



## CURRICULUM VITAE

Name : Muhammad Izhar Bin Ishak  
Designation : University Lecturer  
Grade : DS51-A  
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### Qualification

1. Dr. (Eng.) in Engineering, Science and Technology, Tokai University, Japan, 2016
2. ME in Mechanical Engineering, Tokai University, Japan, 2013
3. BE in Prime Mover Engineering, Tokai University, Japan, 2011
4. Diploma in Mechanical Engineering, Universiti Industri Malaysia, Malaysia, 2009

### Brief Profile

Dr. Muhammad Izhar Bin Ishak is a senior lecturer currently working at the Faculty of Mechanical Engineering, Universiti Malaysia Pahang since December 2016. He received his B.Eng, M.Eng and Ph.D from the Tokai University, Japan in 2011, 2013 and 2016, respectively. His research interests are in the areas of vehicle dynamics, numerical simulation, safety, manoeuvrability and stability control of the vehicle.

### Expert Areas

Vehicle dynamics, braking system, four wheel steering system, numerical simulation, control system, MATLAB Simulink

### Working Experience/ Appointment

December 2016 – Present : Permanent Training, Senior Lecturer, Faculty of Mechanical Engineering, Universiti Malaysia Pahang.

09/01/2016 – 31/12/2017 : Coordinator for Curriculum and Examination for Degree Program (BMM), Faculty of Mechanical Engineering, Universiti Malaysia Pahang.

January 2017 – Present : Reviewer Panel for International Journal of Automotive and Mechanical Engineering (IJAME) & Journal of Mechanical Engineering and Sciences (JMES)

12/01/2017 : Secretariat (VIVA-VOCE) for Post Graduate Student ( MEE10001 - Zailini Binti Mohd Ali, Dr. Gan Leong Ming)

14/09/2017 : Chairman (Pre-VIVA) for Post Graduate Student ( PMM15001 – Muhammad Yusri Bin Ismail, Prof. Dr. Rizalman Bin Mamat, *Gasoline Engine Running by Using Duel Fuel Mode*)

02/01/2018 – 31/12/2018 : Coordinator for Curriculum and Examination for Degree Program (BMM),  
Faculty of Mechanical Engineering, Universiti Malaysia Pahang.

### Training Experience

20/11/2017 – 22/11/2017: “Short Course: Introduction to MATLAB, Simulink and Data Science Using MATLAB” By Dr Fatimah Dzaharuddin, Dr Ummu Kulthum Jamaludin, Dr Muhammad Izhar Ishak, Computer Lab (M00H1), FKM, UMP Pekan.

### Teaching Experience

<u>Year</u>	<u>Subject Code</u>	<u>Subject</u>	<u>Category</u>	<u>Credit Hour</u>	<u>Total Students</u>
2016/17 Semester 2	BMM2433	Electrical & Electronic Technology	Laboratory	1	
2016/17 Semester 2	DMM3623	Hydraulics & Pneumatics Technology	Laboratory	1	
2016/17 Semester 2	DMM2412	Metrology	Lecture, Laboratory	2	108
2017/18 Semester 1	BMM1811	Mechanical Laboratory 1	Laboratory	1	29
2017/18 Semester 1	DMM2633	Manufacturing Technology	Lecture, Laboratory	3	57
2017/18 Semester 2	BMM1553	Dynamics	Lecture	3	
2017/18 Semester 2	BHA3402	Vehicle Electronics 1	Lecture	2	

### Supervision

**Program : Master Science Degree**

**Year : 2017**

<u>Title</u>	<u>Student Name</u>	<u>Start</u>	<u>End</u>	<u>Status</u>	<u>Role</u>
Study On Differential Torque Control to Increase The Steer Performance of Electric Vehicle.	Muhamad Zulhilmi Bin Ismail	26/09/2017	-	Active	Co-supervisor
Study of Traction Control Stability Improvement For Electrical Powered Wheelchair (EPW) On Slope Condition	Muhammad Asyraf Bin Shahrom	14/09/2017	-	Active	Co-supervisor

**Program : Bachelor in Mechanical Engineering (FYP)**

Year : 2017

<u>Title</u>	<u>Student Name</u>	<u>Start</u>	<u>End</u>	<u>Status</u>	<u>Role</u>
Fundamental research on steer-without angle vehicle by implementing mecanum wheels	LI MAOQI	4/09/2017	-	Active	Supervisor
Numerical simulation of the steering characteristics of four-wheel drive and four wheel steering electric vehicle	VICK NOOM A/L EH BOON	4/09/2017	-	Active	Supervisor
Investigation of electrical Vehicle steering system with No-angle by application of Mecanum wheel	AHMAD THAQIF BIN ZOLKIPLI	12/03/2017		Active	Supervisor

**Program : Bachelor in Mechanical Engineering (IDP/MSD)**

Year : 2017

<u>Title</u>	<u>Student Name</u>	<u>Start</u>	<u>End</u>	<u>Status</u>	<u>Role</u>
Development of an Impact Attenuator for a Small Electric Vehicle	1. Mohammad Asyraf Bin Mohd Yusoh 2. Muhd Safwan Bin Ramle 3. Mohd Azim Bin Ya'cob	4/09/2017	29/12/2017	Completed	Supervisor

**Research Grant**

<u>Title &amp; Project ID</u>	<u>Role</u>	<u>Start</u>	<u>End</u>	<u>Status</u>
Improving the Manoeuvrability of Electric Vehicle with Four In-Wheel Motors and Mecanum Wheels (RDU1703217)	Leader	30/06/2017	29/06/2019	Active
Development of micro bubbles diesel fuel to Enhance engine performance (rdu1703155)	Member	20/06/2017	19/06/2019	Active

## Publications

<u>Year</u>	<u>Title</u>
Mac 2011	Japan Mechanical Conference 2011 [日本機械学会2011], “Research on Skid Control System of a Small In-wheel motor Electric Vehicle”
Ogos 2011	JSME 2011 Conference [Japanese Society of Mechanical Engineering], “Research on Anti-lock Brake System of a 4WD Small In-wheel Motor Electric Vehicle With Hydraulic-Mechanical Hybrid Brake System (steering Performance)”
Mac 2013	Proceeding of Tokai University School of Engineering 2013 [Japanese ver.], “Research on Motion Control of Four Wheel Steering Vehicles (Effect of Regenerative Brake on Vehicle’s Motion)”
November 2013	Proceeding of 2013 IEEE Conference on System, Process and Control, “Introduction on Dynamic Motion of Opposite and Parallel Steering for Electric Vehicle
November 2013	MJIIT-JUC Joint International Symposium 2013, “Research on Four Wheel Independent Steering of an All-Wheel Drive In-Wheel Small Electric Vehicle (Path Comparison of Opposite Steering and Parallel Steering at Low Speed)”
September 2014	JSME 2014 Conference [Japanese Society of Mechanical Engineering], “Research on 4 Wheels Independent Steering for Small Electric Vehicle (Effect of Stability Clearance Speed)”
Julai 2014	Proceeding of Tokai University School of Engineering, Series E [English ver.], “Research on Four Wheel Drive and Independent Steering for Small Electric Vehicles: Active Stability Control during High-Speed Cornering”
April 2016	International Journal of Vehicular Technology, “Numerical Simulation Analysis of an Oversteer In-Wheel Small Electric Vehicle Integrated with Four Wheel Drive and Independent Steering”