

CURRICULUM VITAE (CV)



A. MAKLUMAT PERIBADI PERSONAL INFORMATION

1. **NAMA PENUH** : BADORUL HISHAM BIN ABU BAKAR
FULL NAME
2. **GELARAN** : PROFESOR DR
DESIGNATION
3. **NO. KA/P** : 640323086263
ID CARD NO.
4. **TARIKH LAHIR** : 23-3-1964
DATE OF BIRTH
5. **TEMPAT LAHIR** : PARIT, PERAK
PLACE OF BIRTH
6. **JAWATAN** : PENSYARAH
OCCUPATION
7. **WARGANEGARA** : MALAYSIA
NATIONALITY
8. **ALAMAT** : NO. 2, TAMAN ORKID
RUMAH : 34200 PARIT BUNTAR, PERAK
HOME ADDRESS
9. **ALAMAT** : PUSAT PENGAJIAN KEJURUTERAAN AWAM
SURAT MENYURAT : KAMPUS KEJURUTERAAN
UNIVERSITI SAINS MALAYSIA
CONTACT : 14300 NIBONG TEBAL, PULAU PINANG
ADDRESS
10. **(Pejabat/Rumah)** : 04-5996283

(Office/ Home No.)

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 04-5996906

11. **ALAMAT E-MAIL :** cebad@usm.my
E-MAIL ADDRESS

B. KELAYAKAN AKADEMIK
ACADEMIC QUALIFICATIONS

TAHUN YEAR	UNIVERSITI UNIVERSITY	KELULUSAN QUALIFICATION
1984	POLITEKNIK UNGKU OMAR	SIJIL PEMBINAAN
1990	UNIVERSITI TEKNOLOGI MALAYSIA	DIPLOMA KEJURTERAAN AWAM
1993	UNIVERSITI SAINS MALAYSIA	SARJANA MUDA KEJURUTERAAN AWAM
1994	UNIVERSITY OF LEEDS, UK	MSc
1998	UNIVERSITY OF LEEDS, UK	PhD

C. BIDANG KEPAKARAN
FIELD OF EXPERTISE

Masonry Structures	Timber Structures
Concrete Structures	Structural Analysis

D. KEAHLIAN PROFESIONAL
PROFESSIONAL MEMBERSHIPS

BIL. NO.	TAHUN YEAR	BADAN PROFESIONAL PROFESSIONAL BODY/SOCIETY
1.	2009 to date	Board of Engineer Malaysia
2.	2007	MERCY – Council Member
3.	1999 to date	CIDB- TC/Technical Committee Timber Structures
4.	1999-2005	CIDB-SWG/Timber Structures

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| 5. | 2004 to date | SIRIM-TC/Chairman for Technical Committee of Bricks/Blocks |
| 6. | 2011 to date | MTIB-TC/Chairman for Technical Committee of Timber Structures
Institute of Engineers Malaysia (IEM) |
| 7. | 2017 to date | |

E. PERUNDINGAN *CONSULTANCIES*

- | | |
|------|--|
| 2016 | Proposed Structural Repair works and strengthening works for one Tanjong, Tanjong Bungah, Penang |
| 2017 | Structural Assessment of Fire Damaged Unit W8 of 8 Gurney, Persiaran Gurney, Penang |
| 2017 | Fire Damaged of CCL, Penang |

F. ANUGERAH *AWARDS*

- I. Anugerah Perkhidmatan Cemerlang, 2003, National, Universiti Sains Malaysia.
- II. Anugerah International Invention Innovation Industrial Design & Technology Exhibition, ORYBEN 2005 (ITEX 2005) Silver Medal
- III. Anugerah Sanggar Sanjung 2005, Kategori Produk Penyelidikan Kebangsaan
- IV. Anugerah International Invention Innovation Industrial Design & Technology Exhibition, UTILIZATION OF CERAMIC WASTE AS CONCRETE PAVEMENT, 2009 (ITEX 2009) Silver Medal
- V. Anugerah Malaysian Association of Research Scientists (MTE 2013) CRM- Ultra Performance (MTE 2013) Silver Medal
- VI. Anugerah International Conference and Exposition on Invention of Institutions of Higher Learning, PENCIPTA'13 Bronze Medal RETROCRETE- ULTRA HIGH PERFORMANCE CONCRETE REPAIR MATERIAL.
- VII. Anugerah Sanggar Sanjung 2016- Kategori Penerbitan
- VIII. Anugerah Sanggar Sanjung 2015- Kategori Penerbitan
- IX. Anugerah Sanggar Sanjung 2011, 2012, 2013 – Kategori Penerbitan
Anugerah Khidmat Cemerlang, 2009, 2016.
- X. Anugerah Standard Kebangsaan, 2017. Standard Malaysia.
- XI. Anugerah Sanggar Sanjung, 2018. Kategori Geran Antarabangsa.

G. PATENT *PATENT*

Tiada

H. HASIL PENULISAN DAN PENERBITAN
PUBLICATIONS

2013 Badorul Hisham Abu Bakar, et. al, MS 2282-6:2013; Masonry Units – Specification- Part 6: Natural Stone masonry units; 2013; SIRIM BERHAD PUBLISHER
2013 Badorul Hisham Abu Bakar, et. al, MS 2529: 2013; Flexible sheets for waterproofing- Bitumen damp proof course –Definitions and characteristics; 2013; SIRIM BERHAD PUBLISHER

2013 Badorul Hisham Abu Bakar, et. al, MS 2282-6: 2013; Masonry units- Specification-Part 6: Natural stone masonry units; 2013; SIRIM BERHAD PUBLISHER

2014 Badorul Hisham Abu Bakar, et. al, MS 2282-1:2014; Masonry units- Specification-Part 1:Fired clay masonry units; 2014; SIRIM BERHAD PUBLISHER

2014 Badorul Hisham Abu Bakar, et. al, MS 2282-2: 2014; Masonry unit- Specification-Part 2: Calcium silicate masonry units; 2014; SIRIM BERHAD PUBLISHER

2015 Badorul Hisham Abu Bakar, et. al, MS 544-8:2015; Code of practice for structural use of timber-Part 8: design, fabrication and installation of prefabricated timber roof trusses using toothed metal plate connectors; 2015; MTIB/JABATAN STANDARD

2015 Badorul Hisham Abu Bakar, et. al, MS 544-8:2015; Code of practice for structural use of timber-Part 11: Recommendations for the calculation basis for span tables-Section 4: Domestic rafters; 2015; MTIB/JABATAN STANDARD

2017 Badorul Hisham Abu Bakar, et. al, MS 1933-16: 2017; Methods of test for masonry units-Part 16: Determination of dimensions; 2017; SIRIM BERHAD PUBLISHER.

2017 Badorul Hisham Abu Bakar, et. al, MS 1935: 2017; Masonry and masonry pproducts- Methods for determining thermal properties (First Revision); 2017 SIRIM BERHAD PUBLISHER.

2017 Badorul Hisham Abu Bakar, et. al, MS 1933-1: 2017; Methods of test for masonry units-Part 1: Determination of compressive strength; 2017; SIRIM BERHAD PUBLISHER.

2017 Badorul Hisham Abu Bakar, et. al, MS 544 Part 1 : 2017; Code of practice for structural use of timber: General (Second Revision) (First revision); 2017; SIRIM BERHAD PUBLISHER

2017 Badorul Hisham Abu Bakar, et. al, MS 1933-11: 2017; Methods of test for masonry units-Part 11: Determination of water absorption of aggregate concrete, autoclaved aerated concrete, manufactured stone and natural stone masonry units due to capillary action and the initial rate of water absorption of clay masonry units (First revision); 2017; SIRIM BERHAD PUBLISHER

2017 Badorul Hisham Abu Bakar, et. al, MS 544 Pt. 3 : 2017; Code of practice for

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structural use of timber: permissible stress design of glued laminated timber (First revision); 2017; SIRIM BERHAD PUBLISHER

2017 Badorul Hisham Abu Bakar, et. al, MS 544 Pt 2: 2017; Code of practice for structural use of timber: permissible stress design of solid timber (First revision); 2017; SIRIM BERHAD PUBLISHER

2013 to 2017 Tayeh, B.A., Abu Bakar, B.H. & Megat Johari, M.A. Assessment of short- and long-term adhesion performance between UHPFC overlay and existing concrete substrate using pull-off testing. *Journal of Materials Science*. (ISI, Impact Factor 2.015

Tayeh, B.A., Abu Bakar, B.H., Megat Johari, M.A. & Zeyad, A.M. (2013) The role of silica fume in the adhesion of concrete restoration systems *Advanced Materials Research*. Vol. 626. Trans Tech Publication. 626, 265-269.

Tayeh, B.A., Abu Bakar, B.H. & Megat Johari, M.A. (2013). Flexural Strength Behavior of Composite UHPFC - Existing Concrete. *Advanced Materials Research*. Trans Tech Publication. Vol. 701. pp 32-36.

Tayeh, B.A., Abu Bakar, B.H., Megat Johari, M.A. & Ibrahim, A. (2013) Compressive stress-strain behaviour of composite ordinary and reactive powder concrete. *World Applied Sciences Journal*. (Under Review)

Tayeh, B.A., Abu Bakar, B.H., Megat Johari, M.A. Y.L. Voo (2013). Evaluation of bond strength between normal concrete substrate and ultra high performance fiber concrete as a repair material. *Procedia Engineering*.(54) Elsevier. pp554-563

Tayeh, B.A., Abu Bakar, B.H., Megat Johari, M.A. Y.L. Voo .(2013). Utilization of Ultra-High performance fiber concrete (UHPFC) for rehabilitation - a review. *Procedia Engineering*.(54) Elsevier. pp525-538

Ibrahreem, O.F., Abu Bakar, B.H., Johari, I. (2013). Finite element analysis of reinforced concrete spandrel beams under combined loading. *Computers and Concrete*, Vol. 13, No. 1. pp 99-116

Che Norazman, C.W., Ramadhan, P.J., Jayanti, D.S., Abu Bakar, B.H., Arshad, M.F. (2014). Strength of concrete containing rice husk subjected to sodium sulfate solution via wetting and drying cyclic. *Applied Mechanics and Materials*. Trans Tech Publication. Vol. 534. pp 3-8

Ramadhansyah, P.J., Abu Bakar, B.H., Megat Johari, M.A., Wan Ibrahim, M.H., Hainin, M.R., Jayanti, D.S. (2014). Strength and microstructure analysis of concrete containing rice husk ash under seawater attack by wetting and drying cycles. *Advances in Cement Research*. Institution of Civil Engineers. Vol. 26. Issue 3. pp 145-154

Ahmed Tareq Noamana, B.H. Abu Bakar, and Hazizan Md. Akil. The effect of combination between crumb rubber and steel fiber on impact energy of concrete beams. The 5th International Conference of Euro Asia Civil Engineering Forum (EACEF-5). *Procedia Engineering* 125 (2015) pp 825 – 831.

Thaer Jasim Mohammed, B.H. Abu Bakar, N. Muhammad Bunnori and Omer Farouk Ibraheem. Finite element analysis of longitudinal reinforcement beams with UHPFRC under torsion. *Computers and Concrete*, Vol. 16, No. 1 (2015) 1-16

Thaer Jasim Mohammed, B.H. Abu Bakar and N. Muhammad Bunnori. Strengthening

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- of reinforced concrete beams subjected to torsion with UHPFC composite. *Structural Engineering and Mechanics*, Vol. 56, No. 1 (2015) 123-136.
- Karim, F. R., Abu Bakar, B. H., and Kok Keong, C. (2016a). Improvement of Torsional Resistance in Ultra-High Performance Fibre Reinforced Concrete Beams. *Journal of Steel Structures & Construction*, 2(1), 8.
- Karim, F. R., Abu Bakar, B. H., Kok Keong, C., and Aziz, O. Q. (2016b). Enhancement of torsional resistance in fibrous normal strength concrete beams. *International Journal of Research in Engineering and Technology*, 5(4), 123-132.
- Karim, F. R., Abu Bakar, B. H., and Kok Keong, C. (2016c). Influence of Size and Volume Fraction of Fibre on the Compressive and Split Tensile Strength of SFHSC. *ARPN Journal of Science and Technology*, 6(4).
- Karim, F. R., Abu Bakar, B. H., Kok Keong, C., and Aziz, O. Q. (2016d). Influence of double idealized shear flow zones on the torsional resistance in fibrous normal strength concrete beams. *International Journal of Scientific and Research Publications*, 6(8), pp 332-346.
- Karim, F. R., Abu Bakar, B. H., Kok Keong, C., and Aziz, O. Q. (2016e). Influence of fibre size on the compressive strength of ultra-high performance concrete. *International Journal of Emerging Technology and Advanced Engineering*, 6(6).
- Karim, F. R., Abu Bakar, B. H., Kok Keong, C., and Aziz, O. Q. (2016f). Influence of cement and glass powder on the compressive strength of ultra-high performance concrete. *International Journal of Engineering Trends and Technology (IJETT)*, 35(6), pp 243-246.
- Mohammad, H., Siti, Z., Mohamed, N. F., Putra, J. R., Baharuddin, N.K., Abu Bakar, B.H. Evaluation of Bond Strength between Fire-Damaged Normal Concrete Substance and Ultra-High-Performance Fiber-Reinforced Concrete as a Repair Material" (WJE-06-2016-0014.R1)
- Jayanti, D.S., Ramadhansyah, P.J., Abu Bakar, B.H., Hassan, N.A., Hainin, M.R. (2016) Chloride penetration of RHA concrete under marine environment. *Proceeding of the Institution of Civil Engineers*. Vol 169. Issue 2. June. pp 76-85.
- Ferhad, R.K., Abu Bakar, B.H., Keong, C.K., Qarani, Q., (2017) Effect of tension stiffening index on UHPC beams under torsion. 4th. Int. Congress on Technology-Engineering & Science (ICONTES). Kuala Lumpur – August.
- Ahmed Tareq Noaman., Abu Bakar, B.H., Hazizan, Md. Akil., Alani, A.H., (2017). Fracture characteristics of plain and steel fibre reinforced rubberized concrete. *Construction and Building Material*. (JCBM)
- Ahmed Tareq Noaman., Abu Bakar, B.H., Hazizan M.A., (2017). Investigation on the mechanical properties of rubberized steel fiber concrete. *Engineering Structures & Technologies*. Taylor & Francis Group. 9(2): pp. 79–92.
- Lawend, K.A., Abu Bakar, B.H., Bassam, A.T., Zeyad, A.M., (2017). Properties of Ultra-High Performance fiber concrete (UHPFC) under different curing regimes. *Int. Journal of Civil Engineering & Technology (IJCET)*. Vol. 8. Issue. 4. Pp. 965-974.
- Nazri, F.M., Jaya, R.P., Abu Bakar, B.H., Ahmadi, R. (2016), "Fire resistance of ultra-

high performance fibre reinforced concrete due to heating and cooling”, MATEC Web of Conferences, Vo. 87, ISBN 2261236X.

NurKhaidaBaharuddin, Fadzli Mohamed Nazri, Ramadhansyah Putra Jaya and Abu Bakar, B.H. (2016), “Evaluation of Bond Strength between Fire-Damaged Normal Concrete Substance and Ultra-High-Performance Fiber-Reinforced Concrete as a Repair Material”, World Journal of Engineering, Vol. 13, Iss 5, pp. 461-466. [http://dx.doi.org/10.1108/WJE-06-2016-0014]

Abu Bakar, B.H., Ahmed Tareq Naoman, Hazizan M.A., (2017) Cumulative effect of crumb rubber and steel fiber on the flexural toughness of concrete, Engineering Technology & Applied Research. Vol. 7. No. 1. pp 1345-1352

Alasmari, H.A., Abu Bakar, B.H., Akil, H.M. (2019) Influence of steel fibers on flexural behavior of rubberized concrete beam. International Journal of Innovative Technology and Exploring Engineering and TM. Vol. 8, Issue 4. Pg 1108-1115.

Ibrahim, M.H., Abu Bakar, B.H., Emad, A.H., Hazizan, M.A., (2019). Progressive collapse of rubberized concrete : Experimental study. Construction and Building Material. 226. Pp 307-316.

Emad A.H Alwesabi. Abu Bakar, B.H., Ibrahim M.H., Hazizan. M.A. (2020) Experimental investigation on mechanical pproperties of plain and rubberized concretes with steel-polypropylene hybrid fibre. Construction and Building Material. 233. Pp 117-194.

I. SUPERVISION and THESIS EXAMINER

1. Bashar S. Mohammed, **2006**, Analytical and Experimental investigation of strength of single leaf clay brick masonry wall with opening subjected to compressive loading-**(Graduated) Main Supervisor**
2. Ahmad Ruslan Mohd Ridzuan, **2003**, Peningkatan Kekuatan dan Kelasakan Konkrit Kitar Semula – **(Graduated) Co-Supervisor**
3. Alik Duju, Structural stress grading of Sarawak Timbers as Construction Materials – **(Graduated) Main Supervisor.**
4. Iskandar Openg, Deformataion of Malaysian Timber – **(Graduated) Main Supervisor**
5. Izwan Johari , Study of fired-clay brick containing agricultural wastes – **(Graduated) Main Supervisor**
6. Kevin Christian Nair, Creep and moisture movement of kempas and mengkulang for structural application- (on going) Main Supervisor
7. Mohd Fadzil Arshad, A production of Lightweight High Strength Concrete using Malaysian Metakaolin as cement replacement Minerals – **(Graduated) Co Supervisor**
8. Shwan Jalal Abdullah, Dynamic Space Structures – (On going) Co Supervisor
9. Ramadhan Syah Putra , Durability of Concrete Containing Agriculctural Waste as Cement Replacement (RHA) – **(Graduated) Main Supervisor**
10. Gadafi Ismail , Comparison of Strength Properties of Sarawak Fast Growing Indigenous Timber Species - **(Graduated) Main Supervisor**
11. Mohd Haziman Wan Ibrahim, Effects of durability on performance of fired-clay bricks- **(Graduated) Main Supervisor**
12. James Haido , Nonlinear Dynamic Analysiss of Steel-Fiber Reinforced Concrete Beams and

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Slabs (Graduated) Main Supervisor

13. Mustafa M.M Al; Tayeb. Modeling of structure response of rubberized concrete subjected to high impact load **(Graduated) Main Supervisor**
14. Bassam A.O.Tayeh. Characteristics of Interfacial bonding between normal concrete substrate and ultra high performance fiber concrete repair material **(Graduated) Main Supervisor.**
15. Nor Hazurina Othman. **(2014)** Penilaian Kualiti Konkrit Campuran Berasakan Kulit Kerang Sebagai Agregat. **(Graduated) Main Supervisor.**
16. Omer Farouk. **(2015)** Influence of steel fibers on structural behaviour of spandrel beams under combined loading. **(Graduated) Main Supervisor.**
17. Thaer Jasim Mohammed, **(2016)** Improving Torsional Behaviour of Reinforced Concrete Beam Strengthened with Ultra High Performance Fibre Reinforced Concrete. **(Graduated) Main Supervisor.**
18. Ferhad Rahim Karim. **(2016)** Behavior of under –reinforced shallow fibrous concrete beams subjected to pure torsion. **(Graduated) Main Supervisor.**
19. Ahmed Tareq Noaman. **(2017)** Effect of crumb rubber aggregate on toughness and impact energy of steel fiber concrete. **(Graduated).** Main Supervisor.
20. Hassan Almasri. **(2019)** Influence of steel fibres on flexural behaviour of rubberised and hybrid rubberised concrete beam. **(Graduated).** Main Supervisor.
21. Mohd Zulham Affandi Mohd Zahid. **(2019)** Rehabilitation of fire damaged reinforced concrete columns using ultra high performance . (Graduated). Main Supervisor.
22. Syahmi Saari. (2020). Effect of non-uniform engineering properties of interlocking compressed earth brick (ICEB) on the masonry structures. (Graduated). Main Supervisor.

Thesis External Examiner

1. M.Eng. in Civil Engineering, **2001**. Behaviour of Floor and Wall Joint in the Interlocking Masonry Structures, Universiti Teknologi Malaysia, UTM.
2. M. Eng. in Civil Engineering, **2009**. Properties of concrete containing crumb rubber particles as partial replacement of fine aggregate, Universiti Tenaga Nasional, UNITEN.
3. M. Eng. In Civil Engineering, **2010**. The development of high performance eco-green concrete mixes. UTP.
4. PhD in Civil Engineering, **2009**. Structural behaviour of pretensioned inverted T-Beams with circular web openings strengthened with glass fiber reinforced polymer (GFRP). Universiti Tenaga Nasional, UNITEN.
5. MSc in Civil Engineering, **2011**. Precast Concrete Structures. Universiti Teknologi Melaka, UTEM.
6. PhD in Civil Engineering, **2012**. A method in performance measurement of concrete practice. UM.
7. PhD in Civil Engineering, **2014**. Optimization of steel fibre reinforced concrete as concrete topping in composite slab construction. UTM.
8. Nur Hidayah Roslan. MSc in Civil Engineering, **2014**. Evaluation of by product from steel industry as cement replacement. UTM
9. PhD in Civil Engineering, **2015**. Analytical and finite element modeling of high performance fiber reinforced concrete beams. UTP.
10. PhD in Mechanical Engineering, **2015**. Slow Drift Identification of Floating Structures Using Time-Varying Input-Output Models. UTP
11. MSc in Civil Engineering, **2015**. Non-Destructive evaluation of concrete hydration process using electrochemical impedance and wave propagation techniques. UMS.

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12. PhD in Civil Engineering, **2015**. Experimental investigation and mathematical modeling of mechanical properties of shook and finger jointed timber. University of Canterbury, New Zealand.
13. PhD in Civil Engineering, **2016**. Study on shear repair of two span continuous beams with different CFRP orientation under sustained loading. **UTHM**.
14. PhD in Civil Engineering, **2016**. Reliability Study on Reassessment of Ageing Offshore Jacket Platforms in Malaysian Waters. **UTP**.
15. Wan Anizah Wan Jusoh, **2016**. The mechanical properties and performance of hybrid steel. **UTM**
16. Phd in Civil Engineering, **2017**. Structural panel behavior of reinforced lightweight concrete wall panel with opening under axial load. **UiTM**.
17. Phd in Civil Engineering, **2017**. Unfired foam brick made of stabilized coal ash with lime-activated GGBS. **UiTM**
18. Phd in Civil Engineering, **2017**. The effect of treated ultrafine palm oil fuel ash on the alkali-silica reaction. **UMS**.
19. PhD in Civil Engineering, **2017**. Kenaf fiber reinforced concrete for reinforced concrete elements. **UTM**.
20. Oritola Sikiru Folahan. PhD in Civil Engineering, **2017**. Flexural performance of reinforced beam using iron ore tailings. **UTM**
21. PhD in Civil Engineering, **2017**. Thermally efficient sustainable hybrid building wall system. **UTHM**.
22. Mahdi Razavi Setvati. PhD in Civil Engineering, **2018**. Repair of damaged circular hollow sectional steel beam by CFRP patch. **UTP**.
23. Mohamed M. Mustafa. PhD in Civil Engineering, **2018**. Low velocity response analysis on RC beam incorporated with concrete block infill consisting of MAPEA. **UTHM**.
24. Imohamed Ali Omar Imohamed. PhD in Civil Engineering, **2018**. Shear strength of concrete beams reinforced with glass fiber reinforced polymer (GFRP) bars without stirrups. **UTHM**.
25. Muhammad Aswin. PhD in Civil Engineering, 2018. Performance of reinforced concrete and reinforced engineered cementitious composites dapped-end beams. UTP.
26. Norwahyuni Mohd Yusof. MSc in Wood Science, 2018. Bonding and mechanical properties of cross-laminated timber (CLT) manufactured from Acacia Mangium wood. UPM.
27. Raihana Mohamad Hata. MSc in Civil Engineering, 2018. Thermal conductivity of selected tropical timber using hot box method. UiTM
28. Wan Amizah Wan Jusoh. PhD in Civil Engineering, 2018. Engineering properties and structural performance of steel-polypropylene-fibre reinforced composite concrete. UTM.
29. Anas Qasim Khalaf Al-Alwani. PhD in Civil Engineering, 2018. Structural behavior of precast self compacting concrete wall panels (PSCC) with polypropylene fibre subjected to cyclic load. UTHM.
30. Norhana Abdul Rahman. PhD in Civil Engineering, 2018. Properties of polyethylene terephthalate (PET) rubberized concrete. UiTM.
31. Mohd Ibrahim Mohd Yusak. PhD in Civil Engineering, 2018. Properties of porous concrete pavement containing nano silica from rice husk. UTM.
32. D Jawaharlal. PhD in Civil Engineering, 2019. Study on strengthening of negative moment region of external beam-column junction. Faculty of Engineering and Technology, Education and Research Institute, Maduroyal, Chennai, India.
33. Balamohan a/l Balakrishnan. 2019. Durability behavior of grout and masonry cement mortar containing high volume fly ash for structural and non-structural repair.
34. Wissam Mushina Obeed. (2020). Development of method strength performance and design for timber and timber concrete composite (TCC) beam with post-tensioning solution. UTHM.
35. Norhafizah Salleh. (2020). Flexural behavior of GRFP reinforced concrete beams strengthened with CFRP plate. UTM
36. Shujaatullah Sheikh. (2020). Flexural strengthening of glue laminated timber beams with FRP composites. UTM

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Internal Examiner

1. M.Sc in Civil Engineering, **2001**. A study of Sulphate Attack on Mortar and Concrete, Universiti Sains Malaysia, USM.
2. PhD in Civil Engineering, **2007**. Engineering properties and clogging behaviour of double layer porous asphalt, Universiti Sains Malaysia.
3. PhD in Civil Engineering, **2007**. A computational study on a nature inspired novel folded shell structural form, Universiti Sains Malaysia.
4. M.Sc in Civil Engineering, **2008**. Faktor yang menyumbang kepada kemalangan dalam sektor pembinaan
5. M.Sc in Civil Engineering, **2008**. Steel slag as an aggregate replacement in bituminous asphalt.
6. PhD in House Building and Planning, **2009**. Kekuatan lentur konkrit ferosimen terubahsuai, Universiti Sains Malaysia.
7. M.Sc in Civil Engineering **2009**,. Kesan Keadaan Pendedahan Terhadap Prestasi Kekuatan dan ciri-ciri ketahanan lasakan konkrit yang mengandungi metakaolin, Universiti Sains Malaysia.
8. PhD in Civil Engineering, **2013**. Properties and performance of engineered cementitious composites containing palm oil fuel ash. Universiti Sains Malaysia
9. PhD in Civil Engineering, **2013**. Influence of steam curing on engineering and fluid transport properties of high strength green concrete containing palm oil fuel ash. Universiti Sains Malaysia.
10. PhD in Civil Engineering, **2013**. Water sensitivity of warm mix porous asphalt incorporating sasobit®. Universiti Sains Malaysia.
11. M.Sc in Civil Engineering, **2013**. Influence of palm oil fuel ash as a supplementary binder on properties of self-compacting concrete. Universiti Sains Malaysia.
12. PhD in Civil Engineering, **2014**. Analysis of Acoustic Emission Data Parameters on reinforced concrete beams for structural health monitoring applications. Universiti Sains Malaysia.
13. PhD in Geomatic, **2015**. Combined Zig-zag measurement with least square adjustment for an innovation EDM Test. USM.
14. PhD in Civil Engineering, **2017**. Effects of aging, production temperature and moist aggregates on performance and moisture sensitivity of warm mix asphalt incorporating RH-WMA additive. USM.
15. PhD in Civil Engineering, **2017**. Reinforced concrete box beam strengthened by carbon-fiber-reinforced polymer subjected to shear, torsion, and combined action. USM.
16. PhD in Civil Engineering, **2017**. Experimental investigation of post-fire behaviour of concrete – filled double skin steel tubular columns repaired with single and hybrid fiber reinforced fabric. USM.
17. PhD in Civil Engineering, **2017**. Reinforced concrete box beam strengthened by Carbon-Fiber-reinforced polymer subjected to shear, torsion and combined action. USM.
18. PhD in Civil Engineering, **2017**. Gabungan kaedah pengukuran zig-zag dengan penyelesaian kuasa dua terkecil dalam inovasi ujian jarak EDM. USM.

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19. Bashir M Bashir Aburawi. PhD in Civil Engineering, **2017**. Kesan pengusuaan, suhu pengeluaran dan agregat lembab ke atas prestasi dan kepekaan lembapan campuran asphalt suam yang mengandungi bahan tambah RH-WMA. USM.
20. Salami Babatunde Abiodun. PhD in Civil Engineering, **2018**. Development of POFA based engineered alkali-activated cementitious composites. USM.
21. Ali Yousefi. PhD in Civil Engineering, **2018**. Investigation on the micro-cracks growth in cement mortars reinforced with multi-walled carbon nanotube using acoustic emission technique. USM.
22. Firas Ismael Salman Al-Juboori. PhD in Civil Engineering, **2018**. Optimum design for continuous I-Girder bridges using sequential unconstrained minimization technique (SUMT). USM.
23. Norfaniza Mokhtar. PhD in Civil Engineering, **2018**. Effect of microbial activity of immobilized bacillus sphaericus on properties of Portland cement mortar. USM.
24. Foad Mohamed Elkut. PhD in Civil Engineering, **2018**. Effects of aging on binder rheological properties and performance of gap graded asphalt mixture subjected to moisture conditioning. USM
25. Seyed Reza Omranian. PhD in Civil Engineering, **2018**. Estimation and simulation of asphalt mixtures performance subjected to short-term aging based on Malaysian conditions. USM
26. Ali Yousefi. PhD in Civil Engineering, **2018**. Development of cementitious nanocomposite reinforced with multi-walled carbon nanotubes an micro-crack growth investigation using acoustic emission technique. USM.
27. Nuril Izzeaty Ishak. 2019. Influence of RHA and GGBS as Ternary Blended Binders on properties of high strength green concrete. USM
28. Mohammed Ibrahim. 2019. Pembangunan konkrit teraktif alkali berasaskan pozolan semulajadi menggabungkan nano-silika. USM.
29. Ong Chong Yong. 2020. Kesan sifat keratan dan geometri struktur ke atas keupayaan beban jambatan gerbang spandrel tertutup konkrit pra-tulang dengan keratan berlipat. USM
30. Akhtam Hatem Qasim. 2020. Kelestarian konkrit berpretasi tinggi yang mengandungi abu sisa bahan bakar kelapa sawit terawatt halus (UPOFA) dan gentian polyethylene teraphthalate. USM.
31. Abdullah Muftah Meshaz. 2020. Evaluation of performance of alkaline activated mortars synthesized from ternaryblends of ultrafine palm oil fuel ash, ground granulated blast-furnace slag and metakaolin.
32. Nuril Izzeaty Ishak. 2020. Influence of RHA and GGBS as ternary blended binders on properties of high strength green concrete.
33. Khairul Anuar Shahid. 2020. Structural health monitoring and corroded reinforced concrete beams based on acoustic emission technique.

1. AWARD AND RECOGNITION

2. Anugerah Perkhidmatan Cemerlang, 2003, Universiti Sains Malaysia.
3. Anugerah International Invention Innovation Industrial Design & Technology Exhibition, **ORYBEN 2005** (ITEX 2005) Silver Medal
4. Anugerah Sanggar Sanjung **2005**, Kategori Produk Penyelidikan Kebangsaan
5. Anugerah International Invention Innovation Industrial Design & Technology Exhibition, **UTILIZATION OF CERAMIC WASTE AS CONCRETE PAVEMENT**, 2009 (**ITEX 2009**) Silver Medal
6. Hadiah Sanjungan 2010 : Kategori Penerbitan Jurnal
7. Anugerah Malaysian Association of Research Scientists (MTE 2013) **CRM- Ultra Performance** (MTE 2013) Silver Medal
8. Anugerah International Conference and Exposition on Invention of Institutions of Higher Learning, **PENCIPTA'13** Bronze Medal **RETROCRETE- ULTRA HIGH PERFORMANCE CONCRETE REPAIR MATERIAL**.
9. Anugerah Sanggar Sanjung 2012: Kategori Penerbitan Jurnal
10. Anugerah Sanggar Sanjung 2014 : Kategori Penerbitan Jurnal

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11. Anugerah Perkhidmatan Cemerlang, 2016, Universiti Sains Malaysia.
12. Anugerah Tokoh Standard Kebangsaan, 2017, Standard Malaysia.

M. TRAINING, ATTACHMENT AND VISITING

1. Visiting Lecturer, School of Environment, University of Brighton, April 2004, 1 month.
2. Visiting Lecturer, Department of Chemical Process Engineering, University of Canterbury, Christchurch, New Zealand, (1 month) May 2006.
3. Visiting Professor, Department of Building and Environment, Leeds Metropolitan University, U.K (1 Month) September 2008
4. Visiting Professor, Chungnam University, Daejeon, South Korea, December 2012.
5. Visiting Professor, Salahaddin University, Erbil, Iraq, 2009, 2013 and 2015
6. Sabbatical Leave to Cardiff University, 2014 to 2015 (9 months plus 2 month research leave).
7. Visiting Professor at Universiti Sumatra Utara, Fakultas teknik Sipil, 2019
8. Visiting Professor at Osmangazi University, Turkey, 3 Feb to 10 Feb, 2020

N. PROFESSIONAL ACTIVITIES AND EXECUTIVE COMMITTEE

National Level

1. **Chairman of Technical Committee (TC)** for “Clay bricks/Blocks”, SIRIM, **2004 to date**
2. **Chairman of Technical Committee (TC)** for “Timber Structures”, **MTIB**, 2015 to 2017.
3. **Chairman of Working Group Committee (WG)** for MS, Part 11 – Recommended Span Tables and Their Calculation, **MTIB, 2008 to date**
4. Committee of Working group on “MS 544: Recommendations For the Calculation Basis for Span Tables SWO/CIDB/SQ/WG7, Construction Industry Development Board Malaysia, (1999 – 2004)
5. Committee of Working group on “MS 544 : Part 8 : Prefabricated Timber Structure for Roof Trusses” SWO/CIDB/TC4/WG5, Construction Industry Development Board Malaysia, (1999 – 2006)
6. Technical Committee for “MS 544 Code of Practices for Structural Use of Timber” SWO/CIDB/TC4, Construction Industry Development Board Malaysia, (1999 – present)
7. Technical Evaluation (Expert Panel Group) for IRPA, Construction Industry Development Board Malaysia, (1999)
8. Technical Evaluation (Expert Panel Group) for IRPA, Construction Industry

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Development Board Malaysia, (2000)

9. Ad-hoc Committee To Proposed Quality Assurance Scheme For Prefabricated Timber Trusses System, (2001-2003).
10. Senior Councilor For International Graduate School, IGS, Kajang Selangor, (2001 – present)
11. Ahli Jawatankuasa Kecil Pendidikan – Kayu Dalam Pembinaan (UiTM/FRIM), 2003 to date
12. Ahli Kumpulan Fokus 'Construction Ergonomics' (FG10) CIDB, 2003 hingga 2006
13. Ahli Jawatankuasa Kumpulan Kerja "Clay Bricks", SIRIM. 2003 to date
14. Timber Technology and Engineering Information Resources (TTEIR)- Working Committee, 2005 to date

Jawatan-Jawatan Yang Pernah disandang semasa Perkhidmatan:

- 1. Pengerusi Rancangan Jaringan Industri dan Masyarakat, USM. 2007-2009**
- 2. Timbalan Dekan, Ijazah Tinggi dan Penyelidikan, Pusat Pengajian Kejuruteraan Awam, 2009-2013**
- 3. Pengarah, Jabatan Pembangunan dan Pengurusan Aset, USM. 2019**