



CURRICULUM VITAE



I. PERSONAL PARTICULARS

Name	DR. NORHERDAWATI BINTI KASIM
Current Position Faculty / Department	SENIOR LECTURER DS52 Department of Chemistry and Biology Center for Defence Foundation Studies National Defence University of Malaysia

II. ACADEMIC AND PROFESSIONAL QUALIFICATIONS

(Please list all academic qualifications, from your first degree, in chronological order)

Year	Degree	Discipline	University
2017	Doctor of Philosophy	Chemical and Process Engineering (Membrane Technology)	Universiti Kebangsaan Malaysia
2007	Master of Engineering Science	Chemical Engineering	University of Malaya
2001	Bachelor's Degree	Chemical Engineering	University of Malaya

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

No.	TITLES OF POSTGRADUATE THESES
1.(PhD)	Potential Use of Nanofiltration and Ultrafiltration Membranes for Groundwater Treatment as Potable Water Resources
2.(Master)	Absorption of Carbon Dioxide by Conventional and Activated Alkanolamines Using A Hollow Fiber Membrane Contactor

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

Year	Position	Organisation	Field
2008-present	Senior Lecturer	Department of Chemistry and Biology, Center for Defence Foundation Studies, , National Defence University of Malaysia, Sg. Besi Camp, 57000 Kuala Lumpur.	Teaching and Research
Oct 2003- Dec 2007	Research Assitant & Tutor (Part-time)	Department of Chemical Engineering, University of Malaya, 50603 Kuala Lumpur.	Research and Tutoring
June – Oct 2002	Assistant Engineer	Lankenv Environmental Sdn. Bhd., D-9-3 Megan Phileo Promenade, Jalan Tun Razak, 50400 Kuala Lumpur.	Engineering
Oct 2001- May 2002	Editorial Assistant	M-Bytes Sdn Bhd, A-208 Phileo Damansara II, Pusat Perdagangan Seksyen 16, 46200 Petaling Jaya.	Publishing
May-Sept 2001	Stenographer	Public Affairs Department (Esso Production Malaysia Inc.), Level 16, Menara ExxonMobil, Kuala Lumpur City Centre, 50088 Kuala Lumpur.	Administration

1.0 TEACHING AND SUPERVISION

1.1 Postgraduate Courses

(Please list in chronological order and state: course title, semester and year)

No.	Course Title	Semester	Year
1.	Research Methodology (Cluster Computer Science, Pure and Applied Science & Engineering)	1 & 2	2024
2.	Research Methodology (Cluster Computer Science, Pure and Applied Science & Engineering)	1 & 2	2023
3.	Research Methodology (Cluster Computer Science, Pure and Applied Science & Engineering)	1 & 2	2022

1.2 Pre-Degree Courses

(Please list in chronological order and state: course title, semester and year)

No.	Course Title	Semester	Year
1	FCH 0226 – 6 (4+2) – Chemistry II – Session 2023/2024	2	2024
2	FCH 0216 – 6 (4+2) – Chemistry I – Session 2023/2024	1	2023
3	FCH 0226 – 6 (4+2) – Chemistry II – Session 2022/2023	2	2023
4	FCH 0216 – 6 (4+2) – Chemistry I –Session 2022/2023	1	2022
5	FCH 0226 – 6 (4+2) – Chemistry II – Session 2021/2022	2	2022
6	FCH 0216 – 6 (4+2) – Chemistry I –Session 2021/2022	1	2021
7	FCH 0226 – 6 (4+2) – Chemistry II – Session 2020/2021	2	2021
8	FCH 0216 – 6 (4+2) – Chemistry I –Session 2020/2021	1	2020
9	FCH 0226 – 6 (4+2) – Chemistry II –Session 2019/2020	2	2020
10	FCH 0216 – 6 (4+2) – Chemistry I –Session 2019/2020	1	2019
11	FCH 0226 – 6 (4+2) – Chemistry II –Session 2018/2019	2	2019
12	FCH 0216 – 6 (4+2) – Chemistry I –Session 2018/2019	1	2018
13	FCH 0226 – 6 (4+2) – Chemistry II –Session 2017/2018	2	2018
14	FCH 0216 – 6 (4+2) – Chemistry I –Session 2017/2018	1	2017
15	FCH 0226 – 6 (4+2) – Chemistry II –Session 2016/2017	2	2017

16	FCH 0216 – 6 (4+2) – Chemistry I –Session 2016/2017	1	2016
17	FKA 0212 – 2 (2+0) – Chemistry 1– Session 2011/2012	1	2011
18	FKA 0223 – 2 (3+0) – Chemistry 2– Session 2011/2012	2	2011
19	FKA 0262 – 2 (2+0) – Chemistry Laboratory 2 - Session 2010/2011	3	2010
20	FKA 0243 – 3 (2+1) – Chemistry 3 – Session 2010/2011	2	2010
18	FKA 0223 – 3 (2+2) – Chemistry 2 – Session 2010/2011	1	2010
19	FKA 0232 – 2 (2+1) – Chemistry 3 – Session 2009/2010	2	2009
20	FKA 0112 – 2 (2+1) – Chemistry 1– Session 2009/2010	1	2009
21	FKA 0121 – 1(2+0) – Chemistry Laboratory 1 – Session 2009/2010	1	2009
22	FKA 0233 – 3 (3+1) – Chemistry 2 – Session 2008/2009	2	2008
23	FKA 0241 – 1 (2+0) – Chemistry Laboratory 2 – Session 2008/2009	1	2008

1.3 MSc Supervision (by Research)

(Please list in chronological order)

No.	Name of Student	Project Title	Date of Registration	Role (Main / Co-Supervision)	Status • Completed • Submitted • In Progress	University
1.	Nursyahirah binti Suhalim	Removal behavior study of iron and manganese rejection from groundwater by nanohybrid polysulfone nanofiltration membranes	1 September 2020	Main supervision	Completed (Dec 2023)	UPNM
2.	Norsyabila binti Syrgawi	Preparation and characterization of carrageenan based biopolymer electrolyte with imidazolium ionic liquids	1 Julai 2019	Co-supervision	Completed (Dec 2023)	UPNM

3.	Wan Nursyafiqah binti Wan Zamri	Adsorption desorption study per- and polyfluoroalkyl substances on adsorbents for solid phase extraction	13 Julai 2021	Co-supervision	In progress	UPNM
4.	Siti Hasanah binti Abdul Jabar	Separation Performance Study of Hybrid Kappa-Carrageenan / Silver Graphene Oxide Nanocomposite Membranes for Ionic Solutes Removal	13 September 2022	Main supervision	In progress	UPNM
5.	Athirah Fatanah binti Baharudin	Development and Interaction Mechanism Study of Green Hybrid Kappa-Carrageenan / Silver-Graphene Oxide Nanocomposite Membranes	10 Januari 2023	Main supervision	In progress	UPNM
6.	Muhammad Syukri bin Abd Rahman	Coconut Husk Ash as Green Additive to PES Membrane for Water Purification Process	2 February 2023	Co-supervision	In progress	UM
7.	Priyatharshiny a/p Pongali	Chemical Modification of Kappa-Carrageenan Hybrid Poly (vinyl Alcohol) Hydrogel as Biodegradable Electrolyte	17 Januari 2024	Co-supervision	In progress	UPNM

1.4 Supervision (Postgraduate Research Project or Final Year Research Project)

(Please list in chronological order)

No.	Name of Student	Project Title	Date of Registration	Role (Main/Co-Supervision)	Status • Completed • Submitted • In Progress
1	Muhammad Aiman Mustaqim bin Norzaidi (Penyelia utama: Dr. Anis Shahida Niza bt Mokhtar)	Implementation of Approximate Multiplier using FPGA	2023	Co-supervision	In progress
2	Faris bin Mazlan (Penyelia utama: Dr. Anis Shahida Niza bt Mokhtar)	Comparative Study of Braun's Multiplier using FPGA	2023	Co-supervision	In progress
3	PKdt Muhammad Zahin bin Mohd Yusof (Penyelia utama: PM Dr Nurhafizah Moziyana bt Mohd Yusop)	Sistem Analisis Rawatan Air Bawah Tanah daripada Logam Berat (Iron) Menggunakan Membran Nanohibrid Polisulfon	2022	Co-supervision	Completed
4	Mohammad Amirul bin Aziz (Penyelia utama: Dr. Anis Shahida Niza bt Mokhtar)	Real Time Vision System for Plate Number Detection and Recognition on FPGA	2022	Co-supervision	Completed
5	Mohammad Firdaus bin Adnan (Penyelia utama: Dr Norazrina Bt Mat Jali)	Fracture Analysis of Rubber Toughened PMMA (RT-PMMA)	2020	Co-supervision	Completed
6	Nadhira Malisha Binti Mahhadir (Penyelia utama: Dr Nurhafizah Moziyana Bt Mohd Yusop)	Sistem Maklumat Kokurikulum Sekolah Kebangsaan (SKDP)	2019	Co-supervision	Completed
7	PKdt Mohammad Farhan Rusli (Penyelia utama: Dr Anis Shahida Bt Mokhtar)	Design of efficient pleyer using Vedic multiplication algorithm	2019	Co-supervision	Completed
8	PKdt Muhamad Azlan bin Mat Zuki - Sarjana Muda Kejuruteraan Mekanikal (Penyelia Utama: Dr. Norwazan Binti Abdul Rahim)	Heat transfer system on the swirl burner combustion chamber	2018	Co-supervision	Completed

9	Muhamad Muaz Mubasyir bin Roslan - Sarjana Muda Kejuruteraan Mekanikal (Penyelia Utama: Dr. Ku Zarina binti Ku Ahmad)	Mechanical behavior of composite nano fiber	2018	Co-supervision	Completed
10	PKdt Muhamad Fadhli Bin Ismail - Sarjana Muda Kejuruteraan Awam	Groundwater Extraction and Treatment in Sungai Besi Camp for Emergency Purpose or in Conflict Area	2010	Co-supervision	Completed
11	PKdt Alif Zuhri Bin Kamal Baharin – Sarjana Muda Sains dan Teknologi Maritim	Penggunaan Bahan Api Alternatif Bagi Kapal-kapal TLDM	2010	Co-supervision	Completed

2.0 RESEARCH, PUBLICATION AND PRESENTATION

2.1 Research Projects

(Please list in chronological order and state: title, list of researchers, grant/year, source/amount and status)

No.	Title	List of Researchers • Principal • Members	Grant Year	Source Amount	Status • Completed • In Progress
1	Hybrid Kappa-carrageenan/Graphene Oxide Membranes Functionalized with Antimicrobial Silver: Interaction Mechanism and Its Influence on Separation Performance	Principal	FRGS 2021	RM128,250	In progress
2	Development of Green Nanohybrid Polysulfone/kappa-carrageenan membranes Functionalized with Silver Graphene Oxide for Water Purification	Principal	GPPP 2023	RM42,000	In Progress
3	Removal Behavior Study of Iron and Manganese from Groundwater by Nanohybrid Polysulfone Nanofiltration Membranes	Principal	GPPP 2021	RM20,000	Completed
4	Nanohybrid Polysulfone Ultrafiltration Membranes	Principal	GPJP 2019	RM20,000	Completed

No.	Title	List of Researchers • Principal • Members	Grant Year	Source Amount	Status • Completed • In Progress
	Surface Modification for Anti-biofouling in Water Treatment				
5	Synthesis of intermetallic-surface-modified carbon nanotubes for optical limiting applications	Principal	FRGS-RAGS 2016	RM45,000	Completed
6	Study on Absorption Capacity of Pristine and Modified Nanocellulose towards Malathion in Water	Member	GPPP 2023	RM42,000	In progress
7	Esterification of Kappa Carrageenan Incorporated Lithium Perchlorate as Highly Conductive Gel Polymer Electrolyte	Member	GPPP 2023	RM52,500	Completed
8	Effect of Hybrid Glycidyltrimethylammonium chloride (GTMAC) - Nanocellulose as Organophosphate Adsorbent in Water	Member	GPJP 2023	RM20,000	In Progress
9	Glutaric Anhydride Kappa Carrageenan as Highly Conductive Gel Polymer Electrolyte: Structural Modification by Conventional and Microwave Heating Methods	Member	GPJP 2023	RM20,000	In Progress
10	Adsorption Mechanism Studies of Functionalized Granular Activated Carbon Synthesized from Local Fruit Peels as Potential Pollutants Removal in Wetland Water Treatment	Member	FRGS 2022	RM134,700	In progress
11	Adsorption Desorption Study of Volatile Per- and Polyfluoroalkyl Substances (PFASs) on Adsorbents for Solid Phase Extraction (SPE) Method	Member	FRGS 2020	RM85,400	Completed
12	Study of Rejection Mechanism in Mixed Matrix Nanofiltration Membrane for Iron and Manganese Removal in Groundwater	Member	FRGS-RACER 2019	RM46,430	Completed
13	Anion Characteristic of Seaweed Based Green	Member	GPJP 2018	RM20,000	Completed

No.	Title	List of Researchers • Principal • Members	Grant Year	Source Amount	Status • Completed • In Progress
	Biopolymer Electrolytes for Aluminium-Air Battery				
14	Microwave Synthesis of Silicene Carbide from Rice Husk	Member	GPJP 2017	RM40,000	Completed
15	Surface Modification of Carbon Nanofibre for The Development of Volatile Organic Compounds (VOCs) Chemical Sensor	Member	FRGS 2016	RM91,000	Completed
16	Development Of Field Test Kit for Determination of Arsenic In Drinking Water	Member	FRGS 2010	RM44,000	Completed

2.2 Publications

2.2.1 Academic Journal

(Please list in chronological order and state: authors, year, title, publisher/journal, volume and number of pages (Please bold your name))

No.	Authors, year, title, publisher/journal, volume and number of pages (Please bold your name)	Type of Journal • ISI • SCOPUS • Peer-Reviewed
1	Nor Rahafza Abdul Manap, Norsyabila Shrgawi, Intan Juliana Shamsudin, Hussein Hanibah, Norherdawati Kasim , Siti Aminah Mohd Noor, Priyatharshiny Pongali, Norli Abdullah, Nurul Hazwani Aminuddin Rosli (2024). Effect of NaClO ₄ Dopant on Chemical Bond and Electrochemical Characteristic of Benzoyl Kappa-Carrageenan Gel Biopolymer Electrolyte. <i>Macro Molecular Chemistry and Physics</i> . 2400062, 1-8	Q2 ISI 2024
2	Nur Syahirah Suhaim, Norherdawati Kasim* , Ebrahim Mahmoudi, Intan Juliana Shamsuddin, Nor Laili-Azua Jamari and Fathiah Mohamed Zuki (2023). Impact of Silver-Decorated Graphene Oxide (Ag-GO) towards Improving the Characteristics of Nanohybrid Polysulfone Membranes. <i>Membranes</i> . 13:602, 1-17	Q1 ISI 2023
3	Norsyabila Shrgawi, IntanJuliana Shamsudin, Hussein Hanibah, Norherdawati Kasim , Siti Aminah Mohd Noor, Safura Taufik (2023). Green electrolyte host based on synthesized benzoyl kappa-carrageenan: Reduced hydrophilicity and improved conductivity. <i>Arabian Journal of Chemistry</i> . 16(5): 1-10	Q1 ISI 2023
4	Nur Syahirah Suhaim, Norherdawati Kasim* , Ebrahim Mahmoudi, Abdul Wahab Muhamad, Intan Juliana Shamsuddin, Fathiah Mohamed Zuki and Nor Laili-Azua Jamari (2022). Rejection Mechanism of Ionic Solute Removal by Nanofiltration Membranes: An Overview. <i>Nanomaterials</i> . 12(3):437, 1-18	Q1 ISI 2022

5	Fathiah Mohamed Zuki, Robert G.J. Edyvean, Hamed Pourzolfaghar and Norherdawati Kasim (2021). Modeling of the Van Der Waals Forces during the Adhesion of Capsule-Shaped Bacteria to Flat Surfaces. <i>Biomimetics</i> . 6(1):5	Q1 ISI 2021
6	Mohd Nor Faiz Norrrahim, Noor Azilah Mohd Kasim, Victor Feizal Knight, Muhammad Syukri Mohamad Misenan, Nurjahirah Janudin, Noor Aisyah Ahmad Shah, Norherdawati Kasim , Wan Yusmawati Wan Yusoff, Siti Aminah Mohd Noor, Siti Hasnawati Jamal, Keat Khim Ong and Wan Md Zin Wan Yunus (2021). Nanocellulose: A bio adsorbent for chemical contaminant remediation. <i>RCS Advances</i> . 11(13):7347-7368.	Q1 ISI 2021
7	Norherdawati Kasim* , Ebrahim Mahmoudi, Abdul Wahab Mohammad, Siti Rozaimah Sheikh Abdullah (2021). Study on the Effect of Applied Pressure on Iron and Manganese Rejection by Polyamide and Polypiperazine Amide Nanofiltration Membranes. <i>Solid State Phenomena</i> . 317:283-290	Q3 ISI 2021
8	Norsyabila Shrgawi, Intan Juliana Shamsudin, Hussein Hanibah, Siti Aminah Mohd Noor, Norherdawati Kasim (2021). Purification on Kappa Carrageenan by Re-Precipitation Technique. <i>Solid State Phenomena</i> . 317:327-332	Q3 ISI 2021
9	Noor Aisyah Ahmad Shah*, Siti Zulaikha Ngah Demon, Farah Nabila Diauddin, Norherdawati Kasim , Norli Abdullah, Ganesan Krishnan (2021). The Study of Platinum Coated Carbon Nanotubes as Third-Order Nonlinear Optical Materials. <i>Solid State Phenomena</i> . 317:166-172	Q3 ISI 2021
10	M.S.M. Misenan, Nurjahirah Janudin, Mas Amira Idayu, Mohd Nor Faiz Norrrahim, Siti Hasnawati Jamal, Wan Yusmawati Wan Yusoff, Norherdawati Kasim , Wan MD Zin Wan Yunus, Victor Feizal Knight Victor Ernest, Noor Azilah Mohd Kasim (2021). Cellulose Nanofiber as Potential Absorbent Material for Chloride Ion. <i>Solid State Phenomena</i> . 317: 263-269	Q3 ISI 2021
11	Norrrahim, Mohd Nor Faiz; Abdul Razak, Mas Amira; Ahmad Shah, Noor Aisyah; Kasim, Norherdawati ; Wan Yusoff, Wan Yusmawati ; Abdul Halim, Norhana; Mohd Nor, Siti Aminah; Jamal, Siti Hasnawati; Ong, Keat; Wan Yunus, Wan Md Zin; Knight, Victor Feizal; Mohd Kasim, Noor Azilah (2020). Recent developments on oximes to improve the blood brain barrier penetration for the treatment of organophosphorus poisonings: a review. <i>RSC Advances</i> , 10 , 4465-4489	Q1 ISI 2020
12	Noor Aisyah Ahmad Shah, Farah Nabila Diauddin, Siti Zulaikha Ngah Demon, Norherdawati Kasim , Ganesan Krishnan, Mundzir Abdullah (2020). Preparation and third order nonlinear optical properties of Ag coated carbon nanotubes. <i>Materials Today: Proceedings</i> . 29. 110-114	Q2 ISI 2020
13	Noor Azilah Mohd Kasim, Norli Abdullah, Faizah Md Yasin, Mohd Hanif Yaacob, Siti Hasnawati Jamal, Noor Aisyah Ahmad Syah, Norherdawati Kasim , Famiza Abdul Latif, Norshafiqah Mohamad Saidi, Nurjahirah Janudin (2019). Functionalized carbon nanofibers (CNFs) for ammonia gas detection at room temperature. <i>Materials Today: Proceedings</i> . 19, 1459-1466	Q2 ISI 2019
14	Nurjahirah Janudin, Norli Abdullah, Wan Md Zin Wan Yunus, Faizah Md Yasin, Mohd Hanif Yaacob, Norherdawati Kasim , Noor Aisyah Ahmad Shah, Siti Hasnawati Jamal, Norshafiqah Mohamad Saidi, and Noor Azilah Mohd Kasim. (2019). Carbon nanofibers functionalized with amide group for ammonia gas detection. <i>AIP Conference Proceeding</i> , 2068(1):020061 Conference: Materials Characterization Using X-Rays and Related Techniques	Scopus

15	Kasim, N. , Mahmoudi, E., Mohammad, A. W. & Abdullah, S. R. S. (2017). Influence of feed concentration and pH on iron and manganese rejection via nanohybrid polysulfone/Ag-GO ultrafiltration membrane. <i>Desalination and Water Treatment</i> , 61, 29-41.	Q2 ISI 2017
16	Kasim, N. , Mohammad, A. W. & Abdullah, S. R. S. 2016. Performance of membrane filtration in the treatment of iron and manganese from Malaysia's groundwater. <i>Membrane Water Treatment</i> , 7(4), 277-296.	Q3 ISI 2016
17	Kasim, N. , Mohammad, A. W. & Abdullah, S. R. S. 2015. Iron and manganese removal by nanofiltration and ultrafiltration membranes: Influence of pH adjustment. <i>Malaysian Journal of Analytical Science</i> , 21(1), 149-158.	Q4 ISI 2015
18	Kasim, N. , Mohammad, A. W. & Abdullah, S. R. S. 2015. Characterization of hydrophilic nanofiltration and ultrafiltration membranes for groundwater treatment as potable water resources. <i>Desalination and Water Treatment</i> , 57(17), 1–10.	Q2 ISI 2015
19	Kasim, N. and Mohammad, A. W. 2013. Potential of Nanofiltration Membrane in Groundwater Treatment for Drinking Water Resources. <i>Jurnal Teknologi</i> , 4(65), 43–46.	Q3 ISI 2013
20	N. Kasim , M. K. Aroua and N. M. Sulaiman (2006). The Study of Carbon Dioxide Removal in Membrane Module by Single and Mixture of Alkanolamine Aqueous Solutions. <i>Journal of Applied Membrane Science & Technology</i> . 4, 1-11.	Scopus

2.2.2 Book/Chapter in Book:

(Please list in chronological order and state: authors, year, title, publisher, volume and number of pages
(Please bold your name)

No.	Authors, year, title, publisher, volume and number of pages (Please bold your name)	Level <ul style="list-style-type: none"> • International • National • University
1	Norli Abdullah, Norherdawati Kasim , Noor Aisyah Ahmad Shah, Siti Hasnawati and Intan Juliana Shamsudin (2023), Nanofillers for Sustainable: Recent Progress of Advanced Materials in Renewable Energy, CRC Press, Chapter 19	International
2	Norherdawati Kasim , Norhana Abdul Halim, Fadhlul Wafi Badrudin, Ahmad Farid Mohd Azmi, Azuraida Amat, Jahwarhar Izuan Abdul Rashid, Noor Aisyah Ahmad Shah, Noor AzilahMohd Kasim, Noor Fadhilah Rahmat, Nor Azlian Abdul Manaf, Norli Abdullah, Safura Taufik, Siti Hasnawati Jamal, Siti Zulaikha Ngah Demon dan Wan Yusmawati Wan Yusoff (2020).Kompilasi Ujikaji Sains untuk Sekolah Rendah dan Menengah. Penerbit UPNM, 1, 1-54.	National

2.2.3 Proceeding Articles :

(Please list in chronological order and state: authors, year, title, publisher/conference, volume and number of pages (Please bold your name))

No.	Authors, year, title, publisher/conference, volume and number of pages (Please bold your name)	Level • International • National • University
1	Norherdawati Kasim , Siti Hasanah Abdul Jabbar, Intan Juliana Shamsudin, Noor Azilah Mohd Kasim, Ebrahim Mahmoudi, Athirah Fatanah Baharudin. Modification of Nanocomposite Polysulfone Membranes by Addition of Carrageenan for Water Permeability Improvement. 2 nd Online International Conference on Energy and Environmental Materials (INCEEM 2023)	International
2	Norherdawati Kasim , Nur Syahirah Suhalm, Intan Juliana Shamsudin and Nor Laili-Azua Jamari. Nanohybrid Polysulfone Membranes Functionalized with Antimicrobial Silver for Water Purification from Heavy Metals. The 7th International Symposium on Advanced Materials and Nanotechnology (iSAMN2023)., Institut Nanaosains dan Nanoteknologi, Universiti Putra Malaysia.	International
3	Norherdawati Kasim , Nur Syahirah Suhalm, Ebrahim Mahmoudi, Intan Juliana Shamsudin and Rabbani Muhammad. Potential of Kappa-carrageenan as Additive in Improving Permeability of Mixed Matrix Membranes. The 31 st Regional Conference on Solid State Science and Technology, RCSSST 2022. Hotel Perdana, Kota Bharu	International
4	Norherdawati Kasim , Nur Syahirah Suhalm, Rabbani Muhammad, Intan Juliana Shamsudin and Ebrahim Mahmoudi. Effect of Blending Kappa-carrageenan on Hydrophilicity of Polysulfone Membranes for Water Treatment. International Conference on Research and Practices in Science, Technology and Social Sciences (I-CReST 2022). UiTM Kampus Dengkil	International
5	Norherdawati Kasim , Nur Syahirah Suhalm, Ebrahim Mahmoudi, Intan Juliana Shamsudin and Fathiah Mohamed Zuki. Nanohybrid Polysulfone Membrane for Water Treatment Industries: Preparation and Characterization. The 8 th International Conference on Solid State Science & Technology (ICSSST 2021). Virtual Conference (Webex)	International
6	Norherdawati Kasim , Ebrahim Mahmoudi, Abdul Wahab Mohammad and Siti Rozaimah Sheikh Abdullah. Study on the Impact of pH Adjustment to Remove Metallic Ions Using Membranes. The 7 th International Conference on Solid State Science & Technology (ICSSST 2019). The Everly Hotel, Putrajaya	International
7	Norherdawati Kasim , Ebrahim Mahmoudi, Abdul Wahab Mohammad and Siti Rozaimah Sheikh Abdullah. (2019). Role of Size (Steric) and Charge (Donnan) Exclusion in Removal of Iron from Water by Hydrophilic Nanofiltration Membranes. 4 th International Conference on the Science and Engineering of Materials (IcoSEM 2019). 26-28 August 2019, Armada Hotel, Kuala Lumpur.	International
8	Nurjahirah Janudin, Norli Abdullah, Wan Md Zin Wan Yunus, Faizah Md Yasin, Mohd Hanif Yaacob, Norherdawati Kasim , Noor Aisyah Ahmad Shah, Siti Hasnawati Jamal, Norshafiqah Mohamad Saidi, and Noor Azilah Mohd Kasim. (2019). Carbon nanofibers functionalized with amide group for ammonia gas detection. <i>AIP Conference Proceeding</i> , 2068(1):020061	International

	Conference: Materials Characterization Using X-Rays and Related Techniques	
9	Norherdawati Kasim , Ebrahim Mahmoudi, Abdul Wahab Mohammad and Siti Rozaimah Sheikh Abdullah. (2019) Effect of Operating Variables in Heavy Metals Removal from Groundwater by Nanofiltration Membranes. Advanced Materials Conference 2018, 27-28 th November 2018, Hilton Hotel, Kuching, Sarawak.	National
10	Kasim N. , Mahmoudi, E., Mohammad, A.W., Abdullah S. R. S. 2015. Influence of feed concentration and pH on iron and manganese rejection via nanohybrid polysulfone ultrafiltration membrane. <i>International Conference on Challenges in Environmental Science & Engineering</i> , 28 Sept–2 Oct. Novotel Brighton Beach Hotel, Sydney, Australia.	International
11	Kasim, N. , Mohammad, A.W., Abdullah S. R. S. 2015. Iron and manganese removal by NF/UF membranes: Influence of pH adjustment. <i>28th Symposium of Malaysian Chemical Engineers</i> , 22–23 October. Palm Garden IOI Resort, Putrajaya.	National
12	Kasim, N. Mohammad, A.W., Abdullah S. R. S. 2014. Retention of heavy metals by nanofiltration membranes: Influence of operating variables. <i>4th IWA Regional Conference on Membrane Technology</i> , 3–6 December. Rex Hotel, Ho Chi Minh City, Vietnam.	International
13	Kasim, N. Mohammad, A.W., Abdullah S.R.S. 2014. Characterization of hydrophilic nanofiltration and ultrafiltration membranes for groundwater treatment as potable water resources. <i>International Conference on Challenges on Environmental Science and Engineering</i> , 27–30 September. Persada Convention Centre, Johor Bahru, Malaysia	International
14	Kasim, N. and Mohammad, A. W. 2013. Potential of nanofiltration in groundwater treatment for potable water resources. <i>11th International Conference on Membrane Science and Technology</i> , 2–4 July. Seri Pacific Hotel, Kuala Lumpur, Malaysia	International
15	Kasim, N. and Mohammad, A. W. 2012. Treatment of groundwater for drinking water resources using membrane technology. <i>Symposium of Scale Up and Downstream Processing Research Group</i> , 7–9 December. Teluk Dalam Resort, Pulau Pangkor, Malaysia.	University
16	Azman Ismail, Norherdawati Kasim , Abdul Rahman Shaikh, and Rozanariah Mohd Sani. (2011). Communication Practices in Performance Appraisal System as A Determinant of Procedural Justice: Testing A Direct Effect Model. <i>1st International Conference on Accounting, Business and Economics</i> . Hotel Primula, Terengganu, Malaysia: 1-2 November.	International
17	Hussain Long, Ong Keat Khim, Noor Azilah Mohd Kasim, Norherdawati Kasim , Siti Hasnawati Jamal and Noor Aisyah Ahmad Shah. (2009). A Mini-review: Detection of Nerve Agents. <i>Asian Pacific Conference on Defence and Security Technology</i> . Istana Hotel, Kuala Lumpur, Malaysia: 6-7 th October.	International
18	N. Kasim , M. K. Aroua and N. M. Sulaiman. (2006). Absorption of Carbon Dioxide by Alkanolamine Aqueous Solutions in Hollow Fiber Membrane Contactor. <i>The 11th Asian Pacific Confederation of Chemical Engineering Congress, APCCChE 2006</i> . Kuala Lumpur Convention Center, Malaysia: 27-30 th August.	International
19	Norherdawati Kasim , Mohamed Kheireddine Aroua and Nik Meriam. (2006) Gas Absorption Studies in Microporous Hollow Fiber Membrane by 2-Amino-2-Methyl-1-Propanol (AMP). <i>The 4th National Technical Postgraduate Symposium & Workshop, TECHPOS 2006</i> . Crystal Crown Hotel, Petaling Jaya: 16-17 th May.	University

20	Norherdawati Kasim , Mohamed Kheireddine Aroua and Nik Meriam. (2006) The Study of Carbon Dioxide Removal in Membrane Module by Single and Mixture of Aqueous Alkanolamine Solutions. <i>Membrane Science and Technology Symposium & Workshop, MST 2006</i> . Nanyang Executive Center, Singapore: 26-28 th April.	International
21	Mohamed Kheireddine Aroua, Norherdawati Kasim and Nik Meriam. (2005). Carbon Dioxide Removal by Aqueous Alkanolamine Solutions in Membrane Contactor. <i>The 3rd Regional Symposium on Membrane, Science & Technology, MST 2005</i> . Bandung, Indonesia: 26-27 th April.	International
22	Norherdawati Kasim , Mohamed Kheireddine Aroua and Nik Meriam Sulaiman. (2004). Removal of Carbon Dioxide by Alkanolamine Aqueous Solutions in Membrane Contactor. <i>Regional Symposium on Chemical Engineering, RSCE 2004</i> . Bangkok, Thailand: 1-3 rd December.	International

2.3 Presentation:

(Please list in chronological order)

No.	Event	Title of Paper Presented	Role (Keynote Speaker / Invited Speaker / Presenter)	Date	Organizer
1	2 nd Online International Conference on Energy and Environmental Materials (INCEEM 2023)	Modification of Nanocomposite Polysulfone Membranes by Addition of Carrageenan for Water Permeability Improvement.	Presenter	6 - 9 Disember 2023	Sharda Universiti, India
2	The 7th International Symposium on Advanced Materials and Nanotechnology (iSAMN2023).	Nanohybrid Polysulfone Membranes Functionalized with Antimicrobial Silver for Water Purification from Heavy Metals	Presenter	12-13 Sept 2023	UPM
3	The 31 st Regional Conference on Solid State Science and Technology, RCSSST 2022. Hotel Perdana, Kota Bharu	Potential of Kappa-carrageenan as Additive in Improving Permeability of Mixed Matrix Membranes	Presenter	6-8 Sept 2022	UMK and MASS
4	International Conference on Research and Practices in Science, Technology and	Effect of Blending Kappa-carrageenan on Hydrophilicity of Polysulfone Membranes for Water Treatment	Presenter	23 July 2022	UiTM Dengkil

	Social Sciences (I-CReST 2022)				
5	The 8 th International Conference on Solid State Science & Technology (ICSSST 2021)	Nanohybrid Polysulfone Membrane for Water Treatment Industries: Preparation and Characterization	Presenter	1-3 Nov 2021	UiTM Arau and MASS
6	The 7 th International Conference on Solid State Science & Technology (ICSSST 2019)	Study on the Impact of pH Adjustment to Remove Metallic Ions Using Membranes.	Invited speaker	11-13 Nov 2019	MASS and UPNM
7	Research Environment Among Department (READ)	Groundwater Treatment by Nanofiltration Membranes	Presenter	26 July 2019	PAP, UPNM
8	4 th International Conference on the Science and Engineering of Materials (IcoSEM 2019)	Role of Size (Steric) and Charge (Donnan) Exclusion in Removal of Iron from Water by Hydrophilic Nanofiltration Membranes	Presenter	26-28 Aug 2019	UM
9	Advanced Materials Conference (AMC 2018)	Effect of Operating Variables in Heavy Metals Removal from Groundwater by Nanofiltration Membranes	Presenter	27-28 Nov 2018	SIRIM
10	International Conference on Challenges in Environmental Science & Engineering (CESE 2015)	Influence of feed concentration and pH on iron and manganese rejection via nanohybrid polysulfone ultrafiltration membrane	Presenter	28 Sept – 2 Oct 2015	University of Technology, Sydney
11	28th Symposium of Malaysian Chemical Engineers (SOMChE 2015)	Iron and manganese removal by NF/UF membranes: Influence of pH adjustment	Presenter	22–23 Oct 2015	Universiti Kebangsaan Malaysia
12	4th IWA Regional Conference on Membrane Technology	Retention of heavy metals by nanofiltration membranes: Influence of operating variables	Presenter	3–6 Dec 2014	International Water Association (IWA)

13	International Conference on Challenges on Environmental Science and Engineering (CESE 2014)	Characterization of hydrophilic nanofiltration and ultrafiltration membranes for groundwater treatment as potable water resources	Presenter	27–30 Sept 2014	Universiti Teknologi Malaysia
14	11th International Conference on Membrane Science and Technology (MST2013)	Potential of nanofiltration in groundwater treatment for potable water resources	Presenter	2–4 Jul 2013	Universiti Teknologi Malaysia
15	Symposium of Scale Up and Downstream Processing Research Group	Treatment of groundwater for drinking water resources using membrane technology.	Presenter	7–9 Dec 2013	Universiti Kebangsaan Malaysia
16	The 11 th Asian Pacific Confederation of Chemical Engineering Congress (APCChE 2006)	Absorption of Carbon Dioxide by Alkanolamine Aqueous Solutions in Hollow Fiber Membrane Contactor	Presenter	27–10 Aug 2006	Chemical Engineers Congress
17	The 4 th National Technical Postgraduate Symposium & Workshop (TECHPOS 2006)	Gas Absorption Studies in Microporous Hollow Fiber Membrane by 2-Amino-2-Methyl-1-Propanol (AMP)	Presenter	16-17 May 2006	University of Malaya
18	Membrane Science and Technology Symposium & Workshop (MST 2006)	The Study of Carbon Dioxide Removal in Membrane Module by Single and Mixture of Aqueous Alkanolamine Solutions	Presenter	26-28 April 2006	Nanyang Technology University of Singapore
19	Regional Symposium on Chemical Engineering (RSCE 2004)	Removal of Carbon Dioxide by Alkanolamine Aqueous Solutions in Membrane Contactor	Presenter	1-3 Dec 2004	Bangkok University

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	Anugerah Akademik Cemerlang - Kategori Penyelidikan dan Inovasi (Sains dan Teknologi)	2024	Universiti	Hari Inovasi dan Majlis Anugerah 2024 (HIMA 2024), UPNM
2	Best Award (Innovation - Category Science & Technology)	2024	National	Defence, Security and Sustainability Exhibition 2024 (DSS 2024), UPNM
3	Gold Medal Award	2024	National	Defence, Security and Sustainability Exhibition 2024 (DSS 2024), UPNM
4	Gold Medal Award	2024	International	Creation de UiTM 2024 (CdU 2024), UiTM
5	Bronze Medal Award	2024	International	International Innovation Award @ Malaysia Technology Expo 2024, (MTE2024)
6	Gold Medal Award	2024	National	Pre-University and Matriculation Innovation Competition (PIITRAM 2024), Asasi Council and USIM
7	Gold Medal Award	2023	International	International Invention, Innovation & Technology Exhibition (ITEX) 2023
8	Gold Medal Award	2023	National	Pre-University and Matriculation Innovation Competition (PIITRAM 2023), Asasi Council and UPNM
9	Gold Medal Award	2023	International	International Invention, Innovation & Design Competition 2023 UiTM Kelantan dan Kolej Vokasional Tanah Merah
10	Gold Medal Award	2023	University	Pusat Asasi Pertahanan Innovation Competition (PAPIC 2023), UPNM
11	Silver Medal Award	2023	University	Pusat Asasi Pertahanan Innovation Competition (PAPIC 2023), UPNM
12	Best Oral Presenter	2022	International	Regional Conference on Solid State Science and Technology, RCSST 2022

13	Gold Medal Award	2022	National	Defence, Security and Sustainability Exhibition 2022, UPNM
14	Gold Medal Award	2022	National	Pre-University and Matriculation Innovation Competition (PIITRAM 2022), Asasi Council and UPNM
15	Gold Medal Award	2022	University	Pusat Asasi Pertahanan Innovation Competition (PAPIC 2022), UPNM
16	Silver Medal Award	2021	International	Materials Technology Challenge 2022 (MTC 5.0)
17	Best Poster Award	2021	National	Pre-University Malaysia Innovation Competition (PIITRAM 2021), Asasi Council and UMT
18	Gold Medal Award	2021	National	Pre-University Malaysia Innovation Competition (PIITRAM 2021), Asasi Council and UMT
19	Gold Medal Award	2021	University	Pusat Asasi Pertahanan Innovation Competition (PAPIC 2021), UPNM
20	ANALIS Member (No.: A653)	2021	National	Malaysian Analytical Sciences Society (ANALIS)
21	MASS Member (No.: MASS 791)	2021	National	The Malaysian Solid State Science and Technology Society (MASS)
22	Anugerah Perkhidmatan Cemerlang - 2019	2020	University	UPNM
23	Silver Medal Award	2019	National	Defence, Security and Sustainability Exhibition 2019, UPNM
24	MyMembrane Member (No: MYM170041)	2017	National	Malaysia Membrane Society
25	Gold Award	2017	National	Invention, Innovation & Design Exposition (iidx 2017), UiTM Shah Alam
26	Gold Award	2017	National	Defence, Security and Sustainability Exhibition 2017, UPNM
27	BEM Member (No: 64836R)	2010	National	Board of Engineer Malaysia,

3.2 Consultancy work that benefited to the University.

(Please list in chronological order and state: title, year, sponsor, value and duration of consultancy)

No.	Title	Year	Sponsor	Value	Duration
1	UKM Pakar Runding Sesi Libat Urus Dan Bengkel Kajian Keperluan Dan Kebolehlaksanaan	2021	-	-	2021 - 2022

No.	Title	Year	Sponsor	Value	Duration
	(Feasibility Study) Peraturan Industri Hijau Secara Atas Talian				
2	Advisor for Manganese Issue in Water Treatment System Developed by Pusat Kajian Hidrologi, Institut Penyelidikan Air Kebangsaan Malaysia (NAHRIM)	2020	-	-	2020 - current

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).

(Please list in chronological order and state: position/membership and duration)

No.	Position/Membership	Committee	Duration
1.1	Administration		
	1. Secretary for Department of Chemistry and Biology – 2023 - 2024	Department	2 years
	2. Research Coordinator for Department of Chemistry and Biology – 2023 - 2024	Department	2 years
	3. Coordinator for Chemistry I - 2021	Faculty	1 Sem
	4. Sem I Session 2021/2022		
	5. Coordinator for Laboratory Chemistry I - 2020	Faculty	1 Sem
	6. Sem I Session 2020/2021		
	7. Coordinator for Chemistry II - 2019	Faculty	1 Sem
	8. Sem II Session 2019/2020		
	9. Coordinator for Chemistry II - 2016	Faculty	1 Sem
	10. Sem II Session 2016/2017		
	11. Coordinator for Chemistry 3 - 2009-2011	Faculty	2 years
	12. Sem II Session 2010/2011		
	13. Sem II Session 2009/2010		
	14. Coordinator for Jawatankuasa Kualiti dan Akreditasi – 2009-2010 Program Manager for:	Faculty	2 years
	15. Kursus Pendedahan OBE Pusat Asasi Pertahanan		
	16. Bengkel Mapping Siri 1		
	17. Bengkel Mapping Siri 2		
	18. Coordinator for Program Kemasyarakatan dan Masyarakat Penyayang - 2011	Faculty	1 year
1.2	Committee		
	1. Committee Member for Jawatankuasa Teknologi Hijau dan Kelaestarian Universiti	University	2 years
	2. Committee Member for Malaysia Membrane Society (UPNM Representative)	National	6 years

	<p>- 2018, 2019, 2020, 2021, 2022, 2023</p> <p>3. Project Manager for Pre-University and Matriculation Innovation Competition (PIITRAM 2022)</p> <p>4. Project Manager for Pusat Asasi Pertahanan Innovation Competition (PAPIC 2021)</p> <p>5. Project Manager for Pre-University Malaysia Innovation Competition (PIITRAM 2021)</p> <p>6. Vice Secretary for PROTEM National Defence University of Malaysia Academician Association (NADIMASA), UPNM – 2010 - 2011 - Committee Member incharged for Registration during the 1st Anual Grand Meeting of NADIMASA</p> <p>7. Committee Member for National Defence University of Malaysia Academician Association (NADIMASA), UPNM – 2011</p>	<p>National</p> <p>University</p> <p>University</p> <p>University</p> <p>University</p>	<p>1 year</p> <p>1 year</p> <p>1 year</p> <p>1 year</p> <p>lifetime</p>
	<p>Faculty</p> <p>1. Coordinator for Committee of Science Technolgy Engineering and Mathematics (STEM), PAP – 2017, 2018, 2019 and 2021</p> <p>2. Deputy Chairperson for Kelab Kebajikan Rekreasi Pusat Asasi Pertahanan (KKRPAP), PAP – 2018, 2019</p> <p>3. Deputy Chairperson for Committee of Science Technology Engineering and Mathematics (STEM), PAP – 2020</p> <p>4. Secretary for Department of Chemistry and Biology – 2016</p> <p>5. Committee Member for Biological Defence Seminar (CBDS) -2016</p> <p>6. Committee Member for ‘Pertandingan Olympiad Sains dan Matematik Peringkat Wilayah Persekutuan’ -2016</p> <p>7. Committee Member for ‘Kumpulan Mobile Ultrafiltration System for Military UM-UPNM’</p> <p>8. Commitee Member for ‘Penyediaan Buku Panduan Akademik Pusat Asasi Pertahanan Sesi 2011/2012’ – 2011</p>		<p>4 years</p> <p>2 years</p> <p>1 year</p> <p>1 year</p> <p>during event</p> <p>during event</p> <p>during event</p> <p>1 year</p>

	<p>9. Committee Member for 'Penyediaan Pusat Kecemerlangan Penyelidikan Sains Tulen dan Gunaan' – 2011</p> <p>10. Committee Member for 'Ceramah Strategi Penerbitan Yang Berkesan' - 2010</p> <p>11. Committee Member for 'Penyediaan Silibus Diploma in Ammunition Technology' - 2010</p> <p>12. Committee Member of Curriculum Re-Structure for Programmes at The Centre for Defence Foundation Studies – 2009 and 2011</p>		<p>1 year</p> <p>during event</p> <p>1 year</p> <p>2 years</p>
1.3	Academic Advisory		
	<p>Faculty</p> <p>1. 16 orang pelajar Program Asasi Kejuruteraan dan Teknologi di Pusat Asasi Pertahanan (2023) – KT6</p> <p>2. 16 orang pelajar Program Asasi Kejuruteraan dan Teknologi di Pusat Asasi Pertahanan (2022) – KT5</p> <p>3. 11 orang pelajar Program Asasi Kejuruteraan dan Teknologi di Pusat Asasi Pertahanan (2021) – KTD</p> <p>4. 12 orang pelajar Program Asasi Kejuruteraan dan Teknologi di Pusat Asasi Pertahanan (2020) – KT10</p> <p>5. 17 orang pelajar Program Asasi Kejuruteraan dan Teknologi di Pusat Asasi Pertahanan (2019) – KT8</p> <p>6. 21 orang pelajar Program Asasi Kejuruteraan dan Teknologi di Pusat Asasi Pertahanan (2018) – KT11</p> <p>7. 20 orang pelajar Program Asasi Kejuruteraan dan Teknologi di Pusat Asasi Pertahanan (2017) –KT14</p> <p>8. 18 orang pelajar Program Asasi Kejuruteraan dan Teknologi di Pusat Asasi Pertahanan (2016) - KT2</p> <p>9. 23 orang pelajar Program Perubatan Pertahanan di Pusat Asasi Pertahanan (2011)</p> <p>10. 13 orang pelajar Program Sains Teknologi Pertahanan di Pusat Asasi Pertahanan (2010)</p> <p>11. 15 orang pelajar Program Kejuruteraan Pertahanan di Pusat Asasi Pertahanan (2009)</p> <p>12. 14 orang pelajar Program Kejuruteraan Pertahanan di Pusat Asasi Pertahanan (2008)</p>		<p>2 Sem</p> <p>2 Sem</p> <p>2 Sem</p> <p>2 Sem</p> <p>2 Sem</p> <p>2 Sem</p> <p>2 Sem</p> <p>2 Sem</p> <p>2 Sem</p> <p>2 Sem</p> <p>2 Sem</p> <p>2 Sem</p> <p>2 Sem</p>

3.4 Service to the community


(Please list in chronological order)

No.	Organization	Role	Year	Level
1	Pameran STEM sempena Minggu Sains dan Matematik di Sekolah Menengah	Member	2023	School

	Kebangsaan Bandar Tasik Selatan			
2	Pameran STEM sempena Ceramah dan Hari Kerjaya STEM di Sekolah Kebangsaan Bandar Tun Razak 1	Coordinator	2020	School
3	Pameran STEM sempena 2 nd National STEM Seminar di Pusat Asasi Sains, Universiti Malaya	Coordinator	2019	School and University
4	Pameran STEM sempena Hari Inovasi STEM peringkat Sekolah Menengah Kebangsaan Bandar Tasik Selatan	Coordinator	2019	School and University
5	Program Sirih Pulang ke Gagang, Alumni MRSM Beseri sempena minggu kerjaya	Facilitator	2019	School
6	Bengkel Training of Traineers bagi guru sains sekolah rendah peringkat Wilayah Persekutuan Kuala Lumpur	Coordinator and Mentor	2018	School and University
7	Pameran sempena Olympiad Mathematics and Science di UPNM	Exhibitor	2018	University
8	Pameran STEM sempena Karnival Pendidikan peringkat SMK Bandar Tasik Selatan	Exhibitor	2018	School
9	Pameran sempena Hari Kesedaran Kimia di SMK Bandar Tasik Selatan	Exhibitor	2017	School
10	Lawatan Pelajar SMK Bandar Tasik Selatan ke UPNM	Penganjur/Pengurus	2017	School and University
11	<ul style="list-style-type: none"> i. Answer Scripts (114) of Engineering Chemistry for Semester I Session 2010/2011 for Matriculation Programme(PSPM), Ministry of Education Malaysia. ii. Answer Scripts (115) of Engineering Chemistry for Semester II Session 2010/2011 for Matriculation Programme 	External Examiner	2010 2010	National

	(PSPM), Ministry of Education Malaysia. iii. Answer Scripts (123) of Chemistry PDT for Semester I Session 2011/2012 for Matriculation Programme (PSPM), Ministry of Education Malaysia. iv. Answer Scripts (130) of Chemistry PDT for Semester II Session 2011/2012 for Matriculation Programme (PSPM), Ministry of Education Malaysia.		2011 2012	
12	The 5th Chemical Engineering Undergraduates Research Day 13th May 2009, Dewan Kuliah 2, Blok U, Faculty Of Engineering, University of Malaya.	Evaluator for Poster Presentations	2009	University

I declare that all the information in this form is true and correct. The University has the right to withdraw or reject the application if any information in this form found to be untrue.

Signature : 

Name : Dr. Norherdawati Kasim

Faculty/Department : Pusat Asasi Pertahanan

Date : 12/6/2024