

# HASMAH BT MANSOR



- KULLIYAH OF ENGINEERING
- IIUM Gombak Campus
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## ACADEMIC QUALIFICATION

- Ph.D in Control and Automation Engineering
- Master of Science in Control and Automation Engineering
- Bachelor of Electronics & Electrical Engineering

## TEACHING RESPONSIBILITIES

CIRCUIT ANALYSIS	2011/2012 2012/2013 2013/2014 2014/2015
CONTROL SYSTEMS	2006/2007 2007/2008 2012/2013 2013/2014 2014/2015 2015/2016 2016/2017 2017/2018 2018/2019 2019/2020
ELECTRIC CIRCUITS	2011/2012 2012/2013
ELECTRICAL AND COMPUTER ENGINEERING LAB I	2011/2012 2012/2013
ELECTRICAL AND COMPUTER ENGINEERING LAB III	2012/2013 2013/2014 2014/2015 2015/2016 2016/2017 2017/2018
ENGINEERING LAB II	2007/2008
FINAL YEAR PROJECT I	2018/2019 2020/2021
FINAL YEAR PROJECT II	2018/2019
INSTRUMENTATION AND CONTROL	2017/2018 2018/2019 2019/2020 2020/2021

## RESEARCH PROJECTS

### In Progress

- 2020 - Present** Pembudayaan Sains & Teknologi di Kalangan Anak-anak Orang Asli (SCI-TECH)
- 2019 - Present** Educational Activities Program with "Anak-Anak Orang Asli ASDAF"
- 2018 - Present** Classification of Stress Level Using Deep Learning Algorithm Based on Electroencephalograph (EEG) Signals

- 2018 - Present** Speech Emotion Recognition and Depression Prediction based on Speech Analysis using Deep Neural Networks
- 2018 - Present** Classification of Stress Level Using Deep Learning Algorithm Based on Electroencephalograph (EEG) Signals
- 2017 - Present** Dynamic Modeling, Navigation and Control of Micro Aerial Vehicles
- 2015 - Present** An Enhanced Modulated Predictive Control of AC/AC Converter for Wind Turbine to Reduce the Cost of Electricity

### Completed

- 2017 - 2019** Dynamic Modeling, Navigation and Control of Micro Aerial Vehicles
- 2016 - 2018** Investigation on the Behaviour of Weapon Positioning System on Volatile Warship
- 2015 - 2018** An Efficient Algorithm on Lossless Audio Compression using Optimized Linear Predictor and Entropy Coding for Multichannel Quranic Audio Recitation
- 2015 - 2019** An Enhanced Modulated Predictive Control of AC/AC Converter for Wind Turbine to Reduce the Cost of Electricity
- 2014 - 2016** Design and Development of Portable Classroom Attendance System Based on Fingerprint Biometric
- 2012 - 2014** RU 2011: A Development of Self-Tuning Quantitative Feedback Theory
- 2012 - 2015** Robust adaptive control of nonlinear system application to flight control system

## PUBLICATIONS

### Article

- 2020** [Design of travel angle control of quanser bench-top helicopter using mamdani-based fuzzy logic controller.](#) Indonesian Journal of Electrical Engineering and Computer Science , 17 (2) pp.815-824
- 2020** [Safety and security solution for school bus through RFID and GSM technologies.](#) Safety and security solution for school bus through RFID and GSM technologies , 17 (2) pp.804-814
- 2019** [A critical insight into multi-languages speech emotion databases.](#) Bulletin of Electrical Engineering and Informatics , 8 (4) pp.1312-1323
- 2018** [Design and implementation of portable outdoor air quality measurement system using Arduino.](#) International Journal of Electrical and Computer Engineering (IJECE) , 8 (1) pp.280-290
- 2018** [Trajectory tracking of quaternion based quadrotor using model predictive control.](#) International Journal of Engineering and Technology (UAE) , 7 (4.13) pp.125-128
- 2018** [Development of smart chicken poultry farm.](#) Indonesian Journal of Electrical Engineering and Computer Science , 10 (2) pp.498-505

- 2018** [Neural network prediction for efficient waste management in Malaysia.](#) Indonesian Journal of Electrical Engineering and Computer Science , 12 (2) pp.738-747
- 2018** [Design of smart waste bin and prediction algorithm for waste management in household area.](#) Indonesian Journal of Electrical Engineering and Computer Science , 12 (2) pp.748-758
- 2018** [Performance evaluation of smart home system using Internet of things.](#) International Journal of Electrical and Computer Engineering (IJECE) , 8 (1) pp.400-411
- 2017** [Prototype design of smart home system using internet of things.](#) Indonesian Journal of Electrical Engineering and Computer Science , 7 (1) pp.107-115
- 2017** [Artificial neural network based fast edge detection algorithm for MRI medical images.](#) Indonesian Journal of Electrical Engineering and Computer Science , 7 (1) pp.123-130
- 2017** [Development of approximate prediction model for 3-DOF helicopter and benchmarking with existing controllers.](#) Indonesian Journal of Electrical Engineering and Computer Science , 8 (2) pp.502-510
- 2017** [Stress recognition using photoplethysmogram signal.](#) Indonesian Journal of Electrical Engineering and Computer Science , 8 (2) pp.495-501
- 2016** [Development of Quran reciter identification system using MFCC and neural network.](#) TELKOMNIKA Indonesian Journal of Electrical Engineering , 17 (1) pp.168-175
- 2016** [Travel angle control of quanser bench-top helicopter based on quantitative feedback theory technique.](#) Indonesian Journal of Electrical Engineering and Computer Science , 1 (2) pp.310-318
- 2016** [Halal kit identifier using radio frequency identification technology.](#) 2016 International Conference on Computer and Communication Engineering (ICCE) pp.126-131
- 2016** [QFT controller for nonlinear system application to 3-DOF flight control module.](#) ARPN Journal of Engineering and Applied Sciences , 11 (6) pp.4172-4175
- 2015** [Performance comparisons between PID and adaptive PID controllers for travel angle control of a bench-top helicopter.](#) International Journal of Electronics, Electrical and Communication Engineering , 9 (1) pp.35-40
- 2015** [Robust control of bench-top helicopter using quantitative feedback theory.](#) TELKOMNIKA Indonesian Journal of Electrical Engineering , 14 (3) pp.500-507
- 2014** [Statistics of rainfall rate at 60 minutes integration time in Malaysia.](#) Australian Journal of Basic and Applied Sciences , 8 (14) pp.420-425
- 2014** [Comparison of different empirical conversion methods from 60-minute to 1-minute integration time in Malaysia.](#) Australian Journal of Basic and Applied Sciences , 8 (24) pp.321-327
- 2013** [Assessment of radar reflectivity-rainfall rate, Z-R relationships for a convective event in Malaysia.](#) International Journal of Electrical Energy , 1 (4) pp.239-243

- 2013** [Design of QFT-based self-tuning deadbeat controller.](#) World Academy of Science, Engineering and Technology , 79 pp.1291-1293
- 2013** [A comparative study of small voltage rectification circuits for implanted devices.](#) IOP Conference Series: Materials Science and Engineering , 53 (1) pp.1-9
- 2013** [Optimization of wireless power transmission for two-port and three-port inductive link.](#) IOP Conference Series: Materials Science and Engineering , 53 (1) pp.1-12
- 2012** [Modelling and control of laboratory scale conveyor belt type grain dryer plant .](#) Journal of Food, Agriculture & Environment , 10 (2) pp.1384-1388
- 2011** [Online Quantitative feedback theory \(QFT\)-based self-tuning controller for grain drying process.](#) Scientific Research and Essays , 6 (31) pp.6520-6534
- 2011** [Design procedure of robust QFT-based controller for continuous-flow grain dryer plant .](#) Advanced Materials Research , 328/30 pp.2318-2321
- 2010** [Intelligent control of grain drying process using fuzzy logic controller.](#) Journal of Food, Agriculture & Environment , 8 (2) pp.145-149
- 2010** [Design of QFT controller for a bench-top helicopter system model.](#) International Journal of Simulation, Systems, Science & Technology , 11 (4) pp.9-17

#### **Conference or Workshop Item**

- 2020** [Speech emotion recognition using convolution neural networks and deep stride convolutional neural networks.](#) In: **6th International Conference on Wireless and Telematics (ICWT) 2020**
- 2019** [Development of eCall for Malaysia's automotive industries.](#) In: **"7th International Conference on Mechatronics Engineering, ICOM 2019"**
- 2019** [Comparative analysis of gender identification using speech analysis and higher order statistics.](#) In: **2019 IEEE 6th International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA 2019)**
- 2019** [Mamdani-based fuzzy logic controller for travel angle control of bench-top helicopter.](#) In: **2018 IEEE 5th International Conference on Smart Instrumentation, Measurement and Application (ICSIMA)**
- 2018** [Development of school bus security system based on RFID and GSM technologies for Klang Valley Area.](#) In: **2018 IEEE 5th International Conference on Smart Instrumentation, Measurement and Application (ICSIMA)**
- 2018** [Inductive resonant power transfer and topology consideration.](#) In: **3rd IEEE International Conference on Engineering Technologies and Social Sciences, ICETSS 2017**
- 2017** [Development of modular smart farm system.](#) In: **4th IEEE International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA) 2017**
- 2017** [Development of fuzzy logic controller for Quanser bench-top helicopter.](#) In: **6th International Conference on Mechatronics (ICOM'17)**
- 2016** [IIUM bus on campus monitoring system.](#) In: **6th International Conference on Computer and Communication Engineering (ICCCE 2016)**

- 2015 [Portable heart rate measurement for remote health monitoring system.](#) In: **2015 10th Asian Control Conference (ASCC 2015)**
- 2015 [PID tuned artificial immune system hover control for lab-scaled helicopter system.](#) In: **2015 10th Asian Control Conference (ASCC 2015)**
- 2014 [Self-tuning deadbeat PD controller for pitch angle control of a bench-top helicopter.](#) In: **5th International Conference on Computer and Communication Engineering (ICCCE 2014)**
- 2014 [Wireless power transmission system based on magnetic inductive resonance of couple circuit.](#) In: **International Conference on Computer and Communication Engineering (ICCCE2014)**
- 2014 [Development of robust quantitative feedback theory controller for quanser bench-top helicopter.](#) In: **IEEE International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA 2014)**
- 2014 [Robust adaptive LQR control of nonlinear system application to 3-Dof flight control system.](#) In: **IEEE International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA 2014)**
- 2014 [Evaluation of the effect of walking speeds on human gait recognition.](#) In: **IEEE International Conference on Smart Instrumentation, Measurement and Applications (ICSIMA 2014)**
- 2014 [Design and development of portable classroom attendance system based on arduino and fingerprint biometric.](#) In: **5th International Conference on Information and Communication Technology for The Muslim World (ICT4M 2014)**
- 2013 [Initial assessment of radar reflectivity-rainfall rate, Z-R relationships for moderate rain events in Malaysia .](#) In: **Wireless Technology and Applications (ISWTA), 2013 IEEE Symposium on**
- 2013 [Body temperature measurement for remote health monitoring system.](#) In: **2013 IEEE International Conference on Smart Instrumentation, Measurement and Applications**
- 2012 [A development of self-tuning quantitative feedback theory.](#) In: **International Conference on Computer and Communication Engineering (ICCCE 2012)**

**Book  
Book Section**

- 2020 [Speech emotion recognition using feature fusion of TEO and MFCC on multilingual databases.](#) In: **Springer's Lecture Notes in Electrical Engineering (LNEE)** Springer , pp.1-10
- 2019 [Stress recognition using photoplethysmogram \(PPG\) signal incorporating gender and age variability.](#) In: **Lecture Notes on Advanced Research in Engineering and Information Technology II** Malaysia Technical Scientist Association , pp.83-90
- 2019 [Development of fatigue detection technique using photoplethysmogram signal.](#) In: **Lecture Notes on Advanced Research in Engineering and Information Technology II** Malaysia Technical Scientist Association , pp.106-113