



UNIVERSITI PERTAHANAN NASIONAL MALAYSIA

JABATAN PENDAFTAR

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Kewajipan, Maruah, Integriti

CURRICULUM VITAE



I. PERSONAL PARTICULARS	
Name	Dr Jahwarhar Izuan Bin Abdul Rashid
Current Position	Senior Lecturer DS 51
Faculty / Department	Department of Chemistry & Biology Centre for Defence Foundation Studies National Defense University of Malaysia, Sg Besi Camp, Federal Kuala Lumpur, Malaysia

II. ACADEMIC AND PROFESSIONAL QUALIFICATIONS

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

Year	Degree	Discipline	University
2008	Bachelor of Science with Honour	Microbiology	National University of Malaysia (UKM)
2012	Master of Science	Microbiology	National University of Malaysia (UKM)
2016	Ph.D	Sensor Technology Engineering	Universiti Putra Malaysia (UPM)

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

No.	TITLES OF POSTGRADUATE THESES
Master	The development of solid state fermentation (SSF) process for mannanase production using prototype bioreactor SSF.
Ph.D	Development of DNA Electrochemical Sensor based on Silicon Nanowires/Gold nanoparticles-Modified Electrode for early detection of Dengue virus

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

Year	Position	Organisation	Start and End Date
July 2008- July 2011	Researcher	Poultry biotechnology bioprocess engineering & microbiology industrial	Makmal Bioproses PKC, MARDI, 43400, Serdang, Selangor, Malaysia
August 2011- April 2013	Tutor DA41	Biology teaching for pre-medical foundation student	Department of Chemistry/Biology Centre for defence Foundation, UPNM
Mei 2013- Oktober 2016	Lecture DS45	Biology/Mathematic teaching in foundation studies Research- Electrochemical biosensor	Department of Chemistry/Biology Centre for defence Foundation, UPNM

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 (How to write a review paper)	1	2020

1.2 First Degree Courses

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

No.	Course Title	Semester	Year
-	-	-	-

1.3 Diploma Courses

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

No.	Course Title	Semester	Year
-	-	-	-

1.4 Pre-Degree Courses

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

No.	Course Title	Semester	Year
1	Biology 3 (FQA 0432)	2	2011/2012
2	Biology laboratory (FQA 0443)	2	2011/2012
3	Biology laboratory (FQA 0462)	1,2	2012
4.	Chemistry laboratory (FCH 02	1,2	2012
5.	Mathematics 1 (FMA 0116)	1	2016

6.	Mathematics 2 (FMA 0126)	2	2016/2017
7.	Biology 1	1	2017
8.	Biology Laboratory 1	1	2017
9.	Biology 2	2	2017/2018
10.	Biology Laboratory 2	2	2018
10.	Chemistry 1 (FCH0216)	1	2018/2019
11.	Chemistry Laboratory 1	1	2018/2019
11.	Chemistry 2 (FCH0216)	2	2019
12.	Chemistry Laboratory 2	2	2019/2020
13.	Chemistry 1 (FCH0216)	1	2019/2020
14.	Chemistry Laboratory 1	1	2019/2020
15.	Chemistry 2	2	2020/2021
16.	Chemistry Laboratory 2	2	2020/2021

1.5 PhD Supervision

(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.	Muhammad Hafiz bin Ahmad	An electrochemical Sensor based Graphene nanocomposite-modified electrode for the detection of Pseudomonas aeruginosa infections	2017	Main	In Progress	UPNM
2.	Mohd Haziq Bin Kahar	Psychological profiles of military personnel and its relationship with related biomarkers for the	2017	Main	In Progress	UPNM

		application in biosensor				
3.	Mohd Junaedy bin Osman	Selective colorimetric detection of main products and mechanism determination of hydrolysis of vx nerve agents	2017	CO-SV	In Progress	UPNM

1.6 PhD External/Internal Examination

(Please list in chronological order)

No.	Name of Student	Project Title	External / Internal	Date of Viva	University
-	-	-	-	-	-

1.7 MSc (by Research)

(Please list in chronological order)

No.	Name of Student	Project Title	Date of Registration	Role (Main / Co-Supervision)	Status <ul style="list-style-type: none"> • Completed • Submitted • In Progress 	University
1.	Chee Joon Min	The Biological Effect of Ti6Al4V and Red Brass Powder on the Endothelial Cells Behaviour	2017	Co-Supervision	In progress	UPNM
2.	Fellyzra Elvya Pojol (3181087)	Development of simple detection method of methyphosphonic acid (main hydrolysis product of VX nerve agent)	2018	Co-Supervision	In progress	UPNM

3.	Farah Nabila Diauddin (3191139)	Invention of interdigitated electrode-modified nanoparticles Aptasensor of sarin stimulant DMMP for electrical detection based on chemiresistor.	2018	Co-Supervision	In progress	UPNM
4.	Vavithiswary a/p Kannan	Fabrication And Optimization Of Reduced Graphene Oxide Layer On Screen Printed Carbon Electrode For Detection Of Cortisol In Human Blood	2019	Co-Supervision	In progress	UPNM

1.8 MSc External/Internal Examination

(Please list in chronological order)

No.	Name of Student	Project Title	External / Internal	Date of Viva	University
-	-	-	-	-	-

1.9 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

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)

	Title	List of Researchers • Principal • Members	Grant Year	Source Amount	Status • Completed • In Progress
1.	Psychological fitness among infantry personnel and development of nanotechnology-based biosensor	Members	2013-2018	NRGS/2013/UPNM/PK/P4 (RM 1,600000)	Completed
2.	Simple and Rapid Method to detect Organophosphorous pesticide (simulant of Nerve agent) by colorimetric incorporated with image processing technique	Members	2016-2018	UPNM/2016/GP JP/3/SG/2 (RM 24,000)	Completed
3.	Investigation of electrochemical behaviour of Pyocyanin based graphene nanocomposite-modified electrode for potential application in diagnostic of Pseudomonas aeruginosa infections	Principal	2017-2020	FRGS/1/2017/S TG03/UPNM/03/1) (RM 78,200)	Completed
4.	Effects of DNA aptamer structure and gold nanoparticle amount on detection of main hydrolysis products of VX nerve agent	Members	2017-2019	FRGS/1/2017/S TG01/UPNM/02/1) (RM 61,000)	Completed
5.	An antifouling interfacing based on electrode -organic layer-nanoparticle construct for selective determination of uric acid as wound biomarker for potential application in wound monitoring	Members	2018-2020	UPNM/2018/GP JP/SG/1 RM 20,000	Completed

	Title	List of Researchers • Principal • Members	Grant Year	Source Amount	Status • Completed • In Progress
6.	Simple and Rapid Method to detect A simulatant of Nerve Agent By colorimetric incorporate with image processing technique	Members	2018-2020	UPNM/2018/CH EMDEF/ST/2 RM 200,000	In progress
7.	The Multiplication and Differention of Autologous Mesenchymal Stem to Cochlear Hair Cell using the effect of electoromagnetic wave	Members	2019-2021	UPNM/2019/GP JP/SG/1 RM 20,000	In progress
8.	Bacteriological profile of hand phones of medical students in National University of Malaysia	Members	2019-2021	UPNM/2019/GP JP/SP/2 RM 20,000	In progress
9.	Investigation of electrochemical impedimetric behaviour of the DNA aptamer conjugated gold nanoparticles/reduced graphene oxide-modified electrode for the determination of malathion	Members	2019-2021	RACER/1/2019/STG01/UPNM/1 RM 20,000	In progress
10.	Identification, Characterization and Mitigation of Sulphate-Reducing Bacteria (Srb) Isolated From The Waters of The Naval Base In Lumut, Perak And Kuantan, Pahang	Members	2019-2021	UPNM/2019/GP JP 2/SG/1 RM 5000	In progress
11.	Gut Microbiota Profilling of individual psychiatric disorders (Mood disorders) influence on blood neurotransmitter	Principals	2020-2024	FRGS/1/2020/S skk0/UPNM/02/1 RM 169,710	In progress

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)	Years	Type of Journal • ISI • SCOPUS • Peer-Reviewed
1.	Jahwarhar Izuan Abdul Rashid , Noraini samat and Wan Mohtar Wan Yusof Optimization of temperature, moisture content, and inoculum size in solid state fermentation to enhance mannanase Production By <i>Aspergillus terreus</i> SUK-1 Using RSM. <i>Pakistan Biological Science Journal</i> , 14: 533-539.	2011	Scopus (Q3)
2	Jahwarhar Izuan Abdul Rashid , Noraini samat and Wan Mohtar Wan Yusof Screening And Optimization of Medium Composition for Mannanase Production By <i>Aspergillus terreus</i> SUK-1 In Solid State Fermentation (SSF) Using Statistical Experimental Methods. <i>Research Journal of Microbiology</i> , 7(5): 242-255.	2012	Scopus (Q4)
3.	Jahwarhar Izuan Abdul Rashid , Noraini samat and Wan Mohtar Wan Yusof Studies on Extraction of Mannanase Enzyme by <i>Aspergillus terreus</i> SUK-1 from fermented Palm Kernel Cake. <i>Pakistan Biological Science Journal</i> , 16(18) 933-938.	2013	Scopus (Q3)
4.	Jahwarhar Izuan Abdul Rashid , Nur Azah Yusof, Jaafar Abdullah, Uda Hashim, Reza Hajian. The Development of Silicon Nanowire as Sensing Material and Its Applications, <i>Journal of Nanomaterials</i> , Article ID 328093	2013	ISI, Scopus (Q1)
5.	Jahwarhar Izuan Abdul Rashid , Nur Azah Yusof, Jaafar Abdullah, Uda Hashim, Reza Hajian. The utilization of SiNWs/AuNPs-modified indium tin oxide (ITO) in fabrication of electrochemical DNA sensor. <i>Materials Science and Engineering: C</i> , 45, 270-276	2014	ISI, Scopus (Q1)
6.	Jahwarhar Izuan Abdul Rashid , Nur Azah Yusof, Jaafar Abdullah, Uda Hashim, Reza Hajian. A novel Disposable Biosensor Based on SiNWs/AuNPs Modified-Screen Printed Electrode for Dengue Virus DNA Oligomer Detection. <i>IEEE Sensors Journal</i> , 15(8), 4420 – 4427	2015	ISI, Scopus (Q1)
7.	Jahwarhar Izuan Abdul Rashid , Nur Azah Yusof, Jaafar Abdullah, Uda Hashim, Reza Hajian. Surface modifications to boost sensitivities of electrochemical biosensors using gold nanoparticles/silicon nanowires and response surface methodology approach. <i>Journal of Materials Science</i> , 51(2),	2016	ISI, Scopus (Q1)

	1083-1097.		
8.	Ainsah Omar, Jahwarhar Izuan Abd Rashid* , Azyani Athirah Abd Latif, Khairunnisa Abd Karim, Osman Che Bakar, Muhamad Abu Bakar, Wan Md Zin Wan Yunus. Development Of Cortisol Immunosensor Based Reduced Graphene Oxide (Rgo) For Future Application In Monitoring Stress Levels Among Military Personnel. Defence S and T Technical Bulletin 10(2):142-148 .	2017	Scopus (Q3)
9.	Jahwarhar Izuan Abdul Rashid , Nur Azah Yusof. The strategies of DNA immobilization and hybridization detection mechanism in the construction of electrochemical DNA sensor: A review. Sensing and Bio-sensing Research 16: 19-31.	2017	Scopus (Q1)
10.	Jin Hoong Leong, Keat Khim Ong, Wan Yunus Wan Md Zin, Fitrianto Anwar, Chin Chunag Teoh, Jahwarhar Izuan Abdul Rashid , Mansor Ahmad. Digital image-based colorimetry for enhancement of Arsenic (III) determination. Asian Journal of Chemistry 30(7): 1451	2018	Scopus (Q4)
11.	Jahwarhar Izuan Abdul Rashid , Nor Azah Yusof. Laboratory Diagnosis and potential application of nucleic acid Biosensor approach for early detection of dengue virus infection. Bioscience, Biotechnology Research Malaysia (2018) 15 (2).	2018	Scopus (Q4)
12.	Soleha Mohamat Yusuff, Ong Keat Khim, Wan Mad Zin Wan Yunus, Jahwarhar Izuan Abdul Rashid , Anwar Fitrianto, Mansor Ahmad, Nor Azowa Ibrahim, Syed Mohd Shafiq Syed Ahmad and Chin Chuang Teoh, 2019. Thermally Treated Alum Sludge as Novel Adsorbent of Carbon Dioxide (CO ₂). <i>Journal of Engineering and Applied Sciences</i> , 14: 405-414.	2019	Scopus (Q4)
13.	Diauddin, F. N., Rashid, J. I. A. , Knight, V. F., Yunus, W. M. Z. W., Ong, K. K., Kasim, N. A. M., ... & Noor, S. A. M. (2019). A review of current advances in the detection of organophosphorus chemical warfare agents based biosensor approaches. <i>Sensing and Bio-Sensing Research</i> , 26, 100305.	2019	Scopus (Q1)
14.	Ahmad Farid Mohd Azmil, Vayithiswary Kannan, Nur Sabila Yasin, Jahwarhar Izuan Abdul Rashid , Ainsah Omar, Emea Marina Salleh. (2020) Effect of Time And Temperature on Reduced Graphene Oxide (Rgo) Layer Stability And Cyclic Voltammetric Behaviour of Modified Screen-Printed Carbon Electrode (Mspce) for Biosensing Purposes, Malaysian Journal of Analytical Sciences 24 (5), 800-809	2020	Scopus (Q4)

15.	Sulaiman, I. C., Chieng, B. W., Osman, M. J., Ong, K. K., Rashid, J. I. A. , Yunus, W. W., & Mohamad, A. (2020). A review on colorimetric methods for determination of organophosphate pesticides using gold and silver nanoparticles. <i>Microchimica Acta</i> , 187(2), 1-22.	2020	ISI (Q1)
16.	Sulaiman, I. S. C., Chieng, B. W., Pojol, F. E., Ong, K. K., Rashid, J. I. A. , Yunus, W. M. Z. W., & Knight, V. F. (2020). A review on analysis methods for nerve agent hydrolysis products. <i>Forensic Toxicology</i> , 38(2), 297-313.	2020	ISI (Q2)
17.	Rashid, J. I. A. , Kannan, V., Ahmad, M. H., Mon, A. A., Taufik, S., Miskon, A., & Yusof, N. A. (2020). An electrochemical sensor based on gold nanoparticles-functionalized reduced Graphene oxide screen printed electrode for the detection of Pyocyanin biomarker in <i>Pseudomonas aeruginosa</i> infection. <i>Materials Science and Engineering: C</i> , 111625.	2020	ISI (Q1)
18.	Osman, M. J.; Wan Yunus, W. M. Z.; Ong, K. K.; Chieng, B. W.; Mohd Kassim, N. A.; Mohd Noor, S. A.; Feizal Knight, V.; Abd Rashid, J. I. ; Teoh, C. C., Image Digitization of Colorimetric Detection of Acephate Based on Its Complexation with Citrate-Capped Gold Nanoparticles. <i>Journal of Chemistry</i> 2020 , 2020.	2020	ISI (Q1)
19.	Osman, M. J., Rashid, J. I. A., Khim, O. K., Yunus, W. M. Z. W., Noor, S. A. M., Kasim, N. A. M., ... & Chuang, T. C. (2021). Optimisation of a gold nanoparticle-based aptasensor integrated with image processing for the colorimetric detection of acephate using response surface methodology. <i>RSC Advances</i> , 11(42), 25933-25942.	2021	
20.	Dzulkurnain, N. A., Mokhtar, M., Rashid, J. I. A., Knight, V. F., Wan Yunus, W. M. Z., Ong, K. K., ... & Mohd Noor, S. A. (2021). A Review on Impedimetric and Voltammetric Analysis Based on Polypyrrole Conducting Polymers for Electrochemical Sensing Applications. <i>Polymers</i> , 13(16), 2728.	2021	
21.	Mohd Razib, M. S., Latip, W., Abdul Rashid, J. I., Knight, V. F., Wan Yunus, W. M. Z., Ong, K. K., ... & Mohd Noor, S. A. (2021). An Enzyme-Based Biosensor for the Detection of Organophosphate Compounds Using Mutant Phosphotriesterase Immobilized onto Reduced Graphene Oxide. <i>Journal of Chemistry</i> , 2021.	2021	
22.	Rashid, J. I. A., Yusof, N. A., Abdullah, J., & Shomiad, R. H. (2022). Strategies for the preparation of non-amplified and amplified genomic dengue gene samples for electrochemical DNA biosensing applications. <i>RSC Advances</i> , 12(1), 1-10.	2022	

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

		<ul style="list-style-type: none"> • University
1.	Ong PS, Yusof NA, Bwatanglang IB, Rashid JI , Nordin N, Azmi IA. Impact of Nanotechnology on Diagnosis and Therapy in Biomedical Industry. In Handbook of Nanomaterials for Industrial Applications 2018 Jan 1 (pp. 662-695). Elsevier.	International
	STEM	

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 <ul style="list-style-type: none"> • International • National • University
-	-	-

2.3 Presentation:

(Please list in chronological order)

No.	Event	Title of Paper Presented	Role (Keynote Speaker / Invited Speaker / Presenter)	Date	Organizer
1.	. 2nd National Symposium on Fermentation Technology: 14-15 December 2009, Malacca international Trade centre (MiTC), Ayer keroh, Melaka, Malaysia: pages	Jahwarhar Izuan Abdul Rashid , Noraini samat and Wan Mohtar Wan Yusoff. Optimization of medium composition for mannanase production by <i>Aspergillus terreus</i> suk-1 in solid state	National presenter	1.	2009

	36.	fermentation using statistical model			
2.	Fourth Saudi Science Conferences 21 -24 march 2010, Medina, Saudi Arabia: pages 82	Jahwarhar Izuan Abdul Rashid , Noraini Samat and Wan Mohtar Wan Yusoff 2010. Optimization of mannanase production by <i>Aspergillus terreus</i> <i>SUK-1</i> using palm kernel cake (PKC) under solid state fermentation (SSF) using Response surface methodology (RSM) ,	International presenter	2.	2010
3.	AsiaSense 2013	Jahwarhar Izuan Abdul Rashid , Nor Azah Yusof & Jaafar Abdullah. Preliminary studies on development of SiNWs/AuNPs-modified electrode for dengue virus detection. AsiaSense 2013, 27-29 August 2013, Ramada Plaza Hotel, Melaka, Malaysia	International presenter	3.	2013
4.	International Symposium on Nanomedicine (ISNM 2013), 7-9 November 2013, At Nakamura Centenary Hall of Kyushu Institute of Technology, Japan	Jahwarhar Izuan Abdul Rashid , Jaafar Abdullah & Nor Azah Yusof 2013. Development of silicon nanowires (SiNWs)/gold nanoparticles (AuNPs)-modified electrode for oligonucleotide sequence of dengue virus detection, 7th.	International presenter	4.	2013
5.	Sensor in Medicine 2014	Nor Azah Yusoff, Jahwarhar Izuan Abdul Rashid , Jaafar Abdullah, Uda Hashim. Development of SiNWs)/(AuNPs)-modified electrode based on electrochemical method for dengue virus detection., 25-26 March 2014, London.	International presenter	5.	2014
6.	Workshop on advanced Materials and	Jahwarhar Izuan Abdul Rashid , Jaafar Abdullah, Uda	National Presenter	6.	2014

	Nanotechnology (WAMN 2014),	Hashim & Nor Azah Yusof. The detection of dengue virus based on electrochemical methods utilized of SiNWs/AuNPs as sensing materials. 25-26 August 2014, Auditorium, Faculty of Engineering, Universiti Putra Malaysia. Pp 43-44.			
7.	International Symposium on Applied Engineering and Sciences (SAES 2014), 20 th 21st December 2014, Kyutech, Kitakyushu, Japan	Jahwarhar Izuan Abdul Rashid , Jaafar Abdullah, Uda Hashim & Nor Azah An electrochemical DNA sensor based on SiNWs/AuNPs modified indium tin oxide (ITO) electrode & Screen printed gold electrode (SPGE) for early detection of dengue virus. 2nd	International Presenter	7.	2014
8.	The 3rd international Conference on Defence and Security Technology 2016. 15th-17th August 2016, Marriot Hotel, Putrajaya Malaysia	J.I.A Rashid , A. Omar, A.A.A. Latif, K.A Karim, O.C Bakar, M.A Bakar & W.M.Z.W. Yunus. Development of Cortisol Immunosensor Based Graphene Oxide For Future Application in Monitoring Stress Levels Among Military Personnel.	International Presenter	8.	2016
9.	PutraConf: Sensors in medical diagnostics 2017	Jahwarhar Izuan Abdul Rashid . Electrochemical DNA Sensor based silicon nanowires/gold nanoparticles modified screen printed gold electrode (SPGE) for rapid detection of dengue virus., 4 Jan 2017, Faculty of Engineering, Universiti Putra Malaysia	Local Invited speaker	9.	2017

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	NATIONAL SCIENCE FELLOWSHIP (NSF) under Ministry of Science Technology and Innovation (MOSTI), Malaysia.	2008-2010	Local	KPT
2	GOLD AWARDS, Bioinno award 2010, BIOMALAYSIA 2010, 1-3 November 2010: PKC Enzymes Cocktail-Enhancing Performance of Palm Kernel Cake Based Broiler Diets, Biomalaysia, KLCC, Kuala Lumpur.	2010	International	MARS
3	ITEX SILVER MEDAL, ITEX 2011, 20-22 May 2011: PKzyme enhancing performance of PKC based poultry diet, 22nd International Invention, Innovation and Technology Exhibition, KLCC, Kuala Lumpur.	2011	International	MINDS
4	BEST INVENTION MALAYSIA INNOVATIVE PRODUCT AWARD PKzyme enhancing performance of PKC based poultry diet, 22nd International Invention, Innovation and Technology Exhibition, KLCC, Kuala Lumpur, 20-22 May 2011.	2011	International	MINDS
5	POSTGRADUATE UPM GRANT AWARD (Grant Putra IPS) for research of: An electrochemical DNA sensor utilized of SiNWs/AuNPs-modified ITO and screen printed electrode for dengue virus detection (RM 15,000).	2013	Local	UPM
6	BEST PRESENTATION: The detection of dengue virus based on electrochemical methods utilized of SiNWs/AuNPs as sensing materials. Workshop on advanced Materials and Nanotechnology (WAMN 2014), 25-26 August 2014, Auditorium, Faculty of Engineering, Universiti Putra Malaysia.	2014	Local	UPM

7	BEST PAPER AWARDS: Development of Cortisol Immunosensor based Reduced Graphene Oxide (rGO) For Future Application In Monitoring Stress Levels Among Military Personnel. The Marriot Hotel, Putrajaya Malaysia. 15-17 August 2016.	2016	International	DSTC 2016
7.	SCIENCE JUDGE in Science and Math Olympiad Competition at Perak State	2016	National	GAGASAN NGO
8.	SCIENCE JUDGE in Science and Math Olympiad Competition at Johor State	2016	National	GAGASAN NGO
9.	INVITED SPEAKER: PutraConf: sensors in medical diagnostic (4 Januari 2017, ITMA, UPM)	2017	University	UPNM
10	SILVER AWARDS In Defence Security & Sustainability Exhibition 2017 (DSS 2017)	2017	University	UPNM
11.	SILVER AWARDS In project entitle Development of a Portable Stress Biosensor for Future Military Applications 'at IIDEX 2017 25-29 SEPT 2017, UITM Malaysia	2017	International	UITM, IRMI
12.	GOLD AWARDS In project entitle 'A novel antifouling interspace for electrochemical determination of hemoglobin' at IIDEX 2017 25-29 SEPT 2017, UITM Malaysia	2017	International	UITM, IRMI
13.	SILVER AWARDS In project entitle Development of a Portable Stress Biosensor for Future Military Applications 'at International Conference and Exposition on inventions by Institutions of Higher Learning (PENCIPTA 2017), 7-9 Oktober 2017, Stadium tertutup Kompleks Sukan Negeri Gong Badak, Kuala Nerus, Terengganu, Malaysia	2017	International	Institute of Higher Learning, Unisza and UMT
14.	ANUGERAH SKIM INSENTIF HASIL PENYELIDIKAN DAN INOVASI 2016	2017	University	UPNM
15.	PENILAI KOLOKIUUM SISWAZAH (17-18 Julai 2017)	2017	University	UPNM
16.	SCIENCE JUDGE in Science and Math Olympiad Competition at Penang State	2018	National	GAGASAN NGO Penang

17.	ANUGERAH SKIM INSENTIF HASIL PENYELIDIKAN DAN INOVASI 2017	2018	University	National Defense University of Malaysia
18.	UPNM RISING STAR 2007-2017	2018	University	National Defense University of Malaysia
19.	ANUGERAH PERKHIDMATAN CEMERLANG 2018 UPNM	2019	University	National Defense University of Malaysia
20.	ANUGERAH AHLI AKADEMIK HARAPAN 2018 UPNM	2019	University	National Defense University of Malaysia
21.	BRONZE AWARD-IEANA 2019 -International Trade Fair Ideas-Inventions-New ProductsStress-DeT	2019	International	IEANA
22.	GOLD AWARD in ITEX 2019 (International invention, innovation & Technology exhibition, Malaysia) Project title: simple and portable nerve agent simulant detection system	2019	International	Malaysian Invention and Design Society
23.	GOLD AWARDS in International Conference and Exposition on inventions by institution PECIPTA 2019. Project: Portable Stress Biosensor	2019	International	Ministry of Education Malaysia
24.	GOLD AWARD in Defense, Security and Sustainability 2019 (DSS 2019). Project: A Selective and Rapid Detection of Combat Wound Infections Using based Electrochemical sensor	2019	Local	National Defense University of Malaysia
25.	GOLD AWARD in Defense, Security and Sustainability 2019 (DSS 2019). Project: Portable Stress Biosensor	2019	Local	National Defense University

				of Malaysia
26.	GOLD AWARD in Defense, Security and Sustainability 2019 (DSS 2019). Project: Methylphosphonic acid (A main hydrolysis product of nerve agent) detection test kits	2019	Local	National Defense University of Malaysia
27.	SILVER AWARD in Defense, Security and Sustainability 2019 (DSS 2019). Project: A simple and rapid sensing method for acephate (A simulant of nerve)	2019	Local	National Defense University of Malaysia
28.	BRONZE AWARD in Defense, Security and Sustainability 2019 (DSS 2019). Project: Polymer based nanoparticles modified electrode of chemiresistive aptasensor for application in detection of selective chemical nerve gas agent	2019	Local	National Defense University of Malaysia
29	Judge in MTC 2019	2019	International	The Malaysian Solid State Science and Technology Society
	Poster judge in ICSST 2019	2019	International	The Malaysian Solid State Science and Technology Society
29.	GOLD AWARD in Malaysia Technology Expo (MTE) 2020: COVID-19 International Innovation Award	2020	International	PROTEMP

Journal Reviewer

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
-	-	-	-	-	-

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)

1.	AJK penyediaan Program Ijazah Sarjana Muda (Sains Forensik)	Ahli	2016-sekarang
2.	AJK Biro Teknikal dan Logistik Dalam bengkel penyediaan dokumen baharu	Ahli	2016
3.	AJK Pelaksana Pertandingan Olympiad Sains dan Matematik Peringkat Wilayah Persekutuan	Ahli	2016
4.	AJK spesifikasi bagi sebut harga dan Membekal dan menghantar peralatan bagi kegunaan geran penyelidikan NRGs/2013/UPNM/PK/P4, Universiti pertahanan Nasional Malaysia	Ahli	2016
5.	AJK spesifikasi bagi sebut harga dan Membekal dan menghantar peralatan bagi kegunaan geran penyelidikan NRGs/2013/UPNM/PK/P4, Universiti pertahanan Nasional Malaysia	Ahli	2017
6.	Penyelaras Subjek Biologi (FBY 0426)	Penyelaras	2017
7.	Penyelaras Subjek Makmal Biologi	Penyelaras	2017
8.	Pegawai pengurusan risiko Asasi	Penyelaras	2016-sekarang
9.	Penyelaras Subjek Makmal Kimia ASASI	Penyelaras	2019
10.	Penyelaras Program Sarjana dan Ph.D Biologi	Penyelaras	2018-Sekarang
11.	Timbalan pengerusi STEM ASASI UPNM	Timbalan pengerusi	2019
12.	Jawatankuasa STEM (Kuiz Kimia Kebangsaan)	AJK	2020
13.	AJK STEM ASASI UPNM	AJK	2020

13.	Jawatan Kuasa Gerak Kerja Bagi Program Baharu Ijazah Sarjana muda Sains Penyiasatan Forensik (Kepujian) Di Jabatan Sains Pertahanan	AJK	2020
14.	Penilai kolokium perbentangan proposal dan kemajuan pelajar pascasiswazah	Penilai	2020

3.4 Service to the community

(Please list in chronological order)

No	Level of Involvement	Activity	Organizer	Venue	Date/Year/duration
1.	Peringkat Negeri Perak	Hakim Pertandingan Olympiad Sains dan Matematik	NGO Gagasan dengan kerjasama UPNM	SMK Clifford Kuala Kangsar	12 Nov 2016/1 hari
2.	Peringkat Negeri Johor	Hakim Pertandingan Olympiad Sains dan Matematik	NGO Gagasan dengan kerjasama UPNM		16 Nov 2016/1 hari
3.	Malaysia	NGO Secretary	Persatuan Pembangunan Teknologi Sensor	-	2016 -Present