

CURRICULUM VITAE



**SCHOOL OF CIVIL ENGINEERING
 COLLEGE OF ENGINEERING
 UNIVERSITI TEKNOLOGI MARA
 40450 SHAH ALAM, SELANGOR, MALAYSIA
 (Updated: 11 SEPTEMBER 2023)**

UiTM Website:

<https://www.uitm.edu.my/index.php/en/>

College of Engineering Website:

<https://engineering.uitm.edu.my/>

A. PERSONAL PARTICULAR

i. PERSONAL DETAILS

Name : **Dr. Fariz Aswan Bin Ahmad Zakwan**

Age : 43 years old

Religion : Islam

Marital Status : Married

Office Address (Current) : School of Civil Engineering,
 College of Engineering,
 Universiti Teknologi MARA,
 40450 Shah Alam,
 Selangor, MALAYSIA.
Department: Structural and Material Engineering (STRUCM)



Office Address (Previous) : Civil Engineering Studies,
College of Engineering,
Universiti Teknologi MARA,
Pulau Pinang Branch,
Permatang Pauh Campus,
13500 Permatang Pauh,
Pulau Pinang, MALAYSIA.
Department: Structural and Material Engineering (STRUCM)

Current Positions : **Senior Lecturer**

Contact Number : +603-55442000 (Office)

E-Mail : fariz838@uitm.edu.my
fabaz2013@gmail.com

Website : 1. Expert UiTM
<https://expert.uitm.edu.my/profile.php?id=28ZNU42KgQaU9kiMy27tqVYSMq9hr6pIYdW0akOCZAU=>

2. LinkedIn
<https://www.linkedin.com/in/dr-fariz-aswan-ahmad-zakwan-80381599/>

3. Researchgate
<https://www.researchgate.net/profile/Fariz-Aswan-Ahmad-Zakwan>

4. Scopus
<https://www.scopus.com/authid/detail.uri?authorId=57216801834>

5. Web of Science
<https://www.webofscience.com/wos/author/record/1169493>

6. Google Scholar
https://scholar.google.com/citations?hl=en&user=RZXYtFgAAAJ&view_op=list_works&sortby=pubdate

7. Reseacher ID (Orcid)
<https://orcid.org/0000-0001-7264-4268>

ii. H-INDEX / CITATION

- Web of Science (**2/7**) – updated on 11 September 2023
- Scopus (**3/17**) – updated on 11 September 2023
- Google Scholar (**4/27**) – updated on 11 September 2023



iii. EDUCATIONAL BACKGROUND

| YEAR | DETAIL |
|--|---|
| 29 OCTOBER 2014 – 7 JANUARY 2020 | Doctor of Philosophy (Civil Engineering) Universiti Teknologi MARA, 40450 Shah Alam, Selangor, MALAYSIA Thesis Title: NUMERICAL ANALYSIS OF PROTECTED AND UNPROTECTED CELLULAR STEEL BEAMS (CSB) AT ELEVATED TEMPERATURE |
| 17 OCTOBER 2005 – 17 SEPTEMBER 2007 | Master of Science (Computational Mechanics of Materials and Structures - COMMAS) Universität Stuttgart, Institut für Mechanik (Bauwesen), Pfaffenwaldring 7, 70569 Stuttgart, GERMANY Thesis Title: NUMERICAL SIMULATION OF A DIAPHRAGM WALL CONSTRUCTION |
| NOVEMBER 2001 – 14 APRIL 2005 | Bachelor of Engineering with Honours (Civil) Universiti Teknologi MARA, 40450 Shah Alam, Selangor, MALAYSIA |
| JANUARY 1999 -28 JULY 2001 | Diploma in Civil Engineering Universiti Teknologi Malaysia, 54100 Kuala Lumpur, MALAYSIA |

iv. ADMINISTRATIVE EXPERIENCE IN UiTM

| YEAR | POSITIONS | DEPARTMENT/FACULTY/CAMPUS ETC |
|--------------------------------------|---|--|
| 1 FEBRUARY 2023 – 31 JANUARY 2025 | Committee Member of International | College of Engineering, Universiti Teknologi Mara, 40450 Shah Alam, Selangor, Malaysia |
| 1 JUNE 2023 – 31 DECEMBER 2025 | Committee Member of the Program Management and Postgraduate Students | School of Civil Engineering, College of Engineering, Universiti Teknologi Mara, 40450 Shah Alam, Selangor, Malaysia |
| 1 JUNE – 31 DECEMBER 2023 | Curriculum Review Work Paper Document Provider CEEC701, CEEC702, CEEC703, CEEC704, CEEC705 And CEEC706 Year 2023 | School of Civil Engineering, College of Engineering, Universiti Teknologi Mara, 40450 Shah Alam, Selangor, Malaysia |
| JANUARY 2022 – DECEMBER 2022 | Head Of ETAC And Alumni EC110 Program | Civil Engineering Studies, College of Engineering, Universiti Teknologi Mara, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang, Malaysia |
| JANUARY 2022 – | Committee Member of MASMED UiTM Cawangan Pulau Pinang | School Of Civil Engineering, College of Engineering, Universiti Teknologi |



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|---------------------------------------|---|--|
| DECEMBER 2022 | | Mara, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang, Malaysia |
| JANUARY 2021 – DECEMBER 2021 | Head Of ETAC And Alumni EC110 Program | School Of Civil Engineering, College of Engineering, Universiti Teknologi Mara, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang, Malaysia |
| JANUARY 2021 – DECEMBER 2021 | Committee Member of Outcome Based Education (OBE) | School Of Civil Engineering, College of Engineering, Universiti Teknologi Mara, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang, Malaysia |
| JANUARY 2020 – DECEMBER 2020 | Head Of ETAC And Alumni EC110 Program | School Of Civil Engineering, College of Engineering, Universiti Teknologi Mara, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang, Malaysia |
| JANUARY 2019 – DECEMBER 2020 | Committee Member of Strategic Planning and Information | School Of Civil Engineering, College of Engineering, Universiti Teknologi Mara, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang, Malaysia |
| JANUARY 2019 – DECEMBER 2020 | Head Of Audit EC110 Program | School Of Civil Engineering, College of Engineering, Universiti Teknologi Mara, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang, Malaysia |
| JANUARY 2018 – DECEMBER 2020 | Committee Member Quality Unit | School Of Civil Engineering, College of Engineering, Universiti Teknologi Mara, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang, Malaysia |
| JANUARY 2013 – DECEMBER 2014 | Vice Chairman of UiTM Examination Unit | School Of Civil Engineering, College of Engineering, Universiti Teknologi Mara, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang, Malaysia |



v. RESEARCH HIGHLIGHTS

| YEAR | DETAIL | STATUS |
|---------------------------------------|--|-----------|
| 1 SEPTEMBER 2021 – 31 AUGUST 2023 | <p>MYRA Research Grant under Universiti Teknologi MARA: Group leader</p> <p>Ref. No.: 600-RMC/GPM LPHD 5/3 (063/2021)</p> <p>Project Title: Optimizing the Strength Performance Of Stainless Steel Cellular Beam SSCB At Elevated Temperature</p> <p>Grant Amount: RM 20,000.00</p> <p>Project leader: Dr. Fariz Aswan Bin Ahmad Zakwan</p> <p>Member: Dr. Ruqayyah Ismail and Associate Professor Ts. Dr. Mohd. Hisbany Bin Mohd. Hashim</p> | On-Going |
| 1 SEPTEMBER 2021 – 31 AUGUST 2023 | <p>Fundamentals Research Grant Scheme (FRGS) under Ministry of Higher Education (MOHE): Sub-group leader</p> <p>Ref. No.: FRGS/1/2021/TK0/UITM/02/41</p> <p>Project Title: Moment-Curvature Model of Reinforced Concrete Beam Strengthened with Shape Memory Alloy (SMA)</p> <p>Grant Amount: RM 100,985.00</p> <p>Project leader: Dr. Goh Lyn Dee</p> <p>Member: Prof. Ir. Dr. Raizal Saifulnaz Muhammad Rashid, Prof. Dr. Azmi Ibrahim, Dr. Fariz Aswan Bin Ahmad Zakwan, Dr. Ruqayyah Ismail and Associate Professor Dr. Clotilda Petrus</p> | On-Going |
| 1 JANUARY 2019 – 30 SEPTEMBER 2021 | <p>Fundamentals Research Grant Scheme (FRGS) under Ministry of Higher Education (MOHE): Sub-group leader</p> <p>Ref. No.: 600-IRMI/FRGS 5/3 (177/2019)</p> <p>Project Title: Constitutive modeling of reinforced concrete circular columns strengthened with shape memory alloy strips</p> <p>Grant Amount: RM 63,500.00</p> <p>Project leader: Dr. Ruqayyah binti Ismail</p> <p>Member: Prof. Ir. Dr. Raizal Saifulnaz Muhammad Rashid, Dr Abdul Rahim Ridzuan, Dr. Hazrina Binti Ahmad, Dr. Fariz Aswan Bin Ahmad Zakwan & Badrul Nizam Bin Ismail</p> | Completed |
| 1 JANUARY 2019 – 30 SEPTEMBER 2021 | <p>Fundamentals Research Grant Scheme (FRGS) under Ministry of Higher Education (MOHE): Sub-group leader</p> <p>Ref. No.: 600-IRMI/FRGS 5/3 (004/2019)</p> <p>Project Title: Strength characterization of the CFRP confined circular reinforced concrete column under high temperature</p> <p>Grant Amount: RM 61,400.00</p> <p>Project leader: Dr. Hazrina Binti Ahmad</p> | On-Going |



Members: Dr. Ruqayyah binti Ismail, Dr. Fariz Aswan Bin Ahmad Zakwan, Prof. Ir. Dr. Raizal Saifulnaz Muhammad Rashid & AP Ts. Dr. Mohd Hisbany Bin Mohd Hashim

15 APRIL 2012 – 12 APRIL 2015

Fundamentals Research Grant Scheme (FRGS) Completed under Ministry of Higher Education (MOHE):
 Sub-group leader
Ref. No.: 600-RMI/FRGS 5/3 (42/2012)
Project Title: Basic Study of High Temperature Resistance on Hybrid Fibre Reinforced Concrete
Grant Amount: RM 68,500.00
Project leader: Dr. Ruqayyah binti Ismail
Members: Dr. Fariz Aswan Bin Ahmad Zakwan, Dr. Clotilda Binti Petrus & Nor Hafida Binti Hashim

vi. RESEARCH INTEREST AND FIELD OF EXPERTISE

- Finite Element Method (FEM)
- ABAQUS CAE Simulation
- Performance-Based Engineering
- Fire Engineering
- Structural Behavior Steel and Concrete Structures at Elevated Temperatures
- Heat Transfer Analysis
- Structural analysis
- Fire Protection Materials
- Composite Materials and Structures
- Strengthening and Rehabilitation of Concrete and Steel Structures
- Structural Strengthening with Fibre reinforced Polymer

vii. LIST OF SUBJECTS TAUGHT IN UNIVERSITY (DIPLOMA, DEGREE & MASTER)

| SUBJECTS/COURSES | PROGRAM | LEVEL |
|---|-------------|--|
| Infrastructure Disaster Management (FIE708) | CEEC | Master of Science in Forensic Infrastructure Engineering |
| Finite Element in Mechanics (ECS718) | CEEC701 | Master of Science |
| Statics (ECS416) | CEEC220/222 | Bachelor of Civil Engineering |
| Construction Technology (ECM447) | CEEC220/222 | Bachelor of Civil Engineering |
| Structural Analysis (ECS556) | CEEC220 | Bachelor of Civil Engineering |
| Mechanics of Solids (ECS428) | CEEC220 | Bachelor of Civil Engineering |
| Infrastructure Design Project (CEC594) | EC221 | Bachelor of Civil Engineering |
| Engineering Material Laboratory (CES410) | EC221 | Bachelor of Civil Engineering |
| Structural Steel Design (CES523) | EC221 | Bachelor of Civil Engineering |
| Solid Mechanics (CES422) | EC221 | Bachelor of Civil Engineering |
| Determinate Structures (CES424) | EC221 | Bachelor of Civil Engineering |
| Civil Engineering Materials (CES425) | EC221 | Bachelor of Civil Engineering |
| Structural Engineering Laboratory (CES511) | EC221 | Bachelor of Civil Engineering |
| Solid Mechanics (ECS226) | EC110 | Diploma in Civil Engineering |



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| Structures and Materials Laboratory (ECS218) | EC110 | Diploma in Civil Engineering |
| Mechanics of Structures (ECS228) | EC110 | Diploma in Civil Engineering |
| Civil Engineering Materials (ECS256) | EC110 | Diploma in Civil Engineering |

viii. PROFESSIONAL AFFILIATIONS (MEMBER)

- Board of Engineers Malaysia (BEM) - Graduate
- The Institutes of Engineers Malaysia (IEM) - Graduate

ix. WORK EXPERIENCE

| YEAR | DETAIL |
|----------------------------------|--|
| 3 January 2023 - Present | Senior lecturer at School of Civil Engineering, College of Engineering, Universiti Teknologi MARA, 40450 Shah Alam, Selangor, MALAYSIA |
| 10 March 2014 – 31 December 2022 | Senior lecturer at Civil Engineering Studies, College of Engineering, Universiti Teknologi MARA, Cawangan Pulau Pinang. Kampus Permatang Pauh, 13500 Permatang Pauh, Pulau Pinang, MALAYSIA |
| 19 November 2007 – 10 March 2014 | Lecturer at School of Civil Engineering, College of Engineering, Universiti Teknologi MARA, Cawangan Pulau Pinang. Kampus Permatang Pauh, 13500 Permatang Pauh, Pulau Pnang, MALAYSIA |

x. VISITING PROFESSOR/ VISITING FELLOW

| YEAR | DETAIL |
|------|--------|
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B. SUPERVISIONS

i. DOCTOR OF PHILOSOPHY (PhD)

Name : Afifudin Bin Habulat
 UiTM ID : 2018478274
 Field : Doctor of Philosophy (Civil Engineering) – EC950
 Title : Behaviour of carbon fiber reinforced polymer (CFRP) strengthened reinforced concrete column cladding with composite insulation exposed to elevated temperature
 Status : On-going
 Role : Co Supervisor

ii. MASTER OF SCIENCE (M.Sc.)

Name : **Li Shihui**
 UiTM ID : 2022211416
 Field : Master of Science (Civil Engineering) – CEEC750



Title : Analysing the challenges and factors of sustainable construction uptake and execution in Malaysia
 Status : On-going (First semester December 2022)
 Role : Co Supervisor

Name : **Muhammad Arif Ikmal Bin Abdul Halim**
 UiTM ID : 2021299512
 Field : Master of Science (Civil Engineering) – EC750
 Title : Flexural strength of RC beam with FE-SMA at elevated temperature
 Status : On-going (First semester December 2021)
 Role : Co Supervisor

Name : **Muhammad Amir Shafiq Bin Rahamad Ali**
 UiTM ID : 2020240854
 Field : Master of Science (Civil Engineering) – EC750
 Title : Strength characterization of the CFRP confined circular reinforced concrete column under high temperature
 Status : **Completed**
 Role : Co Supervisor

ii. BACHELOR'S DEGREE THESIS / PROJECT PAPERS

| SEMESTER / YEAR | NAME OF STUDENT | TITLE |
|----------------------------|---|---|
| | 1. | |
| October 2023 – August 2024 | 2. | |
| October 2022 – August 2023 | 1. Nurul Ihtifadzuddin Akmal Bin Nurul Alim | Numerical simulation of RC beam strengthened with FE SMA at elevated temperature. |
| | 2. Muhammad Firdaus Bin Sakri | Analysing the capability of concrete using palm oil fuel ash (POFA) as a cement (OPC) replacement using a non-destructive test (NDT) |
| October 2021 – August 2022 | 1. Nur Afiqah Binti Hazizan | Structural behaviour of stainless-steel beam (SSB) at elevated temperature |
| | 2. Adrian Rudolf Yansai | Numerical simulation of cellular stainless-steel beam (CSSB) at elevated temperature |
| October 2020 – August 2021 | 1. Muhamad Firdaus Bin Rosle | Finite Element Simulation of reinforced concrete column with full confined carbon fiber reinforced polymer (CFRP) |
| | 2. Nur Aqilah Binti Zakaria | Numerical analysis of reinforced concrete column with full confined carbon fiber reinforced polymer (CFRP) exposed to elevated temperature. |
| | 3. Menissa Anak Buyong | Numerical simulation of reinforced concrete column with partial confined carbon fiber reinforced polymer (CFRP) exposed to elevated temperature |

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| September 2019 – January 2020 | 1. Amirul Bin Abd Aziz | Modelling of Steel Fibre Reinforced Concrete Ribbed Slab Panel using Finite Element Analysis |
| | 2. Muhammad Asyraf Bin Zainal | Numerical Study of RC Column with CFRP Confinement |
| | 3. Abid Haiqal Bin Arif | Finite Element Modelling of RC Column Partially Confined with CFRP |
| September 2012 - January 2013 | 1. Muhammad Fahmi Bin Mustafa | Compressive Behavior of Steel Fiber Reinforcement Concrete After Exposed to High Temperature |
| | 2. Khairil Imran Bin Fadillah | Effect of Steel Fibre on Flexural Strength of Fibre Reinforced Concrete at High Temperature |
| Mar 2014 - Jul 2014 | 1. Mohamad Afif Bin Daud | Compression Behaviour of Concrete Cylinder with Additional of Silica Fume and Polyethylene |
| | 2. Nurain Aisyah Bt. Abd Samad | A Study of Structural Behaviour of Concrete Cube Containing Polyethylene |
| | 3. Mohd. Shah Riza Bin Mohd. Sabri | Flexural Study of Concrete Beam Containing Fly Ash and Polyethylene |
| | 4. Nizar Bin Nahar | The Effects of Silica Fume and Polyethylene (PE) For Performance of The Concrete |

C. TEACHING ACTIVITIES

i. BACHELOR'S DEGREE / DIPLOMA

| YEAR/SEMESTER | SUBJECT | NUMBER OF STUDENTS | PROGRAMME |
|---------------------------------|--|--------------------|--|
| October 2023 – February 2024 | ECS416 Statics | | ▪ Bachelor of Engineering (Civil) (Hons) (Universiti Teknologi MARA, Shah Alam, Selangor) |
| March - August 2023 | ECM446 Construction Technology | 112 | ▪ Bachelor of Engineering (Civil) (Hons) (Universiti Teknologi MARA, Shah Alam, Selangor) |
| | ECS556 Structural Analysis | 25 | ▪ Bachelor of Engineering (Civil) (Hons) (Universiti Teknologi MARA, Shah Alam, Selangor) |
| October 2022 – February 2023 | CES410 Engineering Material Laboratory | 19 | ▪ Bachelor's Degree of Engineering (Hons.) Civil (Infrastructure) (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | | | ▪ Bachelor of Engineering (Civil) (Hons) |

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| | ECS428 Mechanics of Solid | 35 | (Universiti Teknologi MARA, Shah Alam, Selangor) |
| March – August 2022 | CEC594 Infrastructure Design Project | 30 | ▪ Bachelor's Degree of Engineering (Hons.) Civil (Infrastructure) (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| October 2021 – February 2022 | CES511 Structural Engineering Laboratory | 43 | ▪ Bachelor's Degree of Engineering (Hons.) Civil (Infrastructure) (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | CES523 Structural Steel Design | 45 | ▪ Bachelor's Degree of Engineering (Hons.) Civil (Infrastructure) (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| March – August 2021 | ECS226 Solid Mechanics | 58 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| October 2020 – February 2021 | CES425 Civil Engineering Materials | 46 | ▪ Bachelor's Degree of Engineering (Hons.) Civil (Infrastructure) (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| March – July 2020 | CES513 Computational Analysis Methods for Engineers / Computational Analysis for Engineers | 57 | ▪ Bachelor's Degree of Engineering (Hons.) Civil (Infrastructure) (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | CES422 Solid Mechanics | 24 | ▪ Bachelor's Degree of Engineering (Hons.) Civil (Infrastructure) (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| September 2019 – January 2020 | CES422 Solid Mechanics | 32 | ▪ Bachelor's Degree of Engineering (Hons.) Civil (Infrastructure) (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | CES511 Structural Engineering Laboratory | 15 | ▪ Bachelor's Degree of Engineering (Hons.) Civil (Infrastructure) (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| March – July 2019 | CES424 | 74 | ▪ Bachelor's Degree of Engineering (Hons.) Civil (Infrastructure) |

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|-------------------------------|--|-----|---|
| | Determinate Structures | | (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| September 2018 – January 2019 | CES422 Solid Mechanics | 41 | ▪ Bachelor's Degree of Engineering (Hons.) Civil (Infrastructure) (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| March – July 2018 | ECS256 Civil Engineering Materials | 75 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| September 2017 – January 2018 | ECM346 Building Services | 60 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| June – October 2014 | ECS228 Mechanics of Structures | 55 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | ECS218 Structures and Materials Laboratory | 20 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| December 2013 – April 2014 | ECS328 Structural Steelwork and Timber Design | 66 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| June - October 2013 | ECS228 Mechanics of Structures | 96 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| December 2012 – April 2013 | ECS228 Mechanics of Structures | 115 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | ECS218 Structures and Materials Laboratory | 58 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| June – October 2012 | ECS228 Mechanics of Structures | 94 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | ECS218 Structures and Materials Laboratory | 30 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |

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|-------------------------------|--|----|---|
| November 2011 – March 2012 | ECS228 Mechanics of Structures | 87 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | ECS218 Structures and Materials Laboratory | 72 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| May – October 2011 | ECS228 Mechanics of Structures | 71 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | ECS218 Structures and Materials Laboratory | 61 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| January – April 2011 | ECM106 Civil Engineering Drawing | 34 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | ECS218 Structures and Materials Laboratory | 32 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | ECS228 Mechanics of Structures | 31 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| July – November 2010 | ECS228 Mechanics of Structures | 28 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | ECS218 Structures and Materials Laboratory | 43 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| January – April 2010 | ECS228 Mechanics of Structures | 66 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | ECS218 Structures and Materials Laboratory | 13 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| July – November 2009 | ECS228 | 55 | ▪ Diploma in Civil Engineering |

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|----------------------------|--|----|---|
| | Mechanics of Structures | | (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| December 2008 – April 2009 | ECM317 Civil Engineering Drawing | 18 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | ECS218 Structures and Materials Laboratory | 26 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | ECS228 Mechanics of Structures | 25 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| July – November 2008 | ECS218 Structures and Materials Laboratory | 47 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | ECM106 Civil Engineering Drawing | 30 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | KJA356 Introduction to Construction Management | 64 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| December 2007 – April 2008 | ECS218 Structures and Materials Laboratory | 80 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| | KJC368 Civil Engineering Design Project | 40 | ▪ Diploma in Civil Engineering (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| December 2007 – April 2008 | ECS478/KJC418 Reinforced Concrete Design/Advanced Reinforced Concrete and Prestressed Concrete Design | 21 | ▪ Bachelor in Engineering (Honours) (Civil) (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |

iii. EPJJ / DEGREE / DIPLOMA & MASTER

| YEAR/SEMESTER | SUBJECT | PROGRAMME |
|------------------------------|---------|--|
| October 2023 – February 2024 | FIE708 | ▪ Master of Science in Forensic Infrastructure Engineering |



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|------------------------------|---------------------------------------|----|---|
| | Infrastructure Disaster Management | | (Universiti Teknologi MARA, Pulau Pinang Branch, Permatang Pauh Campus, Pulau Pinang) |
| October 2020 – February 2021 | ECS718 Finite Element in Mechanics | 25 | ▪ Master of Science in Structural Engineering (Universiti Teknologi MARA, Shah Alam, Selangor) |

D. RESEARCH RECORDS

| NO. | RESEARCH GRANT / ROLE | PERIOD / STATUS | TYPE / REFERENCE | AMOUNT |
|-----|--|--|--|---------------|
| 1. | Optimizing the Strength Performance of Stainless Steel Cellular Beam SSCB At Elevated Temperature Project leader: Dr. Fariz Aswan Bin Ahmad Zakwan Member: Dr. Ruqayyah Ismail and Associate Professor Ts. Dr. Mohd. Hisbany Bin Mohd. Hashim | 1 September 2021 – 31 August 2023 (ON-GOING) | MYRA Research Grant under Universiti Teknologi MARA (UiTM Grant) | RM 20,000.00 |
| 2. | Moment-Curvature Model of Reinforced Concrete Beam Strengthened with Shape Memory Alloy (SMA) Project leader: Dr. Goh Lyn Dee Member: Prof. Ir. Dr. Raizal Saifulnaz Muhammad Rashid, Prof. Dr. Azmi Ibrahim, Dr. Fariz Aswan Bin Ahmad Zakwan, Dr. Ruqayyah Ismail and Associate Professor Dr. Clotilda Petrus | 1 September 2021 – 31 August 2023 (ON-GOING) | Fundamentals Research Grant Scheme (FRGS) under Ministry of Higher Education (MOHE) (National Grant) | RM 100,985.00 |
| 3. | Constitutive modeling of reinforced concrete circular columns strengthened with shape memory alloy strips Project leader: Dr. Ruqayyah binti Ismail Member: Prof. Ir. Dr. Raizal Saifulnaz Muhammad Rashid, Dr Abdul Rahim Ridzuan, Dr. Hazrina Binti Ahmad, Dr. Fariz Aswan Bin Ahmad Zakwan & Badrul Nizam Bin Ismail | 1 January 2019 – 30 September 2021 (COMPLETED) | Fundamentals Research Grant Scheme (FRGS) under Ministry of Higher Education (MOHE) (National Grant) | RM 63,500.00 |
| 4. | Strength characterization of the CFRP confined circular reinforced concrete column under high temperature | 1 January 2019 – 30 September 2021 | Fundamentals Research Grant Scheme (FRGS) under Ministry of | RM 61,400.00 |



| | | | | |
|----|--|---|---|----------------------|
| | Project leader: Dr. Hazrina Binti Ahmad Members: Dr. Ruqayyah binti Ismail, Dr. Fariz Aswan Bin Ahmad Zakwan, Prof. Ir. Dr. Raizal Saifulnaz Muhammad Rashid & AP Ts. Dr. Mohd Hisbany Bin Mohd Hashim | (COMPLETED) | Higher Education (MOHE) (National Grant) | |
| 5. | Basic Study of High Temperature Resistance on Hybrid Fibre Reinforced Concrete Project leader: Dr. Ruqayyah binti Ismail Members: Dr. Fariz Aswan Bin Ahmad Zakwan, Dr. Clotilda Binti Petrus & Nor Hafida Binti Hashim | 15 April 2012 – 12 April 2015 (COMPLETED) | Fundamentals Research Grant Scheme (FRGS) under Ministry of Higher Education (MOHE) (National Grant) | RM 68,500.00 |
| | | | Total | RM 314,385.00 |

E. PUBLICATIONS

I(a). JOURNAL (WOS INDEXED) (Published)

- Nur Aqilah Zakaria, Ruqayyah Ismail, Fariz Aswan Ahmad Zakwan, Hazrina Ahmad, Muhamad Firdaus Rosle, Mohd Hisbany Mohd Hashim and Raizal Saifulnaz Muhammad Rashid (2023) Numerical investigation of fully confined RC column with carbon fiber reinforced polymer when expose to fire. Physics and Chemistry of the Earth, Parts A/B/C, 129, 103335, 1-15
<https://doi.org/10.1016/j.pce.2022.103335>
Impact Factor (IF) = 3.311 (2023)
Quartile Q2
Published Date: 16 February 2023
- Fariz Aswan Ahmad Zakwan, Ruqayyah Ismail, Renga Rao Krishnamoorthy and Azmi Ibrahim (2020). Predicted temperature development on protected cellular steel beam (CSB) under fire exposure. Journal of Structural Fire Engineering, 11(2), 205-220.
<https://doi.org/10.1108/JSFE-10-2018-0030>
Impact Factor (IF) = 0.374 (2023)
Quartile Q3
Published Date: 23 November 2019
- Fariz Aswan Ahmad Zakwan, Renga Rao Krishnamoorthy, Azmi Ibrahim, and Ruqayyah Ismail (2018). A finite element (FE) simulation of naked solid steel beam at elevated temperature. International Journal of Integrated Engineering, 10(9), 7-13.
<https://penerbit.uthm.edu.my/ojs/index.php/ijie/article/view/2364>
Impact Factor (IF) = 0.267 (2023)
Quartile Q3
Published Date: 31 December 2018
- Fariz Aswan Ahmad Zakwan, Renga Rao Krishnamoorthy, Azmi Ibrahim and Abdul Manaff Mohd Ismail (2015). Fire resistance performance of cellular steel beam (CSB) at elevated temperatures. Jurnal Teknologi, 76(9), 97-101.
<https://doi.org/10.11113/jt.v76.5685>



Impact Factor (IF) = 0.203

Quartile Q3.

Published Date: 28 September 2015

**I(b). JOURNAL (SCOPUS INDEXED)
(Published)**

1. Nur Aqilah Zakaria, Ruqayyah Ismail, Fariz Aswan Ahmad Zakwan, Hazrina Ahmad, Muhamad Firdaus Rosle, Mohd Hisbany Mohd Hashim and Raizal Saifulnaz Muhammad Rashid (2023) Numerical investigation of fully confined RC column with carbon fiber reinforced polymer when expose to fire. Physics and Chemistry of the Earth, Parts A/B/C, 129, 103335, 1-15
<https://doi.org/10.1016/j.pce.2022.103335>
CiteScore = 5.1 (2022)
SCImago Journal Rank = 0.695 (2022)
Quartile Q2
Published Date: 16 February 2023
2. Nur Aiman Suparlan , Hazrina Ahmad , Mohd Hisbany Mohd Hashim , Muhammad Amir Shafiq Rahamad Ali , Ruqayyah Ismail , Fariz Aswan Ahmad Zakwan (2021). Compressive strength of CFRP confined concrete under exposure to high temperature. Civil Engineering and Architecture, 9(5), 78-85.
<https://doi.org/10.13189/cea.2021.091309>
CiteScore = 1.2 (2022)
SCImago Journal Rank = 0.211 (2022)
Quartile Q4
Published Date: 14 August 2021
3. Fariz Aswan Ahmad Zakwan, Ruqayyah Ismail, Renga Rao Krishnamoorthy, & Ibrahim, A. (2020). Predicted temperature development on protected cellular steel beam (CSB) under fire exposure. Journal of Structural Fire Engineering, 11(2), 205-220.
<https://doi.org/10.1108/JSFE-10-2018-0030>
CiteScore = 2.1 (2022)
SCImago Journal Rank = 0.303 (2022)
Quartile Q2.
Published Date: 23 November 2019
4. Fariz Aswan Ahmad Zakwan, Renga Rao Krishnamoorthy, Azmi Ibrahim and Abdul Manaff Mohd Ismail (2019). Performance based approach of cellular steel beam (CSB) exposed to fire. Journal of Mechanical Engineering, 16(1), 229-238.
<https://ir.uitm.edu.my/id/eprint/36410/1/36410.pdf>
CiteScore = 1.1 (2022)
SCImago Journal Rank = 0.2 (2022)
Quartile Q3
Published Date: 1 April 2019
5. Fariz Aswan Ahmad Zakwan, Renga Rao Krishnamoorthy, Azmi Ibrahim and Ruqayyah Ismail (2018). A finite element (FE) simulation of naked solid steel beam at elevated temperature. International Journal of Integrated Engineering, 10(9), 7-13.
<https://penerbit.uthm.edu.my/ojs/index.php/ijie/article/view/2364>
CiteScore = 1.3 (2022)
SCImago Journal Rank = 0.2 (2022)
Quartile Q4.
Published Date: 31 December 2018
6. Fariz Aswan Ahmad Zakwan, Renga Rao Krishnamoorthy, Azmi Ibrahim and Abdul Manaff Mohd Ismail (2015). Fire resistance performance of cellular steel beam (CSB) at elevated temperatures. Jurnal Teknologi, 76(9), 97-101.
<https://doi.org/10.11113/jt.v76.5685>
CiteScore = 1.5 (2022)
SCImago Journal Rank = 0.221 (2022)



Scopus Q3.

Published Date: 28 September 2015

I(c). JOURNAL (MYCITE/MYJURNAL INDEXED)

1. Muhammad Amir Shafiq Rahamad Ali, Fariz Aswan Ahmad Zakwan, Hazrina Ahmad, Ruqayyah Ismail and Badrul Nizam Ismail (2022). Compressive Strength and Behaviour of Full and Partial CFRP Confined Concrete Columns. *ESTEEM Academic Journal* 18 (September 2022), 41-54
<https://ir.uitm.edu.my/id/eprint/68072/>
https://uppp.uitm.edu.my/images/doc/ESTEEM_pdf_format/vol18sep/18550sep22.pdf
2. Fariz Aswan Ahmad Zakwan, Ruqayyah Ismail, Mohd Zaini Endut (2022). Assessment Programme Outcomes (POs) of the Solid Mechanics Course for an Engineering Diploma Programme. *International Journal of Practices in Teaching and Learning (IJPTL)* 2 (2), 21-25.
https://ijptl.uitm.edu.my/files/v2n2-aug2022/IJPTL_214.pdf
3. Ruqayyah Ismail, Clotilda Petrus, Caroline Marajan, Bahardin Baharom and Fariz Aswan Ahmad Zakwan (2022). The Online Student Portfolio Implementation at the Faculty of Civil Engineering, Universiti Teknologi MARA, Pulau Pinang Malaysia. *International Journal of Service Management and Sustainability (IJSMS)*, 7(1), 49-62.
<https://ir.uitm.edu.my/id/eprint/58186>
<https://doi.org/10.24191/ijms.v7i1.17778>
Published Date: 31 March 2022
4. Norsalwa Aisyah Senu, Ruqayyah Ismail, Norlizan Wahid, Hazrina Ahmad, Fariz Aswan Ahmad Zakwan (2021). Compression Behaviour of Concrete Cylinder with Carbon Fibre Reinforced Polymer (CFRP) Confinement. *Scientific Research Journal*, 18(1), 27-41.
<https://doi.org/10.24191/srj.v18i1.11394>.
Published Date: 28 February 2021

II(a). PROCEEDING CONFERENCES (WOS INDEXED) (Published)

1. Fariz Aswan Ahmad Zakwan, Renga Rao Krishnamoorthy, Azmi Ibrahim and Ruqayyah Ismail (2020). Finite element analysis of coated (intumescent coating protection) cellular steel beam (CSB) expose to fire. Paper presented at the IOP Conference Series: Materials Science and Engineering, , 713(1). <https://doi.org/10.1088/1757-899X/713/1/012032>
Published Date: 3 January 2020
2. Ruqayyah Ismail, Goh Lyn Dee, Nik Nurul Nadia Nik Hasan, Azerai Ali Rahman and Fariz Aswan Ahmad Zakwan (2020). Shear performance of pretensioned prestressed concrete beam with steel fibre. Paper presented at the IOP Conference Series: Materials Science and Engineering, , 713(1) <https://doi.org/10.1088/1757-899X/713/1/012027>
Published Date: 3 January 2020
3. Fariz Aswan Ahmad Zakwan, Renga Rao Krishnamoorthy, Azmi Ibrahim and Abdul Manaff Mohd Ismail (2017). Numerical simulation of unprotected solid steel beams at elevated temperatures. Paper presented at the Life-Cycle of Engineering Systems: Emphasis on Sustainable Civil Infrastructure - 5th International Symposium on Life-Cycle Engineering, IALCCE 2016, 1154-1161.
<https://www.taylorfrancis.com/chapters/edit/10.1201/9781315375175-161/numerical-simulation-unprotected-solid-steel-beams-elevated-temperatures-ahmad-zakwan-krishnamoorthy-ibrahim-mohd-ismail>
Published Date: 16 October 2016

II(b). PROCEEDING CONFERENCES (SCOPUS INDEXED) (Published)



1. Norehan Othman, Hazrina Ahmad, Ruqayyah Ismail, Fariz Aswan Ahmad Zakwan, Goh Lyn Dee and Norlizan Wahid (2023). Behaviour of RC Columns Strengthened with Partial Carbon Fibre Reinforced Polymer (CFRP) Confinement. Lecture Notes in Civil Engineering, 350 LNCE, pp. 825 – 834. Paper presented at the International Symposium of the International Federation for Structural Concrete, fib Symposium 2023, Istanbul, Turkey.
http://doi.org/10.1007/978-3-031-32511-3_85
CiteScore = 0.7 (2022)
SCImago Journal Rank = 0.147 (2022)
Published Date: 5 June 2023
2. Ahmad Amirul Abdul Aziz, Hazrina Ahmad, Fariz Aswan Ahmad Zakwan, Ruqayyah Ismail, Norlizan Wahid and Goh Lyn Dee (2023). Modelling of Steel Fibre Reinforced Concrete Ribbed Slab Panel Using Finite Element Analysis. Lecture Notes in Civil Engineering, 350 LNCE, pp. 222 – 232. Paper presented at the International Symposium of the International Federation for Structural Concrete, fib Symposium 2023, Istanbul, Turkey.
http://doi.org/10.1007/978-3-031-32511-3_25
CiteScore = 0.7 (2022)
SCImago Journal Rank = 0.147 (2022)
Published Date: 5 June 2023
3. Muhammad Aidill Ngatiman, Hazrina Ahmad, Ruqayyah Ismail, Fariz Aswan Ahmad Zakwan, Mohd Hisbany Mohd Hashim (2022). Finite Element Analysis of Full And Partial Confinement Of Reinforced Concrete Column With Carbon Fiber Reinforced Polymer (CFRP). Paper presented at the AIP Conference Proceedings, 2532, 1 , 040010.
<https://doi.org/10.1063/5.0111076>
CiteScore = 0.7 (2022)
SCImago Journal Rank = 0.164 (2022)
Published Date: 28 November 2022
4. Ruqayyah Ismail, Raizal Saifulnaz Muhammad Rashid, Fariz Aswan Ahmad Zakwan, Hazrina Ahmad and Farzad Hejazi (2022). Axial Behaviour Of Strengthened Circular Hollow Reinforced Concrete Column With CFRP Partial Confinement. Paper presented at the Acta Polytechnica CTU Proceedings, , 33, 250-255.
<https://doi.org/10.14311/APP.2022.33.0250>
Published Date: 3 March 2022
5. Hazrina Ahmad, Mohd Hisbany Mohd Hashim, Afidah Abu Bakar, Fariz Aswan Ahmad Zakwan and Ruqayyah Ismail (2022). Comparative Flexural Performance Of Steel Fibre Reinforced Self-Compacting Concrete (SCFRC) Ribbed Slab With Different Fibre Provision Area. Paper presented at the Acta Polytechnica CTU Proceedings, 33, 1-7.
<https://doi.org/10.14311/APP.2022.33.0001>
Published Date: 3 March 2022
6. Fariz Aswan Ahmad Zakwan, Ruqayyah Ismail, Hazrina Ahmad and Raizal Saifulnaz Muhammad Rashid (2022). 3D Finite Element Simulation Of Reinforced Concrete Column Strengthened By Partially Confined Carbon Fibre Reinforced Polymer Under Concentric Loading. Paper presented at the Acta Polytechnica CTU Proceedings, 33 8-14.
<https://doi.org/10.14311/APP.2022.33.0008>
Published Date: 3 March 2022
7. Syaza Nur Lylia Zulkifli, Mohd Hisbany Mohd Hashim, Ruqayyah Ismail, Fariz Aswan Ahmad Zakwan, Hazrina Ahmad, Badrul Nizam Ismail and Raizal Saifulnaz Muhammad Rashid (2020). Application of shape memory alloys (SMA) as a retrofit and strengthening component on reinforced concrete columns: Review paper. Paper presented at the Journal of Physics: Conference Series, , 1529(4)
<https://doi.org/10.1088/1742-6596/1529/4/042104>
CiteScore = 1.0 (2022)
SCImago Journal Rank = 0.183 (2022)
Published Date: 17 June 2020
8. Fariz Aswan Ahmad Zakwan, Renga Rao Krishnamoorthy, Azmi Ibrahim and Ruqayyah Ismail (2020). Finite element analysis of coated (intumescent coating protection) cellular steel beam



(CSB) expose to fire. Paper presented at the IOP Conference Series: Materials Science and Engineering, 713(1). <https://doi.org/10.1088/1757-899X/713/1/012032>

CiteScore = 1.1 (2022)

SCImago Journal Rank = 0.249 (2022)

Published Date: 3 January 2020

9. Ruqayyah Ismail, Goh Lyn Dee, Nik Nurul Nadia Nik Hasan, Azerai Ali Rahman and Fariz Aswan Ahmad Zakwan (2020). Shear performance of pretensioned prestressed concrete beam with steel fibre. Paper presented at the IOP Conference Series: Materials Science and Engineering, 713(1) <https://doi.org/10.1088/1757-899X/713/1/012027>

CiteScore = 1.1 (2022)

SCImago Journal Rank = 0.249 (2022)

Published Date: 3 January 2020

10. Ruqayyah Ismail, Raizal Saifulnaz Muhammad Rashid, Fariz Aswan Ahmad Zakwan and Farzad Hejazi (2019). Experimental study of circular hollow reinforced concrete column strengthened with partial carbon fibre reinforced polymer (CFRP) confinement. Paper presented at the IOP Conference Series: Materials Science and Engineering, 615(1). <https://doi.org/10.1088/1757-899X/615/1/012075>

CiteScore = 1.1 (2022)

SCImago Journal Rank = 0.249 (2022)

Published Date: 15 October 2019

11. Fariz Aswan Ahmad Zakwan, Renga Rao Krishnamoorthy, Azmi Ibrahim and Abdul Manaff Mohd Ismail (2017). Numerical simulation of unprotected solid steel beams at elevated temperatures. Paper presented at the Life-Cycle of Engineering Systems: Emphasis on Sustainable Civil Infrastructure - 5th International Symposium on Life-Cycle Engineering, IALCCE 2016, 1154-1161. <https://www.taylorfrancis.com/chapters/edit/10.1201/9781315375175-161/numerical-simulation-unprotected-solid-steel-beams-elevated-temperatures-ahmad-zakwan-krishnamoorthy-ibrahim-mohd-ismail>

Published Date: 16 October 2016

12. Abdul Manaff Ismail, Ruqayyah Ismail, Fariz Aswan Ahmad Zakwan and Badrul Nizam Ismail (2010). Implementation and assessment of outcome based education (OBE) in the faculty of civil engineering at universiti teknologi MARA (UiTM). Paper presented at the 2010 2nd International Congress on Engineering Education: Transforming Engineering Education to Produce Quality Engineers, ICEED2010, 211-214. <https://doi.org/10.1109/ICEED.2010.5940793>

Published Date: 5 July 2012

II(c). PROCEEDING CONFERENCES (OTHER INDEXES)

- 1.
- 2.
- 3.

III. CHAPTER IN BOOK

1. Numerical Simulation of Unprotected Solid Steel Beams at Elevated Temperatures. Fariz Aswan Ahmad Zakwan, Renga Rao A/I Krishnamoorthy, Azmi Ibrahim and Abdul Manaff Bin Mohd Ismail, (2016) (2) 1.
2. Compressive Behavior of Steel Fiber Reinforced Concrete After Exposed to High Temperatures. Ruqayyah Ismail, Fariz Aswan Ahmad Zakwan, Clotilda Binti Petrus, Nur Ashikin Marzuki, Nor Hafida Binti Hashim and Muhammad Fahmi Mustafa, (2013) (2) 1.
3. The Effect of Steel Fibre on Flexural Strength Of Fibre Reinforcedconcrete At High Temperature Clotilda Binti Petrus, Ruqayyah Ismail, Fariz Aswan Ahmad Zakwan, Nur Ashikin Marzuki, Nor Hafida Binti Hashim and Khairil Imran Fadillah, (2013) (2) 1.

IV. BOOK

- 1.



- 2.
- 3.

VI. GENERAL PUBLICATION

- 1.
- 2.
- 3.

VII. VISIBILITY THROUGH MEDIA

- 1.
- 2.

VIII. APPOINTMENT / ROLE IN JOURNAL

- 1.
- 2.
- 3.

F. AWARDS AND RECOGNITIONS

| NO. | DETAILS | YEAR |
|-----|--|----------------------------------|
| 1. | Bronze Medal Award in 'Innovation and Invention Challenge in Engineering and Technology 2023 (iiCET 2023). Project Title: Smart Alloy Strengthening for Reinforced Concrete Beam Strengthening | 5 – 6 September 2023 |
| 2. | Anugerah Perkhidmatan Cemerlang 2022 (APC) Universiti Teknologi MARA | 2022 |
| 3. | Bronze Medal Award in 'Invention, Innovation and Design Exposition (IIDEX 2021). Project Title: Shape Memory Alloy Is the New Strengthening Material In Market | 11 – 15 October 2021 |
| 4. | Silver Medal Award in 'Invention, Innovation and Design Exposition (IIDEX 2021). Project Title: Compression Behaviour of Concrete Cylinder with Partial Carbon Fibre Reinforced Polymer (CFRP) Confinement | 11 – 15 October 2021 |
| 5. | Silver Medal Award in 'Invention, Innovation and Design Exposition (IIDEX 2021). Project Title: Compressive Behaviour of Different Configuration Of CFRP On RC Circular Columns | 11 – 15 October 2021 |
| 6. | Authors for The Best Paper (Science of Technology) in 'The 2 nd International Conference on Innovative Sciences and Technologies for Research and Education Special Edition (InnoSTRE 2020 Special Edition)'. Paper Title: Compression Behaviour of Concrete Cylinder with Confinement of Carbon Fibre Reinforced Polymer (CFRP). | 25 November 2020 |
| 7. | Appointed as an Apple Teacher by Apple Inc. | 29 October 2020 |
| 8. | Silver Medal Award in 'The 3 rd International Innovation, Invention and Design Competition 2020 Virtual IID (ICON 2020)'. Project Title: Self-Compacting Fibre Reinforced Concrete Ribbed Slab (SCFRC-RIB). | 19 June – 15 November 2020 |



9. Silver Medal Award in 'The 3rd International Innovation, Invention and Design Competition 2020 Virtual IID (ICON 2020)'.
Project Title: **Calcine Ground Seashell Ash (CGSA-20): A New Green Admixture.** 19 June – 15 November 2020
10. Silver Medal Award in 'The 8th International Innovation, Invention and Design Competition 2019 (INDES 2019)'.
Project Title: **Carbon Fibre Reinforced Polymer (CFRP) Partial Confinement Design for RC Column Strengthening Mechanism.** 19 November 2019
11. Anugerah Penerbitan (Perak) – UiTM Cawangan Pulau Pinang 18 December 2019
12. Anugerah Penerbitan (Perak) – UiTM Cawangan Pulau Pinang 18 December 2017
13. Kategori Penerbitan Berprestij (Perak) – UiTM Cawangan Pulau Pinang 23 December 2016
14. Anugerah Penerbitan (Gangsa) – UiTM Cawangan Pulau Pinang 29 January 2015
15. Skim Latihan Akademik IPTA recipient (SLAI) 2014 2014
16. Members of High Impact Research Grant for 1 FRGS grants 2014
17. Anugerah Perkhidmatan Cemerlang 2013 (APC) Universiti Teknologi MARA 2013

G. MEDALS / COMPETITION

| NO. | TYPE OF MEDAL/ AWARD/ ROLE | COMPETITION AND MAIN ORGANIZER | STAGE | YEAR |
|-----|---|---|---------------|-----------------------|
| 1. | Project i. Smart Alloy Strengthening for Reinforced Concrete Beam Strengthening Category: Professional and Academics - Innovation Medal: Bronze award Role: Project Leader | Innovation and Invention Challenge in Engineering and Technology 2023 (iiCET 2023). | International | 5 – 6 September 2023 |
| 2. | Project i. Continuous Quality Improvement (CQI) Template For Outcome Based Education Implementation Category: Professional and Academics - Innovation Medal: Bronze award Role: Project Leader | Invention, Innovation and Design Exposition (IINDEX 2022). | International | 21 – 25 November 2022 |
| 3. | Project i. Shape Memory Alloy Is The New Strengthening Material In Market Category: Professional and Academics - Innovation Medal: Bronze award Role: Member | Invention, Innovation and Design Exposition (IINDEX 2021). | International | 11 – 15 October 2021 |
| | ii. Compression Behaviour Of Concrete Cylinder With Partial | | | |

| | | | | |
|--|---|---|---------------|----------------------------|
| <p>Carbon Fibre Reinforced Polymer (CFRP) Confinement Category: Professional and Academics - Innovation Medal: Silver award Role: Project Leader</p> | | | | |
| <p>iii. Compressive Behaviour Of Different Configuration Of CFRP On RC Circular Columns Category: Professional and Academics - Innovation Medal: Silver award Role: Member</p> | | | | |
| 4. | Project | | | |
| | i. Self-Compacting Fibre Reinforced Concrete Ribbed Slab (SCFRC-RIB) Category: Professional and Academics - Innovation Medal: Silver award Role: Member | 3rd International Innovation, Invention and Design Competition 2020 Virtual IID (ICON 2020) | International | 19 June – 15 November 2020 |
| | ii. Calcined Ground Seashell Ash (CGSA-20): A New Green Admixture Category: Professional and Academics - Innovation Medal: Silver award Role: Member | | | |
| 5. | Project | | | |
| | i. Carbon Fibre Reinforced Polymer (CFRP) Partial Confinement Design for RC Column Strengthening Mechanism Category: Professional and Academics - Innovation Medal: Silver award Role: Member | The 8 th International Innovation, Invention and Design Competition (INDES 2019) | International | 19 November 2019 |
| 6. | Project | | | |
| | i. Continuous Quality Improvement (CQI) Template for Course Level at Faculty of Civil Engineering, UiTM Pulau Pinang Category: Professional and Academics - Innovation Medal: Gold award Role: Member | Innovation Practices in Higher Education Expo 2014 (I – PHEX 2014) | National | 23 May 2014 |
| 7. | Project | | | |
| | i. Student Learning Reflection Through Online Tool Category: Professional and Academics - Innovation Medal: Gold award | Invention, Innovation and Design Competition (IID Johor 2013) | National | 19 September 2013 |



Role: Member

ii. Continuous Quality Improvement Template for Teaching and Learning

Category: Professional and Academics - Innovation

Medal: Bronze award

Role: Member

8. Project

i. Enhancement of Continuous Quality Improvement Template for Teaching and Learning

Category: Professional and Academics - Innovation

Medal: Gold award

Role: Head of team

ii. Hybrid Fibre Concrete at High Temperature

Category: Professional and Academics - Innovation

Medal: Bronze award

Role: Head of team

International Invention, Innovation and Research Design Platform 2013 (IP 2013)

International December 4 – 5 2013

iii. Connection Design of Tunnel Form Wall-Slab Connection under Quasi-Static Lateral Cyclic Loading

Category: Professional and Academics - Innovation

Medal: Bronze award

Role: Member

H. CONFERENCES / SEMINAR

| NO. | DETAILS | YEAR |
|-----|--|------|
| 1. | Presenter (Corresponding author). International Conference on Innovation and Technopreneurship (ICIT 2022), 22 – 23 September 2022 Paper Title: Numerical Simulation on the Behavior of Cellular Stainless-Steel Beam (CSSB) at Elevated Temperature | 2022 |
| 2. | Presenter (Co Author). International Conference on Innovation and Technopreneurship (ICIT 2022), 22 – 23 September 2022 Paper Title: Model Prediction for Compressive Strength of a Fully Confined Concrete Cylinder with Carbon Fiber Reinforced Polymer | 2022 |
| 3. | Presenter (Corresponding author). International Geo-Engineering Conference and Anti-Collapse Geostucture Competition (GEOFIESTA 2022), 20 – 21 July 2022 Paper Title: Numerical Investigation of Confine RC Column with Carbon Fiber Reinforced Polymer when expose to fire | 2022 |
| 4. | Co-author. The 5th Symposium on Damage Mechanism in Materials and Structures (SDMMS 2021), 8 – 9 March 2021. Paper Title: Compressive strength of CFRP confined concrete | 2021 |



- under exposure to high temperature
5. **Presenter (Main author).** The 3rd International Conference on Concrete Sustainability (fib ICCS2021), 8 – 10 September 2021. 2021
Paper Title: 3D Finite Element Simulation of Reinforced Concrete Column Strengthened by Partially Confined Carbon Fibre Reinforced Polymer Under Concentric Loading.
 6. **Co-author.** The 3rd International Conference on Concrete Sustainability (fib ICCS2021), 8 – 10 September 2021. 2021
Paper Title: Axial Behaviour of Strengthened Circular Hollow Reinforced Concrete Column with CFRP Partial Confinement
 7. **Co-author.** The 3rd International Conference on Concrete Sustainability (fib ICCS2021), 8 – 10 September 2021. 2021
Paper Title: Comparative Flexural Performance of Steel Fibre Reinforced Self-Compacting Concrete (SCFRC) Ribbed Slab with Different Fibre Provision Area
 8. **Co-author.** The 2nd International Conference on Innovative Sciences and Technologies for Research and Education Special Edition (InnoSTRE 2020 Special Edition), 25 – 26 November 2020. 2020
Paper Title: Compression Behaviour of Concrete Cylinder with Confinement of Carbon Fibre Reinforced Polymer (CFRP).
 9. **Co-author.** The 2nd Joint International Conference on Emerging Computing Technology and Sports 2019 (2ND JICETS 2019), 25 – 27 November 2019. 2019
Paper Title: Application of shape memory alloys (SMA) as a retrofit and strengthening component on reinforced concrete columns:
Review Paper
 10. **Presenter (Co-author).** The 7th International Conference of Euro Asia Civil Engineering Forum Stuttgart, Germany, 30 September – 2 October 2019 2019
Paper Title: Experimental study of circular hollow reinforced concrete column strengthened with partial Carbon Fibre Reinforced Polymer (CFRP) confinement
 11. **Presenter (Main author).** The 2nd Global Congress on Construction, Material and Structural Engineering (GCoMSE 2019), 26 – 27 August 2019 2019
Paper Title: Finite Element Analysis of Coated (Intumescent Coating Protection) Cellular Steel Beam (CSB) Expose to Fire
 12. **Presenter (Main author).** The 2nd Global Congress on Construction, Material and Structural Engineering (GCoMSE 2019), 26 – 27 August 2019 2019
Paper Title: Finite Element Analysis of Coated (Intumescent Coating Protection) Cellular Steel Beam (CSB) Expose to Fire
 13. **Presenter (Main author).** 1st International Congress On Innovations in Civil Engineering (ICE 2017), 15 – 17 November 2017 2017
Paper Title: A Finite Element (FE) simulation of naked solid steel beam at elevated temperature
 14. **Presenter (Main author).** 4th International Civil and Infrastructure Engineering Conference (INCIEC 2017), 7 – 9 August 2017 2017
Paper Title: Performance based approach of cellular steel beam (CSB) under fire exposure
 15. **Presenter (Main author).** The 7th International Conference on Postgraduate Education (ICPE 2016), 1 December 2016 2016
Paper Title: Vierendeel bending failure mechanism of cellular steel beams (CSBs) when expose to fires: A review
 16. **Presenter (Main author).** 4th International Conference on Advances in Mechanical Engineering (ICAME 2015), 26 – 27 August 2015 2015



- Paper Title:** Fire Resistance Performance of Cellular Steel Beam (CSB) at Elevated Temperatures
17. **Presenter (Co-author).** The International Civil and Infrastructure Engineering Conference (InCIEC 2013), 22 – 24 September 2013 2013
Paper Title: The Effect of Steel Fibre On Flexural Strength Of Fibre Reinforced Concrete High Temperature.
18. **Co-author.** The International Civil and Infrastructure Engineering Conference (InCIEC 2013), 22 – 24 September 2013 2013
Paper Title: Compressive Behavior of Steel Fiber Reinforced Concrete After Exposed to High Temperatures.
19. **Presenter (Co-author).** National Student Development Conference 2010 (NASDEC 2010), 21 – 22 December 2010 2010
Paper Title: Monitoring Student Development Progress Through the Program Outcomes in Faculty of Civil Engineering, UiTM Cawangan Pulau Pinang.

I. CONSULTANCY

| NO. | DETAILS | YEAR |
|-----|---|--------------|
| 1. | Tensile Test for Reinforcement Bar for SLS ALPHA ENGINEERING & CONSTRUCTION SDN. BHD. Project value: RM 560.00 | OCTOBER 2018 |

J. INTERNAL APPOINTMENT

| I. APPOINTMENT BY UITM MANAGEMENT / DIVISION | YEAR |
|--|-------------|
| 1. Committee Member of International | 2023 - 2025 |
| 2. Committee Member of the Program Management and Postgraduate Students | 2023 - 2025 |
| 3. Curriculum Review Work Paper Document Provider CEEC701, CEEC702, CEEC703, CEEC704, CEEC705 And CEEC706 Year 2023 | 2023 |
| 4. Panel Examiner and Chairman: Postgraduate Master Mock Viva-Voce Series 1 (February) | 2022 |
| 5. Resource Person Bagi Program Ijazah Sarjana Muda Kejuruteraan Awam (Infrastruktur) – Civil Engineering Materials Course | 2022 |
| 6. Ahli Jawatankuasa Masmed Universiti Teknologi MARA Cawangan Pulau Pinang | 2021 - 2022 |
| 7. Resource Person Bagi Program Ijazah Sarjana Kejuruteraan (Disaster Management Course) | 2022 - 2023 |
| 8. Pensyarah Penyelia Latihan Industri Ijazah Sarjana Muda Kejuruteraan Awam (Infrastruktur) (Kep.) EC221 bagi tahun 2021 | 2021 |
| 9. Panel Examiner and Chairman: Postgradutae PhD (EC950) Mock Defence of Research Proposal Series 5 (November 2021) | 2021 |
| 10. Panel Examiner for Postgraduate Pre PhD Mock Viva-Voce Series 2 (March 2021) of Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang. | 2021 |
| 11. Developer Course of Massive Open Online Course (MOOC) of Universiti Teknologi MARA | 2019 |



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|-----|---|-------------|
| 12. | Vice Chairman of UiTM Examination Unit, Faculty of Civil Engineering, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang (2013 - 2014) | 2013 - 2014 |
| 13. | Coordinator of ECS228 course of EC110 for Faculty of Civil Engineering, UiTM Cawangan Pulau Pinang | 2012 |
| 14. | Committee Provider of Self Review Portfolio (SRP) for UiTM Cawangan Pulau Pinang | 2010 |

| II. APPOINTMENT BY UITM FACULTY / STUDENT EVENTS | YEAR |
|---|-------------|
| 1. Pengarah Program bagi Program 'Civil Engineer Entrepreneur Day (CEED) 2022 anjuran Pengajian Kejuruteraan Awam, Universiti Teknologi MARA Cawangan Pulau Pinang | 2022 |
| 2. Pensyarah Jemputan (Topik: Introduction to ABAQUS for FYP Student) kepada para pelajar bagi Projek Tahun Akhir Pelajar (FYP) bagi Semester Oktober 2021 – February 2022 | 2022 |
| 3. Timbalan Pengarah Program bagi Program Industrial Talk with Industry Advisory Panel (IAP) anjuran Fakulti Kejuruteraan Awam Universiti Teknologi MARA Cawangan Pulau Pinang. | 2021 |
| 4. Pensyarah Jemputan (Topik: Introduction to ABAQUS for FYP Student) kepada para pelajar bagi Projek Tahun Akhir Pelajar (FYP) bagi Semester Oktober 2020 – February 2021 | 2021 |
| 5. Head of ETAC AND Alumni EC110, School of Civil Engineering, College of Engineering, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang (2020) | 2021 |
| 6. Committee of OBE Unit, School of Civil Engineering, College of Engineering, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang (2020) | 2021 |
| 7. Co-Supervisor Appointment for Final Year Project 1 (FYP 1) of Faculty of Civil Engineering, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang (Semester March – July 2021). | 2021 |
| 8. Panel Presentation 1 Appointment for Final Year Project 2 (FYP 2) of Faculty of Civil Engineering, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang (Semester March – July 2021). | 2021 |
| 9. Head of ETAC AND Alumni EC110, Faculty of Civil Engineering, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang (2020) | 2020 |
| 10. Committee Member of Strategic Planning, Faculty of Civil Engineering, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang (Semester October 2020 – February 2021). | 2020 |
| 11. Panel Presentation 1 Appointment for Final Year Project 2 (FYP 2) of Faculty of Civil Engineering, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang (Semester October 2020 – February 2021). | 2020 |
| 12. Panel Presentation 2 Appointment for Final Year Project 2 (FYP 2) of Faculty of Civil Engineering, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang (Semester October 2020 – February 2021). | 2020 |
| 13. Panel Report 2 Appointment for Final Year Project 2 (FYP 2) of Faculty of Civil Engineering, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang (Semester October 2020 – February 2021). | 2020 |



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|-----|---|-------------|
| 14. | Supervisor Appointment for Final Year Project 2 (FYP 2) of Faculty of Civil Engineering, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang (Semester October 2020 – February 2021). | 2020 |
| 15. | Head of Audit EC110 Program, Faculty of Civil Engineering, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang (2019 - 2020) | 2019 |
| 16. | Committee Member of Quality Unit, Faculty of Civil Engineering, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang (2018 - 2020) | 2019 |
| 17. | Vice Chairman of UiTM Examination Unit, Faculty of Civil Engineering, Universiti Teknologi MARA, Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang (2013 - 2014) | 2014 |
| 18. | Coordinator of Final Examination and Special Examination 1, Faculty of Civil Engineering, UiTM Cawangan Pulau Pinang | 2013 |
| 19. | Academic Advisor for Diploma and Degree students, UiTM Cawangan Pulau Pinang | 2007 - 2021 |
| 20. | Final exam questions maker for ECS228, ECS256, CES422 and ECS424 of Diploma and Degree level | 2009-2019 |

K. SPEAKER / FACILITATOR / JUDGE / REVIEWER (INTERNAL AND EXTERNAL)

| NO. | DETAILS | YEAR |
|-----|---|------|
| 1. | | |
| 2. | Reviewer Journal Paper for Journal of Building Engineering (4 March 2023) Paper Title: An | 2023 |
| 3. | Reviewer Journal Paper for Journal of Engineering (JURNAL KEJURUTERAAN) (5 September 2023) Paper Title: Structural Performance Evaluation of Horizontally Light Reinforced Dapped for Vertical Wall-To-Wall Connection of Precast Wall Panel | 2023 |
| 4. | Reviewer Journal Paper for Journal of Building Engineering (4 March 2023) Paper Title: Study on the impact resistance of steel fiber-reinforced self-compacting concrete after high temperature | 2023 |
| 5. | Reviewer Journal Paper for Scientific Research Journal. (11 May 2023) Paper Title: Effect of Alkali Activator Content on The Compressive strength And Bonding Strength of Geopolymer Concrete | 2023 |
| 6. | Reviewer Journal Paper for Journal of Building Engineering (8 May 2023) Paper Title: Experimental Study and Modeling on Bond-Slippage Behavior of Steel Bar in Polyvinyl Alcohol-Steel Hybrid Fiber Engineered Cementitious Composite | 2023 |
| 7. | Reviewer Journal Paper for Journal of Building Engineering (4 March 2023) Paper Title: An energy-based criterion for predicting the early-age crack initiation and its application in long concrete walls | 2023 |
| 8. | Reviewer Journal Paper for World Journal of Engineering (2 February 2023) | 2023 |
| 9. | Reviewer Conference Paper for 4 th International Conference on Civil and Environmental Engineering (ISCEE 2022) (3 October 2022) | 2022 |
| 10. | Reviewer Conference Paper for 2022 International Conference on Education in Engineering Science and Mathematics (ICESM 2022) (13 September 2022) Paper Title: A Study on Effectiveness of Industrial Talk Approaches for Geology Course | 2022 |
| 11. | Reviewer Journal Paper for ESTEEM Academic Journal (15 August 2022) | 2022 |



- Paper Title:** Automatic Reinforced Concrete Surface Damage Identification Performance by using the Discrimant Classifier Analysis
12. **Panel Penilai** Geran Peyelidikan Peringkat UiTM Cawangan Pulau Pinang 2022 (11 February 2022) 2022
13. **Reviewer Journal Paper** for Journal of Engineering, Design and Technology (6 January 2022) 2022
- Paper Title:** Low velocity impact study of a sandwich beams using Ritz method and finite element modelling
14. **Reviewer Journal Paper** for Structure and Infrastructure Engineering (20 November 2021) 2021
- Paper Title:** Numerical Analysis-based Structural Behavior Assessment of Cable-Stayed Bridge under Tanker Fire
15. **Reviewer Conference Paper** for The International Conference on Advances in Civil Engineering and Science Technology (ICACEST 2021) – 1 September 2021
16. **Reviewer Journal Paper** for Journal of Structural Fire Engineering (17 June 2021). 2021
- Paper Title:** Effects of Faults in The Application of Fire Retardants In Correlation With The Efficiency Of Fire Retardant Materials On Fire Performance.
17. Speaker for Webinar: Introduction to ABAQUS FEA Workshop organized by Faculty of Civil Engineering, UiTM Cawangan Pulau Pinang (3 June 2021) 2021
18. **Reviewer Journal Paper** for World Journal of Engineering (28 April 2021). 2021
- Paper Title:** Influence of spacing between CFRP strips on the behavior of strengthened concrete slabs.
19. **External Reviewer Technical Paper** in the 3rd International Symposium on Civil and Environmental Engineering (ISCEE 2020) (1 – 2 December 2020) 2020
20. **Judge** for 9th International Invention, Innovation and Design 2020 (INDES2020) appointed by UiTM Cawangan Perak (3 November 2020) 2020
21. **Reviewer Journal Paper** for Journal of Engineering, Design and Technology (20 October 2020) 2020
- Paper Title:** Simulation and Analysis of the Effects of Room Surface Reflectance Combinations on a Proposed Retrofit Illumination System of an Office.
22. **Reviewer Journal Paper** for Journal of Engineering, Design and Technology (4 August 2020) 2020
- Paper Title:** Finite Element Analysis of Ports Pavement under Container Loading.
23. **Judge** for Concrete Pontoon Competition 2013 organized by Faculty of Civil Engineering, UiTM Cawangan Pulau Pinang 2013
24. **Judge** for Program Water for Life Race' organized by Faculty of Civil Engineering, UiTM Cawangan Pulau Pinang 2009

L. EXTERNAL APPOINTMENT AS PROGRAM EVALUATOR (DIPLOMA/DEGREE/MASTER)

| NO. | DETAILS | YEAR |
|-----|---|----------------------------|
| 1. | External Examiner for 'Program Teknologi Pembinaan bagi Kursus: Fundamental of Mechanics Structure (DCA 3123)', Kolej Vokasional Kangar. Kangar, Perlis, Malaysia. | 25 June – 31 December 2020 |

M. EXTERNAL APPOINTMENT AS EXAMINER (MASTER/PHD)



| NO. | DETAILS | YEAR |
|-----|---------|------|
| 1. | | |

N. SOCIETY / COMMUNITY / NGO / OTHER ORGANIZATIONS

| NO. | DETAILS | YEAR |
|-----|--|-------------------------------|
| 1. | Persatuan Ibu Bapa dan Guru (PIBG) Committee of Sekolah Kebangsaan Stowell, Bukit Mertajam, Pulau Pinang | 2022 |
| 2. | Ahli Jawatankuasa Program 'Free Market 3.0 Ramadhan Raya' UiTM Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang | 13 April 2022 |
| 3. | Program Khidmat Masyarakat 'Kami Prihatin 5.0' | 18 April 2022 |
| 4. | Program Khidmat Masyarakat Pengajian Kejuruteraan Awam (PKA) 2021 | 2 November 2021 |
| 5. | Persatuan Ibu Bapa dan Guru (PIBG) Committee of Sekolah Kebangsaan Stowell, Bukit Mertajam, Pulau Pinang | 1 January - 31 December 2021 |
| 6. | Persatuan Ibu Bapa dan Guru (PIBG) Committee of Sekolah Kebangsaan Stowell, Bukit Mertajam, Pulau Pinang | 1 January – 31 December 2020 |
| 7. | Volunteer for 'Projek Greenation@UiTM Pulau Pinang bagi Fakulti Kejuruteraan Awam' at UiTM Cawangan Pulau Pinang, Kampus Permatang Pauh, Pulau Pinang. | 1 September – 31 October 2020 |
| 8. | Volunteer for 'Program Khidmat Masyarakat FKA 2014 (Projek Teduhan Kasih)' at Pondok Hajah Khadijah, Pokok Sena, Pulau Pinang | 2014 |
| 9. | Volunteer for 'Program Khidmat Masyarakat' at Pertubuhan Perlindungan Kanak-Kanak Pulau Pinang | 2013 |
| 10. | Volunteer for 'Program Khidmat Masyarakat Fakulti Kejuruteraan Awam' at Pantai Bersih, Pulau Pinang | 2012 |
| 11. | Volunteer for 'Program Khidmat Masyarakat Mega 2012' at Perkampungan Orang Asli, Kuala Boh, Cameron Highlands | 2012 |
| 12. | Committee for 'Program Khidmat Masyarakat Mega 2012' at Perkampungan Orang Asli, Kuala Boh, Cameron Highlands | 2012 |
| 13. | Volunteer for 'Ekspo Selangkah ke UiTM 2010 at Dewan Milineum, Kepala Batas, Pulau Pinang. | 2010 |
| 14. | Volunteer for 'Karnival Pengajian Tinggi 2011' at PISA, Pulau Pinang | 2011 |
| 15. | Committee for 'Program Khidmat Masyarakat Orang Asli' at Kampung Air Bah, Gerik, Perak | 2009 |
| 16. | Committee for 'Nur Ramadhan Mini Library for Charity' at Hotel UiTM Cawangan Pulau Pinang | 2009 |

O. REVIEWED PAPERS

| NO. | DETAILS | YEAR |
|-----|--|------|
| | Proceeding (Index and Non-index) | |
| 1. | 4 th International Symposium on Civil and Environmental Engineering (ISCEE 2022) – (3 - 4 October 2022) | 2022 |
| 2. | The International Conference on Advances in Civil Engineering and Science Technology (ICACEST 2021) – 1 September 2021 | 2021 |



3. 3rd International Symposium on Civil and Environmental Engineering (ISCEE 2020) (1 – 2 December 2020) 2020
4. The Utilization of Lapindo Powder as a Material for High Strength Concrete - International Conference on Sustainable Construction and Structures (ISuCOS 2020) 2020

Chapter in Book

1. **Co-author.** The International Civil and Infrastructure Engineering Conference (InCIEC 2013), 22 – 24 September 2013 2013
Paper Title: The Effect of Steel Fibre On Flexural Strength Of Fibre Reinforced Concrete High Temperature.
2. **Co-author.** The International Civil and Infrastructure Engineering Conference (InCIEC 2013), 22 – 24 September 2013 2013
Paper Title: Compressive Behavior of Steel Fiber Reinforced Concrete After Exposed to High Temperatures.

Journal (Index or Referred)

1. Structural Performance Evaluation of Horizontally Light Reinforced Dapped for Vertical Wall-To-Wall Connection of Precast Wall Panel - Journal of Engineering (JURNAL KEJURUTERAAN) (**Refereed**) 2023
2. Study on the impact resistance of steel fiber-reinforced self-compacting concrete after high temperature - Journal of Building Engineering (**Refereed**) 2023
3. Effect of Alkali Activator Content on The Compressive strength And Bonding Strength of Geopolymer Concrete - Scientific Research Journal (**Refereed**) 2023
4. Experimental Study and Modeling on Bond-Slippage Behavior of Steel Bar in Polyvinyl Alcohol-Steel Hybrid Fiber Engineered Cementitious Composite - Journal of Building Engineering (**Refereed**) 2023
5. An energy-based criterion for predicting the early-age crack initiation and its application in long concrete walls - Journal of Building Engineering (**Refereed**) 2023
6. Automatic Reinforced Concrete Surface Damage Identification Performance by using the Discriminant Classifier Analysis - ESTEEM Academic Journal (**Refereed**) 2022
7. Low velocity impact study of a sandwich beams using Ritz method and finite element modelling - Journal of Engineering, Design and Technology (**Refereed**) 2022
8. Numerical Analysis-based Structural Behavior Assessment of Cable-Stayed Bridge under Tanker Fire - Structure and Infrastructure Engineering (**Refereed**) 2021
9. Effects of Faults in The Application of Fire Retardants In Correlation With The Efficiency Of Fire Retardant Materials On Fire Performance - Journal of Structural Fire Engineering (**Refereed**) 2021
10. Influence of spacing between CFRP strips on the behavior of strengthened concrete slabs - World Journal of Engineering (**Refereed**) 2021
11. Finite Element Analysis of Ports Pavement under Container Loading - Journal of Engineering, Design and Technology (Refereed) (**Refereed**) 2020
12. Simulation and Analysis of the Effects of Room Surface Reflectance Combinations on a Proposed Retrofit Illumination System of an Office – Journal of Engineering, Design and Technology (**Refereed**) 2020

P. LIST OF ATTENDED RESEARCH WORKSHOPS



| NO. | DETAILS | |
|-----|--|------|
| 1. | Roles and Responsibilities of Undergraduate Research Supervisor | 2020 |
| 2. | Getting into The Publishing GMAE: Tips and Strategies" Online Webinar | 2020 |
| 3. | Webinar Taklimat Program Konsortium Kecemerlangan Penyelidikan (KKP) 2020 | 2020 |
| 4. | Evaluating Thesis for Master by Research: Engineering & Sciences organized by Online Webinar IPSIS, UiTM | 2020 |
| 5. | Writing Workshop "Academic Writing for Career Enhancement organized by UiTM Cawangan Pulau Pinang | 2019 |
| 7. | Bengkel PAIR2PUBLISH 1/2018 organized by ILD Bandar Enstek, Nilai, Negeri Sembilan | 2018 |
| 8. | Bengkel Penulisan organized by UiTM Cawangan Pulau Pinang | 2018 |
| 9. | Thesis BootCamp organized by ILD Bandar Enstek, Nilai, Negeri Sembilan | 2018 |
| 10. | Emerging Research Leaders Series (ERLS) organized by ILD Bandar Enstek, Nilai, Negeri Sembilan | 2018 |
| 11. | Bengkel 'Tips and Trick To Get The Most From ScienceDirect Database And Ebooks' organized by Pusat IT, PTAR 1, UiTM, Shah Alam | 2015 |
| 12. | TAKLIMAT GERAN PENYELIDIKAN PEMBANGUNAN PROTOTAIP (PRGS) 2015 SESI 1 (S&T) organized by JPBSM, UiTM Shah Alam | 2015 |
| 13. | Data Analysis Using SPSS organized by PTAR 1, UiTM Shah Alam | 2015 |
| 14. | High Impact Publication (HIP) organized by iLQAM, UiTM Shah Alam | 2015 |
| 15. | Bengkel Penulisan Akademik organized by UiTM Cawangan Pulau Pinang | 2014 |
| 16. | Kursus 'Coaching On How To Write A Convincing Research Proposal' organized by UiTM Cawangan Pulau Pinang | 2014 |
| 17. | Bengkel Reference Manager: Mendeley organized by UiTM Cawangan Pulau Pinang | 2014 |
| 18. | Writing PHD Research Proposal organized by UiTM Cawangan Pulau Pinang | 2012 |
| 19. | Kursus EndNote organized by iLQAM, UiTM Shah Alam | 2012 |
| 20. | Academic Writing organized by UiTM Shah Alam | 2011 |
| 21. | Kursus PhD On Time organized by iLQAM, UiTM Shah Alam | 2011 |
| 22. | Kursus EndNote organized by iLQAM, UiTM Shah Alam | 2009 |
| 23. | Kursus SPSS organized by iLQAM, UiTM Shah Alam | 2009 |
| 24. | Kursus MS Word organized by iLQAM, UiTM Shah Alam | 2009 |
| 25. | Kursus MS PowerPoint organized by iLQAM, UiTM Shah Alam | 2009 |
| 26. | Kursus MS Windows Operating System organized by iLQAM, UiTM Shah Alam | 2009 |
| 27. | Kursus Project & Coursework Supervision organized by iLQAM, UiTM Shah Alam | 2008 |

Q. REFEREES



| NO. | DETAILS | CONTACT |
|-----|--|----------------------|
| 1. | Prof. Ts. Dr. Che Khairil Izam Bin Che Ibrahim Head of School of Civil Engineering Universiti Teknologi MARA 40450 Shah Alam Selangor | (+603) 55435237/6413 |
| 3. | Associate Prof. Ts. Ir. Dr. Renga Rao Krishnamoorthy Head of Transport and Infrastructure Smart Manufacturing Research Institute (SMRI) Kompleks Kejuruteraan Sultan Abdul Halim Shah School of Mechanical Engineering College of Engineering Universiti Teknologi MARA 40450 Shah Alam Selangor | (+603) 55435275 |