

## CURRICULUM VITAE

Noramalina Binti Abdullah  
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### **Personal Profile**

Date of birth/ Age: 15 December 1979/ 40 years old  
Gender: Female  
Nationality: Malaysian  
Marital status: Married  
Current position: Senior Lecturer  
Research interest: Power System, Neuro-fuzzy System  
Medical Imaging

### **Education**

Year	Level and Institutions	Achievements
May 1999 – May 2002	Bachelor's Degree (Quality Control and Instrumentation), University Science Malaysia (USM)	Final year project title: Implementation of Quality Circle Management in Firm Sector
November 2007 – November 2009	Master's Degree of Electrical Engineering (Microelectronic and Automation Control), University Technology Malaysia (UTM)	Thesis title: FPGA Implementation on MRI Brain Classification Using Support Vector Machine <a href="http://eprints.utm.my/12307/">http://eprints.utm.my/12307/</a>
Nov 2011 – December 2015	PhD in Electrical Engineering - Chulalongkorn University, Bangkok, Thailand	Thesis title: Fault Detection and Identification With Adaptive Neuro-Fuzzy Inference System <a href="http://cuir.car.chula.ac.th/handle/123456789/49855">http://cuir.car.chula.ac.th/handle/123456789/49855</a>

## Working Experience

Year	Position and Institutions	Scope of works
July 2018 – recent	Senior Lecturer (USM)	<p>Semester 1 (2018/19) Teaching: EEU 104- Electrical Technology EUM 113- Engineering Calculus</p> <p>Semester 2 (2018/ 19) Teaching: EEU 104- Electrical Technology EEE 125- Basic Circuit Laboratory</p> <p>Final Year Project: i. The causes and Effects of The Harmonic in Power Ssystem Transmission Line ii. Automatic Circuit Breaker (ACB) for Low Voltage Substation Distribution iii. Web-based Photovoltaic Monitoring System iv. Uninterruptible Power Supply</p>
November 2002 – June 2018	Senior Research Officer, University Science Malaysia (USM)	<ol style="list-style-type: none"> <li>Assist the laboratory session pertinent to: <ul style="list-style-type: none"> <li>- Basic Circuit</li> <li>- Mechatronics Design</li> <li>- Mechatronics</li> <li>- Analogue Electronics</li> <li>- Introduction of Field Programming Gate Array (FPGA)</li> </ul> </li> <li>Handle the tutorial class pertinent to: <ul style="list-style-type: none"> <li>- Electronic Device</li> <li>- Digital Signal and Systems</li> <li>- Circuit Theory</li> <li>- Electrical Technology</li> <li>- Manufacturing and Management Technology</li> <li>- Power System</li> </ul> </li> <li>Conduct respective research as principal investigator and co-researcher</li> </ol>
March 2001 – May 2001	Internship/ Industrial training at B Braun Medical Industries Sdn. Bhd., Penang	Quality assurance, Department of Research and Development

## Publications

Year	Title
2018	<ol style="list-style-type: none"> <li>1. Noramalina Abdullah, Channarong Banmongkol, Naebboon Hoonchareong, Hidaka Kuniyiko, <i>Fault Identification using Combined Adaptive Neuro-Fuzzy Inference System and Gustafson–Kessel Algorithm</i>, Journal of Engineering Research, 2018; March issue, IF 0.4</li> <li>2. Paper presented at 2017 IEEE 15th Student Conference on Research and Development (SCOREd) has been posted to the IEEE Xplore digital library. <a href="http://ieeexplore.ieee.org/document/8305365/">http://ieeexplore.ieee.org/document/8305365/</a></li> <li>3. Amalina Abdullah, <i>The Performance of Clustering Technique and Artificial Intelligence in Power System Fault Investigation</i>, International Conference on Electrical and Electronics Engineering (ICEEE), Kuala Lumpur, 18-19<sup>th</sup> December 2018</li> </ol>
2017	<ol style="list-style-type: none"> <li>1. Amalina Abdullah, Channarong Banmongkol, Naebboon Hoonchareon and Kuniyiko Hidaka, <i>A Study on the Gustafson-Kessel Clustering Algorithm in Power System Fault Identification</i>, Journal of Electrical Engineering and Technology, 2017; 12(5): 1798-1804, IF 0.679</li> <li>2. Amalina Abdullah et al, <i>Design and Development of D33 Mode Piezoelectric Acoustic Transducer Array using PVDF for Underwater Application</i>, 2017 IEEE International Conference on Control System, Computing and Engineering, 24-26 December 2017, Penang.</li> <li>3. Amalina Abdullah, <i>Fault Identification Using A New Scheme of Hybrid ANFIS</i>, IEEE Student Conference on Research and Development, 13-14 December 2017, Putrajaya.</li> <li>4. Amalina Abdullah et al, <i>D33 Mode Based Piezoelectric Micromachined Ultrasonic Transducers</i>, IEEE Student Conference on Research and Development, 13-14 December 2017, Putrajaya.</li> </ol>
2016	<ol style="list-style-type: none"> <li>1. Amalina Abdullah, Channarong Banmongkol, Naebboon Hoonchareon and Kuniyiko Hidaka, <i>Implementation of Adaptive Neuro Fuzzy Inference System in Fault Location Estimation</i>, 9th International Conference on Robotic, Vision, Signal Processing and Power Applications, February 2016, Penang</li> <li>2. Lect. Notes Electrical Eng, Vol 398, Haidi Ibrahim et al: (9th International Conference on Robotic, Vision, Signal Processing and Power Applications, 978-981-10-1719-3, 339721_1_En (80)</li> </ol>
2015	<ol style="list-style-type: none"> <li>1. Completed and submitted Phd Thesis</li> </ol>
2014	<ol style="list-style-type: none"> <li>1. Amalina Abdullah, Channarong Banmongkol and Naebboon Hoonchareon, 2014, <i>Improvement of Fault Identification and Localization Using Gustafson-Kessel Algorithm In Adaptive Neuro-Fuzzy Inference System</i>, Australian Journal of Basic and Applied Sciences, 8(5) Special 2014, Pages: 455-461, ISSN:1991-8178 AENSI Publisher, SCOPUS indexed (selected from paper submitted to ICBST'14) <a href="http://www.ajbasweb.com/old/ajbas/2014/Special%202/455-461.pdf">http://www.ajbasweb.com/old/ajbas/2014/Special%202/455-461.pdf</a></li> <li>2. <i>Improvement of Fault Identification and Localization Using Gustafson-Kessel Algorithm In Adaptive Neuro-Fuzzy Inference System</i>, International Conference of Business, Science and Technology (ICBST 2014), 25-26 April 2014, Hatyai, Thailand</li> </ol>

2013	<ol style="list-style-type: none"> <li>1. Amalina Abdullah, Channarong Banmongkol , <i>A Study of Traveling Wave for Fault Detection And Localization in Transmission Line</i>, AUN SEED-Net Regional Conference, 4-5February 2013, Bangkok, Thailand</li> <li>2. Amalina Abdullah, Channarong Banmongkol, <i>Fault Detection and Fault Localization in Transmission Line</i>, Postgraduate Conference of Electrical Engineering, 8 February 2013, Bangkok, Thailand</li> </ol>
2011	<ol style="list-style-type: none"> <li>1. Noramalina Abdullah, <i>Image Classification of Brain MRI Using Support Vector Machine (LabView Software) for case study booklet of National Instrument 2011</i>, <a href="ftp://ftp.ni.com/pub/branches/asean/111021-gsdaa_casestudy_booklet.pdf">ftp://ftp.ni.com/pub/branches/asean/111021-gsdaa_casestudy_booklet.pdf</a></li> <li>2. Amalina Abdullah et al, <i>Moving Vehicle Segmentation in a Dynamic Background Using Self-Adaptive Kalman Background Method</i>, 2011 IEEE 7th International Colloquium on Signal Processing and its Applications (CSPA 2011), 4-6 March2011, Penang</li> <li>3. Amalina Abdullah et al <i>MRI Brain Classification Using Support Vector Machine</i>, International Conference on Modeling, Simulation and Applied Optimization (ICMSAO-2011), 19-21 April 2011, Kuala Lumpur</li> <li>4. Amalina Abdullah et al <i>Improvement Moving Vehicle Detection Using RGB Removal Shadow Segmentation</i>, 2011 IEEE International Conference on Control System, Computing and Engineering, 25- 27 November 2011, Penang</li> <li>5. Amalina Abdullah et al, <i>Improvement of MRI Brain Classification Using Principal Component Analysis</i>, 2011 IEEE International Conference on Control System, Computing and Engineering, 25-27 November 2011, Penang</li> <li>6. Amalina Abdullah et al, <i>Image Classification Of Brain MRI Using Support Vector Machine</i>, 2011 IEEE Conference on Imaging Systems and Techniques (IST 2011), Penang</li> </ol>
2010	<ol style="list-style-type: none"> <li>1. Amalina Abdullah et al , <i>An Overview Of MRI Brain Classification Using FPGA Implementation</i>, 2010 IEEE Symposium on Industrial Electronics &amp; Applications (ISIEA 2010), 3rd - 6th October 2010, Penang</li> </ol>

### Research Grant

1. As Principal Investigator for USM Short Term Grant; AUTOMATED SYSTEM FOR BRAIN MRI CLASSIFICATION USING SUPPORT VECTOR MACHINE (304/PELECT/60310003), January 2010-January 2012, worth RM 32,000.
2. As Principal Investigator for USM Short Term Grant; ESTIMATION OF POWER FAULT LOCATION USING ARTIFICIAL INTELLIGENCE (304/PELECT/60313049), October 2016 – March 2019, worth RM 33,239.
3. As Co-Researcher Fundamental Research Grant Scheme(FRGS); INVESTIGATION ON ENERGY HARVESTING FROM RAINDROP ENERGY, 01/08/2011-31/01/2014, worth RM117,000.00
4. As Co-Researcher for CREST grant; HIGHLY DYNAMIC AUTOMATED GUIDED VEHICLE (AGV) NAVIGATION SYSTEM USING LIGHT DETECTION AND RANGING (LIDAR) PLATFORM IN CONFINED PRODUCTION PLANT, Feb 2019 – Feb 2022, worth RM 148 200.00

## Recognitions

1. <https://scholar.google.com/citations?user=8yTHbucAAAAJ&hl=en>
2. <https://orcid.org/0000-0002-9562-1728>
3. <http://www.researcherid.com/rid/C-7978-2019>
4. Graduate Technologist – GT18030012 (Electrical & Electronics Technology)
5. Award winning at International Engineering and Sciences Innovation Exhibition (2018)

**Gold Medal:** Intelligent Self-Defence Device

**Silver Medal:** Web-based Photovoltaic Monitoring System

**Bronze Medal:** Uninterruptible Power Supply

