Teaching Materials in Open Courseware (OCW)** by Centre for Teaching and

- Learning (CTL), UTM (28-30 Sept 2012).
26. **Director for Innovation Day with Bugstan** Program (15-17 May 2012), organized by Nanotechnology Research Alliance (NRA), Centre for Student Innovation (CSI UTM) and Postgrad Society for Biosciences Students, FBB.
 27. **Treasurer of Konvensyen Felo 2011** by Institusi Pembangunan Felo, UTM (Date of Appointment: 29 Mar 2011)
 28. **representative of Alumni UTM for Faculty of Biosciences and Bioengineering** by Deputy Vice Chancellor of Student Affairs (HEMA), UTM (Date of Appointment: 19 Sept 2011)
 29. **Deputy Director of Festival Innovation and Creativity UTM 2011** (UTMost Imagination 2011) (23 to 28 Mar 2011) by Innovation and Commercialization Centre (ICC), UTM (Date of Appointment: 22 Feb 2011)
 30. **Coordinator of Festival Inovasi dan Kreativiti UTM 2012 (UTMost Imagination 2012)** at faculty level by Deputy Vice Chancellor of Academic and Internalization, UTM (Date of Appointment: 13 Dec 2011)

FACULTY/CENTRE LEVEL

1. **Speaker for FREE (Future Ready Education) FS Week** entitled "Facebook Group as a Tool for Communication", Organized by Faculty of Science, UTM, 28th Sept 2020, Webex Online.
2. **Speaker for Research Methodology Course**, Organized by Centre for Sustainable Nanomaterials (CSNano), Ibnu Sina Institute for Scientific and Industrial Research,
3. **Supervisor for Students Industrial/Research Training** of Faculty of Science, UTM. Session 2019/2020.
4. **Facilitator for Workshop "Impactful Publication"**, FS Research Month 2020, Faculty of Science, UTM (23 Aug 2020).
5. **Facilitator for Engagement Session & Workshop for Research Group Leaders**, FS Research Month 2020, Faculty of Science, UTM (16 Aug 2020).
6. **Speaker for Intellectual Properties Workshop**, FS Research Month 2020, Faculty of Science. UTM (11 Aug 2020).
7. **Moderator Forum "Taking an Idea from the Lab to Commercialization"**, FS Research Month 2020, Faculty of Science, UTM (10 Aug 2020).
8. **Head of Committee for Section Intellectual Properties "FS Research Month 2020"**. Organized by Faculty of Science, UTM, August 2020.
9. **Speaker for "FYP to Edited Book" Workshop**. Organized by Statistical Modelling Research Group and Climate Change Research Group, Department of Mathematical Science, Faculty of Science, UTM, 6 Aug 2020.
10. **Speaker for "FS Sharing Session: Preparation of Proposal Edited Book"**. Faculty of Science, UTM, 12 Apr 2020.
11. **Member of Task Force for Managing Transfer of Facilities and Asset N31**. CSNano and Faculty of Science, UTM (20 Feb 2020).
12. **Speaker for Popular Science Seminar Series 24** (Sustainable Nanomaterials for Bionanotechnology), Faculty of Science, UTM (29 Oct 2019).
13. **Coordinator for Biosciences Website**. Deputy Dean (Academic and Student Affairs), Faculty of Science, UTM. (Date of Appointment: 07 Apr 2019).
14. **Committee Member of Strategic Management Faculty of Science**. Dean of Faculty of Science,

- UTM. (Date of Appointment: 26 Feb 2019).
15. **Member of Task Force Curriculum Review for Bioscience Undergraduate Programs** by Deputy Dean (Academic and Student Affairs), Faculty of Science, UTM (Date of Appointment: 11 Feb 2019).
 16. **Speaker and Committee Member for Faculty of Science (FS) Research Week 2019 for Innovation and Commercialization Workshop.** Faculty of Science, 24 Jan 2019, Ibnu Sina Institute.
 17. **Member of Task Force Flagship SUNSHINE and Mentor** by Dean of Faculty of Science, UTM (Date of Appointment: 01 Jan 2019).
 18. **Editorial Board for E-Proceeding Biosciences Symposium Final Year Undergraduate Project 2018.** Department of Biosciences, Faculty of Science, 14-15 May 2018, UTM. eISBN: e978-967-2171-51-5
 19. **Speaker for Program 7 Habits of Effective People.** Department of Biosciences, Faculty of Science, 17 Okt 2018, UTM.
 20. **Abstract Reviewer Panel for Postgraduate Thesis.** Department of Biosciences, Faculty of Science, 4 Sept 2018, UTM.
 21. **Member of Task Force Innovation Faculty of Science.** Dean of Faculty of Science, UTM. (Date of Appointment: 30 Jul 2018)
 22. **Secretary for Short Course on “Microbes World: Facts and Practical”**. Department of Biosciences, Faculty of Science, 29 July 2018, UTM.
 23. **Editorial Board Member** for 2017 Annual Report Faculty of Biosciences and Medical Engineering (ISSN 2590-3683).
 24. **Committee Member for “Hazard Analysis and Critical Control Points (HACCP)” course,** Faculty of Biosciences and Medical Engineering (FBME), UTM in collaboration with Johor Bio Talent Development Centre, on 20-21 Apr 2018.
 25. **Judge for Innovation Competition in FBME International Innovation Day 2018,** Faculty of Biosciences and Medical Engineering (FBME), UTM, Building V01, on 18 Apr 2018.
 26. **Speaker for Elective Course “Positive Thinking Positive Outcome”** by Deputy Dean, School of Graduate Studies, UTM, organized by Postgraduate Student Society of FBME, UTM on 17 Apr 2018 (Date of Appointment: 11 Apr 2018).
 27. **Speaker for ‘Sharing Session – Scoring LPPT”** by Dean of Faculty of Biosciences and Medical Engineering (FBME) on 11 Apr 2018.
 28. **Editorial Board Member** for E-Proceedings of the Symposium on Biosciences and Medical engineering of the post-graduate and undergraduate research 2017 (e-ISBN: 978-967-2171-01-00)
 29. **Internal Auditor for Occupational Safety, Health and Environmental (OSHE)** for laboratory category by Deputy Dean (Research, Innovation, Community and Network), FBME on 28 Nov 2017. (Date of Appointment: 8 Nov 2017).
 30. **Speaker for Structured Course “Graduate on Time (GOT) Motivation”** by Deputy Dean, School of Graduate Studies, UTM, organized by Postgraduate Student Society of FBME, UTM on 02 Nov 2017 (Date of Appointment: 19 Oct 2017).
 31. **Speaker for Structured Course “How to Published High Impact Journal”** by Deputy Dean, School of Graduate Studies, UTM, organized by Postgraduate Student Society of FBME, UTM on 10 Oct 2017 (Date of Appointment: 01 Oct 2017).
 32. **Committee Member of Program “Green day” 2017** by Faculty of Biosciences and Medical

- Engineering, UTM. (14 Sept 2017, FBME, UTM)
33. **Committee Member and Interviewer for How to Write a Good Resume (HTWAGR2017) & How to Get Yourself Employed (HTGYE2017) programs** by Faculty of Biosciences and Medical Engineering, UTM. (27 Apr 2017, FBME, UTM)
 34. **Facilitator/speaker for Tutorial: How to File a Copyright** by Academic Manager (Research), FBME, UTM. (2 Mar 2017).
 35. **Speaker for Program Writing of Research Proposal, Structured Course** by Deputy Dean, School of Graduate Studies, UTM, organized by Postgraduate Student Society of FBME, UTM on 27 Sept 2016 (Date of Appointment: 14 Sep 2016).
 36. **Facilitator for HBS Case Study**, FBME. (24 May 2016).
 37. **Committee Member and Interview Panel for “How to Get Yourself Employed (HTGYE)” FBME2016 Program** by Dean, FBME (Date of Appointment: 17 April 2016)
 38. **Director for FBME Innovation day 2016** (15 March 2016, V01, FBME) by Dean, FBME, UTM (Date of Appointment: 29 Feb 2016).
 39. **Panel UTMLEAD (UTM-Academic Leadership)** FBME by Dean, FBME (date of Appointment: 30 Nov 2015)
 40. **Evaluator for Poster and Presentation in Biosciences and Medical Engineering Students Conference (BME14), FBME** by Deputy Dean (Academic), FBME, UTM, 14-15 May 2014 (Date of Appointment: 26 May 2014).
 41. **Interview Panel** for Mock interview in “**How to Get Yourself Employed (HTGYE)” HTGYE2014** Program by Dean, FBME (date of Appointment: 19 May 2014)
 42. **Facilitator for Research Methodology Class for Postgraduate Students (UQP0010 & UWP0010)** by Deputy Dean (Academic), FBME, UTM, 11 Nov 2013. (Date of Appointment: 29 Oct 2013).
 43. **Assistant Director of UTMost Imagination 2013** (Innovation and Creativity Carnival 2013) by Deputy Dean of Academic FBME, Faculty level, 17 – 19 Oct. 2013, UTM. (Date of Appointment: 30 July 2013)
 44. **Academic Expert Panel Members under the Cluster of “Microbiology & Biochemistry“ and “General Biosciences“** by Deputy Dean (Academic) Faculty of Biosciences & Bioengineering, FBB, UTM (Date of Appointment: 27 Sept 2012).
 45. **MQA02 Task Force Member for Bachelor Science (Industrial Biology), Faculty of Biosciences and Bioengineering** by Head of Biotechnology Industry Department, FBB, UTM (Date of Appointment: 18 Sept 2012).
 46. **Committee Member in Open-Day** UTM (06 Aug 2012), FBB by Deputy Dean (Academic) Faculty of Biosciences & Bioengineering, FBB, UTM (Date of Appointment: 03 Aug 2012).
 47. **Advisor for Research Methodology Seminar I (10 Mar 2012) and II (28 April 2012) for FBB undergraduate students**, Organized by Society for Biosciences Students (symBIOSiS), FBB, UTM.
 48. **Director for Faculty Dinner FBB (Malam PraGraduasi FBB 2012)**, 30 May 2012 by Dean of Faculty of Biosciences and Bioengineering, FBB, UTM (Date of Appointment: 9 May 2012).
 49. **Director for “Professional Qualification Development Program“, Faculty Level** by Deputy Dean (Development and Graduate Studies), FBB (Date of Appointment: 19 April 2012).
 50. **Speaker for “Skills in Writing Thesis” for Final Year Undergraduate Projects (FYUP)**, Faculty of Biosciences and Bioengineering, 21 March 2012, C08 408/409 (Date of Appointment:

- 15 March 2012).
51. **Director for Festival Inovasi dan Kreativiti 2012 (UTMost Imagination 2012)** for Faculty Level by Dean of FBB (Date of Appointment: 9 March 2012).
 52. **Accompanied Lecturer for UTM Global Outreach Program (GOP) to Beijing, China 2012** (10 – 18 Feb 2012) for FBB students by Dean of FBB, UTM (Date of Appointment: 29 Dec 2011)
 53. **Facilitator/Mock Interviewer Program How to Get Yourself Employed (HTGYE)** FBB, 10-11 Dec 2011 by Dean of FBB, UTM (Date of appointment: 30 Nov 2011)
 54. **Member of Profesional Qualification Development Program (PQDP)**, Faculty Biosciences and Bioengineering, UTM by dean of FBB, UTM (Date of appointment: 4 Okt 2011)
 55. **Speaker for Report Writing and Research Methodology** for Final Year Undergraduate Program (FYUP), FBB (21 Sept 2011) by Deputy Dean (Academic), FBB, UTM (Date of Appointment: 20 Sept 2011)
 56. **Member of Undergraduate Research Opportunity Programme (UROP)** for 2011/2012 Session, Faculty of Biosciences and Bioengineering, UTM by Deputy Dean of FBB, UTM (Date of Appointment: 10 August 2011).
 57. **Advisor for Program First Year Experience (FYE)**, Faculty of Biosciences and Bioengineering, UTM by Dean of FBB, UTM (Date of Appointment: 14 July 2011).
 58. **Speaker for “Program Membudayakan Ilmu FBB“** by Head of Department of Graduate Studies, FBB, UTM (Date of Appointment: 13 May 2011).
 59. **Accompanied Lecturer for “Program Malam Pra Graduasi FBB“** by FBB (Date of Appointment: 07 Apr 2011).
 60. **Advisor for “Program Malam Pra Graduasi FBB“** (07 April 2011) by FBB (Date of Appointment: 07 Apr 2011)
 61. **Accompanied Lecturer for Global Outreach Program (GOP) to New Zealand** for FBB students by Vice Cancellor of UTM (Date of Appointment: 06 Apr 2011)
 62. **Facilitator Kursus Protokol dan Etiket Sosial** for Final Year Students 2011 by Pejabat Hal Ehwal Mahasiswa, UTM (Date of Appointment: 01 Apr 2011).
 63. **Committee Member of Perolehan FBB** by Dean of FBB (Date of Appointment: 01 Apr 2011)
 64. **Coordinator Program SPACE Department of Biotechnology Industry**, by Department of Biotechnology Industry, FBB (Date of Appointment: 24 Feb 2011).
 65. **Committee Member of Marketing in Department of Biotechnology Industry** (24 Feb 2011), by Department of Biotechnology Industry, FBB, UTM (Date of Appointment: 24 Feb 2011)
 66. **Accompanied Lecturer to Contract lecturer** by Department of Biotechnology Industry, FBB, UTM (Date of Appointment: 22 Feb 2011)
 67. Appointed as a **Coordinator for Bioorganic Chemistry Subject** for undergraduate course in FBB by Department of Biotechnology Industry, FBB (Date of Appointment: 13 July 2010)
 68. **Accompanied Lecturer for Visiting Professor from University of Wolverhampton, UK (Prof Craig Williams)** by FBB (Date of Appointment: 5 Feb 2009)

TRAINING/COURSE ATTENDED :

1. **Course “Change Thesis to research Book”** (Bengkel Pemindahan Tesis Kepada Buku), Organized by Penerbit UTM Press, 6-7 Oct 2020, Le Grandeur Palm Resort, Senai Johor.
2. **Intellectual Property Awareness & Patent Search Course (ICS11)**, Organized by Innovation and Commercialisation Centre (ICC), 4 May 2020.
3. **Successful Innovation Through Effective Business Strategy - BMC (ICS12)**, Organized by Innovation and Commercialisation Centre (ICC), 29 April 2020.
4. **Kursus ALR101 : The Academic Leaders - Roles, Responsibilities and Expectation**, Organized by UTMLead, 14 Aug 2019, UTM.
5. **Teaching Excellence System (TES) Course**, Organized by UTM Academic Leadership (UTM Lead), 23 Jul 2019.
6. **Mini Commercialization Workshop**. Organized by Malaysian Technology Development Corporation (MTDC), 2 Apr 2019.
7. **A 2 Day Workshop on Empathy: Understanding the Audience**. Organized by UTMLead, 14-15 Mar 2018, UTM
8. **Business Plan Development Course & Pitching Training**. Organized by Innovation and Commercialization Centre (ICC), UTM, 21 Feb 2018, UTM.
9. **Course on Interpersonal Communication**. Given by Prof Dr Masputeriah, Head of UTM Corporate Unit, Organized by UTMLead, 30 Nov 2017, UTM.
10. **Modul ALC103 – Transformational and Turnaround Leadership for Universities**. Given by Prof Dr Mohd Azraai Kassim, Organized by UTMLead, 31 July 2017, UTM.
11. **Modul ALR101 – The Academic Leaders - Roles, Responsibilities and Expectations**, Given by VC UTM, Organized by UTMLead, 11 June 2017, UTM.
12. **Advanced E-Learning@UTM**, Organized by Centre for Teaching and Learning (CTL), UTM. UTM-Academic Leadership (UTMLead). 07 Sep 2016, UTM.
13. **Supervisor Development Program (AS 102)**, Organized by Faculty of Mechanical, FBME and UTM Academic Leadership (UTMLead). 10 Apr 2016, UTM.
14. **Workshop on Effective Meeting**. Organized by UTM-Academic Leadership (UTMLead). 29 Feb 2016, UTM.
15. **Workshop on Turnaround Leadership**. Organized by Administration Committee FBME, UTM (Series 1: 27/09/2015, Series 2: 27/10/2015; Series 3: 29/11/2015).
16. **Course on Effective Communication Using Social Network**. Organized by Centre for Teaching and Learning (CTL), UTM-Academic Leadership (UTMLead). 27 May 2015, UTM.
17. **Course on Interactive Online and Media Sharing**. Organized by Centre for Teaching and Learning (CTL), UTM-Academic Leadership (UTMLead). 30 Apr 2015, UTM.
18. **Advanced E-Learning@UTM**. Organized by UTM-Academic Leadership (UTMLead). 21 Apr 2015, UTM.
19. **OBE (Outcome Based Education) – Constructive Alignment Concept and Implementation**. Organized by UTM-Academic Leadership (UTMLead). 19 Apr 2015, UTM.
20. **Nurturing Top Research Talent Course**. Organized by Deputy Vice Chancellor (Research & Innovation) Office, UTM. 28-29 Dec 2014, UTM.
21. **Kursus Auditor Akademik Dalaman (Internal Academic Auditor Course)**. Organized by UTM-Academic Leadership (UTMLead) and Centre for Quality & Risk Management (UTM QRIM). 22-23

Dec 2014, UTM.

- 22. Bioeconomy Transformation Programme Workshop for Johor.** Organized by Biotech Corporation and Johor Biotechnology & Biodiversity, 27-28 Jan 2014, Pulau Spring Resorts, Johor Bahru, Johor.
- 23. Industrial Training** at Provet Group of Companies Sdn Bhd, Serdang, Selangor for 12 months, 1 Oct 2012 – 30 Sep 2013.
- 24. Program Nobel Endeavour.** Organized by Universiti Kebangsaan Malaysia (UKM), 28-30 Sept 2013, Pusat Penyelidikan UKM Langkawi, Kedah.
- 25. Program Pembangunan Kepimpinan Inovatif & Transformasi Pensyarah Muda 2013 – KIT 2.0 (Zon Selatan),** Organized by AKEPT (Higher Education Leadership Academy) and Universiti Teknikal Malaysia Melaka (UTeM), 5-7 July 2013, Klana Beach Resort, Port Dickson
- 26. Workshop on Bioceramics Composite Scaffolds for Tissue Engineering Applications,** Organized by Advanced Materials Research Centre (AMREC), SIRIM Berhad, Kulim, Kedah. 1-2 July 2013.
- 27. Bengkel Program Saintis Agenda Nobel UTM (PSAN-UTM) 2013.** Organized by Nanotechnology Research Alliance (NRA), UTM, Mahkota Hotel Melaka, 12 – 13 Jun 2013.
- 28. Bengkel Kolaborasi Kardiovaskular Peringkat Kebangsaan.** Organized by IJN-UTM Cardiovascular Engineering Centre, Faculty of Biosciences and Medical Engineering, Institut Jantung Negara, KL, 20-21 May 2013.
- 29. Program Pembangunan Kepimpinan Inovatif & Transformasi Pensyarah Muda – KIT 2012 (Zon Selatan),** Organized by AKEPT (Higher Education Leadership Academy) and Universiti Teknikal Malaysia Melaka (UTeM), 8-10 June 2012, Cherengin Hills Convention & Spa Resort, Janda Baik, Pahang.
- 30. Bengkel Task Force Cadangan Penggabungan Fakulti Kejuruteraan Bioperubatan dan Sains Kesihatan (FKBSK) dan Fakulti Biosains dan Biokejuruteraan (FBB).** Maharani Suite, Pulau Spring Resort, 27 Mac 2012.
- 31. NanoMalaysia Young Scientist Meeting.** Impiana Hotel Kuala Lumpur, 6-7 Dec 2011 organized by National Nanotechnology Directorate (NND), Ministry of Science, Technology and Innovation (MOSTI).
- 32. Bengkel Penyediaan Bahan Pembelajaran Bagi Perisian Kursus Terbuka atau Open Courseware (OCW).** Mahkota Hotel Melaka, 2-4 Dec 2011, organized by Centre for Teaching & Learning (CTL).
- 33. Kursus Penggunaan Perisian Peta Minda bagi Tujuan P&P.** Makmal Komputer 1, Pusat Pengajaran & Pembelajaran (CTL), UTM, 23-24 Nov 2011, organized by CTL, UTM.
- 34. Kursus Pensyarah Mengajar Tahun 1,** Sesi 2011/2012, Dewan Senat, UTM, 8 Sept 2011, organized by Pejabat Pengajian Prasiswazah.
- 35. Bengkel Persekitaran, Keselamatan dan Keselamatan Pekerja (OSHE) peringkat FBB,** Bilik Jamuan, DSI, UTM, 22 – 23 August 2011, organized by OSHE unit FBB.
- 36. Kursus Penasihat Akademik,** Le Grandeur Palm Resort, Senai, Johor, 26 – 27 July 2011, organized by Pengajian Prasiswazah.
- 37. Bengkel First Year Experience (FYE),** Le Grandeur Palm Resort, Senai, Johor, 12 July 2011, organized by Pengajian Prasiswazah, UTM.
- 38. Career Development Unit (CDU) Awareness Workshop,** Hotel Grand Paragon, Johor Bahru, 19 July 2011, organized by Career Development Unit, Office of Students Affair, UTM.

- 39. Bengkel Pengukuhan Kaedah Pembelajaran Berpusatkan Pelajar (Student Centred Learning (SCL) Zon Selatan)**, PERSADA Johor International Convention Centre, 13 May 2011, organized by Kementerian Pengajian Tinggi (KPT), Johor.
- 40. Bengkel Pembangunan Felo 2011**, Naza Talyya Hotel, Melaka, 8 – 9 April 2011, Organized by Institut Pembangunan Felo (IPF), UTM.
- 41. Kursus Protokol & Etiket Sosial 2011**, Pulau Spring Resort, Johor Bahru, 31 Mac 2011, Organized by Bahagian Pembangunan Modal Insan, UTM.
- 42. Kursus Pembelajaran Aktif**. Bilik Seminar 2, Pusat Latihan UTM, 12 January 2011, Organized by Bahagian Pembangunan Modal Insan, UTM.
- 43. Kursus Pembelajaran Berasaskan Masalah (Bhg. 1)**, Bilik Seminar 2, 6-7 October 2010, Organized by Pejabat Pendaftar, Bahagian Pembangunan Modal Insan, UTM.
- 44. Bengkel Penulisan Jurnal**, Le Paris Hotel and Resort, Port Dickson, Negeri Sembilan, 12-14 Jun 2009, Organized by Faculty of Biosciences and Bioengineering, UTM, Skudai.
- 45. Kursus Kaedah Penyelidikan**, Dewan Kuliah Pusat, Blok N24, 5-15 May 2008 and 3-4 June 2008, Organized by Human Resource Development (HRD), Universiti Teknologi Malaysia
- 46. Program Intellectual Discourse Entitled “Forensic CSI: Evidence Never Lies”**, Dewan Senat, UTM, 8 June 2005.
- 47. Program TAWAKAL: Kepimpinan Dalam Pasukan Kolej 14 Universiti Teknologi Malaysia**, Kem Rebutia, Gombak, Selangor, 11-13 Jan 2005, Organized by Rebutia Learning Centre Sdn Bhd.
- 48. Bengkel Kreativiti**, Pulau Spring Resort, Kangkar Pulai, Johor, 21 Oct. 2003, Organized by Ibnu Sina Institute of Fundamental Sciences.
- 49. Bengkel Peningkatan Profesionalisme Pelajar Program Saintis Cemerlang**, PDS Resort and Camp, Kompleks Uniti, Pasir Panjang, Port Dickson, Negeri Sembilan, 20-22 Dec 2002, Organized by Ibnu Sina Institute of Fundamental Sciences.
- 50. Program Bengkel Mencari Sinar Peribadi (Imej dan Penampilan Diri)**, Dewan Kuliah 1, C06 dan L50, 27 July 2002, Organized by Persatuan Sains dan Teknologi (PESAT), Faculty of Science, UTM.
- 51. Bengkel Kecemerlangan Akademik**, Kem Unik Malaysia, Ulu Tiram, Johor, 26-28 July 2001, Organized by Faculty of Science, UTM.
- 52. Kursus Bina Negara**, Akademi Kepimpinan dan Wawasan Malaysia, Segari, Perak, 4-8 Nov 2000, Organized by Biro Tatanegara, Department of Prime Minister Malaysia.

AWARDS AND RECOGNITION:

- 1. Anugerah Saintis Muda (Young Scientist Award)** bagi tahun 2019. Majlis Apresiasi Permata Fakulti Sains 2020 (PERMATA).
- 2. Anugerah Pereka Cipta Harta Intelek (Intellectual Property Inventor Award)** bagi tahun 2019. Majlis Apresiasi Permata Fakulti Sains 2020 (PERMATA).
- 3. Anugerah Penerbitan Jurnal Berindeks (Publication Indexed Journal Award)** bagi tahun 2019. Majlis Apresiasi Permata Fakulti Sains 2020 (PERMATA).
- 4. Anugerah Perkhidmatan Cemerlang (Excellent Service Award)** bagi tahun 2019. Majlis Apresiasi Permata Fakulti Sains 2020 (PERMATA).
- 5. Anugerah Penulis dalam Jurnal Berindeks Kategori Pusat Kecemerlangan (Publication in Indexed Journals Award, category Centre of Excellent) 2019** in Citra Karisma UTM 2020 ny Universiti Teknologi Malaysia, 24 August 2020.
- 6. Kurita Overseas Research Grant Award 2019** by Kurita Water and Environment Foundation (KWEF), Development of silver-zeolite-LDH (layered double hydroxide) composite for the removal of bacteria, cationic and anionic compounds in water. (4000,000 JPY) 23 Aug 2019.
- 7. Anugerah Perkhidmatan Cemerlang 2018** from Faculty of Science, UTM.
- 8. Perintis (Persatuan Saintis Muslim Malaysia) Excellent Publication Award 2018.** (Category Below 40 years old). For the paper: Removal of Cr (VI) and As (V) from aqueous solutions by HDTMA-modified zeolite Y. Journal of Hazardous Materials, 2009, 162(2-3), 1019-1024.
- 9. Leadership Talent Pool** under initiative Academic Leadership Talent Management (ALTM), UTM. (2017)
- 10.UTMSHINE (Strategy for Harnessing and Inspiring Top Notch Scientist and Researchers) Initiative** (Group III.2017) by Deputy Vice Chancellor (Research and Innovation), UTM.
- 11.Finalis (Top 3) Anugerah Saintis Muda Negara** (National Young Scientist Award) 2017 by Ministry of Science, Technology and Innovation Malaysia.
- 12.Award of Excellence in Active Blended Learning Course** for SMBB3573 (Sections 1 and 2) – Biological Control and Environmental Conservation, Sem 1 – 2016/2017 by UTM Academic Leadership (UTMLead).
- 13.Anugerah Perkhidmatan Cemerlang (APC) (Excellent Service Award) 2016** in Citra Karisma UTM 2017 by Universiti Teknologi Malaysia, Dewan Sultan Iskandar, 16 May 2017.
- 14.Award of Excellence in Blended Learning** for SMBB1603 (Section 01) – Bioorganic Chemistry, Sem 1 – 2014/2015 by UTM Academic Leadership (UTMLead).
- 15.Award of Excellence in Blended Learning** for SMBT2613 (Section 01) – Research Methodology, Sem 2 – 2014/2015 by UTM Academic Leadership (UTMLead).
- 16.Partners, Progress and Prosperity (P3) Award 2015** by American Chemical Society (ACS) to ACS Malaysia Chapter Committee Members.
- 17.The IRES (Institute of Research Engineers and Scientists) Excellent Paper Award** for paper entitled “Effect of Surfactant Modified Zeolite (SMZ) Added in Propagating Substrate for the Germination of Some Vegetables” for the category **Best Presentation/Best Content** at the IRES International Conference, Kuala Lumpur, 16th July 2015.
- 18.Finalist, Webometric Award (Individual category)** from Universiti Teknologi Malaysia during Citra Karisma, Majlis Anugerah Kecemerlangan & Penghargaan UTM 2015.
- 19.Dutch Visitor Program**, 27 Oct 2014 – 05 Nov 2014 by Ministry of Foreign Affairs, the Netherlands.

20. Award for actively involved in **Application of E-Learning** UTM for Bioorganic Chemistry subject (SMBB 1603-01, Sem 1, 2013/2014) by Centre for Teaching and Learning (CTL), UTM.
21. Excellent achievement as **Activity Advisor** for symBIOSiS (Society for Bioscience Students), Faculty of Biosciences and Bioengineering, UTM, 2014.
22. **Best Fellow Award** from Principal of College 9-10, UTM during “Malam Permata Gemilang”, 31 March 2012.
23. **Anugerah Perkhidmatan Cemerlang** from Universiti Teknologi Malaysia during Citra Karisma, Majlis Anugerah Kecemerlangan & Penghargaan UTM 2011.
24. **(Excellent Leadership award) Hadiah Kepimpinan Terbaik**, Kursus Induksi Siri 2/2010, Kumpulan Pengurusan dan Profesional 2, 14-31 Dis 2010.
25. **SLAB (Skim Latihan Akademik Bumiputra) Scholarship** from Ministry of Higher Education Malaysia to pursue a PhD in Chemistry (2008-2010)
26. **Fellow Assistant of the Year** (College 14 & 15, UTM), 2005
27. **Scholarship from National Science Fellowship (NSF)**, Ministry of Science, Technology and Innovation Malaysia to pursue a Master of Science Degree in Chemistry (MSc), (2004-2006)
28. **Faculty of Science’s Dean Award** (GPA 3.57), 2002

COMMUNITY SERVICES, STUDENTS' PROGRAMS AND OTHER SERVICES

- 1. Academic Advisor for Mobility Program to UTM from University of Mandalay, Myanmar** by UTM International (04 Sep 2017 – 08 Feb 2018, FBME, UTM)
- 2. Judge for Innovative Packaging Design Competition 2017.** Organized by Faculty of Management, UTM (21 Nov 2017).
- 3. Panel Forum for “First Year Experience (FYE) program”** Organized by Faculty of Biosciences and Medical Engineering, UTM (30 Sept 2017).
- 4. Jury Panel for Innovation Competition of Science Innovation Challenge (SIC) 2017,** organized by Faculty of Science, UTM (11 Oct 2017, FS, UTM).
- 5. Moderator for Forum with FBME’s alumni in How to Get Yourself Employed (HTGYE) program 2017** by Faculty of Biosciences and Medical Engineering, UTM. (27 Apr 2017, FBME, UTM)
- 6. Chief Advisor for FBME Innovation Day 2017** by Faculty of Biosciences and Medical Engineering, UTM. (21 Mar 2017, FBME, UTM)
- 7. Academic Advisor for Mobility Program to UTM from Universiti Brunei Darussalam** by UTM International (12 Feb 2017 – 23 Jun 2017, FBME, UTM)
- 8. Jury Panel for final competition of Science Innovation Challenge (SIC) 2016,** organized by Faculty of Science, UTM (22 Sep 2016, T05, FS, UTM).
- 9. Accompanied Officer for PSAN-UTM’s Students participating in Regional Annual Fundamental Science Symposium (RAFSS2016)** by Director of PSAN-UTM (18-20 May 2016, UTMKL)
- 10. Facilitator for National Science Challenge and Science Outreach Johor State Level 2016** (11 May 2016, Sekolah Menengah Sains Kota Tinggi, Johor).
- 11. Facilitator for Innovative Project** for Malaysia International Young Inventors Olympiad (MIYIO2016) from students of SM Sains Sultan Iskandar, Mersing, Johor (28-29 Mar 2016, T02, UTM).
- 12. Accompanied Officer for Survival Ironman Program for UTM-Young Excellent Scientist (YES),** Program Saintis Agenda Nobel (PSAN), UTM (18-20 Oct 2014, Taman Hutan Lagenda, Ledang, Johor).
- 13. Interviewer for candidates of UTM-Young Excellent Scientist (YES) program** under Program Saintis Agenda Nobel, UTM. 6 Dec 2014, FBME, UTM.
- 14. Advisor for “Gerai Jualan Bunga Pesta Konvokesyen Ke-49 UTM”** Organized by Group of “Global Outreach Program to Bandung”, Postgraduate Student Society, FBB, UTM (13-17 Oct 2012, Dataran Agora, UTM).
- 15. Advisor and Accompanied Fellow for “Program TINTEC T-TEST (Titian Ilmu Anak Teknologi, Terengganu-Transformasi Ekonomi, Sosial dan Teknologi),** Organized by Jawatankuasa Mahasiswa (JKM) Kolej 9-10, UTM (6-16 July 2012, Manir, Kuala Terengganu).
- 16. Advisor for “Kem Pemantapan JKM Kolej 9&10 2012”,** Organized by Fellow Council College 9-10, UTM, 29 Jun 2012 – 1 Julai 2012, Alang Sedayu, Gombak, Selangor.
- 17. Advisor for “Seminar Metodologi Penyelidikan 1”,** Organized by Society of UTM Biosciences Student (symBIOSiS), 10 March 2012, Lecture Hall N24, UTM.
- 18. Advisor for “Malam Penghargaan TINTEC-KRENEDEX 2011”,** Organized by Jawatankuasa Mahasiswa (JKM) Kolej 9-10, UTM (9 Mac 2012, Scholar’s Café, UTM).

19. **Advisor for “Kem Keharmonian Kelab Bakti Siswa (KBS) Kolej 9-10”** Organized by Kelab Bakti Siswa (KBS), JKM College 9-10, UTM (24 – 26 Feb 2012 at Kem Sekakap, Mersing).
20. **Facilitator/speaker for “Kem Pembentukan Jawatankuasa Kolej Mahasiswa Kolej 9-10”**, Organized by Fellow Council College 9-10, UTM (23 – 25 Dec 2010 at College 9 and 10, UTM).
21. **Advisor for Program First Year Experience (FYE): Introduction to FBB Research Groups**, 17 Dec 2011, Block P19, UTM.
22. **Director for Kem Pembentukan Jawatankuasa Kolej Mahasiswa (JKM) Kolej 9-10** by Principal of College 10, UTM (Date of Appointment: 19 Dec 2011)
23. **Fellow Advisor for “Ekspedisi Penyelidikan di Hutan Simpan Pasoh” 2011** organized by Jawatankuasa Kolej Mahasiswa (JKM), Kolej 10 (12 Nov 2011 at Hutan Simpan Pasoh, Negeri Sembilan).
24. **Fellow Advisor for “Titian Ilmu Anak Teknologi (TINTEC) – Ekspedisi Alam Sekitar dan Pendidikan Menyusuri Sungai Kelantan (KRENEDEX) 2011”** organized by Jawatankuasa Kolej Mahasiswa (JKM), Kolej 10 (20 – 26 July 2011 at Kelantan).
25. **Director for Kem Pemantapan Jawatankuasa Kolej Mahasiswa (JKM) Kolej 10** by Principal of College 10, UTM (Date of Appointment: 01 May 2011)
26. **Player in Sport Competition between Departments, UTM 2011**. (14 March 2011 – 5 April 2011) representative of Faculty of Biosciences and Bioengineering, (Futsal and Tarik Tali).
27. **Fellow Advisor for “Kem MENJAROES”** organized by Kelab Bakti Siswa (KBS), Academic and Counselling Bureau, Jawatankuasa Kolej Mahasiswa (JKM), Kolej 10 (1st phase: 11-13 Feb 2011 at Kem Bina Negara Gunung Pulai, 2nd Phase: 09-10 Apr 2011 at Kem Kaizen, Pontian, Kem Pusat: 13-15 Mei 2011 at College 10, UTM).
28. **Fellow Advisor for “Program Motivasi Kecemerlangan UPSR”** organized by Kelab Bakti Siswa (KBS), Academic and Counselling Bureau, Jawatankuasa Kolej Mahasiswa (JKM), Kolej 10 (12 Mac 2011 at Dewan Kuliah 9. N24, UTM).
29. **Advisor for “Seminar UTM’S Graduate Attribute”** organized by Society of UTM Biosciences Student (symBIOSis), Faculty of Biosciences and Bioengineering (19 February 2011 at Bilik Jamuan, Dewan Sultan Iskandar, UTM).
30. **Fellow Advisor for “Kem Motivasi & Kepimpinan Pengawas Pusat Sumber 2011, Sekolah Kebangsaan Taman Sri Pulai”** organized by Kelab Bakti Siswa (KBS), Academic and Counselling Bureau, Jawatankuasa Kolej Mahasiswa (JKM), Kolej 10 (11 February 2011 – 13 February 2011 at Sekolah Kebangsaan Taman Sri Pulai, Johor).
31. **Fellow Advisor for “Khidmat Masyarakat Bersama Penduduk Pontian”** organized by Kelab Bakti Siswa (KBS), Academic and Counselling Bureau, Jawatankuasa Kolej Mahasiswa (JKM), Kolej 10 (29 January 2011 at Parit Selangor, Pontian, Johor).
32. **Fellow Advisor for “Kursus Etiket dan Protokol”** organized by Academic and Counselling Bureau, Jawatankuasa Kolej Mahasiswa (JKM), Kolej 10 (20 January 2011 at Dewan Jamuan, Dewan Sultan Iskandar, UTM).
33. **Fellow Advisor for “ Integration and Training for Facilitator Program Kelab Bakti Siswa (KBS)”** organized by Academic and Counselling Bureau, Jawatankuasa Kolej Mahasiswa (JKM), Kolej 10 (7 – 9 January 2011 at Tanjung Resang, Mersing, Johor).
34. **Director for “Bengkel Kemahiran Berpersatuan dan Watikah Perlantikan Society of UTM Biosciences (symBIOsis) dan Society of Biosciences Postgraduates”** organized by Faculty of Biosciences and Bioengineering (31 Dec 2010 – 1 Jan 2010 at Dewan Banquet, DSI, UTM).

- 35. Director for “Kem Pembentukan Jawatankuasa Kolej Mahasiswa Kolej 10”**, Organized by College 10, UTM (3 – 8 Dec 2010 at Kolej 10 and Mersing, Johor)
- 36. “Petugas Kem Eksplorasi Kimia dan Matematik 2006”**, organized by Department of Chemistry, Faculty of Science, UTM (6-8 June 2006)
- 37. Advisor for “Program Fire Explode-Fire Drills and Abseiling”**, organized by Biro Kebajikan Jawatankuasa Kolej Mahasiswa Kolej 14&15 dan Pejabat Hal Ehwal Pelajar, Universiti Teknologi Malaysia.
- 38. Assistant Fellow for College 14&15**, UTM, Skudai, Johor (June 2004-30 Nov 2005)
- 39. Secretary for “Program Hari Aspirasi Sains 2002 (HAFIS '02)”** Organized by Persatuan Sains dan Teknologi (PESAT), Fakulti Sains, UTM. (8 June 2002).
- 40. Facilitator for “Program Hari Aspirasi Sains 2001 (HAFIS '01)”** Organized by Persatuan Sains dan Teknologi (PESAT), Fakulti Sains, UTM. (23 June 2001).