



CURRICULUM VITAE



I. PERSONAL PARTICULARS			
Name	NORZAURA BINTI ABD RAHMAN		
Current Position Faculty / Department	LECTURER (DS 45) PUSAT ASASI PERTAHANAN JABATAN MATEMATIK		
II. ACADEMIC AND PROFESSIONAL QUALIFICATIONS			
(Please list all academic qualifications, from your first degree, in chronological order)			
Year	Degree	Discipline	University
2017 – 2021	PhD Engineering	Civil Engineering (Water)	UKM
2010 - 2012	Master of Science in Mathematics	Management Mathematics	UKM
2005 - 2008	Bachelor Degree of Mathematics	Mathematics	UiTM
III. TITLES OF POSTGRADUATE THESES WRITTEN (At MSc/PhD Level)			
No.	TITLES OF POSTGRADUATE THESES		
1.	Pembangunan Pakej Pengoptimuman GA-EPANET untuk Permodelan Sistem Pengagihan Air yang Berusia (2021, PhD)		
2.	Application of Goal Programming in Examination Timetabling Problem: Case Study in NDUM (2012, Msc)		

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

Year	Position	Organisation	Start and End Date
2013 - Present	Lecturer	UPNM	1 May 2013 - Present
2009 - 2013	Tutor	UPNM	1 July 2009 – 30 April 2013
2008 - 2009	Customer Service Officer	Shell Trading Berhad	Oct 2008 – May 2009
2007	Assistant Lecturer under Student Service Scheme (part-time)	UiTM Shah Alam	Feb – April 2007

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

1.2 First Degree Courses

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

No.	Course Title	Semester	Year
1.	EFA 2203 Operations Research and Computer Information System	SEM 1	2015/2016

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.	FMA 0146 Basic Mathematics	SEM 1	2009/2010 2013/2014 2014/2015 2016/2017 2017/2018 2022/2023
2.	FMA0166 Business Mathematics	SEM 1	2015/2016
3.	FMA 0233 Introduction to Statistics	SEM 2	2009/2010
4.	FMA 0126 Mathematics II	SEM 2	2012/2013 2013/2014 2014/2015 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 <ul style="list-style-type: none">• Completed• Submitted• In Progress	University

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.	Mej. Hasmady bin Alim	Keberkesanan Kerjasama Pertahanan dan Keselamatan ATM Bersama Agensi Penguatkuasaan Bagi Menangani Ancaman Keselamatan di ESSCOM	2013 - 2016	Co-Supervision	Completed	UPNM
2.	Mej. Muhammad Khidir bin Daud	Optimising Army Equipment Readiness under Budget Constraint.	2013-2016	Co-Supervision	Completed	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 <ul style="list-style-type: none">• Completed• Submitted• In Progress
1.	Nurul Azreen binti Sahat (FPPP)	Hubungan di antara Ganjaran dan Motivasi Terhadap Kepuasan Kerja Kakitangan Sokongan Syarikat Honda Melaka	2014-2015	Main	Completed

2.	Nur Fadzilah binti Mohd Noor (FPPP)	Gaya Pembelajaran dan Faktor Akademia Mempengaruhi Prestasi Akademik Pelajar	2014-2015	Main	Completed
3.	Muhammad Aiman Irfan bin Hanafi (FSTP)	Exam-Invigilator Aassignment problem : A Case Study	2022 - Present	Co-supervisor	On-going

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.	Measuring the Effectiveness of Military Joint Exercise by Using DEA Analysis	1) Norzaura Binti Abd Rahman (PI) 2) Kol. Prof. Ir. Dr. Norazman b. Mohamad Nor 3) Dr. Wan Rosmanira binti Ismail 4) Fazilatulaili binti Ali 5) Ruzanna bt Mat Jusoh	2013-2016	RM50,000	Completed
2.	Optimization of Infantry Fighting Vehicle (IFV) Adnan Readiness for Military Operation Under Financial Constraint	1) Norzaura Binti Abd Rahman (PI) 2) Kol. Prof. Ir. Dr. Norazman b. Mohamad Nor 3) Mohd Faisal b. Saari	15/8/16 – 14/8/18	RM20,000	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
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1.	Muhammad, N. S., Abdullah, J., Abd Rahman, N. , & Razali, N. A. (2021). Development of a self-rating system for domestic water consumption in Malaysia. In <i>IOP Conference Series: Earth and Environmental Science</i> (Vol. 646, No. 1, p. 012018). IOP Publishing.	SCOPUS
2.	Muhammad, N. S., Abdullah, J., Abd Rahman, N. , & Razali, N. A. (2021). Water usage behaviour: Case study in a southern state in Peninsular Malaysia. In <i>IOP Conference Series: Earth and Environmental Science</i> (Vol. 646, No. 1, p. 012017). IOP Publishing.	SCOPUS
3.	Norzaura Abd Rahman , Nur Shazwani Muhammad, Jazuri Abdullah, Wan Hanna Melini Wan Mohtar. 2019. Model Performance Indicator of Aging Pipes in a Domestic Water Supply Distribution Network. <i>Water</i> 11(11): 2378.	SCOPUS
4.	Norzaura Abd Rahman , Nur Shazwani Muhammad & Wan Hanna Melini Wan Mohtar. 2018. Evolution of research on water leakage control strategies: where are we now?. <i>Urban Water Journal</i> 15(8): 812-826.	ISI

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.	Mathematics Department , 2010, Module Basic Mathematics (FMA0143), UPNM	University
2.	Mathematics Department , 2016, Module Basic Mathematics (FMA0146), UPNM	University
3.	Norzaura Abd Rahman , Nur Shazwani Muhammad & Talhah Mohamad Shirajuddin, 2022, GA-EPANET Teknologi Bersepadu Pengesanan Kebocoran Paip, UKM	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 <ul style="list-style-type: none"> • International • National • University
1.	Norzaura Abd Rahman , Nur Shazwani Muhammad & Wan Hanna Melini Wan Mohtar. 2018. Strategies to reduce non-revenue water. <i>IPI Research Colloquium 2018 Proceeding</i> , 11 – 13 August, Melaka.	University (UKM)

2.3 Presentation:

(Please list in chronological order)

No.	Event	Title of Paper Presented	Role (Keynote Speaker / Invited Speaker / Presenter)	Date	Organizer
1.	IPI Research Colloquium 2018 Proceeding	Strategies to reduce non-revenue water	Presenter	12 August 2018	UKM
2.	Webinar Permodelan NRW untuk Sistem Pengagihan Air Berusia	Pakej Pengoptimuman GA-Epanet untuk Ermodelan Sistem Paip Air Berusia	Keynote Speaker	6 July 2021	UKM

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

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)

No.	Position/Membership	Duration
1.	Peserta Sukan Badminton mewakili UPNM, Sukan Antara Staf IPTA (SUKUM) , UUM	2012
2.	Ahli Jawatankuasa Pembangunan Program (JPP) : NiEED-TLDM	2013
3.	Pensyarah bantuan Merangka Kurikulum Program Sarjana Pegurusan Pertahanan UPNM	April 2014
4.	Pengerusi Jawatankuasa Penyiasat Aset Alih UPNM	Julai – September 2014
5.	Ahli Jawatankuasa Penyelidikan Pusat Asasi Pertahanan, UPNM	2014-2015
6.	Penolong Pegawai Rekod Pusat Jaminan Kualiti UPNM	2014 - 2015
7.	Ahli Jawatankuasa Pusat Jaminan Kualiti UPNM	2016 - 2018
8.	Penilai artikel dalam Urban Water Journal bertajuk 'Improvements in hotel water consumption: Case study of a five-star hotel (Canary Islands, Spain)'	Feb 2021
9.	Penyelaras Maklumat, Sidang Redaksi Buletin Majlis Dekan/Pengarah Pusat Asasi Universiti Awam Malaysia	1 May – 31 August 2021
10.	Ahli Jawatankuasa Pelaksana Program Olimpiad Matematik Kebangsaan 2021	26 March – 31 July 2021
11.	Penolong Penyelaras Program STEM/KTP/TTP	Jun 2022 - present
12.	Bendahari Kelab Kebajikan dan Rekreasi Pusat Asasi Pertahanan (KRRPAP)	Julai 2022 - present

3.4 Service to the community

(Please list in chronological order)

No.	Organization	Role	Start Date	End Date	Level
1.	Management Science and Operation Research Society of Malaysia (MSORSM)	Member	2013	2015	National
2.	Management Science and Operation Research Society of Malaysia (MSORSM)	Auditor	2014	2015	National

3.	Toastmaster Perwira Club	Member	2013	2015	National
4.	Badan Kebajikan Keluarga Angkatan Tentera (BAKAT)	Member	2012	Present	National