



Ir. Ts. Dr. AZLI BIN ABD RAZAK

School of Mechanical Engineering,
College of Engineering
Universiti Teknologi MARA (UiTM),
40450, Shah Alam, Selangor

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PERSONAL DETAILS

DATE OF BIRTH : APRIL 04, 1975

NATIONALITY : MALAYSIA

CURRENT POSITIONS : Head

School of Mechanical Engineering
College of Engineering
Universiti Teknologi MARA (UiTM)
40450 Shah Alam

RESEARCH FELLOW

i-Kohza Wind Engineering for Environment
Malaysia-Japan International Institute of Technology
Universiti Teknologi Malaysia, Kuala Lumpur

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Research ID : <http://www.researcherid.com/rid/D-7203-2015>
ORCHID : <https://orcid.org/0000-0001-5190-1747>
Google Scholar : <https://scholar.google.com/citations?user=U40O6n0AAAAJ&hl=en>

OBJECTIVE

To establish a career in an innovation driven environment, which encourages original ideas and multidisciplinary research, where my mixed background will be an asset especially my expertise in CFD and Energy. I would like to continue exploit my combined expertise in Building Physic and Renewable Energy.

RESEARCH INTERESTS

- Computational Fluid Dynamic
- Outdoor Wind Environment and Thermal Comfort
- Indoor Air Quality and Thermal Comfort
- Building Physic
- Urban Heat Island and Urban Climatology

EDUCATION

MARCH 2013

PhD in Energy and Environment at Interdisciplinary Graduate School of Engineering Sciences, KYUSHU UNIVERSITY, JAPAN.

Thesis Title: **Pedestrian Wind Environment Assessment Based on Numerical Approach**

MAY 2004

M.Eng in Mechanical Engineering at Faculty of Mechanical Engineering, UNIVERSITI TEKNOLOGI MALAYSIA, MALAYSIA.

Thesis Title: **Numerical Simulation of Adiabatic Acoustic Waves in A Closed Rectangular Chamber**

MAY 2001

B.Eng (Hon's) in Mechanical Engineering at Faculty of Mechanical Engineering, UNIVERSITI TEKNOLOGI MARA, MALAYSIA.

Final Year Project: **Combine Bending Moment and Torsion Analysis**

OCTOBER 1996

Diploma in Mechanical Engineering at Faculty of Mechanical Engineering, UNIVERSITI TEKNOLOGI MALAYSIA, MALAYSIA.

MEMBERSHIP OF PROFESSIONAL BODIES AND ASSOCIATIONS

Profesional Engineer, Board of Engineers Malaysia

Profesional Technologist, Malaysia Board of Technologist

Member of Institute of Engineer Malaysia

Member of Malaysian Energy Professionals Association

Member of International Association for Wind Engineering

Member of International Association of Building Physic

EXPERIENCE

WORKING EXPERIENCE

APRIL 2021 – PRESENT: **Head of School of Mechanical Engineering**
College of Engineering, Universiti Teknologi MARA, (UiTM) Shah Alam
Selangor Malaysia

JUNE 2016 – MARCH 2021: **Head of Mechanical Unit**
Project Hospital Division, Office of Infrastructure Development &
Infostructure, Universiti Teknologi MARA (UiTM), Shah Alam Selangor
Malaysia

SEPTEMBER 2013 – MAY 2016: **Head of Centre of Studies (Thermofluid
And Energy)**

Faculty of Mechanical Engineering, Universiti Teknologi MARA,
(UiTM) Shah Alam Selangor Malaysia

APRIL 2010 – SEPT 2010: Teaching Assistant (Part Time)

Department of Environment and Energy, Interdisciplinary Graduate
School of Engineering Sciences, Kyushu University, Japan

**JUNE 2007 – MAY 2009: Head of Program (B. Eng Mechanical
Engineering)**

Faculty of Mechanical Engineering, Universiti Teknologi MARA
(UiTM), Shah Alam Selangor, Malaysia

JULY 2005 – JULY 2007: Lecturer (Part Time)

Department of Mechanical Engineering, Akademi Tentera Malaysia,
Sungai Besi, Selangor Malaysia

MAY 2004 – JANUARY 2009: Lecturer

Faculty of Mechanical Engineering, Universiti Teknologi MARA, Shah
Alam Selangor Malaysia

JUNE 2001 – DEC 2002: Junior Lecturer (Contract)

Faculty of Mechanical Engineering, Universiti Teknologi MARA, Arau
Campus, Perlis Malaysia

JAN 1998 – JUN 1998: Junior Engineer

Intel Products (M) Sdn. Bhd, Kulim Hi-Tech Park, Kulim Kedah,
Malaysia

NOV 1996 – DEC 1997: Process Technician

Penang Seagate Industries (M) Sdn. Bhd., Lebuhraya Kampung
Jawa, Bayan Baru Pulau Pinang, Malaysia.

PROFESSIONAL WORKING EXPERIENCE

1. Sustainable Energy Management Training for MAB

Work include training for Malaysia Airline Berhad for Energy Management include Measurement & Verification (M&V), energy audit and energy policies.

2. Measurement and Verification for MEDIVEST SDN BHD

Work include Measurement & Verification (M&V) for retrofiting project of centralise air-conditioning system Hospital Temenggong Seri Maharaja Tun Ibrahim, Kulai, Johor.

3. Water Treatment Plant at PASCORP PAPER MILL SDN BHD

Work includes the maintenance and design for improvement the existing water treatment plat to increase the capacity of treated water.

4. Water Treatment Plant Using Solar for MHA GRID

Work includes the solar power design and installation at remote area, supervision and maintenance the solar and water treatment plant.

5. Boiler audit for STARKEN AAC SDN. BHD

Work includes the audit process to determine the efficiency of the boiler and recommendation for boiler improvement.

6. UiTM Teaching Hospital, Puncak Alam Campus

Work includes the review drawing and room data sheet, site supervision and technical specification approval.

7. Faculty of Music, UiTM Shah Alam

Work includes the develop design need document, tender evaluation, design evaluation, review drawing and site supervision and technical specification approval.

8. UiTM Negeri Sembilan Branch, Rembau Campus

Work includes the site supervision, joint inspection and defect monitoring.

9. Temperature and Air Flow Distribution Simulation of Underfloor Air Distribution System (UFAD) For General Office

Work includes the detail analysis and simulation of temperature and air distribution for UFAD system for Perunding Hasim & NEH Sdn. Bhd.

10. Fire and Smoke Simulation for Multipurpose Hall

Work includes the detail analysis and simulation of fire and smoke for safety and design application for Perunding Hasim & NEH Sdn. Bhd.

11. Design, Supply, Installation and Commissioning Fire Fighting System in INTEKMA Resort, UiTM

Work includes the detail redesign, supervision and commissioning of the Fire Fighting for INTEKMA Resort, UiTM, Shah Alam

RESEARCH GRANTS (LAST 5 YEARS)

1. Numerical Simulation of Droplet Transmission and Suspended Inside Aerosol Box After Extubation Procedure on COVID 19 Patient

Lestari Grant ref.: 600-RMC/LESTARI COVID/5/3 (010/2020)

Investigators: **Azli Abd Razak**, Mohd Faizal Mohamad, Noriah Yusoff, Mohamad Iqbal Kunji Mohamad, Kwong Qi Jie

Value: RM 20,000.00 Period: 2020 – 2021

2. Energy Audit and Renewable Energy Recommendation at Conservation Parks

Lestari Grant ref.: 600-RMC/LESTARI SDG-T 5/3 (133/2019)

Investigators: Azlin Mohd Azmi, Ramlan Zailani, Baljit Singh A/L Bhathal Singh, **Azli Abd Razak**

Value: RM 20,000.00 Period: 2019 – 2022

3. 1 Star Accreditation Under Asean Energy Management Scheme (AEMAS)

BESTARI Grant ref.: 600-RMC/DANA 5/3/BESTARI (TD) (001/2019)

Investigators: Muhamad Nabil Hidayat, Muhammad Murtadha Othman, Nofri Yenita Dahlan, Juliana Johari, Mohamad Huzaimy Jusoh, **Azli Abd Razak**, Yusnani Mohd Yussoff, Razali Abd Hadi

Value: RM 100,000.00 Period: 2018 – 2021

4. Preventive Measure in Controlling the Environmental Effects of Air Quality Towards Human Well-Being in Quarry Mining Vicinity

REI Grant ref.: 600-IRMI/REI 5/3 (008/2018)

Investigators: Emma Marinie Ahmad Zawawi, Nor Rima Muhamad Ariff, **Azli Abd Razak**, Sabarinah Sh. Ahmad

Value: RM 32,000.00 Period: 2018 – 2021

5. Integration of Indoor Air Quality Elements in Identifying Office Occupant Performance

BESTARI Grant ref.: 600-IRMI/PERDANA 5/3 BESTARI (075/2018)

Investigators: Nor Hanisah Mohd Hashim, Fazrul Razman Sulaiman, Nik Azlin Nik Ariffin, Ahmad Zia Ul-Saufie Mohamad Japeri, **Azli Abd Razak**

Value: RM 30,000.00 Period: 2018 – 2020

6. Physical and Environmental Assessment of Urban Spaces in A Tropical Climate Township

BESTARI Grant ref.: 600-IRMI/MYRA 5/3/BESTARI (035/2017)

Investigators: Norhati Ibrahim, Sabarinah Sh. Ahmad, **Azli Abd Razak**, Shahrul Yani Said

Value: RM 50,000.00 Period: 2017 – 2019

7. Fire Evacuation Safety for The Elderly Residents of Multistorey Buildings

BESTARI Grant ref.: 600-IRMI/MYRA 5/3/BESTARI (040/2017)

Investigators: Sabarinah Sh. Ahmad, Norhati Ibrahim, **Azli Abd Razak**

Value: RM 50,000.00 Period: 2017 – 2019

8. Mechanical Effects on Pulsation Induced to Flow in Mechanical Circulatory Support System

GIP Grant ref.: 600-IRMI/GIP 5/3 (0045/2016)

Investigators: **Azli Abd Razak**

Value: RM 25,000.00 Period: 2016 – 2017

9. Control of Temperature, Humidity Level and Airflow for Quail Coop

PRI Grant ref.: 100-IRMI/PRI 16/6/2 (0040/2016)

Investigators: Nik Rosli Abdullah, **Azli Abd Razak**, Aman Mohd Ihsan Mamat, Zulkifli Mohamed, Tajuddin Md. Jahi, Shaharin Hamid

Value: RM 27,500.00 Period: 2016 – 2017

10. Characterizing Vortex Dynamics and Momentum Transport in Porous Screen Wakes

FRGS Grant ref.: 600-RMI/FRGS 5/3 (0100/2016)

Investigators: Azlin Mohd Azmi, **Azli Abd Razak**, Mohamad Mazwan Mahat, Ahmad Hussein Abdul Hamid, Salmiah Kasolang

Value: RM 119,000.00 Period: 2016 – 2018

11. Aerodynamic Effect of Overhanging on Turbulent Flow Field within Two-Dimensional Street Canyon

LESTARI Grant ref.: 600-RMI/MYRA 5/3/LESTARI (0125/2016)

Investigators: Mohd Faizal Mohamad, **Azli Abd Razak**, Firdaus Mohamad, Fauziah Jerai, Muhad Rozi Mat Nawi

Value: RM 20,000.00 Period: 2016 – 2018

12. Investigation the Effect of Visible Light Transmission Level on Vehicle Indoor Air Quality

LESTARI Grant ref.: 600-RMI/MYRA 5/3/LESTARI (0125/2016)

Investigators: Sahril Kushairi, **Azli Abd Razak**, Zulkifli Mohamed, Ahmad Sabirin Zoolfakar, Mohd Faizal Mohamad

Value: RM 20,000.00 Period: 2016 – 2018

POSTGRADUATE SUPERVISION

GRADUATED

PhD

No	Student's Name and Research Title	Post Degree	Year of completed	Supervisor of Associate Supervision
1.	IR. DR. ABDUL MALIK BIN ZAINAL ABIDIN Title : Analysis of ventilation effect on children health symptom at child care centers	PhD	2018	Main Supervisor
2.	DR. SITI NURSHAHIDA BINTI NAZLI Title : Analysis on the Effect of Cooking Activities and Ventilation System on IAQ and Perceived Symptoms Among SMEs Food Industries	PhD	2020	Main Supervisor
3.	DR. NURUL LIYANA BINTI HANAPI Title : Evacuation Safety for Elderly Residents in Public Multi-Storey Residential Building (PPR) in Malaysia	PhD	2019	Co-Supervisor
4.	DR. NUNIDA ELMIRA OTHMAN Title : Outdoor Thermal Comfort Acceptances Within The Tropical Urban Campuses in Malaysia	PhD	2019	Co-Supervisor Student Register at MJIT-UTMKL

5.	IR. DR. MOHD HAZZAH AHMAD SIRON Title : Respiratory Contaminant Transmission Assessment Using Bed Integrated Exhaust System in A Protective Environment Room	PhD	2020	Co-Supervisor Student Register at UniKL-MFI
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Master (MSc)

No	Student's Name and Research Title	Post Degree	Year of completed	Supervisor of Associate Supervision
1.	MOHD AZHARI BIN MOHD RODZI Title : Numerical analysis on the effect of built forms in urban ventilation assessment	MSc	2016	Main Supervisor
2.	MUHD AZHAR BIN ZAINOL Title : Numerical Analysis on the Effect of Upstream Building Arrangement and Setback Distance on Pedestrian Wind Environment	MSc	2016	Main Supervisor
3.	NOOR HAFIZ BIN NOORDIN Title : Investigation The Effect Of Visible Light Transmittance (VILT) To Vehicle Indoor Air Quality (VIAQ)	MSc	2017	Main Supervisor

4.	NAZIRUL IZZATI BINTI ROSLI Title : Analysis on the Effects of Pulsation Induced Flow in Mechanical Circulatory Support System	MSc	2019	Main Supervisor
5.	MUHAMMAD KHALID BIN CHE ABD AZIZ Title : Computational Dynamic Simulation Using Model from Building Information Modelling Software	MSc	2021	Main Supervisor
6.	MUHAMMAD DZULFARHI BIN AHMAD Title : Air Conditioning and Mechanical Ventilation (ACMV) System Cost Estimation Using Building Information Modelling (BIM)	MSc	2021	Main Supervisor
7.	WAN MUHAMAD SYAFIQ BIN WAN ISMAIL Title : Numerical Analysis of Ventilation Systems Depending on Cooking Activities in Small and Medium Food Industries in Malaysia	MSc	2021	Main Supervisor
8.	SHAHRLI AIDI BIN MOHD RUSOK Title : Analysis of Capillary Leakage Through Narrow Gap Between Manifold and Plate Interfaces Via Simulation Approach	MSc	2021	Main Supervisor

9.	EMI HAFIZZUL BIN JAMALUDDIN ZAINOL Title : Life Extension Via Risk Based Management (RBM) for Tabular Leg Structure of Mobileoffshore Production Unit (MOPU) using Finite Element Method	MSc	2021	Main Supervisor
10.	AMIRUDDIN BIN AMKAROMI Title : Development of Adaptive Controller For Water Bath Heater For Natural Gas Indirect Heating	MSc	2018	Co-Supervisor
11.	AZIZ FAIZ BIN SHAHIR Title : Natural Ventilation In Building : Investigation On The Effects Of Upper Wall Opening On The Ventilation Performance	MSc	2018	Co-Supervisor
12.	SITI NOR SYAZWANI BINTI RIDZUAN Title : The Analysis Of Non-radial Fibre Mixed Flow Turbine For Recovering Waste Heat Energy	MSc	2020	Co-Supervisor
13.	MUHAMMAD ALIFF BIN ANUAR Title : CFD Simulation of Ducting Configurations on The Flow Distribution Inside Waiting Area of Hospital	MSc	2021	Co-Supervisor

ACTIVE**PhD**

No	Student's Name and Research Title	Post Degree	Year of Registration	Supervisor of Associate Supervision
1.	TS. HAMIDI BIN SAIDIN Title : Analysis of the Impact of Indoor Air Quality on Ventilation Strategy in Bank Office	PhD	2017	Main Supervisor
2.	NORASIKIN BINTI HUSSIN Title : Energy Modeling of Cooling Systems for Buildings in Hot and Humid Climates	PhD	2019	Main Supervisor
3	AL TAMIMI FAHAD ABDULLAH SALIM Title : Envelope Design Framework for Habitable Modern Houses in Oman	PhD	2019	Main Supervisor
4.	NAZEEFAH BINTI MOHD SHARIF Title : Mass Concentrations of BTEX and Particular Matter Inside Indoor Environment of Vessel During Harbor and Sailing Condition	PhD	2020	Main Supervisor
5.	SHAHLIZA AZREEN BINTI SARMIN Title : Numerical Investigation of Contaminant Aerosol Transmission on Various Passenger Behaviour in Aircraft Cabin	PhD	2021	Main Supervisor

6.	AHMAD SYAZWAN KAMIL BINTI RAZALI Title : Analysis of Flow Structure Interaction in Corrugated Furnace of Steam Boiler	PhD	2021	Main Supervisor
6.	MOHD HILMAN BIN MOHD AKIL TAN Title : Numerical Analysis On The Outdoor Natural Ventilation Around Mosque Due To The Effect Of Upstream Building Arrays	PhD	2017	Co-Supervisor
7.	WAN HAZWATIAMANI BINTI WAN ISMAIL Title : Modelling wind flow for cross-ventilation of generic sheltered building in urban area	PhD	2019	Co-Supervisor
8.	MOHD RADZIF BIN SAMSUNANWAR Title : Large Eddy Simulation On The Effect Of Urban Geometry On The Pollution Dispersion	PhD	2019	Co-Supervisor

Master (MSc)

No	Student's Name and Research Title	Post Degree	Year of Registration	Supervisor of Associate Supervision
1.	MUHAMMAD SAIFUDDIN BIN ABDUL RAHMAN Title : Analysis Of Permissible Carpark Area For Natural Smoke Ventilation Using Computational Fluid Dynamic (CFD)	MSc	2017	Main Supervisor

2.	MOHAMMAD ALIFF BIN MANSOR Title : Numerical Analysis Of Ventilation Systems For Indoor Air Quality In Bank Area	MSc	2019	Main Supervisor
3.	Ir NOR AZIRA BINTI MOHD ZAINUDDIN Title : Numerical Analysis of Thermal Comfort and Transport of Expiratory Contiminnts in an Under Floor Air Distribution (UFAD) Ventilation System	MSc	2020	Main Supervisor
4.	MUHAMMAD AZAM BIN ABDUL RAHIM Title : Assessment of Aerosol Dispersion During Aerosol Generating Medical Procedure	MSc	2020	Main Supervisor
5.	MUHAMMAD ARIF BIN KAMAL BAHRIN Title : Indoor Air Quality And Thermal Comfort Assessment of Underfloor Air Distribution System In Concert Hall	MSc	2020	Main Supervisor
6.	MUHAMMAD FATIH BIN IBRAHIM Title : Effect of Upstream Building Geometries on The Pollutant Dispersion Mechanism of Downstream Area	MSc	2019	Co-Supervisor

REVIEW/EXAMINER ACTIVITIES

THESIS EXAMINER

1. **Title** : The effect of iso-butanol additive in methanol-gasoline blends on engine performance and exhaust emmision using spark ignition engine.

Level : Master Thesis (Research)
Candidate : Hazim Bin Sharudin
Institution : Faculty of Mechanical, Universiti Teknologi MARA,
Shah Alam

2. **Title** : Effect of Quarry Dust on Well Being of the Adjacent
Housing Residents

Level : Master Thesis (Research)

Candidate : Wan Hasmirah Binti Wan Ibrahim

Institution : Faculty of Architecture, Planning & Surveying,
Universiti Teknologi MARA, Shah Alam

3. **Title** : Development Of Thermal Electric Cooling TEC Air
Conditioner Condensed By Evaporative Cooling

Level : Master Thesis (Research)

Candidate : Muhammad Syahril bin Abd Aziz

Institution : Faculty of Mechanical Engineering, Universiti
Teknikal Malaysia (UTEM), Melaka

JOURNAL REVIEWER

1. Journal Title : *Building and Environment*
Journal Ranking : Q1
Number of paper reviewed : 21

2. Journal Title : *Landscape and Urban Planning*
Journal Ranking : Q1
Number of paper reviewed : 1

3. Journal Title : *Building Research & Information*
Journal Ranking : Q1
Number of paper reviewed : 1

4. Journal Title : *Journal of Environmental Planning and
Management*
Journal Ranking : Q2
Number of paper reviewed : 1

5. Journal Title : *International Journal of Mechanical Engineering*
 Journal Ranking : Q3
 Number of paper reviewed : 5
6. Journal Title : *Jurnal Teknologi*
 Journal Ranking : Q3
 Number of paper reviewed : 6
7. Journal Title : *Jurnal Pertanika*
 Journal Ranking : Q3
 Number of paper reviewed : 1

PUBLICATION /AWARD

THESIS

1. Title : **Pedestrian Wind Environment Assessment Based on Numerical Approach**
 Years : 2013
 Publication Type : *Doctor Thesis*
 University : Kyushu University, Japan
2. Title : **Numerical Simulation of Adiabatic Acoustic Waves in A Closed Rectangular**
 Years : 2004
 Publication Type : *Master Thesis*
 University : Universiti Teknologi Malaysia, Malaysia

JOURNAL PAPER (FOR PAST 10TH YEARS)

1. Mohd Faizal Mohamad, **Azli Abd Razak**, (2021), "**Wind Engineering Research Trend in Malaysia**" *Journal of Wind Engineering* [in Japanese].
2. Muhammad Fatih Ibrahim, Mohd Faizal Mohamad, Naoki Ikegaya, **Azli Abd Razak** (2021), "**Numerical investigation on the effect of**

building overhang on the flow within idealised two-dimensional street canyon" *ESTEEM Academic Journal*.

3. Zulhilmi Makhzani, **Azli Abd Razak**, (2021), "**Risk Assessment in Mechanical and Electrical Construction Project**" *Malaysia Labour Review*.
4. Noor Hafiz Noordin, **Azli Abd Razak**, Qi Jie Kwong (2021), "**Effect Of Ventilation Modes and Indoor Temperature to The Concentrations of Particulate Matter (PM2.5) Inside Vehicle Cabin During Mobile Conditions**" *Malaysian Journal of Sustainable Environment*.
5. Nurul Liyana Hanapi, Sabarinah Sheikh Ahmad, **Azli Abd Razak**, Norhati Ibrahim (2021), "**Location Of Elderly Evacuees and its Effect on Evacuation Time And Distance in Multi-Storey Housing**" *Malaysian Construction Research Journal (MCRJ)*.
6. Emi Hafizzul Jamaluddin, **Azli Abd Razak**, Mohd Shahrman Adenan, Mohd Faizal Mohamad (2021), "**Evaluation of tabular leg structure of mobile offshore production unit (MOPU) life extension using condition assessment method**" *Journal of Mechanical Engineering (JMEchE)*.
7. Nurnida Elmira Othman, Sheikh Ahmad Zaki, Hom Bahadur Rijal, Nurul Huda Ahmad, **Azli Abd Razak** (2021), "**Field study of pedestrians' comfort temperatures under outdoor and semi-outdoor conditions in Malaysian university campuses**" *International Journal of Biometeorology*.
8. Nurul Liyana Hanapi, Sabarinah Sh Ahmad, **Azli Abd Razak** (2020), "**Travelling Distance for Evacuee in Multi-Storey Residential Building**" *Environment-Behaviour Proceedings Journal*, 5(S13), 155-160.
9. Nurul Liyana Hanapi, Sabarinah Sh Ahmad, **Azli Abd Razak** (2020), "**Evaluation of Escape Route Design in Public Multi-Storey Housing in Malaysia for Elderly Occupants**" *Environment-Behaviour Proceedings Journal*, 5(S12), 25-31.

10. Abdul Malik Zainol Abidin, Rafiza Shaharudin, **Azli Abd Razak**, Mohd Faizal Mohamad, Muhad Rozi Mat Naw, Sheikh Ahmad Zaki Shaikh Salim (2020), "**Prevalence and risk factors for respiratory symptoms among children at child care centers in Malaysia**" *Science and Technology for the Built Environment*, Vol 27(2),129-138
11. Muhd Azhar Zainol, **Azli Abd Razak**, Mohd Faizal Mohamad, Hazriel Faizal Pahroraji, Ammar Sobri, Haszeme Abu Kasim, Ahmad Hilmi Khalid (2020), "**The effect of urban obstacles on the flow distribution at pedestrian area**" *IOP Conference Series: Materials Science and Engineering*, Vol. 834. No. 1.
12. SN Ashwindran, AA Azizuddin, AN Oumer, **Azli Abd Razak** (2020), "**An Introductory CFD Analysis Study of Novel Cavity Vane Driven Wind Turbine Blade Design**" *Journal of Mechanical Engineering*, Vol. 17(3), 55-68.
13. **Azli Abd Razak**, Abdul Malik Zainol Abidin, Hamidi Saidin, Rafiza Shaharudin, Mohd Faizal Mohamad, Muhad Rozi Mat Naw (2020), "**Analysis Of Ventilation Effect On Children Health At Child Care Centres**" *Journal of Advanced Research in Fluid Mechanics and Thermal Sciences*, Vol 67. No.2 ,135-143
14. Nurul Liyana Hanapi, Sabarinah Sh Ahmad, Norhati Ibrahim, **Azli Abd Razak** (2020), "**Staircase evacuation for public multi-storey housing in Malaysia**" *International Journal of Environment and Sustainable Development*, 19(3), 258-268
15. Nurul Liyana Hanapi, Sabarinah Sh Ahmad, **Azli Abd Razak**, Norhati Ibrahim (2019), "**Contribution of the Built Environment towards Elderlies' Quality of Life and Risk of Fallin**" *Environment-Behaviour Proceedings Journal*, 4(12):101 -107
16. Nurnida Elmira Othman, Sheikh Ahmad Zaki, Nurul Huda Ahmad, **Azli Abd Razak** (2019), "**In-situ Measurement of Pedestrian Outdoor Thermal Comfort in Universities Campus of Malaysia**" *KnE Social Sciences*, 3(21):608-621

17. Norasikin Hussin, **Azli Abd Razak**, Faizal Baharum, Yusli Yaakob (2019), **"A Preliminary Study of Thermal Comfort and lighting in IHL library"** *IOP Conference Series: Materials Science and Engineering*, Vol. 551. No. 1.
18. Norasikin Hussin, **Azli Abd Razak**, Faizal Baharum, Yusli Yaakob (2019), **"Simulation of Energy Consumption in the Library Building"** *AIP Conference Proceedings*, Vol. 2129. No. 1.
19. Nurul Liyana Hanapi, Sabarinah Sh Ahmad, **Azli Abd Razak** (2019), **"Emergency Safety For Multi-Storey Public Housing In Kuala Lumpur"** *e-Academia Journal*, 8(1):64 – 70
20. Nurnida Elmira Othman, Sheikh Ahmad Zaki, Nurul Huda Ahmad, **Azli Abd Razak** (2019), **"Outdoor thermal comfort study of an urban university campus in Malaysia"** *J. Adv. Res. Fluid Mech. Therm. Sci*, 57:288 – 296
21. Norasikin Hussin, **Azli Abd Razak**, Faizal Baharum (2018), **"A study of electricity consumption of library in UiTM Bertam"** *AIP Conference Proceedings*, Vol. 2030. No. 1.
22. Norasikin Hussin, Faizal Baharum, **Azli Abd Razak**, Muhammad Syihabuddin Suhaimi (2018), **"Preliminary Study on Energy Consumption at UiTM CPP library using IES<VE> simulation"** *International Journal of Engineering & Technology*, 7(4.38):1378-1391
23. **Azli Abd Razak**, Nazirul Izzati Rosli, Mohd Faizal Mohamad (2018), **"Experimental Study on Net Flow Rate Generation Inside Closed Loop Mechanical Circulatory System Using Impedance Pump"** *International Journal of Engineering & Technology*, 7(3.11):43-47
24. Noor Hafiz Noordin, **Azli Abd Razak**, Sahril Kushairi, Mohd Faizal Mohamad, Qi Jie Kwong, Sheikh Ahmad Zaki Shaikh Salim (2018), **"Preliminary Analysis of Benzene, Toluene, Ethylbenzene, O-Xylene (BTEX) and Formaldehyde inside Vehicle Cabin"** *Journal of Mechanical Engineering*, S15(6):80-99
25. Sheikh Ahmad Zaki, Siti Aisyah Damiaty, Hom Bahadur Rijal, Aya Hagishima, **Azli Abd Razak** (2017), **"Adaptive thermal comfort in**

university classrooms in Malaysia and Japan” *Building and Environment*, 122:294–306

26. Nor Merlisa Ali, **Azli Abd Razak**, Mohd Faizal Mohamad, Rosnadiyah Bahsan, (2017), **“CFD Analysis on Indoor Temperature and Velocity: Effects of Incident Wind Angle and Outlet Position”** *Pertanika Journal of Science and Technology*, 25:227–238
27. Qi Jie Kwong, Hon Fai Chen, **Azli Abd Razak** (2017), **“Computational Simulation of Indoor Thermal Environment in a Tropical Educational Hall with Displacement Ventilation”** *Pertanika Journal of Science and Technology*, 25:77–88
28. Muhd Azhar Zainol, **Azli Abd Razak**, Nor Merlisa Ali, Sheikh Ahmad Zaki Shaikh Salim (2017), **“Effect of upstream building configurations on mean wind speed ratio at urban pedestrian level using LES”** *Pertanika Journal of Science and Technology*, 25:227–286
29. Naoki Ikegaya, Yasuaki Ikeda, Aya Hagishima, **Azli Abd Razak**, Jun Tanimoto (2017), **“A prediction model for wind speed ratios at pedestrian level with simplified urban canopies”** *Theoretical and Applied Climatology*, 127(3–4):655–665
30. Nurul Liyana Hanapi, Sabarinah Sh Ahmad, Norhati Ibrahim, **Azli Abd Razak**, Nor Merlisa Ali (2017), **“Suitability of Escape Route Design for Elderly Residents of Public Multi-storey Residential Building”** *Pertanika Journal of Social Science and Humanities*, 25:247–254
31. **Azli Abd Razak**, Azirah Mohd Fohimi, Sheikh Ahmad Zaki, Noor Hafiz Noordin (2016), **“Temperature Influence on Total Volatile Compounds (TVOCs) Inside the Car Cabin of Visible Light Transmittance”** *ARPJ Journal of Engineering and Applied Sciences*, 11(14):8629–8634
32. Sheikh Ahmad Zaki, Ahmad Zaki Jaafar, Ahmad Faiz Mohammad, Mohamed Sukri Mat Ali, **Azli Abd Razak** (2016), **“Investigation of Surface Roughness Impact on Mean Wind Flow Using RNG $k-\epsilon$ Model”** *Jurnal Teknologi*, 78(9):21–28

33. Nurnida Elmira Othman, Sheikh Ahmad Zaki, **Azli Abd Razak**, Nurul Huda Ahmad (2016), **"Field Study for Pedestrian Wind Comfort Criteria on the Universiti Teknologi Malaysia Kuala Lumpur Campus"** *Journal of Built Environment, Technology and Engineering*, 1:138-145
34. **Azli Abd Razak**, Aya Hagishima, Zainol Abidin Awang Sa, Sheikh Ahmad Zaki (2016), **"Progress in wind environment and outdoor air ventilation at pedestrian level in urban area"** *Applied Mechanics and Materials*, 819:236-240
35. Nur Atikah Shaari, Sheikh Ahmad Zaki, Mohamed Sukri Mat Ali, **Azli Abd Razak** (2016), **"Investigation of the PMV and TSV Models of Thermal Comfort in Air-Conditioned University Classrooms in Malaysia"** *Applied Mechanics and Materials*, 819:207-211
36. Ahmad Faiz Mohammad, Sheikh Ahmad Zaki, Mohamed Sukri Mat Ali, Aya Hagishima, **Azli Abd Razak**, Masataka Shirakashi, Norio Arai (2015), **"Large Eddy Simulation of Wind Pressure Distribution on Heterogeneous Buildings in Idealised Urban Models"** *Energy Procedia*, 78:3055-3060
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INNOVATION AND PAPER AWARD

- 1. Innovation** : Safety Evacuation Strategies of Elders in High-rise Building in Malaysia
Competition : Invention, Innovation & Design Exposition, IIDEX2019
Award : Silver
- 2. Innovation** : Backpack Solar Power Generator – Solar-Go
Competition : International Invention, Innovation & Technology Exhibition, ITEX2017
Award : Gold
- 3. Innovation** : Effect of Upstream Building Configuration on Mean Wind Speed Ratio at Urban Pedestrian Level Using LES
Competition : 3rd International Conference on Science and Social Research, 2017
Award : Best Paper Award
- 4. Innovation** : Backpack Solar Power Generator – Solar-Go
Competition : Invention, Innovation & Design Exposition, IIDEX2016
Award : Gold
- 5. Innovation** : Backpack Solar Power Generator – Solar-Go
Competition : Elevator Pitch, Invention, Innovation & Design Exposition, IIDEX2016
Award : Silver

REFERENCES

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