

BRIEF CV



Idris Bin Mat Sahat

Lecturer.

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**Universiti
Malaysia
PAHANG**

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Academic Qualifications

1. Master of Mechanical Engineering, UTM Skudai 2010.
2. Bachelor of Mechanical Engineering, UTM Skudai, 2006.

Brief Profile

Currently, Idris Bin Mat Sahat is a lecturer and researcher in Universiti Malaysia Pahang. He graduated from Universiti Teknologi Malaysia with a Master of Mechanical Engineering in 2010. After his first degree in 2006, he works at Shimano Components Malaysia SDN BHD and Jabatan Kerja Raya (JKR) Malaysia for about 2 years with last position as Mechanical Engineer. He has shown vast interest in Automatic Control, Thermofluid, Simulation, Programming and Numerical Method area. At present, he actively involved in Automatic Control and Micro Hydro Turbine

Working Experiences / Appointment

1. SHELL ECO MARATHON CHALLENGE 2014 PHILIPPINES ADVISOR
2. FKM Website Administrator July 2011 - June 2013
3. BMM PSM Coordinator July 2011- June 2012
4. Master by Course Taskforce - 2011
5. EAC Taskforce for(SAR) BMM – Dis 2010
6. ISO –Jawatan Kuasa Kecil QMS- July 2010 ~ Jun 2011
7. Task Force Alumni Survey - 2010
8. BMI PSM Coordinator – July 2010
9. Jun 2010 ~Current, Lecturer, Universiti Malaysia Pahang.
10. Nov 2007~Dis 2010, Tutor, Universiti Malaysia Pahang.
11. Mac 2007~November 2007 Mechanical Engineer, HQ Jabatan Kerja Raya, Cawangan Kejuruteraan Mekanikal, Jalan Sultan Salahudin, Kuala Lumpur
12. September 2006~ Mac 2007 Production Engineer, Shimano Components Malaysia SDN BHD, Pekan Nanas, Johor

Expert Area

ARDUINO, Numerical Methods and Simulation, MATLAB, FORTRAN, EXCEL, CFD, Fluent, Air-Conditioning

Research Area / Research Interest

Control, Automation, Electronics, Lattice Boltzmann Method (LBM), Simulations, Numerical, Programming, Experimental, Renewal Energy, HVAC (Heating, Ventilation and Air Conditioning)

Professional Certificate / Professional Membership.

1. Graduate Engineer, Board of Engineer, Malaysia (BEM) (51384A).
2. AutoCAD 2010 Associate Certified Personnel - December 2010
3. AutoCAD 2010 Professional Certified Personnel - December 2010

Subject Taught (For Current Academic Year – (2007/2014))

1. FEB 2013/2014 Sem 2
BMM2533 Fluids Mechanics 1, 3 credit (23 Students) -**Coordinator**
BMM2543 Fluids Mechanics 2, 3 credit (40 Students)
2. SEP 2013/2014 Sem 1
BMM2533 Fluids Mechanics 1, 3 credit (32 Students) -**Coordinator**
BMM3531 Engineering Fluid Mechanics Lab, 1 credit
BMM4783 Computational Fluids Mechanics, 3 credit (11 Students) -**Coordinator**
3. FEB 2012/2013 Sem 2
BMM2533 Fluids Mechanics 1, 3 credit (32 Students) -**Coordinator**
BMM3531 Engineering Fluid Mechanics Lab, 1 credit (11 Students)
DMM2533 Fluids Mechanics, 3 credit (50 Students) -**Coordinator**
4. SEP 2012/2013 Sem 1
BMM3513 Heat Transfer, 3 credit (60 Students) -**Coordinator**
BMM3531 Engineering Thermodynamic Lab, 1 credit (60 Students) -**Coordinator**
5. FEB 2011/2012 Sem 2
DMM2533 Fluids Mechanics, 3 credit (28 Students) -**Coordinator**
BMM3531 Engineering Thermodynamic Lab, 1 credit (60 Students)
6. SEP 2011/2012 Sem 1
BMM2533 Fluids Mechanics 1, 3 credit (70 Students)
BMM3531 Engineering Thermodynamic Lab, 1 credit (50 Students)
BMM1811 Mechanical Laboratory 1, 1 credit (30 Students) -**Coordinator**
7. DIS 2010/2011 Sem 2
BMM2543 Fluids Mechanics 2, 3 credit (55 Students) - **Coordinator**
BMM3531 Engineering Thermodynamic Lab, 1 credit (70 Students)
8. JUL 2010/2011 Sem 1
BMM2613 Computer Aided Design, 3 credit (30 Students)
BMM3521 Engineering Fluid Mechanic Lab, 1 credit (70 Students)
BMM3531 Engineering Thermodynamics Lab, 1 credit (4 Students) -**Coordinator**
9. JUL 2008/2009
DMM 1213 Physics (35 Students) - **Coordinator**
BMM0212 Physics (25 Students) - **Coordinator**
10. DIS 2007/2010
BMM2523 Fluid Mechanics 2 (Tutorials – 300 students)

Post Graduate Supervision (2007~2014)

-Nil-

Degree Final Year Project Supervision (2007~2014)

1. Mohd Nazrul Shahmir Bin Salleh(MA08097), " *The influence of even grid size in two-dimensional temperature distribution in enclosure for different conditions*" October 2012
2. Mohamad Azman Bin Poniran(MA08045), " *The temperature distribution and heat flow in a cylindrical fin with heat source*" July 2012
3. Nicholson Anak Jambok(MA008021), " *Experimental evaluation of heat flow through staggered pin fin array by force convection*" July 2012
4. Shahrizal Bin Ibrahim(MA08066), " *Experimental evaluation of heat flow from rectangular fin array under forced convection*" July 2012
5. Mohd Asri Bin Ibrahim(MA09006), " *A simplification of reading fluid properties using microsoft excel*" July 2012
6. Nur Diyana Wahida Bt Adam(MA08065), " *A simplification of reading thermodynamic properties using microsoft excel*" July 2012
7. Mustafa Saifudeen Bin Abdul Walid(MA08126), " *An Analysis of Blasius Boundary Layer Solution with differents numerical method*" July 2012
8. Mohd Zamri Bin Mohd Kama(MH08038), " *A Study of humidity effect toward the quality of air from air conditioning system*" July 2012
9. Muhammad Zaim Hassan(MA07043), " *Flow Characteristic of An Elliptically Shaped Piezoactuated Micropump*", December 2010
10. Muhammad Izzuddin Hilmi Bin Zainal Abidin(MA07043), " *Computational Fluid Dynamics (Cfd) Analysis Of Miniature Wind Turbine*", December 2010

Diploma Final Year Project Supervision (2007~2014)

1. Mohamad Yazid Mohamad Yasin (MB08061), " *Design and Manufacture Solar Turbine*" December 2010
2. Khairil Anwar Abu Bakar (MB0896), " *Design and Fabricate Multifunction Broom*", December 2010
3. Al-Nazirul bin Haron (MB08053), " *Design and Fabricate multipurpose trolley*", December 2010
4. Abdul Aziz bin Safiee (MB08071), " *Simple Portable Astro Receiver Stand (SPARS)*", December 2010

List of Publications (2007~2014)

2010

1. N.A.C.Sidik and **S.M.Idris** " *Finite different and Lattice Boltzmann modelling for simulation of natural convection in square cavity*" International Journal of Mechanical and Materials Engineering, 5(1), 80-86. SCOPUS
2. **M.S.Idris** and C.S.N.Azwadi, " *Mesoscale Numerical approach to predict macroscale Fluid Flow Problems*" Journal of Applied Science, 10(15), 1511-1524. SCOPUS.
3. **M.S.Idris** and C.S.N.Azwadi, " *Numerical investigation of 2D lid driven cavity flow by the non uniform finite different method*" Proceeding, National Conference in Mechanical Engineering for Research and Postgraduate Studies, 26 May 2010, UMP Kuantan
4. **M.S.Idris** and N.M.N.M. Ammar, " *2D Deep Cavity Flow, Lid Driven using Conventional Method with New Perspective*" Proceeding, 2nd National Conference in Mechanical Engineering for Research and Postgraduate Studies, 3-4 December 2010, UMP, Malaysia, pg: 550-558, ISBN: 978-967-0120-04-1

2011

5. **M.S. Idris**, C.S. Nor Azwadi, N.M.M. Ammar, " *Cubic Interpolation Profile Navier–Stokes Numerical Scheme for Particle Flow Behaviour in Triangular Lid Driven Cavity*", 4th Proceeding, International Meeting on Advances in Thermofluids (IMAT), 3-4 Oct. 2011, Malaysia, pg 317:324, (Scopus index- American Institute of Physics (AIP) Proceeding)
6. **M. S. Idris**, C. S. Nor Azwadi and N.I.N. Izual, " *Vortex Structure in a Two Dimensional Triangular Lid-Driven Cavity*", 4th Proceeding, International Meeting on Advances in Thermofluids (IMAT), 3-4 Oct. 2011, Malaysia, pg 1289-1295, (Scopus index- American Institute of Physics (AIP) Proceeding)

7. N. M. M. Ammar C. S. N. Azwadi and **M.S. Idris**, “*Particle Movement in Shear Cavity Flow for Different Stokes Number using Lattice Boltzmann Method*”, 4th Proceeding, International Meeting on Advances in Thermofluids (IMAT), 3-4 Oct. 2011, Malaysia, pg 972:978, (Scopus index- American Institute of Physics (AIP) Proceeding)
8. **M.S. Idris** and M.S. Zuhairi, “*Wall driven flow simulation inside two dimensional inverted L-Shape cavity*”, Malaysian Technical Universities International Conference on Engineering and Technology (MUICET 2011), 14-16 November 2011, Katerinal hotel, Batu Pahat, Johor, Malaysia
9. N.M.N.M. Ammar and **M.S. Idris**, “*Isosceles Triangular Vortex Structure of Two Dimensional Lid Driven Cavity Flow*”, 1st International Conference on Mechanical Engineering Research (ICMER2011), 5-7 December 2011, Kuantan, Pahang, Malaysia.

2012

10. **M. S. Idris** , M. A. M. Irwan and N. M. M. Ammar, “*Steady State Vortex Structure of Lid Driven Flow Inside Shallow Semi-Ellipse Cavity*” Journal of Mechanical Engineering and Sciences, vol(2), pp. 206-216
11. Sidik, N.A.C. and **Sahat, I.M.** “*Finite Difference and Cubic Interpolated Profile Lattice Boltzmann Method for Prediction of Two-Dimensional Lid-Driven Shallow Cavity Flow*”, Arabian Journal for Science and Engineering, 37 (4) , pp. 1101-1110

2013

12. Idris, M. S., Ammar, M., Mu'tasim, N., Yusoff, T. M., Ya, T., & At-Tasneem, M. A. (2013). Transient Semi Circular Lid Driven Cavity Flow Using Non Uniform Structured Grid Method with Upwind Scheme.
13. Hamid, H., Khairul, M., Mutasim, M. A. N., & Idris, M. S. (2013). Computational Analysis of Frontal Area of a Front Grill Passenger Car. *Applied Mechanics and Materials*, 315, 408-412.

2014

14. Mutasim, M. A. N., Ali, N., **Idris, M. S.**, & Oumer, A. N. (2014). Numerical and Qualitative Analysis of a Single Particle Behavior in a Shear Driven Flow in Equilateral Triangular Cavity. *Applied Mechanics and Materials*, 465, 557-561.
15. At-Tasneem, M. A., Rao, N. T., Ya, T. T., **Idris, M. S.**, & Ammar, M. (2014), Numerical Simulation of Multiple Arrays Arrangement of Micro Hydro Power Turbines. WASET

List of Book (2007~2014)

-NIL-

List of Consultancy (2007~2014)

-NIL-

List of Research / Project (2007~2014)

1. Optimization Of Micro Hydro Power Generator Configuration For Balance Efficiency And Sustainability (RDU110382)-2013- **(Project Leader)**
2. Numerical Simulation of Non Uniform and Uneven Meshing with Finite Different Method to Solve Fluids Problems (RDU110382)-2011- **(Project Leader)**
3. Biomechanical Analysis and Prediction on Heart Valve Behaviour by Fluid Structure Interaction Approach (RDU110331)-2011
4. Development and Fabrication of Car Body and Frame Structure for Hybrid Car Prototype (RDU1203102)-2012
5. Qualitative And Computerise Analysis Of Automotive Gaseous Upon Exposure To Green Coating Building (RDU121203)-2012

6. Utilization of Unconventional Oil in Light Diesel Engine (RDU110334)-2011
7. Optimization Of Micro Hydro Power Generator Configuration For Balance Efficiency And Sustainability (RDU120354)-2012
8. Sea Water Scrubber System for Reduction of Diesel Particulate Matter (RDU110318)-2011
9. Development of Codes for Simulation of Solid Particles in Lid Driven Cavity Flow (RDU110379)-2011
10. Development of Energy Efficient Hybrid Drivetrain Utilising Internal Combustion Engine and Ultra-Capacitor (RDU1203105)-2012
11. "A numerical analysis of two dimensional lid driven cavity flow using Cubic Interpolated Pseudo-Particle Method. (Jul'2009 ~ May'2010). (Master Thesis, Status: Completed).

Research Achievements / Awards (2007~2014)

1. Hadiah Sanjungan Cendekia Bitara UMP 2012
2. Academic Excellent Award (Master of Engineering (Mechanical–September 2010))UTM

List of Course Attended (2007~2014)

Date	Program	Status
23 May 2014	Bengkel ARDUINO	Instructor
17& 18 May 2014	Kursus Perisian Arduino	Instructor
28–29 March 2013	ARDUINO INTRODUCTORY TRAINING	Participant
16 May 2013	Workshop on JOOMLA! 1.5 (For AEC)	Instructor
20 March 2013	SEMINAR ON ROUTE TO PROFESSIONAL ENGINEER	Participant
14 February 2013	PROGRAM KOLOKIUUM PENGAJARAN DAN PEMBELAJARAN 2013	Participant
31 January 2013 - 2 February 2013	BENGGKEL PEMANTAPAN PENGAJARAN, PEMBELAJARAN DAN PENTADBIRAN BERASASKAN FOCUS GROUP (31/01/2013-02/02/2013)	Participant
20 September 2012	SEMINAR ON PHYSICAL MODELLING APPLICATIONS & TECHNOLOGY (PHYMAT) 2012	Participant
10 August 2012	MOODLE : DEMO & SHORT TRAINING FOR STAFFS	Participant
3-4 July 2012	SIGNAL ANALYSIS WORKSHOP	Participant
1 Jun 2012	Workshop on JOOMLA! 1.5	Instructor
30 April 2012	SOFTWARE USER COURSE(ADOBE PHOTOSHOP)	Participant
7 December 2011	Workshop on Joomla for Administrator	Participant
5-7 December 2011	1 st International Conference of mechanical Engineering Research (ICMER2011)	Participant
13-15 November 2011	Malaysian Technical Universities International Conference on Engineering and Technology (MUiCET 2011)	Participant
3-5 October 2011	INTERNATIONAL CONFERENCE OF ADVANCES IN THERMOFLUIDS	Participant
20 August 2011	Workshop on CQI FKM	Participant

21 June 2011	BASIC MATLAB (FKM)	Conductor
2 June 2011	ANSYS FLUENT	Participant
18 March 2011	FRGS Workshop	Participant
31 January 2011–2 February 2011	TRAINING FOR TRAINER, DHE RHU BEACH RESORT	Participant
30 December 2010	AutoCAD 2010 Professionals Certification Workshop & Examination	Participant
27-30 December 2010	AutoCAD 2010 Associate Certification Workshop & Examination	Participant
16-17 December 2010	CQI, Hotel Vistana	Participant
8-9 December 2010	PnP (Learning and Teaching) modul 4, CENFED, UMP	Participant
3-4 December 2010	2 nd NCMER, FKM, UMP Pekan	Participant
1-3 December 2010	PnP (Learning and Teaching) modul 1-3, CENFED, UMP	Participant
13-31 October 2010	Induction Course, CENFED & Chini	Participant
23 July 2010	Workshop on LOKI, Pusat Kecemerlangan FKM, UMP Pekan	Participant
23-24 Jun 2010	CQI, Library UMP Gambang	Participant
May 2009	Kursus Asas Penulisan, (Uitm), WDK, UMP	Participant
16 Aug 2008	Bloom Taxonomy and OBE CQI Workshop. UMP	Participant
16 Jun 2008	IAP (Industrial Advisory Panel) meeting for EAC, UMP Gambang and Hotel Hyatt, Telok Cempedak, Kuantan, Pahang	Participant
27~28 May 2008	Kursus Asas Penulisan, Prof. Nor Aripin(UPM), CENFED Training Room, UMP	Participant
22 Apr 2008	Training on ALGOR finite element software application, UMP	Participant
2008	CQI – Hotel Vistana	Participant
2008	Technical training – Boundary Layer apparatus, Heat Convection Apparatus, Heat Conduction Apparatus, Air Conditioning Apparatus, Refrigeration Apparatus, Heat Pump	Participant
27 Nov 2007	Technical training – Thermodynamics marcet boiler by supplier's trainer.	Participant