



## CURRICULUM VITAE



### I. PERSONAL PARTICULARS

<b>Name</b>	<b>NORULZAHRAH BINTI MOHD ZAINUDIN</b>
<b>Current Position</b> <b>Faculty / Department</b>	<b>SENIOR LECTURER DS52,</b> <b>DEPARTMENT OF COMPUTER SCIENCE,</b> <b>FACULTY OF DEFENCE SCIENCE AND TECHNOLOGY</b>

### II. ACADEMIC AND PROFESSIONAL QUALIFICATIONS

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

<b>Year</b>	<b>Degree</b>	<b>Discipline</b>	<b>University</b>
1996-2000	BSc(Hons) (UTM)	Computer Science	Universiti Teknologi Malaysia
2001-2002	MSc (UPM)	Computer Science	Universiti Putra Malaysia

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

<b>No.</b>	<b>TITLES OF POSTGRADUATE THESES</b>
1.	Wireless Network Design for Rural Areas in Malaysia

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

Year	Position	Organisation	Start and End Date
1998	Internship Trainee	American Malaysia Insurance Co.(AMI)	Apr 1998 - Sept 1998
2001	Lecturer	College of Cybernetics Technology	Jan 2001 - Nov 2002
2002	Lecturer	University Teknologi Malaysia-Military Academy of Malaysia	Nov 2002 - Jan 2007
2007	Lecturer	National Defence University of Malaysia	Jan 2007 – May 2021
2021	Senior Lecturer	National Defence University of Malaysia	June 2021 - present

**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	Sem I	2019

**1.2 First Degree Courses**

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

No	Course Title	Semester	Year
1.	Multimedia Programming	II	2002-2007
2.	Computing I	II	2002-2007
3.	Web Programming	I	2003-2014
4.	Introduction to Multimedia	I	2005-2008
5.	Programming I	II	2007-2008
6.	Discrete Mathematics	I	2012-2013
7.	Digital Forensics	I / II	2012-present
8.	Ethics & Professionalism in ICT	I	2012-2013
9.	Fundamentals of Programming	I	2013-present
10.	Group Project	II	2013-2018
11.	Final Year Project	I / II	2002-present
12.	Industrial Training	I / II	2002-present
13.	Military and Industrial Espionage	I	2022-present

### 1.3 Diploma Courses

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

No.	Course Title	Semester	Year
1.	Information System Management	Sem I 2020/2021	2020

### 1.4 Pre-Degree Courses

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

No.	Course Title	Semester	Year
1.	Computer Literacy	I	2003-2005

### 1.5 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"><li>• Completed</li><li>• Submitted</li><li>• In Progress</li></ul>	University
1.	Kapt Ahmad Nazren Hakimi bin Ahmad Nasir	Detection of Fake Account in Online Social Network by Combining Natural Language Processing and Machine Learning	January 2019	Co-Supervision	Completed	UPNM
2.	Wan Nurhidayat bin Wan Muhamad	Identity Verification Using Dynamic Authentication Approach for Intelligence Community	March 2019	Co-Supervision	Completed	UPNM

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

(Please list in chronological order)

No	Name of Student	Project Title	Year	Role (Main/Co-Supervision)	Status <ul style="list-style-type: none"><li>• Completed</li><li>• Submitted</li><li>• In Progress</li></ul>
1.	Nur Alfa Mazlin binti Masdan	Sistem Pembelajaran Matematik secara Interaktif bagi kanak-kanak Pra-sekolah di Kem – kem Tentera	2004	Main	Completed
2.	Marina binti Amin	Pembangunan Laman Web ATMA berkonsepkan Multimedia	2004	Main	Completed
3.	Mohd Zaidi bin Missman	Sistem Maklumat Salahlaku SSKA	2005	Main	Completed
4.	Adi Mustapha bin Arifin	Sistem Pembelajaran Prosedur Percakapan Radio(semboyan) secara E-Pembelajaran	2005	Main	Completed

5.	Mohd Adli Izmir bin Ramli	Sistem Pendaftaran dan Pebelajaran Payung terjun melalui Multimedia secara Atas Talian	2005	Main	Completed
6.	Ahmad Fua'adhi bin Mohamedon	Sistem Penjadualan Pegawai Kadet Bertugas di Asrama ATMA	2006	Main	Completed
7.	Adi Ridzuan bin Adnan	Sistem Permohonan Kemasukan Calon Pelajar Baru ke ATMA secara Online	2006	Main	Completed
8.	Mohd Azrrul Hisham bin Zakaria	Simulasi Sstem Pelayan Web	2007	Main	Completed
9.	Siti Norhajar bte Megat Ahmad Roslan	Sistem Penilaian Prestasi Pengajaran dan Pembelajaran secara Online	2007	Main	Completed
10.	Mohd Fairuz bin Mahidin	Sistem Pembelajaran Kesihatan dan Penggunaan Alat Gimnasium berasaskan Multimedia	2007	Main	Completed
11.	Siti Kamariah binti Sulaiman	Sistem Inventori Majlis Sukan Angkatan Tentera (MSAT)Secara Online	2008	Main	Completed
12.	Farah Shafinaz bt Shahrudin	Sistem Permarkahan dan Penilaian Prestasi Akademik Fakulti Sains dan Teknologi Pertahanan UPNM barasaskan Web	2008	Main	Completed
13.	Mior Zulfakar bin Mior Ri	Sistem Perkhidmatan Utiliti untuk Tetamu Hotel	2013	Main	Completed
14.	Muhammad Hidayat bin Ibrahim	Sistem Penempahan Kenderaan UPNM	2013	Main	Completed
15.	Mohammad Fathi Bin Abd Hakim	Aplikasi Kerahsiaan Mesej Berasaskan Vigenere Cipher	2013	Main	Completed
16.	Muhammad Aznil Farit Bin Mohd Rudzlan	Aplikasi Mudah Alih E-Student UPNM	2013	Main	Completed
17.	Muhammad Fauzi bin Abu Bakar	Sistem Pengurusan Maklumat Anggota Batalion Jebat di UPNM secara Online	2013	Main	Completed
18.	Nik Amin Afiq Bin Alwai	DDOS Droid	2013	Main	Completed
19.	Afham Syazwan Bin Abdullah	Sistem Pengesanan Pencerobohan dalam Rangkaian Tanpa Wayar UPNM	2013	Main	Completed
20.	Jafni Bin Jaafar	Aplikasi Mudah Alih Ujian Kecergasan Anggota (UKA)	2013	Main	Completed
21.	Ahmad Syakir Bin Ahmad Aznan	Aplikasi Analisis Metadata Fail Imej Sebagai Bukti Sokongan Dalam Penyiasatan Forensic Digital	2014	Main	Completed
22.	Muhammad Taufiq Bin Mohd Zain	Profil Digital Berasaskan akaun email untuk Tujuan Penyiasatan Forensik Digital	2014	Main	Completed

23.	Ahmad Rafiq Bin Razif	Aplikasi Analisis Data untuk Mengelaskan Aktiviti Jenayah Siber dalam Media Sosial	2014	Main	Completed
24.	Saifullizan Bin Yusuf	Aplikasi Untuk Analisis Forensik Tingkahlaku Manusia Berdasarkan Data Media Sosial	2014	Main	Completed
25.	Mohamad Faizal Bin Ismail	Profil Digital Berasaskan Data Media Sosial untuk Tujuan Penyiasatan Forensik Digital	2014	Main	Completed
26.	Muhammad Solihin Bin Ab Rahman	Sistem Penilaian Prestasi Pensyarah UPNM (LPPT)	2015	Main	Completed
27.	Muhammad Uzair Bin Muhammad Nazmi	Pengecaman Profail Pelampau Dalam Rangkaian Sosial Secara Forensik Menggunakan Sistem Pakar	2015	Main	Completed
28.	Siti Nur Marina Bt Maznaan	Aplikasi Profil Digital Berasaskan Gambar Untuk Tujuan Penyiasatan Forensik Digital	2015	Main	Completed
29.	Mohamad Azwan Bin Salimi	Sistem sebut harga dan tender UPNM	2015	Main	Completed
30.	Wan Muhamad Hafiz B Wan Ahmad Sayutti	Sistem Laporan Kerosakan Alatan Di Bilik Penginapan	2016	Main	Completed
31.	Saadiyah Binti Siraj	E-Meeting Schedule System	2016	Main	Completed
32.	Muhamad Nasrul Syafiq Bin Zulkifli	Sistem Pengurusan Geran Penyelidikan UPNM untuk Kegunaan Staff	2016	Main	Completed
33.	Mohamad Zulhilman Bin Md Fauzi	Sistem E-Borang Berasaskan Web	2016	Main	Completed
34.	Muhammad Nizar Bin Md Murad	Sistem Pengurusan Geran Penyelidikan di UPNM Modul Penyelidik	2016	Main	Completed
35.	Iskandar Bin Amran	E-PALAPES (PALAPES Management System)	2016	Main	Completed
36.	Jibreen Bin Umar Al Khattab	Sistem Pintar Pesanan dan Cadangan Pembelian Bahan Perpustakaan di UPNM	2016	Main	Completed
37.	Ain Nadhira Binti Mohd Taib	E CAKNA UPNM (alert)	2016	Main	Completed
38.	Saiful Ikhmarul Haffizi Bin Johari	Sistem Peringatan Rawatan Susulan Pesakit Melalui Email	2016	Main	Completed
39.	Muhammad Azrul Nizam bin Mohd Noor	Sistem e-Temuanji Fisioterapi UPNM	2017	Main	Completed
40.	Muhammad Izzuddin bin Mohamad Nazri	Sistem Pengurusan Temujanji E-Kaunseling Pusat Islam UPNM	2018	Main	Completed
41.	Muhammad Zulhilmly bin Azhar	Sistem E-Zakat UPNM	2018	Main	Completed
42.	Muhammad Farhan bin Mohd Fauzi	Sistem Rekod E-Letter Kompeni Tun Teja	2019	Main	Completed
43.	Afifah binti Mohd Asri	Sistem E-Alumni UPNM	2019	Main	Completed
44.	Kapt Ahmad Nazren Hakimi bin Ahmad Nasir	Detection of Fake Account in Online Social Network by Combining Natural Language	2019	Co-Supervision	Completed

		Processing and Machine Learning			
45.	Wan Nurhidayat bin Wan Muhamad	Identity Verification Using Dynamic Authentication Approach for Intelligence Community	2019	Co-Supervision	Completed
46.	Muhammad Syahizad Adzlisham bin Shamsul Azhar	Sistem Pengurusan Murid Sekolah Agama Al-Fateh (UPNM) (myAulad)	2020	Main	Completed
47.	Syahrizan bin Mohamad Yusof	Sistem E-Booking Pusat Islam UPNM	2020	Main	Completed
48.	Khairul Anuar bin Suhaimi	Sistem Rekod Merit UPNM (MyMerit)	2020	Main	Completed
49.	Muhammad Fakhri Farhan bin Badaruddin	Modul Pembelajaran Sekolah Agama Al-Fateh (SAF) UPNM	2020	Main	Completed
50.	Pkdt Muhammad Fairuz Hilmi Bin Mohd Rahman	Sistem Pemilihan Unit Bagi Pegawai Kadet Darat ALK Lepas UPNM	2021	Main	Completed
51.	Nurfarahtul Saadah Binti Jumat	Sistem Penilaian Kenaikan Pangkat Pensyarah UPNM	2021	Main	Completed
52.	Nur Nabilah Syahirah Binti Rahmad Iskandar	Aplikasi Pembelian Makanan Di Kafe UPNM	2021	Main	Completed
53.	Sharifah Nabila Binti S Azli Sham	Sistem Pemantauan Pelajar dan Permohonan Pelepasan Kuliah secara Dalam Talian	2021	Main	Completed
54.	Amei Zulaikha Bin Azhar	Sistem Pengurusan Foodbank di UPNM	2021	Main	Completed
55.	Muhamad Faizzuddin Bin Mohamad Apandi @ Sanusi	Sistem Pelaporan Harian Dan Mingguan Bagi Pegawai Bertugas Medan ATM	2022	Main	Completed
56.	Muhammad Raihan Bin Mohd Rusli	Sistem Senggaraan, Perolehan Sebutharga Dan Pembayaran Markas Medan ATM	2022	Main	Completed
57.	Muhammad Izaan Bin Yunus	Sistem Pencari Bakat dan Analisa Data Atlet UPNM	2022	Main	Completed
58.	Mok Shao Yu	Login Two-Factor Authentication System	2022	Main	Completed
59.	Muhammad Amirul Akmal Bin Misri	Sistem Pengurusan Tugas Pelajar FSTP Berasaskan Web	2022	Main	Completed
60.	Syed Harun Rashid Bin Syed Mohamed Ali	Sistem Pengurusan Setiausaha PALAPES	2022	Main	Completed
61.	PKDT Mohamad Al Hafiz Bin Harun	Aplikasi Belanjawan Dalam Kalangan Pegawai Kadet Upnm	2023	Main	Completed
62.	Nurul Athirah Binti Aminuddin	Application For Digital Forensics Readiness Using Machine Learning	2023	Main	Completed
63.	Pkdt Mohamad Nasruddin Bin Mohamad Nasir	Sistem Pengesanan Buli Siber Di Facebook	2023	Main	Completed
64.	Mohd Aiman Bin Abdullah	Sistem Pengesanan Laman Web Palsu Menggunakan	2023	Main	Completed

		Pengesanan Security Sockets Layer (SSL)			
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## 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.	Smart Crowd Thermal (Smart) Screening System For Flu Detection (RAGS/2012/UPNM/SG05/6)	<b>Norulzahrah Mohd Zainudin</b> , PM Dr Suzaimah Ramli, PM Dr Kamarul Hawari Ghazali • <b>Principal</b>	2012	RM30,000	Completed
2.	An Integration of Thermal and Optical Flow Techniques for Human Aggressive Movement Detection (RACE/F3/SG5/UPNM/3)	<b>Norulzahrah Mohd Zainudin</b> , PM Dr Suzaimah Ramli, Nor Asiakin Hasbullah, Dr Norshahriah Abd. Wahab • <b>Principal</b>	2015	RM50,000	Completed
3.	Verification of Battlefield Visualization Framework in Military Decision Making Using Hologram Technology (RAGS/1/2015/ICT02/UPNM/03/1)	Dr Norshahriah Abd. Wahab, <b>Norulzahrah Mohd Zainudin</b> , PM Dr Suzaimah Ramli, Nor Asiakin Hasbullah • Member	2015	RM35,000	Completed
4.	Surveillance System For Automatic Abnormality Movement Detection (J0100-UPNM/2016/GPJP/4/ICT/2)	Suzaimah Ramli, Norshahriah Abd Wahab, Nor Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> • Member	2016	RM20,000	Completed
5.	Pendedahan Dan Latihan Praktikal Mengenai Keselamatan Siber Dan Potensi Sebagai Pilihan Kerjaya Kepada Kumpulan Sasaran Sekolah Menengah Di MRSM (K0001)	Noor Afiza Mat Razali, Suzaimah Ramli, Norshahriah Abd Wahab, Nor Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> • Member	2017	RM68,680	Completed
6.	Kansei Engineering as user assessment in information Security (FRGS/1/2017/ICT04/UPNM/03/1)	Noor Afiza Mat Razali, Suzaimah Ramli, Norshahriah Abd Wahab, Nor Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> • Member	2017	RM52,000	Completed

No	Title	List of Rresearchers • Principal • Members	Grant Year	Source Amount	Status • Completed • In Progress
7.	Penyelidikan Tanpa Geran - Detection of Faulty Photovoltaic Panel Images using Deep Learning Algorithm (SF0060-UPNM/2019/SF/ICT/1)	Suzaimah Ramli, PM Dr Nazri Ismail, Dr. Ts Noor Afiza Mat Razali, Norshahriah Abd Wahab, Nor Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> , Norazlin Ibrahim • Member	2019	Self-fund	Completed
8.	Penyelidikan Tanpa Geran – Secure Disaster Management Support System for Malaysia (SF0062-UPNM/2019/SF/ICT/1)	Ts. Dr. Noor Afiza Mat Razali, PM Dr Suzaimah Ramli, PM Dr Afizi Mohd Shukran, PM Dr Nazri Ismail, Norshahriah Abd Wahab, Nor Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> , Dr Muslihah Wook, Hasmeda Erna Che Hamid • Member	2019	Self-fund	Completed
9.	Penyelidikan Tanpa Geran – Compatibility Study of Atmospheric Water Generator (SF0061-UPNM/2019/SF/TK/1)	Ts. Dr. Noor Afiza Mat Razali, PM Dr Suzaimah Ramli, PM Dr Afizi Mohd Shukran, PM Dr Nazri Ismail, Nor Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> , Dr Muslihah Wook, Hasmeda Erna Che Hamid, Ir. Dr Rosdzimin Abdul Rahman, Dr. Maidiana Othman, Dr. Zuliziana Suif, Dr. Nordila Ahmad, Dr. Mohammad Adib Khairuddin • Member	2019	Self-fund	Completed
10.	Classification of Remote Sensor Data for Flood Disaster Forecasting using Data mining Hybrid Techniques (RACER/1/2019/ICT04/UPNM/1)	Dr Muslihah Wook, Ts. Dr. Noor Afiza Mat Razali, PM Dr Suzaimah Ramli, Dr. Norshahriah Abd Wahab, Dr. Nor Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> , Hasmeda Erna Che Hamid, En. Khairul Khailil bin Ishak • Member	2019	RM46,443	Completed
11.	Autonomous Underwater Vehicle (AUV)- Application in Military and Commercial	Ts. Dr. Noor Afiza Mat Razali	2020	Self-fund	Completed



No	Title	List of Rresearchers • Principal • Members	Grant Year	Source Amount	Status • Completed • In Progress
	(SF0099-UPNM/2019/SF/TK/1)	,PM Dr Suzaimah Ramli, PM Dr Nazri Ismail, Nor Asiakin Hasbullah, Dr. Mohd Fahmi bin Mohamad Amran, <b>Norulzahrah Mohd Zainudin</b> , Dr Muslihah Wook, Hasmeda Erna Che Hamid • Member			
12.	Multimodal Kansei Modelling of Emotional Sensitive User Interface Design for Personal Healthcare (UPNM/2020/GPJP/ICT/6)	<b>Norulzahrah Mohd Zainudin</b> , Ts. Dr. Noor Afiza Mat Razali, PM Dr Suzaimah Ramli, Dr. Nor Asiakin Hasbullah, En. Khairul Khailil bin Ishak • <b>Principal</b>	2020	RM20,000	Completed
13.	Image Profile Centred Model For Gratifications Of Users Online Social Media Behaviour (UPNM/2020/GPJP/ICT/2)	PM Dr Suzaimah Ramli, <b>Norulzahrah Mohd Zainudin</b> , Ts. Dr. Noor Afiza Mat Razali, Dr. Nor Asiakin Hasbullah, Dr. Muslihah Wook, Khairani Abdul Majid • Member	2020	RM20,000	Completed
14.	Autonomous Underwater Vehicle (AUV)- Application in Military and Commercial (SF0099-UPNM/2019/SF/TK/1)	Noor Afiza Mat Razali, Suzaimah Ramli, Mohd Nazri Ismail, Nor Asiakin Hasbullah, Muslihah Wook, Mohd Fahmi Mohamad Amran, <b>Norulzahrah Mohd Zainudin</b> , Hasmeda Erna Che Hamid • Member	2020	Self-fund	In Progress
15.	Image Analysis Framework for Driver Emotion Detection using Deep Learning Approach (SF0126)	Suzaimah Ramli, Mohd Afizi Mohd Shukran, Muslihah Wook, Noor Afiza Mat Razali, <b>Norulzahrah Mohd Zainudin</b> , Slamet Riyadi, Norazlin Ibrahim • Member	2022	Self-fund	In Progress
16.	Enhancement of Fusion Feature-Based Approach in Emotion Prediction for Affective Computing (J0347)	Suzaimah Ramli, Mohd Afizi Mohd Shukran, Muslihah Wook, Noor Afiza Mat Razali, <b>Norulzahrah Mohd Zainudin</b> , Slamet Riyadi • Member	2023	20, 000	In Progress

No	Title	List of Rresearchers • Principal • Members	Grant Year	Source Amount	Status • Completed • In Progress
17.	Network Anomaly Detection Framework using Deep Learning for IoT in Smart Home Environment (UPNM/2023/GPPP/ICT/2)	Noor Afiza Mat Razali, Suzaimah Ramli, Muslihah Wook, Nor Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> • Member	2023	20,000	In Progress
18.	Advancing Care: A Decision Tree-based Prediction System for Post-Covid-19 Complications (SF0143)	Muslihah Wook, Nor, Noor Afiza Mat Razali, Suzaimah Ramli, Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> • Member	2023	Self-fund	In Progress
19.	Enhancing Cybersecurity by Tracing Website Authenticity: An Evaluation of Methods (SF0142)	<b>Norulzahrah Mohd Zainudin</b> , Muslihah Wook, Nor, Noor Afiza Mat Razali, Suzaimah Ramli, Asiakin Hasbullah • <b>Principal</b>	2023	Self-fund	In Progress

### 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.	Muhammad Lazim Talib, Xio Rui, Kmarul Hawari Ghazali, <b>Norulzahrah Mohd Zainudin</b> , Suzaimah Ramli; 2013; Comparison of Edge Detection Technique for Lane Analysis by Improved Hough Transform; IVIC 2013, LNCS 8237, pp. 176-183, 2013. Springer International Publishing Switzerland 2013	Scopus
2.	<b>Norulzahrah M. Zainudin</b> , Suzaimah Ramli, Kamarul H. Ghazali, M. Lazim Talib, and Nor Asiakin Hasbullah, " A Study on Implementing Physiology-Based Approach and Optical Flow Algorithm to Thermal Screening System for Flu Detection," International Journal of Information and Electronics Engineering vol. 5, no. 1, pp. 31-34, 2014	Peer-Reviewed
3.	<b>Zainudin, N.</b> , Ramli, S., Zizi, T. T., Hasbullah, N. A., Hanafi, M. M., Wahab, N. A., & Ibrahim, N. (Sept. 2015). Horn Schunck Algorithm for Facial Expression Change Detection Classification. In International Journal for Information Security Research (IJISR) (pp. 574-581) Volume 5, Issue 3.	Peer-Reviewed
4.	Suzaimah Ramli, Tuan Khalisah Tan Zizi @ Tuan Zizi, <b>Norulzahrah Mohd Zainudin</b> , Nor Asiakin Hasbullah, Norshariah Abdul Wahab, Lili Nurliyana Abdullah and Nora-zliin Ibrahim, Aggressive Movement Feature Detection Using Color Based Approach On Thermal Images, Journal Zulfaqr, 2017.	Peer-Reviewed
5.	<b>Norulzahrah Mohd Zainudin</b> , Nor Asiakin Hasbullah, Mat Razali Noor Afiza, Norshahriah Wahab, Suzaimah Ramli, Online Social Networks as Supporting	Peer-Reviewed

	Evidence for Digital Forensic Investigation: A Revised Model, International Journal of Engineering & Technology, 2018	
6.	Nurjannatul Jannah Aqilah Md Saad, Mat Razali Noor Afiza, Muslihah Wook, Khairul Khalil Ishak, Hasmeda Erna Che Hamid, Nor Asiakin Hasbullah, Norshahriah Wahab, <b>Norulzahrah Mohd Zainudin</b> , Suzaimah Ramli, Mohd Fahmi Mohamad Amran, Kansei Engineering Approach for Measuring Political Propaganda: A Case of Malaysia, International Journal of Engineering & Technology, 2018	Peer-Reviewed
7.	Nur Syuhada Binti Muhamad Narjun, Suzaimah Ramli, <b>Norulzahrah Mohd Zainudin</b> , Nor Asiakin Hasbullah, Noor Afiza Mat Razali, A New Model on Mixed Reality for 3 Dimensional (3D) Geospatial Terrain in Enhancing the Situational Awareness amongst Military Decision Makers, International Journal of Engineering & Technology, 2018	Peer-Reviewed
8.	Nurjannatul Jannah Aqilah Md Saad, Mat Razali Noor Afiza, Khairul Khalil Ishak, Nor Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> , Suzaimah Ramli, Norshahriah Wahab, Mohd Fahmi Mohamad Amran, Fear as Emotion Assessment in Information Security Using Kansei Engineering Methodology, Springer Nature, 2018	Scopus
9.	<b>Norulzahrah Mohd Zainudin</b> , Nor Asiakin Hasbullah, Mat Razali Noor Afiza, Suzaimah Ramli, Norshahriah Wahab, Online Social Networks as Supporting Evidence for Digital Forensic Investigation: A revised Model, International Journal of Engineering & Technology, 2018	Peer-Reviewed
10.	Nor Asiakin Hasbullah, <b>Norulzahrah Zainudin</b> , Noor Afiza Mat Razali, Norshahriah Abdul Wahab, Privacy Requirements Classification Method for System Design, International Journal of Engineering & Technology, 2018	Peer-Reviewed
11.	Suzaimah Ramli, Tuan Khalisah Tan Azizi, <b>Norulzahrah Zainuddin</b> , Nor Asiakin Hasbullah, Aggressive Movement Feature Detection using Color-based Approach on Thermal Images, Zulfaqar J. Def. Sci. Eng. Tech. Vol.2 Issue 2 (2019) 40-48	Scopus
12.	Muslihah Wook, Noor Afiza Mat Razali, Suzaimah Ramli, Norshahriah Abdul Wahab, Nor Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> , Muhamad Lazim Talib, Opinion mining technique for developing student feedback analysis system using lexicon-based approach (OMFeedback), Journal of Education and Information Technologies, Vol. 25 Issue 4, 2020	Scopus
13.	Muslihah Wook, Zam Zarina Abdul Jabar, Muhammad Hakiem Halim, Noor Afiza Mat Razali, Suzaimah Ramli, Nor Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> , Big Data Analytics Application Model Based on Data Quality Dimensions and Big Data Traits in Public Sector, International Journal of Advanced Trends in Computer Science and Engineering, Vol. 9, Issue 2, 2020	Scopus
14.	Muslihah Wook, Sharmelen Vasanthan, Suzaimah Ramli, Noor Afiza Mat Razali, Nor Asiakin Hasbullah, and <b>Norulzahrah Mohd Zainudin</b> , "Exploring Students' Feedback in Online Assessment System Using Opinion Mining Technique," International Journal of Information and Education Technology vol. 10, no. 9, pp. 664-668, 2020.	Scopus
15.	Wook, M., Hasbullah, N.A., <b>Zainudin, N.M.</b> , ...Razali, N.A.M., Yusop, N.M.M.; Exploring big data traits and data quality dimensions for big data analytics application using partial least squares structural equation modelling; Journal of Big Data, 2021, 8(1), 49	Scopus
16.	Razali, N.A.M., Noor, N.M., <b>Zainudin, N.M.</b> , ...Hasbullah, N.A., Ishak, K.K.; Emotional Evocative User Interface Design for Lifestyle Intervention in Non-communicable Diseases using Kansei; International Journal of Advanced Computer Science and Applications, 2021, 12(6), pp. 360-368	Scopus

17.	N. M. Zainudin, N. A. Hasbullah, M. Wook, S. Ramli, and N. Afiza, "Digital Forensic Readiness for Cyber Security Practitioners : An Integrated Model," J. Posit. Psychol., vol. 6, no. 3, pp. 8423–8433, 2022.	Scopus
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### 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"> <li>• International</li> <li>• National</li> <li>• University</li> </ul>
1.	Ahmad Nazren Hakimi, Suzaimah Ramli, Muslihah Wook, <b>Norulzahrah Mohd Zainudin</b> , Nor Asiakin Hasbullah, Norshahriah Abdul Wahab et al., Identifying Fake Account in Facebook Using Machine Learning, IVIC 2019: Advances in Visual Informatics pp 441-45	International
2.	Enhance Multi-factor Authentication Model for Intelligence Community Access to Critical Surveillance Data Wan Nurhidayat Wan Muhamad, Noor Afiza Mat Razali, Khairul Khalil Ishak, Nor Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> , Suzaimah Ramli et al., IVIC 2019: Advances in Visual Informatics pp 560-56	International
3.	Hasmeda Erna Che Hamid, Nurjannatul Jannah Aqilah MSaad, Noor Afiza Mat Razali, Mohammad Adib Khairuddin, Mohd Nazri Ismail, Suzaimah Ramli, Nor Asiakin Muslihah Wook, <b>Norulzahrah Mohd Zainudin</b> , Disaster Management Support Model for Malaysia, IVIC 2019: Advances in Visual Informatics pp 570-581	International
4.	Hasmeda Erna Che Hamid, Nurjannatul Jannah Aqilah MSaad, Noor Afiza Mat Razali, Mohammad Adib Khairuddin, Mohd Nazri Ismail, Suzaimah Ramli, Nor Asiakin Muslihah Wook, <b>Norulzahrah Mohd Zainudin</b> , Management System for Disaster Management, International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-7, Issue-5S4, February 2019	International
5.	Suzaimah Ramli, Tuan Khalisah Tan Zizi @ Tuan Zizi, Norulzahrah Mohd Zainudin; Intelligent Video Surveillance Aggressive Movement Detection, UPM Press (2021)	University

### 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"> <li>• International</li> <li>• National</li> <li>• University</li> </ul>
1.	<b>Norulzahrah M. Zainudin</b> , Madjid Merabti, David Llewellyn-Jones, "A Digital Forensic Investigation Model for Online Social Networking", The 11th Annual Conference on the Convergence of Telecommunications, Networking & Broadcasting (PGNet 2010), Liverpool, UK, 21-22 June 2010.	International
2.	<b>Norulzahrah Mohd Zainudin</b> , Madjid Merabti, David Llewellyn-Jones, "A Digital Forensic Investigation Model and Tool for Online Social Networks", The 12th Annual Postgraduate Symposium on Convergence of	International

	Telecommunications, Networking and Broadcasting (PGNet 2011), Liverpool, UK, 27-28 June 2011	
3.	<b>Zainudin, N.M.</b> ; Merabti, M.; Llewellyn-Jones, D., "Online social networks as supporting evidence: A digital forensic investigation model and its application design," Research and Innovation in Information Systems (ICRIIS), 2011 International Conference on , vol., no., pp.1,6, 23-24 Nov. 2011	International
4.	Suzaimah Ramli, <b>Norulzahrah Mohd Zainudin</b> , Slamet Riyadi, Norshima Zainal Shah, "Computer assisted learning using Matlab GUI for morphology simulation in digital image processing: A preliminary study", International Conference on Engineering Education 2013 Madinah, Kingdom of Saudi Arabia, 25-27 December 2013	International
5.	<b>Norulzahrah Mohd Zainudin</b> , Suzaimah Ramli, Mohd Sharil Salleh, "E-Learning Application as a Supporting Tool For Learning Aand Teaching In UPNM – Preliminary Review," International Conference on Engineering Education 2013 Madinah, Kingdom of Saudi Arabia, 25-27 December 2013	International
6.	Suzaimah Ramli and <b>Norulzahrah Mohd Zainudin</b> , "Comparison of Human Motion Detection Between Thermal and Ordinary Images," International Conference on Advances in Image Processing, Bangkok, Thailand, 10-12 Oct 2014	International
7.	Wahab, S.N., Ramli, S., & <b>Zainudin, N.M.</b> (2015). Temperature determining method from motion detection using thermal images. 2015 IEEE 11th International Colloquium on Signal Processing & Its Applications (CSPA), 26-29	International
8.	Ramli, Suzaimah & Talib, Muhamad Lazim & Khalisah, Tuan & Tan Zizi, Tuan & <b>Zainudin, Norulzahrah.</b> (2015). Optical Flow Algorithm for Human Aggressive Movement Detection. In 2015 14th International Conference on Applied Computer and Applied Computational Science (ACACOS).	International
9.	<b>Zainudin, N.</b> , Ramli, S., Zizi, T. T., Hasbullah, N. A., & Ibrahim, N. (2015, December). Facial expression change detection algorithm using optical flow technique. In 2015 10th International Conference for Internet Technology and Secured Transactions (ICITST) (pp. 332-335). IEEE.	International
10.	Zizi, T. K. T., Ramli, S., Ibrahim, N., <b>Zainudin, N. M.</b> , Abdullah, L. N., & Hasbullah, N. A. (2015, November). Implementing Low Level Features for Human Aggressive Movement Detection. In International Visual Informatics Conference (pp. 296-302). Springer International Publishing.	International
11.	Tuan Khalisah Tuan Azizi, Suzaimah Ramli, Norazlin Ibrahim, <b>Norulzahrah Mohd Zainudin</b> , Nor Asiakin Hasbullah, 2016, Lecturer Promotion Assessment System Based on Fuzzy Logic, ICICTM 2016.	International
12.	Norshahriah Wahab, Nor Asiakin Hasbullah, Suzaimah Ramli, <b>Norul Zahrah Zainuddin</b> , 2016, Verification of A Battlefield Visualization Framework in Military Decision Making Using Holograms (3D) and Multi-Touch Technology, 2016, ICICTM 2016	International
13.	Suzaimah Ramli, N Othman, <b>Norulzahrah Zainudin</b> , Norshahriah Abdul Wahab, Nor Asiakin Hasbullah, Tuan Khalisah Tuan Azizi and Fawaz Mohd Azizi, 2016, Comparison between Horn-Schunck and Brox Techniques for Motion Detection in Thermal Video, ICICTM 2016	International
14.	<b>Norulzahrah Mohd Zainudin</b> , Khairil Hanan Zainal, Nor Asiakin Hasbullah, Norshahriah Abdul Wahab, Suzaimah Ramli, 2016, <i>A Review on Cyberbullying in Malaysia from Digital Forensic Perspective</i> , ICICTM 2016	International
15.	Mat Razali Noor Afiza, Nurjannatul Jannah Aqilah Md Saad, Nor Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> , Suzaimah Ramli, Norshahriah Wahab, Mohd Nazri Ismail, Mohd Fahmi Mohamad, Knowledge Driven Interface to Determine Degree of Exposure of Young Adult to Pedophile Online. Bangi Selangor, IVIC, 2017	International

16.	<b>Norulzahrah Mohd Zainudin</b> , Suzaimah Ramli, Tuan Khalisah Tan Zizi @ Tuan Zizi, , Nor Asiakin Hasbullah, Norshariah Abdul Wahab, Afiqah Mohammad Azahari, Lili Nurliyana Abdullah and Norazlin Ibrahim, Validation of Human Aggressive Movements Features using Neural Network based on Thermal Image, Kuala Lumpur, ICCST, 2017	International
17.	<b>Norulzahrah M. Zainudin</b> , Nor Asiakin Hasbullah, Muslihah Wook, Suzaimah Ramli and Noor Afiza Mat Razali, Online Social Networks as Supporting Evidence for Digital Forensic Investigation: A Revised Model, Singapore, IEOM, 2021	International
18.	Hasbullah, N.A., Wook, M., Mat Razali, N.A., <b>Zainudin, N.M.</b> , Ramli, S.; Review on Fake News in Malaysia during the Movement Control Order (MCO) from the Ethics in ICT Perspective; 2021 9th International Conference on Information and Education Technology, ICIET 2021, 2021, pp. 461–465, 9419657	International
19.	<b>Zainudin, N.M.</b> , Hasbullah, N.A., Wook, M., Ramli, S., Razali, N.A.M.; Online social networks as supporting evidence for digital forensic investigation: A revised model; Proceedings of the International Conference on Industrial Engineering and Operations Management, 2021, pp. 5338–5348	International

### 2.3 Presentation:

(Please list in chronological order)

No.	Event	Title of Paper Presented	Role (Keynote Speaker / Invited Speaker / Presenter)	Date	Organizer
1.	Postgraduate Academic Conference	A Preliminary Study on Digital Forensics Investigation Model for Online Social Networking	Presenter	March 2009	Liverpool John Moores University
2.	The 11th Annual Conference on the Convergence of Telecommunications, Networking & Broadcasting (PGNet 2010),	A Digital Forensic Investigation Model for Online Social Networking	Presenter	21-22 June 2010	Liverpool John Moores University
3.	12 <sup>th</sup> Annual Postgraduate Symposium on Convergence of Telecommunications, Networking and Broadcasting (PGNet 2011)	A Digital Forensics Investigation model and Tool for Online Social Networks	Presenter	27-28 June 2011	Liverpool John Moores University
4.	International Conference on Research and Innovation in Information System (ICRIIS)	Online Social networks as supporting evidence: A digital forensic investigation model and its application design	Presenter	23-24 Nov. 2011	Universiti Teknologi Malaysia

5.	4th International Conference on Signal, Image Processing and Applications 2014 (ICSIA 2014)	A Study on Implementing Physiology-Based Approach and Optical Flow Algorithm to Thermal Screening System for Flu Detection	Presenter	6-7 July 2014	IACSIT
6.	10th International Conference for Internet Technology and Secured Transactions (ICITST 2015)	Facial expression change detection algorithm using optical flow technique	Presenter	2015	Infonomics Society, UK
7.	International Conference on Information and Communication Technology (ICICTM 2016)	A Review on Cyberbullying in Malaysia from Digital Forensic Perspective	Presenter	16-17 May 2016	UPNM and UNIKL
8.	The 4th International Conference on Defence & Security Technology (DSTC 2018)	Online Social Networks as Supporting Evidence for Digital Forensic Investigation	Presenter	11-13 November 2018	UPNM
9.	The 11th Annual International Conference on Industrial Engineering and Operations Management	Online Social Networks as Supporting Evidence for Digital Forensic Investigation: A Revised Model	Presenter	7-11 March 2021	IEOM Society International
10.	The 2nd International Conference on Information Security and Computer Technology (ICISCT 2021)	Digital Forensic Readiness for Cyber Security Practitioners: An Integrated Model	Presenter	24-25 July 2021	UiTM

#### 2.4 Copyright/Patent:

(Please list in chronological order)

No.	Title	Researchers	File No.	Notification Date
1.	Breastfeeding Anthropometry Data Collection System	Prof. Madya Dr. Suzaimah Ramli, <b>Norulzahrah Mohd Zainudin</b> , Prof. Madya Dr. Dian Darina Indah Daruis	LY2016001583	20 July 2016

2.	Smart CCTV for Motion Detection and Energy Saving (ICCTV)	Prof. Madya Dr. Suzaimah Ramli, <b>Norulzahrah Mohd Zainudin</b> , Dr. Nor Asiakin Hasbullah, Dr. Norshahriah Wahab, Dr. Noor Afiza Mat Razali	LY2017005892	7 May 2019
3.	Algorithm for an Opinion Mining Technique for Students Feedback Analysis Using Lexicon-Based Approach (OMFEEDBACK SYSTEM)	Dr. Muslihah Wook, Sharmelen a/l Vasanthan, Prof. Madya Dr. Suzaimah Ramli, <b>Norulzahrah Mohd Zainudin</b> , Dr. Nor Asiakin Hasbullah, Dr. Norshahriah Wahab, Dr. Noor Afiza Mat Razali	LY2019004026	2 March 2020
4.	Fear Emotion Assessment Model in Information Security Dialogue Box Based on Kansei Philosophy	Noor Afiza Mat Razali, Noorjannahtul Aqilah Md Saad, Khairul Khalil Ishak, Suzaimah Ramli, Nor Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> , Muslihah Wook.	LY2020005889	8 October 2020
5.	Secured Blockchain Based Data Sharing Model for Intelligence Community	Noor Afiza Mat Razali, Noorjannahtul Aqilah Md Saad, Khairul Khalil Ishak, Suzaimah Ramli, Nor Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> , Muslihah Wook	LY2020005795	8 March 2020
6.	The Remote Wind Warning System on The Malaysian Highway	Suzaimah Ramli, Noor Afiza Mat Razali, Khairani Abd Majid, Nor Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> , Muslihah Wook, Muhamad Azrol Nizam Abdul Latif	LY2020005793	8 January 2020
7.	Kansei Checklist for Fear Emotion Assessment	Noor Afiza Mat Razali, Noorjannahtul Aqilah Md Saad, Khairul Khalil Ishak, Suzaimah Ramli, Nor Asiakin Hasbullah, <b>Norulzahrah Mohd Zainudin</b> , Muslihah Wook	LY2020005792	8 October 2020
8.	Donation System Module for Disaster Management	Noor Afiza Mat Razali, Khairul Khalil Ishak, Suzaimah Ramli, <b>Nor Asiakin Hasbullah</b> , Norulzahrah Mohd Zainudin, Muslihah Wook	LY2021E02696	4 Ogos 2021
9.	Donation System Embedded with Blockchain Technologies	Noor Afiza Mat Razali, Muhammad Danish Firdaus Mohd Isa, Nprmaizeerah Mohd Noor, Khairul Khalil Ishak, <b>Nor Asiakin Hasbullah</b> , Norulzahrah Mohd Zainudin	LY2021E02583	28 Julai 2021
10.	A Questionnaire of Digital Forensic Readiness for Cyber Security Practitioners	Norulzahrah Mohd Zainudin, Nor Asiakin Hasbullah, Muslihah Wook, Suzaimah Ramli, Noor Afiza Mat Razali	LY2022W02402	29 June 2022
11.	Flash Flood Prediction System using Decision Tree Algorithm	Muslihah Wook, Khairul Irfan bin Khir Junaidi, Muhammad Hakiem bin Halim, Noor Afiza Mat Razali, Nor Asiakin Hasbullah, Suzaimah Ramli, Norulzahrah Mohd Zainudin, Hasmada Erna binti Che Hamid	LY2022W02401	29 June 2022



## 2.5 MOOC:

(Please list in chronological order)

No.	Title	Position	Year
1.	Massive Open Online Course (MOOC) for Digital Image Processing	Developer	2017
2.	Massive Open Online Course (MOOC) for Visual Reality and Visualization	Developer	2017
3.	Massive Open Online Course (MOOC) for Digital Forensics	Head of Developer	2020

## 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 Recognitions	Year	Level	Awarding Body / Name of Institution
1.	Bronze Awards	2013	National	MOSTI
2.	Computer Hacking Forensic Investigator	2013	International	EC-Council
3.	Silver and Bronze Awards	2014	National	Malaysia Association of Research Scientists (MARS)
4.	Bronze Awards	2014	National	MEIPTA, UITM and KPM
5.	Bronze Awards	2014	National	National University Carnival on e-Learning 2014, KPM, MEIPTA, UiTM.
6.	Silver and Bronze Awards	2015	National	PPPI, UPNM
7.	Bronze Awards	2015	International	ITEX
8.	Silver Medal	2016	International	EINA, Nuremberg, Germany
9.	Gold Medal	2016	National	PERINTIS, UNITEN
10.	Bronze Awards	2017	International	MTE
11.	Silver and Bronze Awards	2017	National	PPPI, UPNM
12.	Excellent Academic Award	2017	University	UPNM
13.	Certificate of Appreciation for Excellent Service	2018	University	UPNM
14.	Graduate Technologist	2018	National	Malaysia Board of Technologists
36.	Best Paper Award	2021	International	The 2nd International Conference on Information Security and Computer Technology (ICISCT 2021)
15.	Gold	2022	National	DSS 2022
16.	Gold	2022	International	PECIPTA
17.	Silver	2022	International	ITEX
18.	Gold	2022	International	ITEX

### 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
	Consultant of Sek. Keb, Bandar Tun Hussein Onn 2 for Teaching and Learning Digital Content Development	2021	-	-	2 years

### 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.	Head of Department, Faculty of Defence Science and Technology, UPNM	1 June 2007- 31 May 2008
2.	Member of E-Learning Committee for Faculty of Defence Science and Technology, UPNM	2013
3.	Coordinator of Objective-based Education (OBE) Implementation Programme of FSTP	2013
4.	Assessor for Final Year Project of BSc Computer Science Programme	2013-present
5.	Academic Advisor of 3 <sup>rd</sup> year BSc Computer Sc. Programme	January 2013
6.	Academic Advisor of 1 <sup>st</sup> year BSc Computer Sc. Programme	August 2013- August 2016
7.	Research Fellow of Cyber Security Center UPNM	January 2014 - January 2016
8.	Member of the New Programme Documentation submitted to MQA Committee, FSTP	2014
9.	Member of Technical Specification Evaluation Committee for Purchase Quotation IP Address Management (IPAM)	2013-2014
10.	Member of the University Asset Disposal Committee	15 May 2014 – 14 May 2016
11.	Facilitator for Final year Project Workshop	March 2015
12.	Member of ICT Technical Committee	August 2015
13.	New Academic Programme Coordinator - Bachelor of Computer Science (Honors) specializing in Digital Forensics	September 2015
14.	Member of International Conference on Information and Communication Technology (ICICTM'16) Coordinating Committee	November 2015
15.	Treasurer of Academic Staff Association of UPNM (NADIMASA)	2016-2018
16.	Member of Malaysia Public University National Convention	September 2016
17.	Member of Technical and Specification Tender Preparation Committee for RMK-11	November 2016
18.	Member of the MQA Preparation Committee for the New FSTP Programme	2016-2017
19.	Facilitator of BSc Programme Orientation Week	September 2017
20.	Reviewer for International Conference on Information and Communication Technology Malaysia 2018 (ICICTM'18)	March 2018
21.	Assessor for Post-Graduate Colloquium	October 2018
22.	Member of CCNA Lab Committee	January 2019
23.	Member of Committee for GIG-Economy based on Web Application and Mobile Apps Development using Laravel Software Course	23-24 February 2019 and 2-3 March 2019
24.	Member of Committee for MoU between UPNM and MSU	March 2019
25.	Member of Special Interest Group of Informatics Intelligence	May 2019
26.	Member of Final Year Project Committee	2019/2020

27.	Member of Digital Security and Network Lab Specification Committee	August 2019
28.	Member of Satria UPNM Food Bank Council	October 2019
29.	Assessor for Final Year Project of BSc Computer Science	2019/2020
30.	Academic Advisor of 1st year BSc Computer Sc. Programme	August 2019 – February 2022
31.	Invited Speaker for Mendeley Referencing Tool	September 2019
32.	Member of Committee for GIG-Economy – Building Online Business and Digital Marketing Course (Siri 1)	February 2020
33.	Vice Secretary for Committee of GIG-Economy – Generating Money through Youtube Course	March 2020
34.	Coordinator of the Bachelor of Computer Science (Hons) specializing in Digital Forensics	June 2020-June 2022
35.	Secretary for Committee of Knowledge Transfer Programme (KTP)-Recording and Editing Techniques using Smartphone for Youtube, Instagram and Facebook Course	August 2020
36.	Head of the Bachelor of Computer Science (Hons) programme	July 2022 - present
37.	Committee member of “Program Pembangunan Keterampilan Mahasiswa FSTP”	23 Nov 2022
38.	Committee member of student credit transfer evaluation for Fundamentals of Programming	25 Nov 2022


### 3.4 Service to the community

(Please list in chronological order)

No.	Organization	Role	Start Date	End Date	Level
1.	Parent-Teacher Association, S.K. Ampang	Committee Member	2013	2014	Community
2.	Career Education Carnival organized by Kedah Technical Matriculation Programme, Ministry of Education Malaysia	Invited Speaker	November 2014	-	National
3.	Jom Masuk UPNM Promotion Programme organized by KL Engineering Science Fair (KLESF)	Committee Member	4 August 2016	6 August 2016	National
4.	National Symposium of Defence and Technology (NASDET)	Head Of Cluster	2017	-	National
5.	Computer Literacy Workshop for Sekolah Tahfiz Anak Yatim (STAY) ATM organized by FSTP UPNM	Instructor	30 October 2017	1 November 2017	Community
6.	STEM Carnival organized by FSTP UPNM	Committee Member	9 October 2018	-	Community
7.	Motivational and STEM Programme organized by S.K. Mantin, Negeri Sembilan	Invited Speaker	11 April 2019	-	Community
8.	PIBG Sek. Keb. Ampang	Member	2013	present	Community
9.	PIBG SAM Hulu Langat	Member	2017	2022	Community
10.	PIBG SMK Victoria	Member	2019	present	Community

11.	Motivational and Knowledge transfer Programme organised by S.K. Paroi, Negeri Sembilan	Deputy Director	2023	-	Community
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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 : NORULZAHRAH BINTI MOHD ZAINUDIN

Faculty/Department : COMPUTER SCIENCE DEPARTMENT,  
FACULTY OF DEFENCE SCIENCE AND TECHNOLOGY

Date : 27/9/2023