

CURRICULUM VITAE



Personal Details

Name : Zulkarnain bin Abdul Latiff
NRIC No. : 640514-10-6423
Citizenship : Malaysian
Date of Birth : 14th May 1964
Place of Birth : Klang, Selangor, Malaysia
Marital Status : Married
Address : Automotive Development Centre (ADC)
Faculty of Mechanical Engineering
Universiti Teknologi Malaysia
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Academic Background

2004-2011 : Universiti Teknologi Malaysia, Skudai, Johor
Certificate obtained: Doctor of Philosophy (Mechanical Engineering)
July 1992 - May 1994 : Universiti Teknologi Malaysia, Skudai, Johor
Certificate obtained : Master of Engineering (Mechanical)
Sept. 1986 - Sept. 1988 : University of Glasgow, Glasgow, Scotland
Certificate obtained : Bachelor of Science, (Mechanical Engineering)
July 1982 – May 1985 : Universiti Teknologi Malaysia, Jln. Gurney, Kuala Lumpur
Certificate obtained : Diploma in Mechanical Engineering

Career Path and Experience

Sept 2012 – Present : Fellow Researcher at Automotive Development Centre, UTM
2008- Aug 2012 : Appointed as Thermodynamics Laboratory Coordinator
Apr 2011 – Present : Senior Lecturer the Faculty of Mechanical Engineering, UTM, Skudai,

- Johor
- 1996 – 2002 : Coordinator for out campus program for School of Professional and Continuing Education (SPACE), UTM, Skudai, Johor (Johor Bahru Learning Center)
- 2008- Present : Coordinator for out campus program for School of Professional and Continuing Education (SPACE), UTM, Skudai, Johor (Kuantan Learning Center)
- Dec. 1995- Mac 2011 : Lecturer at the Faculty of Mechanical Engineering, UTM, Skudai, Johor
- Jan. 1994 – Dec. 1998 : Head of Automotive Laboratory, Faculty of Mechanical Engineering, UTM, Skudai, Johor
- May 1989 – Nov. 1995 : Assistant Lecturer ‘A’ at the Faculty of Mechanical Engineering, UTM, Skudai, Johor
- July 1985 - May 1989 : Assistant Lecturer ‘B’ at the Faculty of Mechanical Engineering, UTM, Jln. Gurney, Kuala Lumpur

Area of Expertise

- Internal Combustion Engine
- Engine Performance and Combustion Test
- Energy Efficiency
- Thermodynamics Related Studies

Teaching Experience

Code	Name of courses	B.Eng/MSc
SME 1413	Thermodynamics 1	B.Eng
SME 2413	Thermodynamics 2	B.Eng
SME 2433	Applied Thermodynamics and Heat Transfer	B.Eng
SME 4413	Internal Combustion Engine (option course)	B.Eng
SMU 2113	Engineering Sciences	B.Eng
SME 4463	Heat Transfer	B.Eng
SME 1902	Experimental Techniques	B.Eng
SME 4912	Undergraduate Project 1	B.Eng
SME 4924	Undergraduate Project 2	B.Eng
SME 3942	Engineering Laboratory IV – Thermodynamics Module	B.Eng

List of Publication (5 recent publications)

2013

1. **Retrofitting R-22 split type air conditioning with hydrocarbon (HCR-22) refrigerant.** Nasution, H., Abdul Latiff, Z., Aziz, A.A., Mohd Perang, M.R. Applied Mechanics and Materials. 388, pp.91-95. 2013.
2. **Experimental study on the replacement of hfc-r134a by hydrocarbons mixture in automotive air conditioner.** Perang, M.R.M., Nasution, H., Latiff, Z.A., Aziz, A.A., Dahlan, A.A. International Journal of Technology. 4 (1), pp. 81-92. 2013.
3. **Design of a four-stroke homogeneous charge compression ignition engine.** Perang, M.R.M., Abdul Latiff, Z., Aziz, A.A., Mokhri, M.A. Applied Mechanics and Materials. 388, pp. 229-234. 2013.
4. **Controlled auto-ignition combustion in a two-stroke cycle engine using hot burned gases.** Andwari, A.M., Aziz, A.A., Muhamad Said, M.F., Abdul Latiff, Z. Applied Mechanics and Materials. 388, pp. 201-205. 2013.
5. **The effect of fuel additives on gasoline heating value and spark ignition engine performance: Case study.** Latiff, Z.A., Aziz, A.A., Mohd Perang, M.R., Abdullah, N. Applied Mechanics and Materials. 388, pp. 301-306. 2013.
6. **Design of a four-stroke homogeneous charge compression ignition engine.** Perang, M.R.M., Abdul Latiff, Z., Aziz, A.A., Mokhri, M.A. Applied Mechanics and Materials. 388, pp. 229-234. 2013

2014

1. **Driving efficiency through hydrocarbon for green car air conditioning.** Dahlan, A.A., Nasution, H., Aziz, A.A., Latiff, Z.A., Perang, M.R.M., Wan Mohd, A.Y. Applied Mechanics and Materials. 493, pp.45-49.2014.
2. **Thermodynamic analysis of ejector as an expansion device on split type air conditioner using R410A as working fluid.** Sumeru, Nasution, H., An, F.N. Applied Mechanics and Materials. 493, pp.227-232. 2014.
3. **Experimental study on the performance of in-cabin ventilation system.** Abdul Latiff, Z., Soon, C.W., Supriyo, B., Perang, M.R.M., Nasution, H., Aziz, A.A. Applied Mechanics and Materials. 493, pp.251-255. 2014.
4. **Experimental investigation of the influence of internal and external EGR on the combustion characteristics of a controlled auto-ignition two-stroke cycle engine.** Andwari, A.M., Aziz, A.A., Said, M.F.M., Latiff, Z.A. Applied Energy. 134, pp. 1-10. 2014.
5. **An experimental study on the influence of EGR rate and fuel octane number on the combustion characteristics of a CAI two-stroke cycle engine.** Andwari, A.M., Abdul Aziz, A., Muhamad Said, M.F., Abdul Latiff, Z. Applied Thermal Engineering. 71(1), pp. 248-258. 2014.

Research Grants Received

2014

- Project Title:** Development Of A Portable Small Scale Biofuel Plant For Internal Combustion Engine; Role: Head of Project; Amount of Allocation: RM20,000
- Project Title:** Homogenous Charge Compression Ignition Engine Characteristic Using Ethanol As Fuel; Role: Head of Project; Amount of Allocation: RM20,000
- Project Title:** Gasoline Direct-Injection Kit For Small Spark-Ignition Engine Applications; Role: Researcher; Amount of Allocation: RM280,000
- Project Title:** Cylinder Deactivation and Valve Deactivation Technology for Fuel Saving in Malaysian Urban Drive Cycle; Role: Researcher; Amount of Allocation: RM50,000
- Project Title:** Intelligent and Energy Efficient Air Conditioning System for Automobiles; Role: Researcher; Amount of Allocation: RM160,000

Consultancy

2013

- Project Title:** Gasoline Vehicle Performance Test; Name of Company: Syarikat KineFlux Sdn Bhd; Role: Head of Project; Project Cost: RM8,000

2014

- Project Title:** Gasoline and diesel engine performance and emissions using aftermarket products: Fenic Alpha IPS and PTX; Name of Company: Syarikat Revoltech Engineering Sdn Bhd; Role: Head of Project; Project Cost: RM 15,000
- Project Title:** Diesel engine testing for Ballast Water Treatment system; Name of Company: Pusat Marin, UTM dan Universiti Malaysia Terengganu (UMT); Role: Head of Project; Project Cost: RM8,000
- Project Title:** Evaluation on engine performance characteristics for petrol engine installed with Bio-Zeta 5; Name of Company: Syarikat BAE International Inc Sdn Bhd; Role: Consultant; Project Cost: RM8,000
- Project Title:** Evaluation on engine performance characteristics for petrol engine installed with Super B Dynamic; Name of Company: Syarikat Riverise Sdn Bhd; Role: Consultant; Project Cost: RM8,000
- Project Title:** Evaluation on engine performance characteristics for diesel engine fitted with Thehco Tech Device; Name of Company: Syarikat Sumber Kurnia Sdn Bhd; Role: Consultant; Project Cost: RM4,000

Supervision

2011 – 2014 (Co-Supervisor)

Amin Mahmoudzadeh Andwari, Ph.D Candidate in Mechanical Engineering

Project title: Investigation into the Fumigation of Ethanol in a Single Homogenously-Charge Compression Ignition (HCCI) Engine

2013 – Present (Co-Supervisor)

Abubakar Sadiq Aliyu, PhD Candidate in Mechanical Engineerin

Project Title: Formulation of Alcohol-Derived Fuels from Palm Residues for Use in Spark-ignition Engines

2013 – Present (Main Supervisor)

Mohd Rozi bin Mohd Perang, M.Eng Candidate in Mechanical Engineering

Project Title: Homogeneously Charge Compression Ignition (HCCI) Combustion Mode For Ethanol Fuelled Engine