



INTERNATIONAL JOURNAL OF BUILT ENVIRONMENT & SUSTAINABILITY

eISSN 2289-8948

Vol 7, No 2 (2020)

<https://ijbes.utm.my/>



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

CHIEF EDITOR

Professor Ts. Dr. Mohd Hamdan Ahmad, Universiti Teknologi Malaysia

MANAGING EDITOR

Dr. Shamsul Hadi Bandi, PQS, Universiti Teknologi Malaysia

SECTION EDITORS

Assoc. Prof. Dr. Alice Sabrina Ismail, Universiti Teknologi Malaysia, Malaysia

Dr. Gabriel Ling, Universiti Teknologi Malaysia, Malaysia

Dr. Norhazren Izatie Mohd, Universiti Teknologi Malaysia, Malaysia

Dr. Nurul Hawani Idris, Universiti Teknologi Malaysia, Malaysia

Dr. Shazmin Shareena Ab Azis, Universiti Teknologi Malaysia, Malaysia

Dr. Siti Rahmah Omar, Universiti Teknologi Malaysia, Malaysia

EDITORIAL BOARD

Professor Ts. Dr. Mohd Hamdan Ahmad, Universiti Teknologi Malaysia, Malaysia

Professor Dr. Roslan Amirudin, Universiti Teknologi Malaysia, Malaysia

Dr. Ariva Sugandi Permana, King Mongkut Institute of Technology Ladkrabang, Thailand

Dr. Shamsulhadi Bandi, Universiti Teknologi Malaysia, Malaysia

Professor Dr. ATM Nurul Amin, BRAC University, Bangladesh

Assoc. Professor Dr. Kherun Nita Ali, Universiti Teknologi Malaysia, Malaysia

Assoc. Professor Dr. Shahed Khan, Curtin University of Technology, Australia

Assoc. Professor Dr. Bhisna Bajracharya, Bond University, Australia

Assoc. Professor Dr. Maimunah Sapri, Universiti Teknologi Malaysia, Malaysia

Professor Dr. Ir. Ansar UI Haque Yasar, Hasselt University Belgium, Belgium

Assoc. Prof. Dr. Alice Sabrina Ismail, Universiti Teknologi Malaysia, Malaysia

Assoc. Professor Dr. Mohammad Arif Kamal, Aligarh Muslim University, India

Assoc. Professor Dr. Mahmud Mohd Jusan, Universiti Teknologi Malaysia, Malaysia

Assoc. Professor Dr. Zulkepli Majid, Universiti Teknologi Malaysia, Malaysia

Assoc. Professor Dr. Wong Sing Sing, University College of Technology Sarawak, Malaysia

Assoc. Professor Dr. Tetsu Kubota, Hiroshima University, Japan

Assoc. Professor Dr. Chandrasekar Parsuvanathan, National University of Singapore, Singapore

Dr. Shazmin Shareena Ab Azis, Universiti Teknologi Malaysia, Malaysia

Dr. Gabriel Ling Hoh Teck, Universiti Teknologi Malaysia, Malaysia

Assoc. Professor Dr. Awais Piracha, Western Sydney University, Australia

Dr. Soheil Sabri, The University of Melbourne, Australia

Assoc. Professor Dr. Khairul Anwar Khaidzir, Universiti Teknologi Malaysia, Malaysia

Assoc. Professor Dr. Raja Nafida Raja Shahminan, Universiti Teknologi Malaysia, Malaysia

Professor Dr. M. Rafee Majid, Universiti Teknologi Malaysia, Malaysia

Professor Dr. Julaihi Wahid, Universiti Sains Malaysia, Malaysia

Professor Dato' Dr. Mansor Ibrahim, International Islamic University of Malaysia, Malaysia

Assoc. Professor Dr. Vilas Nitivattananon, Asian Institute of Technology, Thailand

Professor Dr. Ismail Said, Universiti Teknologi Malaysia, Malaysia

Dr. Nurul Hawani Idris, Universiti Teknologi Malaysia, Malaysia

Professor Dr. Kwon Tae Ho, Semyung University, Korea

Dr. Anoma Kumarasuriyar, Queensland University of Technology, Australia

Emeritus Professor Dr. Jayant Kumar Routray, Asian Institute of Technology, Thailand

Professor Ir. Dr. Roos Akbar, Bandung Institute of Technology, Indonesia

Assoc. Professor Dr. Gurupiah Mursib, Universiti Teknologi Malaysia, Malaysia

Professor Dr. Michihiko Shinozaki, Shibaura Institute of Technology, Japan

Dr. Siti Rahmah Omar, Universiti Teknologi Malaysia, Malaysia

Assoc. Professor Dr. Ranjith Perera, Sultan Qaboos University, Oman

Dr. Tareef Hayat Khan, Universiti Teknologi Malaysia, Malaysia

Professor Dr. Hasanuddin Lamit, Universiti Teknologi Malaysia, Malaysia

Professor Dr. Sudaryono Sastrosasmito, Gadjah Mada University, Indonesia

Assoc. Professor Dr. Zalina Shari, Universiti Putra Malaysia, Malaysia

Dr. Norhazren Izatie Mohd, Universiti Teknologi Malaysia, Malaysia

Assoc. Professor Dr. Nur Emma Mustapa, Universiti Teknologi Malaysia, Malaysia

Assoc. Professor Dr. Fadhliln Abdullah, Universiti Teknologi Malaysia, Malaysia

Professor Dr. Nasiru Medugu Idris, Nasarawa State University, Nigeria

Dr. Adati Ayuba Kadafa, Nasarawa State University, Nigeria





Mail Address:

International Journal of Built Environment and Sustainability

Faculty of Built Environment and Surveying

Universiti Teknologi Malaysia

81310, Johor Bahru, Malaysia

Telephone: +60-7-5537382

Email: ijbes@utm.my

Copyright © FAB, UTM, 2020

Cover Design and Type-set by: Shamsulhadi/Hairunnisa/Azman

DISCLAIMERS:

This publication is intended to enrich the knowledge in the field of built environment and sustainability. Therefore, you may use the materials contained herein for free as long as for the use of academic purpose. However, you must cite this scientific material properly.

The views expressed in this publication do not necessarily reflect the views of the Faculty of Built Environment and Surveying, Universiti Teknologi Malaysia.



The IJBES is an international peer-reviewed Journal
Published in collaboration between Faculty of Built Environment and Surveying and Penerbit UTM

E-ISSN: 2289-8948

ISSN: 1511-1369

IJBES

Vol. 7, No. 2, 2020

Table of Contents

1. Unique Factors of Best Value Procurement from the Perspective of Nigerian Construction Professionals	1-14
<i>Rahman Tafahomi¹, Gumgaro Simon-Peter Buba¹, Razali Adul Hamid¹, Zuhaili Mohamad Ramly¹, Tchad Sharon Jatau¹ and James David Jatau²</i>	
¹ Faculty of Built Environment and Surveying, Universiti Teknologi Malaysia, Malaysia	
² Faculty of Environmental Science, Kaduna State University, Kaduna, Nigeria	
2. Cultural Practices generated by Structural Biodiversity of Two Urban Forests in Johor Bahru, Malaysia	15-23
<i>Amalina Mohd Fauzi¹ and Azmiah Abd Ghafar¹</i>	
¹ Faculty of Built Environment and Surveying, Universiti Teknologi Malaysia, Malaysia	
3. 3D Topological Validation of Compact Abstract Cell Complexes (CACC) Data Structure for Buildings in CityGML	25-32
<i>Syahhirah Salleh¹, Uznir Ujang¹, Suhaibah Azri¹, Tan Liat Choon¹</i>	
¹ Faculty of Built Environment and Surveying, Universiti Teknologi Malaysia, Malaysia	
4. Material thermal performance comparison between the tomb of Mohammad Ghaus heritage building and a modern style dwelling in Madhya Pradesh	33-44
<i>Anand Kushwah¹, Manoj Kumar Gaur¹, Rajindra Kumar Pandit¹ and Pushpendra Singh¹</i>	
¹ Madhav Institute of Technology & Science Gwalior, India	
5. Assessment of Residents' Socio-demographic Factors Associated with Visit to Green Infrastructure Facilities in Lagos Metropolis, Nigeria	45-55
<i>Adedotun Ayodele Dipeolu¹, Olusola Ralph Aluko¹, Sunday Samuel Omoniyi¹ and Michael Abiodun Oyinloye¹</i>	
¹ Olabisi Onabanjo University, Iboqun Campus, Ifo, Ogun State, Nigeria	
6. Glass curtain wall technology and sustainability in commercial buildings in Auckland, New Zealand	57-65
<i>Yi Wu¹ and Claire Flemmer²</i>	
¹ Estimating Services (NZ) Limited, New Zealand	
² School of Built Environment, Massey University, New Zealand	
7. Psychometric Testing of Shopping Mall Universal Design Assessment Tool (SM-UID)	67-77
<i>Rebaz Jalil Abdullah¹ and Tang Jian¹</i>	
¹ School of Architecture and Fine Art, Dalian University of Technology, Dalian, China	
8. Recreating Historical Malay Architecture with BIM Process	79-89
<i>Muhammad Hadi Mustafa¹, Maisarah Ali¹, Khairusy Syakirin Has Yun Hashim¹ and Mohamad Saifulnizam Mohd Suhaimi¹</i>	
¹ Kuliyah of Architecture and Environmental Design, International Islamic University Malaysia, Malaysia	