



**UNIVERSITI MALAYSIA PERLIS**

**ACADEMIC STAFF  
CURRICULUM VITAE**



**PERSONAL PROFILE**

**BIODATA**

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Date of Birth : 18 July 1982  
Place of Birth : Teluk Intan, Perak, Malaysia  
Status : Single  
Citizenship : Malaysian  
Languages : Malay, English, Korean  
Address (H) : No. 12, Lorong Dua, Taman Sri Kenanga, Jalan Padang Katong, 01000 Kangar, Perlis, Malaysia  
Address (O) : Department of Chemical Engineering Technology, Faculty of Engineering Technology, Universiti Malaysia Perlis, Level 1, Block S2, Unicity Alam Campus, Sg. Chuchuh, Padang Besar, 02100 Perlis, Malaysia

**ACADEMIC BACKGROUND & QUALIFICATION**

**EDUCATION**

- M. Sc. (Biotechnology Engineering) from International Islamic University Malaysia, Malaysia, 2015
- B. Eng. (Chemical and Biological Engineering) from Korea University, South Korea, 2006
- Dip. Eng. (Applied Chemistry) from Dong Yang Technical College, South Korea, 2004
- Cert. (Korean Language) from Seoul National University, South Korea, 2002
- Secondary Education 4 to 5 at Sekolah Menengah Izzuddin Shah, Ipoh, Malaysia (1998 to 1999)
- Secondary Education 1 to 3 at Sekolah Menengah Izzuddin Shah, Ipoh, Malaysia (1995 to 1997)
- Primary Education 1 to 6 at Sekolah Rendah Kebangsaan Saint Anthony, Ipoh, Malaysia (1989 to 1994)

## SERVICES

### POSITION

- A Lecturer (Full Time) at the Department of Chemical Engineering Technology, Faculty of Engineering Technology, Universiti Malaysia Perlis, Malaysia, (December 2014 until present)
- A Researcher (Tutor) at the Department of Plant Protection, Faculty of Agriculture, Malaysian Putra University, Malaysia, (January 2009 to November 2011)
- A Research Officer at the Strategic Resource Centre, Entomology Laboratory, Malaysian Agricultural Research & Development Institute, Malaysia, (November 2007 to December 2008)
- A Research Assistant at the Strategic Resource Centre, Entomology Laboratory, Malaysian Agricultural Research & Development Institute, Malaysia, (March 2007 to October 2007)
- A Laboratory Trainee at Biomolecular Engineering Laboratory, Department of Chemical and Biological Engineering, Korea University, South Korea, (March 2005 to October 2005)
- A Laboratory Assistant at the Analytical Chemistry Laboratory, Department of Applied Chemistry, Dong Yang Technical College, South Korea, (March 2003 to September 2003)
- An Intern at Nanotechnology Laboratory, Korean Institute of Ceramic Technology, South Korea, (February 2002 to July 2002)

### PROFESSIONAL MEMBERSHIPS / ASSOCIATIONS

- Member of Tissue Engineering and Regenerative Medicine (TESMA) (Membership No.: TESMA/0/2016/0003)

### CAPABILITIES

- Able to work on technical computing such as Microsoft Office
- Skilled in statistical and engineering softwares including SigmaStat, Design of Expert (DOE), SuperPro
- Able to demonstrate instrumental skills in FPLC (NGC Biorad, AKTA), HPLC, LC-MS and gel electrophoresis
- Skilled in bioinformatic tools and simulation softwares including EasyModeller and Vega ZZ

### AREAS OF EXPERTISE

#### *Research Focus:*

- Protein Biochemistry, Protein Separation and Engineering, Protein Structural Bioinformatics
- Mammalian Cell Culture for Recombinant Bioproduction.

### ADMINISTRATIVE ACTIVITIES

- Asset Management Officer of Department of Chemical Engineering Technology (September 2016 until present)
- Coordinator of Tissue Culture and Biomolecular Laboratory of Department of Chemical Engineering Technology (August 2016 until present)

### ACADEMIC TRAINING

### TEACHING EXPERIENCES

- Courses Taught: Cell and Tissue Culture Technology (PTT305), Heat and Mass Transfer (PTT205), Waste Management (PTT310), Biofacility Design (PTT402), Introduction to Process Instrumentation (PTT154), Organic Chemistry (PTT155), Control, Measurement and Instrumentation (PTT206)

### TRAININGS/WORKSHOPS ATTENDED

- Organic Feedstock Technology Workshop (27<sup>th</sup> February 2016), "How to Publish in High Impact Factor Journals" Workshop (11<sup>th</sup> April 2016), Application of Nuclear Technology in Biology Workshop (26<sup>th</sup> -27<sup>th</sup> May 2016), Teaching and Learning Workshop (29<sup>th</sup> August – 5<sup>th</sup> September 2016), ASTAXANTHIN LOVE LIFE Workshop (12<sup>th</sup> November 2016), Industrial Herbs Seminar (4<sup>th</sup> February 2015), PerkinElmer Multi-Instrument Seminar (5<sup>th</sup> August 2015), Animal Handling and Mammalian Cell Culture Workshop (11<sup>th</sup> – 13<sup>th</sup> August 2015), Health Systems and Policies Postgraduate Forum (14<sup>th</sup> – 15<sup>th</sup> September 2015), Statistical Design of Experiment (DOE) Workshop (6<sup>th</sup> April 2013), Basic SuperPro Designer Workshop (8<sup>th</sup> July 2013)

## RELEVANT COURSES TAKEN

- Postgraduate: Enzyme Technology, Genomics and Functional Genomics, Research Methodology in Biotechnology Engineering, Protein Engineering (including *in silico* modelling), Advanced Biochemical Processes, Advanced Bioseparation
- Undergraduate: Organic Chemistry, General Chemistry, General Chemistry Laboratory, Analytical chemistry, Industrial Chemical Analysis Laboratory, Computers in Chemical Engineering, Basic Physical Chemistry, Organic Industrial Chem. Laboratory, Organic Industrial Chemistry (I,II), Instrumental Analysis, Environmental Engineering, Polymer Processing Analysis, Inorganic Industrial Chemistry (I,II), Bioprocess Engineering (microbial fermentation), Biochemistry, Engineering Mathematics, Microbiology, Bioseparations Engineering, Nanochemical Technology, Biotechnology, Pharmaceutical Engineering, Enzyme Engineering

## SUPERVISION

### • UNDERGRADUATE FINAL YEAR PROJECT SUPERVISIONS

No.	Programme	Name of Students	Project Titles
1	Bachelor of Chemical Engineering Technology	Sathiyah Kasaban (2015)	Bioprospecting for Edible Gelatin from <i>Zophobas morio Fabricius</i> Supermealworm
2	Bachelor of Chemical Engineering Technology	Hu Shian Min (2015)	Statistical Optimization of Biodiesel Production from <i>Zophobas morio Fabricius</i> Supermealworm
3	Bachelor of Chemical Engineering Technology	Nur Fuhana Binti Abdul Majid (2015)	Isolation of Antifungal Peptides from <i>Zophobas morio Fabricius</i> Supermealworm
4	Bachelor of Chemical Engineering Technology	Hasanah Binti Yusof (2015)	Isolation of Antibacterial Peptides from <i>Zophobas morio Fabricius</i> Supermealworm
5	Bachelor of Chemical Engineering Technology	Soon Chu Yong (2015)	Isolation of Antimicrobial Peptides from <i>Blaptica dubia</i> cockroaches
6	Bachelor of Chemical Engineering Technology	Mohamad Amirul Fahmin Bin Ismail (2015)	Statistical Optimization of Biodiesel Production from <i>Tenebrio molitor</i> mealworm
7	Bachelor of Chemical Engineering Technology	Muhd Al-Ihsan Bin Muhd Apipi@Mohamad (2015)	In Silico Homology Modeling of L-Lactate Dehydrogenase from <i>Geobacillus stearothermophilus</i>
8	Bachelor of Chemical Engineering Technology	Lee Li Qin (2016)	Statistical Optimization of Spider Silk Protein Extraction from the Web of <i>Crossoprizza lyoni</i>
9	Bachelor of Chemical Engineering Technology	Ooi Wei Ling (2016)	Response Surface Methodology for Optimization of Spider Silk Protein Extraction and Partial Characterization from <i>Crossoprizza lyoni</i>
10	Bachelor of Chemical Engineering Technology	Jasmin Sulaiman Bennett (2016)	Statistical Optimization of Spidroin Extraction and Partial Purification from Cellar Spider <i>Crossoprizza lyoni</i> Web
11	Bachelor of Chemical Engineering Technology	Raymond Tan Kok Kai (2017)	Statistical Optimization of Biofunctionalization Condition of Native Spider Web from <i>Crossoprizza lyoni</i> ( <b>In progress</b> )
12	Bachelor of Chemical Engineering Technology	Balqis Binti Azman (2017)	A Statistical Approach to Extracting Dragline Silk Protein from <i>Neoscona nautica</i> Web ( <b>In progress</b> )
13	Bachelor of Chemical Engineering Technology	Ng Shing Yeng (2017)	Isolation and Purification of Dragline Silk Protein from <i>Nescona nautica</i> Web ( <b>In progress</b> )

### • POST GRADUATE STUDENT SUPERVISIONS: NONE

## RESEARCH AND DEVELOPMENT

### INTERNATIONAL AWARDS (UNIVERSITY LEVEL)

- **Dean List Award** (2002 to 2004) from Dong Yang Technical College

### LOCAL AWARDS (UNIVERSITY LEVEL)

- **Undergraduate Scholarship** (2000 to 2006) from the Malaysian Public Service Department (MJPA)
- **Best Student Award** (2003) from the Malaysian Student Organization in Korea (PPMK)
- **Best Student Award** (2002) from the Malaysian Student Organization in Korea (PPMK)
- **Postgraduate Scholarship (SLAB/SLAI)** (2012 to 2014) from Universiti Malaysia Perlis/KPT
- **Gold Medal** from the Kulliyyah of Engineering Research and Innovation Exhibition (KERIE 2013) for research entitled “Isolation of Antimicrobial Peptides from *Zophobas morio* Fabricius: Screening of Novel Acidified Extraction Solvents”
- **Commercial Potential Award** from the IIUM Research, Invention and Innovation Exhibition (IRIIE 2014) for research entitled “Bioprospecting for Novel Drug from Supermealworm *Zophobas morio* Fabricius Larvae”
- **Gold Medal** from the Malaysian Young Researchers and Inventors (IESEC 2015) for research entitled “*ZmBioC* Technology: From Creepy Crawlies to Biogreases”
- **Bronze Medal** from the Expo Invention and Research Exhibition UniMAP (EREKA 2016) for research entitled “Bioprospecting for Collagen Hydrolysate from Creepy Crawlies as Potential Healthcare Therapeutic”

### RESEARCH GRANTS

Title	Sponsor	Principle /Co-Researcher	Start	End	Amount (RM)
Proteomic Characterization of Dragline Silk Protein from <i>Neoscona nautica</i> Spider Web	Short Term Grant (University)	Principle	19-Dec-16	18-Dec-17	20,000 (USD 4486)
<i>In Silico</i> Elucidation of Molecular Structure of Dragline Silk Protein from <i>Nephila pilipes</i> Spider Web (Application in Process)	Fundamental Research Grant Scheme (Government)	Principle	06-Mar-17	05-Mar-19	191,903 (USD 43051)

### WRITING AND PUBLICATIONS

1. LEE, L. Q., MOHTAR, J. A., & YUSOF, F. (2017). *Statistical Optimization of Spider Silk Protein Extraction from Crossopriza lyoni* Web. Manuscript in Preparation.
2. OOI, W. L., MOHTAR, J. A. & YUSOF, F. (2017). *Response Surface Methodology for Optimization of Spider Silk Protein Extraction and Partial Characterization from Crossopriza lyoni* Web. Manuscript in Preparation.
3. JOHAN ARIFF MOHTAR. (2015). *Isolation of Low Molecular Mass Antibacterial Factor from Supermealworm Zophobas morio Fabricius* (Master Dissertation).
4. JOHAN ARIFF MOHTAR, FARIDAH YUSOF, NAJALA MAHMOUD HAG ALI. (2014). *Screening of Novel Acidified Solvents for Maximal Antimicrobial Peptide Extraction from Zophobas morio Fabricius. Advances in Environmental Biology*, 8(3), 803 – 809.
5. MOHTAR, J. A. (2005). *From Stem Cell to Therapeutic Cloning* (Undergraduate Dissertation).

### SEMINARS/CONFERENCE PROCEEDINGS (UNIVERSITY LEVEL)

- **JOHAN ARIFF MOHTAR, FARIDAH YUSOF & NAJALA MAHMOUD HAG ALI (2013)**. Screening of Novel Acidified Solvents for a Maximum Antimicrobial Peptide Extraction from *Zophobas morio* Fabricius. *Proceedings of International Conference on Biotechnology Engineering (ICBioE 2013)*, Kuala Lumpur, 671-676, ISBN: 978-983-42978-6-2.
- **JOHAN ARIFF MOHTAR & FARIDAH YUSOF (2013)**. Partial Purification of Antimicrobial Peptides from The Whole Body Extract of *Zophobas Morio* Fabricius Larvae, *International Symposium on Biotechnology Advances (ISBA-iCOS)*, Bukit Gambang Resort City, Kuantan, 3 - 4 December 2013.

## EXHIBITIONS (UNIVERSITY LEVEL)

- **JOHAN ARIFF MOHTAR & AHMAD MUKHLIS ABDUL RAHMAN (2016)**. Bioprospecting for Collagen Hydrolysate from Creepy Crawlies as Potential Healthcare Therapeutic, *Poster presented at Expo Invention and Research Exhibition UniMAP (EREKA 2016)*.
- **HU SHIAN MIN, SATHIYAH KASABAN, CHANG JIA YUN & JOHAN ARIFF MOHTAR (2015)**. *ZmBioC* Technology: From Creepy Crawlies to Biogreases, *Poster presented at Malaysian Young Researchers and Inventors (IESEC 2015)*.
- **M. JOHAN ARIFF, FARIDAH YUSOF, A. AZURA & J. DZUN NORAINI (2014)**. Bioprospecting for Novel Drug from Supermealworm *Zophobas morio* Fabricius Larvae, *Poster presented at IIUM Research, Invention and Innovation Exhibition 2014 (IRIIE 2014)*.
- **JOHAN ARIFF MOHTAR, FARIDAH YUSOF & NAJALA MAHMOUD HAG ALI (2013)**. Screening of Novel Acidified Solvents for a Maximum Antimicrobial Peptide Extraction from *Zophobas morio* Fabricius, *Poster presented at Kulliyah of Engineering Research and Innovation Exhibition 2013 (KERIE 2013)*.

## REFEREES

- a) Assoc. Prof. Dr. Zainab Hamzah  
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- b) Assoc. Prof. Dr. Zarina Zakaria  
Program Coordinator RY21 (Industrial Biotechnology Programme)  
Department of Chemical Engineering Technology,  
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- c) Prof. Dr. Faridah Yusof  
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- d) Assoc. Prof. Dr. Wardatul Akmam Din  
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