

## SHAZA RINA SAHAMIR (Ts, Dr)

Lecturer

Centre of Studies for Construction  
Faculty of Architecture, Planning and Surveying  
Universiti Teknologi MARA,  
40450 Shah Alam,  
Selangor, Malaysia.

Humanities, Design & Creativity (HDC)  
Research Nexus UiTM (ReNeU): Energy & Environment (EE)



+603-5544 4338  
shaza\_rina@uitm.edu.my



### Areas of Expertise

Green Development, Construction Technology, ICT in Construction, Operation Management in Construction

<https://expert.uitm.edu.my/profile.php?id=9AEcWn03pcCreGvT+URGQdUBLAR8z51/LJ00KOyhuBE=>

<https://www.scopus.com/authid/detail.uri?authorId=56695366200>

[https://www.researchgate.net/profile/Shaza\\_Sahamir2](https://www.researchgate.net/profile/Shaza_Sahamir2)

<https://scholar.google.com/citations?user=7MlibYcAAAAJ&hl=en>

### Personal Information

Shaza Rina Sahamir,  
Centre of Studies for Construction

### Academic Qualifications

PhD in Civil Engineering, 2020, Universiti Teknologi Malaysia  
Master of Science in Integrated Construction Project Management, 2007, Universiti Teknologi MARA  
Bachelor of Science (Hons.) in Construction Management, 2005, Universiti Teknologi MARA  
Diploma in Building, 2003, Universiti Teknologi MARA

## **Professional Members**

1. Professional Technologist. Malaysia Board of Technologists (MBOT), 2018 - present

## **Teaching and Learning**

1. Master, July 2019 – present, Design Process and Construction Management, Lecture
2. Degree, Mar 2015 – present, Construction Systems and Analysis, Lecture and Tutorial
3. Degree, Mar 2015 – present, Information and Communication Technology in Construction, Lecture and Tutorial
4. Degree, Mar 2020 – present, Building Construction and Materials, Lecture and Tutorial
5. Diploma, Dec 2006 – Apr 2010, Information and Communication Technology, Lecture and Tutorial
6. Diploma, Dec 2006 – Apr 2010, Construction Technology, Lecture and Tutorial
7. Diploma, Dec 2007 – Apr 2010, Site Management, Lecture and Tutorial
8. Diploma, Dec 2007 – Apr 2010, Building Economics, Lecture and Tutorial
9. Diploma, Dec 2006 – Apr 2007, Environmental Science, Lecture and Tutorial

## **Student Supervision**

Master, 2020, Muhammad Hasif Bin Md Mutakin The Impact of COVID-19 Pandemic Towards G7 Construction Firms.

Degree, 2019, Farra Diba Qestina Ibrahim, Success Factors in Managing Construction Site for Green Building Projects (Main Supervisor), Anugerah Disertasi Terbaik 2019 – Centre of Studies for Construction.

Degree, 2018, Nur Aqilah Zainul Abidin, Assessing Daylight Performance on Students' Social and Cognitive Skills in FSPU, UiTM Shah Alam (Main Supervisor), Anugerah Disertasi Prof. Dr. Roshana Takim 2018 – Centre of Studies for Construction, Gold Award Oral Presentation BEURC2018, Gold Award Poster Presentation BEURC2018.

Degree, 2017, Syazwan Mohamad Shahrum, The Development of Dynamic Criteria for Green Port and Sustainability Performance Baseline in Malaysia (Main Supervisor), Best Overall Winner BEURC2017 & First Place Oral Presentation BEURC2017.

Degree, 2017, Muhammad Lukman Rahmat, Factors Affecting Safety Performance of G7 Contractors for Construction Sites in Developing Area of Selangor (Main Supervisor), Anugerah Disertasi Prof. Dr. Ismail Rahmat 2017 – Centre of Studies for Construction.

## **Publications**

- Sahamir, S. R., Zakaria, R., Omar, M. F., Shakri, M. R., Chughtai, M. W., Mustafar, M., & Rooshdi, R. R. R. M. (2019). Energy Efficiency Criteria for Planning and Design of Green Hospital Buildings Rating System. IOP Conference Series: Materials Science and Engineering, 620(1). <https://doi.org/10.1088/1757-899X/620/1/012082>
- Sahamir, S. R., Zakaria, R., Raja Muhd Rooshdi, R. R., Ismail, N. A. A., & Mohmad Zainordin, Z. (2019). Key influencing factors for green public hospital building development in Malaysia. MATEC Web of Conferences, 266, 01025. <https://doi.org/10.1051/matecconf/201926601025>
- Ismail, N. A. A., Maisham, M., Mohd Zaki, Z. A., Muhammad Rooshdi, R. R. R., & Sahamir, S. R. (2019). The mediating effects of cost estimates reliability on BIM adoption: SEM model analysis. IOP Conference Series: Earth and Environmental Science, 385(1). <https://doi.org/10.1088/1755-1315/385/1/012070>

- Ismail, N. A. A., Ramli, H., Ismail, E. D., Rooshdi, R. R. R. M., Sahamir, S. R., & Idris, N. H. (2019). A Review on Green BIM Potentials in Enhancing the Construction Industry Practice. MATEC Web of Conferences, 266, 01023. <https://doi.org/10.1051/matecconf/201926601023>
- Khan, J., Zakaria, R., Shamsudin, S., Abidin, N., Sahamir, S., Abbas, D., & Aminudin, E. (2019). Evolution to Emergence of Green Buildings: A Review. Administrative Sciences, 9(1), 6. <https://doi.org/10.3390/admsci9010006>
- Zainordin, Z. M., Rahman, N. A. A., Sahamir, S. R., & Khalid, Z. K. M. (2019). Methods of Valuing Construction Variation in Lump Sum Contract from the Public Client's Perspective. MATEC Web of Conferences, 266, 03023. <https://doi.org/10.1051/matecconf/201926603023>
- Ismail, N. A.A., Idris, N. H., Ramli, H., Muhammad Rooshdi, R. R. R., & Sahamir, S. R. (2018). The relationship between cost estimates reliability and BIM adoption: SEM analysis. IOP Conference Series: Earth and Environmental Science, 117(1), 0–6. <https://doi.org/10.1088/1755-1315/117/1/012045>
- Khan, J. S., Zakaria, R., Aminuddin, E., Abidin, N. I., Sahamir, S. R., Ahmad, R., & Abas, D. N. (2018). Web-based automation of green building rating index and life cycle cost analysis. IOP Conference Series: Earth and Environmental Science, 143(1). <https://doi.org/10.1088/1755-1315/143/1/012062>
- Adiana Abidin, N. I., Aminuddin, E., Zakaria, R., Shamsuddin, S. M., Sahamir, S. R., Shahzaib, J., & Abas, D. N. (2018). Development of weightage for criteria affecting in retrofitting of existing building in Higher Learning Institution with clean energy initiatives. IOP Conference Series: Earth and Environmental Science, 143(1). <https://doi.org/10.1088/1755-1315/143/1/012033>
- Hanib, A. A., & Sahamir, S. R. (2018). Green Implementation Water Theme Park in Malaysia. The Journal of Social Sciences Research, (SPI 2), 437–444. <https://doi.org/10.32861/jssr.spi2.437.444>
- Shaza Rina Binti Sahamir, Rozana Zakaria, Gamal Alqaifi, Nurizieadiana Abidin, Raja Rafidah Bt Raja Muhammad Rooshdi (2017). Investigation of Green Assessment Criteria and Sub-Criteria for Public Hospital Building Development in Malaysia, Chemical Engineering Transactions, AIDIC, page no: 307, vol: 56
- Shaza Rina Binti Sahamir, Rozana Zakaria, Gamal Alqaifi, Nurizieadiana Abidin, Raja Rafidah Bt Raja Muhammad Rooshdi (2017). Investigation of Green Assessment Criteria and Sub-Criteria for Public Hospital Building Development in Malaysia. Proceeding Paper. 2nd International Conference of Low Carbon Asia (ICLCA).
- Raja Rafidah Bt Raja Muhammad Rooshdi, Muhd Zaimi Abd Majid, Shaza Rina Binti Sahamir (2017). Weightage Factor for Criteria of Design and Construction for Green Highway, Chemical Engineering Transactions, AIDIC, pageno: 355, vol: 56.
- Shamsuddin, S. M., Zakaria, R., Hashim, N., Mohamad Yusukan, N., Sahamir, S. R., & Abidin, N. I. (2017). A framework of initiatives for successful application of life cycle costing (LCC) in industrialised building system (IBS) in Malaysian construction industry. MATEC Web of Conferences, 138. <https://doi.org/10.1051/matecconf/201713805002>
- Abidin, N. I., Zakaria, R., Aminuddin, E., Abdul Hamid, A. R., Munikanan, V., Sahamir, S. R., & Shamsuddin, S. M. (2017). Factor Analysis on Criteria Affecting Lean Retrofit for Energy Efficient Initiatives in Higher Learning Institution Buildings. MATEC Web of Conferences, 138. <https://doi.org/10.1051/matecconf/201713802025>
- Nur Izie Adiana, Rozana Zakaria, Nurul Noraziemah, Gamal Nabil Alqaifi, Shaza Rina Binti Sahamir, Siti Mazzuanna Shamsudin (2017). Energy Efficiency Initiatives in A Campus Building, Chemical Engineering Transactions, AIDIC, page no: 1, vol: 56
- Gamal Alqaifi, Rozana Zakaria, Mohamad Sukeri Khadid, Shaza Rina Sahamir (2016). Association and Influence of risk criteria to decision making of green building investment in Higher Educational Campuses. UTM-ISSDM-069.
- Shaza Rina S., Rozana, Z., Mohd faizal, O., Md Rajuna, S., Mushairry, M., Raja Rafidah R. M. R., (2016). Energy Efficiency Criteria for Planning and Design of Green Hospital Buildings Rating System. Proceeding Paper.
- Raja Rafidah, R. M. R., Muhd Zaimi A. M., Shaza Rina, S., (2015). Sustainable Design and Construction Elements in Green Highway. Jurnal Teknologi. 72:1 (2015) 1-6
- Mehrakhsh N., Rozana Z., Othman I., Muhd Zaimi, A. M., Rosli M. Z., Muhammad Waseem, C., Nur Izieadiana, Z. A., Shaza Rina, S., Dodo, A. Y., (2015). A knowledge-based expert system for assessing the performance level of green buildings. Knowledge-Based Systems. 86: 194-209.
- Emma Marinie Binti Ahmad Zawawi (Dr.), Nurul Asra Binti Abd. Rahman, Zainab Binti Mohamad Zainordin, Shaza Rina Binti Sahamir (2015). Knowledge-based method for managing occurrence of variations, RMU FSPU,1
- Shaza Rina, S., Rozana, Z., (2014). Identification of Elements for green public healthcare building in Malaysia. American-Eurasian Journal of Sustainable Agriculture. 8 (13): 1-5

- Shaza Rina, S., Rozana, Z., (2014). Green Assessment Criteria for Public Hospital Building Development in Malaysia. *Procedia Environmental Sciences*. 20: 106 -115
- Shaza Rina, S., Zakaria, R., Ibrahim O., Nawawi A.H & Mazlan A.N., (2013). Dissemination of Knowledge: Overview in Malaysian Construction Organisation. *Malaysian Journal of Civil Engineering*. 25 (1): 133-148.
- Mohd Suhami, S., Zawawi, I., Gopala Krishnan, S. N., Shaza Rina, S., Kamaruzzaman, J., (2010). Gui Based Remote On/Off Control and Monitoring Single Phase Lamp Using Microcontroller. *International Journal on Computer Science and Engineering*. 2 (4); 1401-1405
- Rafizah, M. N., Shaza Rina, S., Nurul Asra, A. R., Mohd Suhami, S., (2009). Kemudahan Musolla: Satu Tinjauan Perspektif di Beberapa Bangunan Komersial dan Pelancongan Sekitar Kuching, Sarawak. Proceeding paper: Konferensi Seminar Serantau Perkembangan Islam Borneo.
- Jamaludin, M. A, Noorsaidi, M., Shaza Rina, S., Rafizah, M. N., Nurul Asra, A. R., (2009). Membudayakan Penyelengaraan Masjid: Satu Tinjauan di Daerah Kota Samarahan, Sarawak. Proceeding paper: Konferensi Seminar Serantau Perkembangan Islam Borneo.

## **Research Grants and Contracts**

RACER, 2019-2021, Smart Lean-BIM Collaborative Framework in Harnessing Sustainability for Construction Projects in Malaysia, RACER/1/2019/SSI11/UITM//2 (RM25,200.00), Member.

CRG, 2018-2021, The Development of Economic Analysis for Malaysia Green Rural Road Index (MyRRI), 100-IRMI/GOV 16/6/2 (005/2019) (RM20,000), Member.

PRGS, 2017-2019, Web-Based Automation of Green Buildings Rating Index and Life Cycle Cost Analysis, PRGS/1/2017/TK10/UTM/02/4 (RM94,000.00), Member.

LESTARI, 2016, Investigation of Sustainable Fuel Consumption On Highway Construction Machineries, 600-IRMI/DANA 5/3/LESTARI (0153/2016) (RM20,000.00), Member.

FRGS, 2014-2016, A Sustainability Rating System for Malaysian Healthcare Buildings Using Fuzzy Inferences System (FIS) and Multi-Criteria Decision Making (MCDM) Technique, FRGS/2/2014/TK06/UTM/02/3 (RM91,000.00), Member.

## **Innovation, Commercialization & Entrepreneurial**

Knowledge-Based Expert Opinion Towards Successful of ICT Adoption in Construction Projects, International Invention, Innovation and Design (IIID 2018), UiTM Caw. Negeri Sembilan, 2018, Leader.

A Practical Framework for Fuel Consumption Reduction on Highway Machineries, International Invention, Innovation and Design (IIID 2018), UiTM Caw. Negeri Sembilan, 2018, Member.

A Strategy Framework of Cost Estimating Incorporating BIM for Quantity Surveyors, International Invention, Innovation and Design (IIID 2018), UiTM Caw. Negeri Sembilan, 2018, Member.

## **Services & Administration**

Lecturer, 2011 – present. Centre of Studies for Construction, FSPU, UiTM Shah Alam  
Lecturer, 2007 – 2010. Department of Building, FSPU, UiTM Sarawak  
Penyelaras FSPU, iCEPS, Oct 2020 – present. Institute of Continuing Education and Professional Studies, UiTM Shah Alam  
Co-Chair, 2020 – 2021, International Conference on the Built Environment and Engineering (IConBEE).  
Coordinator of Curriculum, 2020 – present. Centre of Studies for Construction, FSPU, UiTM Shah Alam  
Coordinator of Final Examination (Operation), 2015 – 2020. Centre of Studies for Construction, FSPU, UiTM Shah Alam  
Coordinator of Practical Training, 2008 – 2020. Centre of Studies for Construction, FSPU, UiTM Shah Alam  
Resource Person, 2017 – present. Centre of Studies for Construction, FSPU, UiTM Shah Alam  
Academic Advisor, 2017 – present. Centre of Studies for Construction, FSPU, UiTM Shah Alam

## **Awards & Recognitions**

National e-Content Development 2020, iCEPS UiTM, Lab-Based TeaMate, 2020, Leader, Silver Award.  
National e-Content Development 2020, iCEPS UiTM, Info Video: Clear Water from Your Tap, 2020, Member, Silver Award.  
National e-Content Development 2020, iCEPS UiTM, Info Video: Construction Technology - Infrastructure works, 2020, Member, Bronze Award.  
Academic Advisor Award, FSPU, Majlis Anugerah Kecemerlangan Fakulti, 2019, Best Academic Advisor.  
International Invention, Innovation and Design (IIID 2018), UiTM Caw. Negeri Sembilan, Knowledge-Based Expert Opinion Towards Successful of ICT Adoption in Construction Projects, 2018, Leader, Silver Award.  
International Invention, Innovation and Design (IIID 2018), UiTM Caw. Negeri Sembilan, A Practical Framework for Fuel Consumption Reduction on Highway Machineries, 2018, Member, Bronze Award.  
International Invention, Innovation and Design (IIID 2018), UiTM Caw. Negeri Sembilan, A Strategy Framework of Cost Estimating Incorporating BIM for Quantity Surveyors, 2018, Member, Bronze Award.  
Pertandingan Poster Persidangan Akademik Komuniti Universiti Malaya, UMCares, 28 – 29 November 2017, Third place.  
Presenter Award, International Conference on Engineering management, 2014, Best Presenter Award.

## **Contribution to Society**

CM Musolla Friendly (Green Cleaning), Centre of Studies for Construction, UiTM Shah Alam Campus 15 Oct 2019, Leader.  
Comfest 2019 - Construction Management Festival, Centre of Studies for Construction, 11 – 13 Apr 2019, Head of CoMRUN  
Program Khidmat Masyarakat Bersama Komuniti Taman Maju, Centre of Studies for Construction, Jasin Melaka 13-14 October 2017, Advisor.  
CM Recycle Community, Hari Construction Management (CM) Bersama Industri, Centre of Studies for Construction, 30 Mar 2018, Advisor.  
Green Awareness - Waste Separation Campaign, Centre of Studies for Construction, AEON Bandaraya Melaka, 23 November 2015, participant  
Social Welfare program, Centre Centre Of Studies for Construction of Studies for Construction, Desa Wakaf Fahmi, 9 Apr 2016, Participant

## **Other Activities**

Program Induksi Pelajar, Centre Of Studies for Construction, 3 – 4 November 2018, Teratak Bernam Riverview, Tg Malim perak, Advisor

Dissertation Clinics, Centre Of Studies for Construction 2012 – present

Sukan Antara Staf (SASSA2019), UiTM, Futsal, FSPU, player

Sukan Antara Staf (SASSA2019), UiTM, Archery, FSPU, player

Sukan Antara Fakulti (SAF2018), Mountain Bikes (MTB), Manager