



## CURRICULUM VITAE



### I. PERSONAL PARTICULARS

<b>Name</b>	<b>Dr. Nor Laili-Azua Jamari</b>
<b>Current Position Faculty / Department</b>	<b>Senior Lecturer Department of Chemistry and Biology, Centre for Defence Foundation Studies (PAP)</b>

**II. ACADEMIC AND PROFESSIONAL QUALIFICATIONS**

Year	Degree	Discipline	University
2009	Bachelor of Science (Hons)	Forensic Science	University Sains Malaysia
2012	Master of Science	Forensic Science	University Teknologi Malaysia
2018	PhD	Environmental Analytical Chemistry	University of Aberdeen, UK

**III. TITLES OF POSTGRADUATE THESES WRITTEN (At MSc/PhD Level)**

No.	TITLES OF POSTGRADUATE THESES
1	Simultaneous Detection of Anions and Cations in Post-Blast Explosive Residues Using Capillary Electrophoresis (MSc)
2	Method Development for Fluorine-Specific Detection using ICPMS/MS (PhD)

**IV. WORK EXPERIENCE (Please list your relevant experience in chronological order)**

Year	Position	Organisation	Start and End Date
2009-2013	Tutor	Pusat Asasi Pertahanan, UPNM	15/8/2009 – 30/4/2013
2013-2019	Lecturer	Pusat Asasi Pertahanan, UPNM	1/5/2013-31/5/2019
2019-Now	Senior Lecturer	Pusat Asasi Pertahanan, UPNM	1/6/2019-Now

**1.0 TEACHING AND SUPERVISION****1.1 First Degree Courses**

No.	Course Title	Semester	Year
1	Laboratory Safety Management - Hazard in the lab	Guest lecture at ITS	October 2023

**1.2 Pre-Degree Courses**

No.	Course Title	Semester	Year
1	FKA 0112 Chemistry I & FKA 0121 Chemistry Lab I	Sem 1	2009-2010
2	FKA 0241 Chemistry Lab II	Sem 2	2009-2010
3	FKA 0252 Chemistry IV	Sem 3	2011-2012
4	FCH 0216 Chemistry I & FCH 0226 Chemistry II	Sem 1 & 2	2012-2015
5	FCH 0226 Chemistry II	Sem 2	2018-2019

6	FCH 0216 Chemistry I & FCH 0226 Chemistry II	Sem 1 & 2	2019-Now
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### 1.3 PhD Supervision

No.	Name of Student	Project Title	Date of Registration	Role (Main / Co-Supervision)	Status • Completed • Submitted • In Progress	University
1.	Mardhiahtul Iftiah Binti Ariffin	Development of Gold Nanoparticles Based Colorimetric Aptasensor Integrated with Image Processing for Detection of Malathion	6 Jan 2020	Co-supervision	In Progress	UPNM

### 1.4 MSc (by Research)

No.	Name of Student	Project Title	Date of Registration	Role (Main / Co-Supervision)	Status • Completed • Submitted • In Progress	University
1.	Nur Syahirah binti Suhalim	Removal Behaviour Study of Iron and Manganese Rejection from Groundwater by Nanohybrid Polysulfonate Nanofiltration Membrane	8 Sept 2020	Co-Supervision	Completed	UPNM
2.	Wan Nursyafiqah Wan Zamri	Adsorption studies of fluorotelomer olefin onto granular activated carbon, non-ion and ion exchange resin	13 July 2021	Main Supervision	In-Progress	UPNM

## 1.5 Supervision (Postgraduate Research Project or Final Year Research Project)

No.	Name of Student	Project Title	Date of Registration	Role (Main/Co-Supervision)	Status • Completed • Submitted • In Progress
1	Nurul Jannah Abdul Hamid	Hubungan Diantara Personaliti Terhadap Kecekapan Kendiri Dalam Kalangan Kakitangan Swasta Di Akademi Penerbangan Malaysia, Sistem Penerbangan Malaysia Berhad (MAS)	2014	Co-supervisor	Completed

## 2.0 RESEARCH, PUBLICATION AND PRESENTATION

### 2.1 Research Projects

No.	Title	List of Researchers • Principal • Members	Grant Year	Source Amount	Status • Completed • In Progress
1.	Ion Selective Electrodes for Heavy Metal Detection based on Aryl Methyl Carbonylaminothiazole Derivative As Ionophores	<u>Principal:</u> Prof Madya Dr. Noor Azilah  <u>Members:</u> Prof. Dr. Bohari Yamin Prof. Emeritus Dato' Dr. Wan Md Zin Wan Yunus Prof. Madya Dr. Juliana Jumal <b>Nor Laili-Azua Jamari</b> Elya Mohd Nor	2013	FRGS RM 70,000	Completed
2.	Effect of Surface Functional Groups of Carbon in Water-Based Nanofluids for Heat Transfer Media	<u>Principle:</u> Mohd Junaedy Osman  <u>Members:</u> <b>Nor Laili-Azua Jamari</b> Prof. Dr. Ong Keat Khim Prof Madya Dr. Noor Azilah Mohd Kasim Prof. Emeritus Dato' Dr. Wan Md Zin Wan Yunus Imran Syakir Mohamad	2013	FRGS RM 105,000	Completed

No.	Title	List of Researchers • Principal • Members	Grant Year	Source Amount	Status • Completed • In Progress
3.	The Therapeutic Effect of Nanoparticulate Brian-Derived Neurotrophic Factor in Cognitive Impairment due to Traumatic Brain Injury: Animal Model	<u>Principle:</u> Dr Zubaidah Hasain  <u>Members:</u> Prof. Dr. Ainsah Omar Prof. Dr. Renad Alyautdin Dr. Igor Khalin <b>Nor Laili-Azua Jamari</b>	2013	RAGS RM 72,500	Completed
4.	Adsorption Capacity and Mechanism of Nitrogen Oxide Adsorption Using Alum Sludge	<u>Principal:</u> Dr. Noor Aisyah Ahmad Shah  <u>Members:</u> Prof. Emeritus Dato' Dr. Wan Md Zin Wan Yunus Prof. Dr. Ong Keat Khim <b>Nor Laili-Azua Jamari</b>	2015	RACE RM 50,000	Completed
5.	Simple and Rapid Method to Detect Stimulant of Nerve Agent by Calorimetric Incorporated with Image Processing Technique	<u>Principal:</u> Prof. Dr. Ong Keat Khim  <u>Members:</u> Dr. Alinda Samsuri, <b>Dr. Nor Laili Azua Jamari</b>	2019	CHEMDEF	Completed
6.	Study of Rejection Mechanism in Mixed Matrix Nanofiltration Membrane for Iron and Manganese Removal in Groundwater	<u>Principal:</u> <b>Dr. Nor Laili Azua Jamari</b>  <u>Members:</u> Prof. Dato' Ir. Dr. Abdul Wahab Mohammad, Dr. Norherdawati Kasim, Dr. Intan Juliana Shamsudin, Dr. Fathiah Mohamed Zuki	2019	FRGS-RACER RM 46,443	Completed
7.	Adsorption Desorption Study of Volatile Per- and Polyfluoroalkyl Substances (PFASs) on Adsorbents for Solid Phase Extraction (SPE) Method	<u>Principle:</u> Syed Mohd Shafiq Syed Ahmad  <u>Members:</u> <b>Dr. Nor Laili-Azua Jamari</b> , Dr. Norherdawati Kasim, Prof. Dr. Ong Keat Khim, Dr. Nurul Fadhilah Kamalul Aripin	2020	FRGS RM 85,400	Completed

No.	Title	List of Researchers • Principal • Members	Grant Year	Source Amount	Status • Completed • In Progress
8.	Development of Simple and Portable Detection System of Methylphosphonic Acid (Nerve Agent Degradation Product) for National Security Interest	<u>Principle:</u> Prof. Dr. Ong Keat Khim  <u>Members:</u> Kapt. Prof. Madya Syed Nasir Al Sagoff Syed Zakaria, <b>Dr. Nor Laili-Azua Jamari</b> , Prof. Emeritus Dato' Dr. Wan Md Zin Wan Yunus, Dr. Siti Zulaikha Ngah Demon	2021	PRGS RM 234,320	In progress
9.	Optimisation of Organophosphate Pesticide Detection using a Paper-based Colorimetric Aptasensor	<u>Principle:</u> Prof. Dr. Ong Keat Khim  <u>Members:</u> Prof. Madya Dr. Noor Azilah Mohd Kasim, <b>Dr. Nor Laili-Azua Jamari</b> , Prof. Emeritus Dato' Dr. Wan Md Zin Wan Yunus, Dr. Mohd Junaedy Osman, Prof. Madya Dr. Norli Abdullah, Ts. Syed Mohd Shafiq Syed Ahmad	2023	GPPP RM 21,000	In progress
10.	Investigation of Spectroscopy Method for Elemental Profiling of Soy Sauce in Malaysia	<u>Principal:</u> <b>Dr. Nor Laili Azua Jamari</b>  <u>Members:</u> Prof. Dr. Ong Keat Khim, Dr. Noor Aisyah Ahmad Shah, Dr. Safura Taufik, Nurhana Mohamad Rafiuddin	2023	GPJP RM 20,000	In progress
11.	Functionalized Cellulose as Antimicrobial Materials: Computational Studies	<u>Principle:</u> Dr. Noor Aisyah Ahmad Shah  <u>Members:</u> Prof. Madya Dr. Norli Abdullah, <b>Dr. Nor Laili-Azua Jamari</b> , Dr. Safura Taufik, Dr. Mohd Nor Faiz Norrahim	2023	GPJP RM 20,000	In progress
12.	Investigation of the Binding Interaction between Molecularly	<u>Principle:</u> Dr. Safura Taufik	2024	Biogenes RM 10,000	In Progress

No.	Title	List of Researchers • Principal • Members	Grant Year	Source Amount	Status • Completed • In Progress
	Imprinted Polymer (MIP) and PFAS Molecules: Computational and Experimental Studies using ortho-phenylenediamine (o-PD)	Member: Dr. Noor Aisyah Ahamd Shah, <b>Dr. Nor Laili-Azua Jamari</b>			

## 2.2 Publications

### 2.2.1 Academic Journal

No.	Authors, year, title, publisher/journal, volume and number of pages (Please bold your name)	Type of Journal • ISI • SCOPUS • Peer-Reviewed
1	Umi Kalthom Ahmad, <b>Nor Laili-Azua Jamari</b> , and Sivabalan A/L Nagayah. Simultaneous determination of inorganic ions in post-blast residue using capillary electrophoresis. <i>Malaysian Journal of Forensic Science</i> , 2012, 3(1)	Peer-Reviewed
2	M. A. Md Nor, K. K. Ong, S. Mohamad, N. A. Ahmad Nasaruddin, <b>N. L. A. Jamari</b> & W. M. Z. Wan Yunus. Kinetic study of a cationic dye adsorption by dewatered alum sludge. <i>Materials Research Innovation</i> , 18, 6 (2014). DOI:10.1179/1432891714Z.000000000945	SCOPUS
3	Igor Khalin, <b>Nor Laili Azua Jamari</b> , Nadiawati Abdul Razak, Zubaidah Hasain, Mohd Asri Mohd Nor, Mohd Hakimi Ahmad Zainudin, Ainsah Omar, Renad Alyautdin. A mouse model of weight-drop closed head injury: emphasis on cognitive and neurological deficiency. <i>Neural Regeneration Research</i> , 2016, 11(4), 630-635.	SCOPUS
4	<b>N. L. A. Jamari</b> , J. F. Dohmann, A. Raab, E. M. Krupp and J. Feldmann. Novel non-target analysis for fluorine compounds using ICPMS/MS and HPLC-ICPMS/MS. <i>J. Anal. At. Spectrom.</i> , 2017, 32, 942	SCOPUS
5	<b>N. L. A. Jamari</b> , A. Behrens, A. Raab, E. M. Krupp and J. Feldmann. Plasma process to detect fluorine with ICPMS as M-F <sup>+</sup> : an argument for building a negative mode ICPMS/MS. <i>J. Anal. At. Spectrom.</i> , 2018, 33, 1304	SCOPUS
6	<b>N. L. A. Jamari</b> , J. F. Dohmann, A. Raab, E. M. Krupp and J. Feldmann. Novel non-targeted analysis of perfluorinated compounds using fluorine-specific	SCOPUS

	detection regardless of their ionisability (HPLC-ICPMS/ES-IMS). <i>Analytica Chimica Acta</i> , 2019, 1053, 22-31.	
7.	Fellyzra Elvya Pojol, Soleha Mohamat Yusuff, Keat Khim Ong, Jahwarhar Izuan Abdul Rashid, <b>Nor Laili- Azua Jamari</b> , Siti Aminah Mohd Noor, Noor Azilah Mohd Kasim, Norhana Abdul Halim, Wan Md Zin Wan Yunus, Victor Feizal Knight & Chin ChuangTeoh. Optimisation of Colourimetric Aptasensor for Determination of Methylphosphonic Acid Using Response Surface Methodology. <i>Defence S and T Technical Bulletin</i> , 2020, 13(2):188-195	SCOPUS
8.	Pojol Fellyzra Elvya, Chieng Buong Woei, Ong Keat Khim, Abd Rashid Jahwarhar Izuan, Osman Mohd Junaedy, Wan Yunus Wan Md Zin, <b>Jamari Nor Laili-Azua</b> and Teoh Chin Chuang. Effect of Gold Nanoparticles Size on Detection of Methylphosphonic Acid Hydrolysis Product of Nerve Agent. <i>Research Journal of Chemistry and Environment</i> , 2021, 25(7), 1-7.	SCOPUS
9.	Nur Syahirah Suhalim, Norherdawati Kasim, Ebrahim Mahmoudi, Intan Juliana Shamsudin, Abdul Wahab Mohammad, Fathiah Mohamed Zuki, <b>Nor Laili-Azua Jamari</b> . Rejection Mechanism of Ionic Solute Removal by Nanofiltration Membranes: An Overview. <i>Nanomaterials</i> , 2022, 12, 437-455.	ISI
10.	Zeni Rahmawati, Liangga Santoso, Alan McCue, <b>Nor Laili Azua Jamari</b> , Sri Yau Ninglasari, Triyanda Gunawan, Hamzah Fansuri. Selectivity of reaction pathways for green diesel production towards biojet fuel applications. <i>RSC advances</i> , 2023, 13, 13698-13714.	SCOPUS
11.	Nur Syahirah Suhalim, Norherdawati Kasim, Ebrahim Mahmoudi, Intan Juliana Shamsudin, <b>Nor Laili-Azua Jamari</b> , Fathiah Mohamed Zuki. Impact of Silver-Decorated Graphene Oxide (Ag-GO) towards Improving the Characteristics of Nanohybrid Polysulfone Membranes. <i>Membranes</i> , 2023, 13, 602.	ISI
12.	Wan Nursyafiqah Wan Zamri, Keat Khim Ong, Syed Mohd Shafiq Syed Ahmad, Norherdawati Kasim, Muhammad Faizan A. Shukor, <b>Nor Laili-Azua Jamari</b> . Adsorption of Fluorotelomer Olefin (FTO) on Activated Carbon, Non-Ion and Ion Exchange Resin: Kinetics and Isotherm Studies. <i>Advanced Journal of Chemistry, Section A</i> , 2024. (Accepted for publication)	SCOPUS
13.	Wan Nursyafiqah Wan Zamri, Keat Khim Ong, Norherdawati Kasim, Syed Mohd Shafiq Syed Ahmad, <b>Nor Laili-Azua Jamari</b> . Removal of Fluorotelomer Olefin from Aqueous Solution by Ion Exchange Resin. <i>Macromolecular Symposia</i> , 2024. (Accepted for publication)	SCOPUS



### 2.2.2 Book/Chapter in Book:

No.	Authors, year, title, publisher, volume and number of pages (Please bold your name)	Level • International • National • University
1	<b>Nor Laili-Azua Binti Jamari</b> , Syed Mohd Shafiq bin Syed Ahmad, Ahmad Farid bin Mohd Azmi. (2009). Chemistry Laboratory II Manual (FKA 0241), Centre for Foundation Studies, UPNM.	University
2	<b>Nor Laili-Azua Binti Jamari</b> (2013). Chemistry Laboratory I Manual (FCH0216), Centre for Foundation Studies, UPNM.	University
3	<b>Nor Laili-Azua Binti Jamari</b> (2013). Chemistry Laboratory II Manual (FCH0226), Centre for Foundation Studies, UPNM.	University
4	Wan Md Zin Wan Yunus, Ong Keat Khim, Noor Azilah Mohd Kasim, Norli Abdullah, Madinah Jaafar Md Arif, <b>Nor Laili-Azua Jamari</b> , Noor Aisyah Ahmad Shah, Syed Mohd Shafiq Syed Ahmad, Mohd Junaedy Osman. (2014). Module of Chemistry I FCH 0216, Centre for Foundation Studies, UPNM.	University
5	Ong Keat Khim, Noor Azilah Mohd Kasim, Norli Abdullah, Madinah Jaafar Mad Ariff, Siti Aminah Mohd Noor, Syed Mohd Shafiq, Mohd Junaedy. (2014). Module of Chemistry II FCH 0226, Centre for Foundation Studies, UPNM.	University
6	<b>N. L. A. Jamari</b> , J. F. Dohmann, A. Raab, E. M. Krupp and J. Feldmann. HPLC-ICP-MS/MS: Fluorine Speciation Analysis. <i>Handbook of ICP-QQQ Applications using The Agilent 8800 and 8900</i> . 3rd ed., 2017, 94-95. <a href="https://www.agilent.com/cs/library/brochures/ICP-QQQ-5991-2802EN-eHandbook_3rd_Edition.pdf">https://www.agilent.com/cs/library/brochures/ICP-QQQ-5991-2802EN-eHandbook_3rd_Edition.pdf</a>	International
7	<b>Nor Laili-Azua Binti Jamari</b> , Safura Taufik, Intan Juliana Shamsudin, Norherdawati Kasim, Noor Aisyah Ahmad Shah, Alinda Samsuri, Siti Hasnawati Jamal, Siti Aminah Mohd Noor, Ong Keat Khim, Noor Azilah Mohd Kasim, Norli Abdullah, Syed Mohd Shafiq Syed Ahmad, Jahwarhar Izuan Abdul Rashid, Wan Md Zin Wan Yunus. (2019-2022). Chemistry Laboratory I Manual (FCH0216), Centre for Foundation Studies, UPNM.	University
8	<b>Nor Laili-Azua Binti Jamari</b> , Safura Taufik, Intan Juliana Shamsudin, Norherdawati Kasim, Noor Aisyah Ahmad Shah, Alinda Samsuri, Siti Hasnawati Jamal, Siti Aminah Mohd Noor, Ong Keat Khim, Noor Azilah Mohd Kasim, Norli Abdullah, Syed Mohd Shafiq Syed Ahmad, Jahwarhar Izuan Abdul Rashid, Wan Md Zin Wan Yunus. (2019-2022). Chemistry I (FCH0216), Centre for Foundation Studies, UPNM.	University
9	<b>Nor Laili-Azua Binti Jamari</b> , Safura Taufik, Intan Juliana Shamsudin, Norherdawati Kasim, Noor Aisyah Ahmad Shah, Alinda Samsuri, Siti Hasnawati Jamal, Siti Aminah Mohd Noor, Ong Keat Khim, Noor Azilah Mohd Kasim, Norli Abdullah, Syed Mohd Shafiq Syed Ahmad, Jahwarhar Izuan Abdul Rashid, Wan Md	University

	Zin Wan Yunus. (2019-2022). Chemistry Laboratory II Manual (FCH0226), Centre for Foundation Studies, UPM	
10	<b>Nor Laili-Azua Binti Jamari</b> , Safura Taufik, Intan Juliana Shamsudin, Norherdawati Kasim, Noor Aisyah Ahmad Shah, Alinda Samsuri, Siti Hasnawati Jamal, Siti Aminah Mohd Noor, Ong Keat Khim, Noor Azilah Mohd Kasim, Norli Abdullah, Syed Mohd Shafiq Syed Ahmad, Jahwarhar Izuan Abdul Rashid, Wan Md Zin Wan Yunus. (2019-2022). Chemistry II (FCH0226), Centre for Foundation Studies, UPM.	University
11	Muhd Zu Azhan Yahya, Wan Md Zin Wan Yunus, <b>Nor Laili Azua Jamari</b> , Noor Azilah Mohd Kasim, Wan Yusmawati Wan Yusoff, Fadhlina Che Ros, Norli Abdullah, Dr. Noor Aisyah Ahmad Shah and Norhana Abdul Halim. Solid State Science and Technology VII: Selected peer-reviewed papers from the 7th International Conference on Solid State Science and Technology (7th ICSSST), 2021, 586 pgs.	International

### 2.2.3 Proceeding Articles :

No.	Authors, year, title, publisher/conference, volume and number of pages (Please bold your name)	Level <ul style="list-style-type: none"> <li>• International</li> <li>• National</li> <li>• University</li> </ul>
1	Mohd Asri Md Nor, Ong Keat Khim, Syuriya Mohamad, Nas Aulia Ahmad Nasaruddin, <b>Nor Laili-Azua Jamari</b> . Proceeding: Sludge as Dye Adsorbent. International Conference on Environment (ICENV 2012): Green Technology for Sustainable Tomorrow, pg.: 268-272. Park Royal Hotel, Penang.	International
2	Ong Keat Khim, Mohd Asri Md Nor, Syuriya Mohamad, Nas Aulia Ahmad Nasaruddin, <b>Nor Laili-Azua Jamari</b> and Wan Md Zin Wan Yunus. Isotherm study of reactive blue 19 adsorption by an alum sludge. <i>AIP Conference Proceedings</i> 1660, 070055 (2015); doi: 10.1063/1.4915773	International
3	<b>Nor Laili-Azua Jamari</b> , Hidayati Hamdan, Siti Aminah Mohd Noor, Jahwarhar Izuan Abdul Rashid, Ahmad Farid Mohd Azmi. Ohsem Biodiversity Board Game. <i>Creations de UiTM e-proceeding</i> , eISBN 978-967-17072-6-5 (2022).	National
4	Addisesan Nair Vasu Davan, <b>Nor Laili-Azua Jamari</b> . Python Based Machine Learning Application in Agriculture for Crop Recommendation, Yield Prediction and Disease Detection. <i>Creations de UiTM e-proceeding</i> , eISBN 978-967-17072-6-5 (2022).	National

### 2.2.4 Harta Intelek :

No.	Authors, year, title, publisher/conference, volume and number of pages (Please bold your name)	Type • Copyright • Paten
1	Dr. Hidayati Hamdan, Dr. Mohd Junaedy Osman, Dr. Noor Aisyah Ahmad Shah, Prof. Dr. Ong Keat Khim, Prof. Madya Dr. Noor Azilah Mohd Kasim, Prof. Madya Dr. Siti Aminah Mohd Noor, Prof. Madya Dr. Norli Abdullah, Dr. Norherdawati Kasim, Dr. Jahwarhar Izuan Abd Rashid, Dr. Intan Juliana Shamsudin, Dr. Alinda Samsuri, Dr. Siti Hasnawati Jamal, Dr. Safura Taufik, <b>Dr. Nor Laili-Azua Jamari</b> , Dr. Ahmad Farid Mohd Azmi, Ts. Syed Mohd Shafiq Syed Ahmad, Mej. Madinah Jaafar Mad Ariff. Yippeee Prgano Tiles- An interactive game for pre-university organic chemistry. 2022.	Copyright
2	Prof. Dr. Ong Keat Khim, Prof. Emeritus Dato Dr. Wan Md Zin Wan Yunus, Kapt. Prof. Madya Syed Nasir Alsagoff Syed Zakaria, Prof. Madya Dr. Siti Zulaikha Ngah Demon, <b>Dr. Nor Laili-Azua Jamari</b> , Dr. Mohd Junaedy Osman, Nur Athirah Zulkifli. Flow chart for contrustion of RGB analyser to determine methylphosphonic acid concentration. 2023.	Copyright

### 2.3 Presentation:

No.	Event	Title of Paper Presented	Role (Keynote Speaker / Invited Speaker / Presenter)	Date	Organizer
1	2nd International Forensic Science Symposium, Hotel Le Meridien, Kuala Lumpur.	Simultaneous Determination of Inorganic Ions In Post-Blast Residues Using Capillary Electrophoresis	Presenter	14-16 Nov 2011	Forensic Science Society of Malaysia
2	International Symposium on Women in Science and Engineering, PWTC, Kuala Lumpur.	Comparison of Capillary Electrophoresis And Ion Chromatography For The Determination Of Inorganic Anions In Post-Blast Residues	Presenter	29-30 Sep 2011	International Symposium on Women in Science and Engineering
3	International Conference on Mathematics, Engineering and Industrial Applications, The Gurney Resort Hotel & Residences, Penang, Malaysia	Isotherm study of reactive blue 19 adsorption by an alum sludge	Presenter	28-30 Mei 2014	International Conference on Mathematics, Engineering and Industrial Applications

4	The 18th Biennial National Atomic Spectroscopy Symposium, Liverpool	ICP-MS and CS-MAS for Fluorine Detection	Presenter	4-6 Julai 2016	Royal Society of Chemistry
5	Analytical Research Forum 2016, London	ICP-MS and CS-MAS for Fluorine Detection	Presenter	8 Julai 2016	Royal Society of Chemistry
6	European Winter Conference on Plasma Spectrochemistry, St. Anton, Austria	Fluorine Speciation Using IC-ICP-MS/MS: An Application For Fluoride And Fluoroacetate In Tea	Presenter	19-24 Feb 2017	European Winter Conference on Plasma Spectrochemistry
7	European Winter Conference on Plasma Spectrochemistry, St. Anton, Austria	Panel discussion for 8800 Agilent Triple Quadrupole ICPMS workshop in EWCPs 2017	Invited speaker	19-24 Feb 2017	Agilent Technologies
8	Malaysia Students Conference and Research Showcase (MySECON), University of Edinburgh	ICPMS/MS Optimization Of Fluorine Determination And HPLC-ICPMS/MS In Fluorine Speciation Analysis	Presenter	13 Mei 2017	Malaysian embassy
9	International Conference on Chemistry and the Environment, University of Oslo	Perfluorinated compounds detection using non-target analysis of RP-HPLC-ICPMS/MS	Presenter	17-23 Jun 2017	University of Oslo
10	Network on Persistent Organic Pollutants (POPs). 11 <sup>th</sup> Network Conference on Persistent Organic Pollutants	Non-targeted analysis of fluorinated compounds using RP-HPLC-ICPMS/MS-ESI/MS	Presenter	25-26 April 2018	University of Birmingham
11	The 19th Biennial National Atomic Spectroscopy, St Mary's University, London	Fluorine detection with ICPMS/MS? A concept of metal-fluorine polyatomic ions	Presenter	1-4 Julai 2018	Royal Society of Chemistry
12	Program Research Environment Among Department (READ)	Fluorine and ICPMS	Invited speaker	26 Jun 2020	Pusat Asasi Pertahanan, UPNM
13	International Conference on Energy & Environmental Materials	Speciation Analysis of PFAS and Fluoride	Invited Speaker	30 July 2021	Sharda University, India

	(INCEEM – 2021)				
14	17 <sup>th</sup> Defence Services Asia Exhibition & Conference (DSA) 2022	ECOTAPIS	Exhibitor	28-31 March 2022	MITEC, Kuala Lumpur
15	31 <sup>st</sup> Regional Conference on Solid State Science and Technology (RCSSST) 2022	Design and development of aptamer-gold nanoparticle for colorimetric detection of methylphosphonic acid	Presenter	6-8 Sept 2022	Universiti Malaysia Kelantan & The Malaysian Solid State Science and Technology Society (MASS)
16	2 <sup>nd</sup> Applied Science Research International Conference (ASRIC) 2022	-	Listener	21 Sept 2022	UiTM Perak Branch
17	International Seminar on Chemistry (ISoC)	Novel non-targeted analysis of perfluoroalkyl substances (PFAS) using ICPMS/MS as fluorine-specific detector	Invited Speaker	12-13 Oct 2022	Institut Teknologi Sepuluh Nopember, Indonesia
18	2 <sup>nd</sup> International Conference on Energy & Environmental Materials (INCEEM2023)	Adsorbent Characterisation and Comparative Interference Study on Removal of Fluorotelomer Olefin (FTO)	Invited Speaker	6-9 Dec 2023	Sharda School of Basic Sciences & Research, Department of Environmental Sciences, Sharda University, India

### 3.0 ACADEMIC RECOGNITION AND LEADERSHIP, CONSULTANCY, SERVICE TO THE UNIVERSITY AND SERVICE TO THE COMMUNITY

#### 3.1 Academic Recognition and Leadership

Academic recognition and leadership such as Academic Award, Academic Assessor/ /Promotion Assessor (External), Visiting Professor/Fellowship, Editorial Board and other academic recognition.

No.	Academic Recognition	Year	Level	Awarding Body / Name of Institution
1.	Bronze Medal: Development of Elemental Speciation Method for Identification	2019	National	Defence, Security and Sustainability Exhibition 2019 (UPNM)

	of Unknown F-Compounds (HPLC-ICPMS/MS-ESI-MS)			
2.	Journal Editor of Solid State Phenomena (SSP) (Special Edition)	2020	International	Solid State Phenomena (SSP)
3.	Bronze medal: 1. Whoopee Organo Troop: Informative Card Game for Pre-University Organic Chemistry 2. Eco-Bio Mask: A biodegradable Facemask for Environment	2021	National	Pre-University Malaysia Innovation Competition - PIITRAM 2021 (UMT)
4.	Silver medal: 1. Intelligence TDT Panel: A Portable and Affordable Instrument for Technical Drawing 2. Ohsem Organoboard: Interactive Game for Pre-University Organic Chemistry	2021	National	Pre-University Malaysia Innovation Competition - PIITRAM 2021 (UMT)
5.	Anugerah Inovasi Pengajaran (Ohsem Organoboard)	2021	University	Hari Inovasi Dan Majlis Anugerah (HIMA)
6.	2 <sup>nd</sup> Best Innovation: Python Based Machine Learning Application in Agriculture for Crop Recommendation, Yield Prediction and Disease Detection	2022	National	Pre-University Malaysia Innovation Competition -PIITRAM 2022 (UPNM)
7.	Gold medal: Python Based Machine Learning Application in Agriculture for Crop Recommendation, Yield Prediction and Disease Detection	2022	National	Pre-University Malaysia Innovation Competition -PIITRAM 2022 (UPNM)
8.	Silver medal: Ohsem Biodiversity Board Game (OBBG)	2022	National	Pre-University Malaysia Innovation Competition -PIITRAM 2022 (UPNM)
9.	Bronze award: POWERSHADE	2022	National	Pre-University Malaysia Innovation Competition -PIITRAM 2022 (UPNM)
10.	Silver medal: 1. Ohsem Biodiversity Board Game (OBBG) 2. Python Based Machine Learning Application in	2022	International	Creations de UiTM International Mega Innovation Carnival 2022

	Agriculture for Crop Recommendation, Yield Prediction and Disease Detection			
11.	Gold award: Simple and Portable Acephate (Organophosphate Insecticide and Stimulant of Nerve Agent) Detection System	2022	International	Malaysia Technology Expo 2022
12.	Gold medal: Simple and Portable Paraoxon-Ethyl Pesticide Electrochemical Sensor	2022	National	Defence, Security and Sustainability Exhibition 2022
13.	Best oral presenter: Design and development of aptamer-gold nanoparticle for colorimetric detection of methylphosphonic acid	2022	International	31 <sup>st</sup> Regional Conference on Solid State Science and Technology (RCSSST) 2022
14.	Silver: Yippie organo tiles- an interactive game for pre-university organic chemistry	2022	National	Persidangan dan Ekspo Ciptaan Institusi Pengajian Tinggi Antarabangsa (Pecipta'22)
15.	Best innovation and gold medal: Greywater system	2022	University	PAP Innovation Competition (PAPIC) 2022
16.	Popular poster and gold medal: Eco-friendly plate	2022	University	PAP Innovation Competition (PAPIC) 2022
17.	Anugerah Perkhidmatan Cemerlang tahun 2021	2022	University	Hari Inovasi Dan Majlis Anugerah (HIMA)
18.	Gold: Turgrey Drum: Recycling Water using Nature	2023	National	Pre-University Malaysia Innovation Competition (PIITRAM 2023) (UPM)
19.	Gold: DuraFiber Sheets	2023	University	PAP Innovation Competition (PAPIC) 2023 (UPNM)
20.	Bronze: Biology Exploding Epithelial Set (BEES)- Simple Epithelial Tissues	2023	University	PAP Innovation Competition (PAPIC) 2023 (UPNM)
21.	Chief editor for IConMAS 2024 publication	2024	International	1. Semarak Ilmu 2. PERTANIKA
22.	Gold: Removal of Fluototolomer Olefin (FTO): Adsorption Mechanism from Aqueous Environment	2024	International	Defence, Security and Sustainability Exhibition 2024

### 3.2 Consultancy work that benefited to the University.

No.	Title	Year	Sponsor	Value	Duration
1.	Script examiner for Engineering chemistry	2-6 Mei 2012	Matriculation, Ministry of Education, Malaysia		

No.	Title	Year	Sponsor	Value	Duration
2.	Script examiner for Engineering chemistry	12-16 Nov 2013	Matriculation, Ministry of Education, Malaysia		
3.	Technical Paper Reviewer	2012	8th IMTCE (International Materials Technology Conference and Exhibition)		
4.	Judge for 1 <sup>st</sup> MSU Health Sciences Symposium	2014	Management & Science University		
5.	Colloquium reviewer	2019	Centre for Graduate Studies, UPNM		
6.	Reviewer for research grant proposal	2020	Centre for Defence Foundation Studies, UPNM		
7.	Penilai Kolokium	2020	Centre for Graduate Studies, UPNM		
8.	Technical Paper Reviewer	2021	TALANTA		
9.	Technical Paper Reviewer	2021	Journal of Sustainability Science and Management		
10.	Poster Jury	2022	Pre-University Malaysia Innovation Competition (PIITRAM 2022).		
11.	Penilai grant GPJP	2022, 2023	PPPI, UPNM		
12.	Penilai permohonan persidangan	2022, 2023	Centre for Defence Foundation Studies, UPNM		
13.	Penilai kolokium	2022	Centre for Graduate Studies, UPNM		
14.	Jury for Negeri Sembilan Exposition 2022 (NSIEx 2022) competition	2022	UiTM, Cawangan Negeri Sembilan		
15.	Jury for PAP Innovation Competition (PAPIC) 2022	2022	Centre for Defence Foundation Studies, UPNM		
16.	Jury for Expo Pengajaran dan Pembelajaran	2022	Pusat Pengajaran dan Pembelajaran, UPNM		
17.	Pakar penyelidik alat MP-AES dan Chemisorption	2023	Centre for Defence Foundation Studies, UPNM		
18.	Mentor geran UPNM	2023	PPPI, UPNM	-	2023-Now
19.	Jury for PAP Innovation Competition (PAPIC) 2023	2023	Centre for Defence Foundation Studies, UPNM		
20.	Technical Paper Reviewer	2023	South African Journal of Chemical Engineering		Oct 2023
21.	Jury for PIITAM 2024	2024	USIM		
22.	Technical Paper Reviewer	2024	i. Zulfaqar ii. South African Journal of Chemical Engineering iii. Semarak Ilmu		



### 3.3 Service to the University

Service to the university such as Vice Chancellor/Deputy Vice Chancellor/Dean/Director, Deputy Dean/Deputy Director/Unit Coordinator/Hostel Warden, Programme Chairperson/ Assistant Warden/Fellow. Representing University in Sports and Other Non-Academic Activities. Professional/Academic Association (Committee Member).

No.	Position/Membership	Duration
1	Committee member for National Conference on Higher Education and Nation Building	2009
2	Committee member for new program (Asasi Perubahan)	2010
3	Member for NADIMASA	2012-now
4	Committee member for Pusat Asasi Pertahanan Research and Development	28 Mac 2012-31 Jan 2015
5	Committee member for <i>Penilaian dan Pengukuran Course</i>	28 Jun 2013-30 Jun 2013
6	Lab coordinator for department	8 Julai 2013-April 2014
7	Coordinator for Pusat Asasi Pertahanan website	29 Feb 2012-31 Jan 2015
8	Committee member for new bachelor program (Defence Science)	15 Jan 2014-31 Jan 2015
9	Committee member for Faculty of Defence Science and Technology research laboratory	23 April 2014-31 Jan 2015
10	Committee member for Pusat Asasi Pertahanan Research	1 April 2014-31 Mac 2015
11	Committee member for writing journal articles workshop	30 April 2014-16 Mei 2014
12	Chairman of UPNM's Asset Investigation Committee	24 Julai 2014-23 Sept 2014
13	Committee member for new program (Asasi Pengajian Islam Pertahanan)	13 Nov 2014-31 Jan 2015
14	Treasurer for Chemistry Department	September 2014-Jan 2015
15	Committee member for Research Buletin (1 <sup>st</sup> ed.), Pusat Asasi Pertahanan	7 Dec 2018-October 2019
16	Secretary for Chemistry and Biology department	8 April 2019- 2020
17	Committee member for STEM program, PAP	26 February 2019-March 2022
18	Committee member for ICSSST 2019	25 Feb 2019-13 Nov 2019
19	Athlete for Olahraga Piala Akademi Kecergasan Pertahanan kali ke-2	13-15 February 2019

20	Committee member for Food Bank Satria UPNM	October 2019-2020
21	Secretary for Bulletin@RIA	February 2020-August 2022
22	Assistant lab coordinator chemistry I	Jun 2019- Nov 2019
23	Chemistry II Coordinator	Jan – May 2021
24	Chemistry I Lab Coordinator	Jun – Dec 2021
25	Treasurer for PAP Symposium 2022	Jun 2021 – now
26	Committee member for PIITRAM 2022	2-8 Mac 2022
27	Committee member for new degree program	May 2022-Now
28	Committee member for KKR PAP	Aug 2022 – Now
29	Editor for Chemistry I	2022 - Now
30	AJK Debat Inter Asasi	2023
31	AJK PAPIC 2023	2023
32	AJK STEM SMK Bukit Jalil	2023
33	AJK Kuiz Kimia Kebangsaan (K3M)	2023
34	AJK IConMAS2024	2023-Now
35	Chemistry I Lab Coordinator	June – Dec 2024

### 3.4 Service to the community

No.	Organization	Role	Start Date	End Date	Level
1.	Volunteering work	Collecting cloths donation for Rumah Silaturrahim Nurul Qana'ah	2013	2013	National
2.	Persatuan Melayu Aberdeen	Secretary	Sep 2016	Sep 2017	National
3.	Royal Society of Chemistry	Volunteer for TechFest	26/8/2017	26/8/2017	International
4.	Baju raya project	Volunteer	18/5/2019	18/5/2019	National
5.	Mercy Malaysia	Volunteer	12&19/6/2021	12&19/6/2021	National

#### 4.0 PROFESSIONAL ORGANISATION

No	Organisation	Position	Duration
1	Forensic Science Society of Malaysia (FSSSM)	Member	2008-now
2	Royal Society of Chemistry (RSC)	Associate member	2015-now