

1. Record Nr.	UNINA9910639882003321
Titolo	Advances in Civil Engineering Materials : Selected Articles from the 6th International Conference on Architecture and Civil Engineering (ICACE 2022), August 2022, Kuala Lumpur, Malaysia // edited by Elham Maghsoudi Nia, Lloyd Ling, Mokhtar Awang, Seyed Sattar Emamian
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2023
ISBN	981-19-8024-1
Edizione	[1st ed. 2023.]
Descrizione fisica	1 online resource (480 pages)
Collana	Lecture Notes in Civil Engineering, , 2366-2565 ; ; 310
Disciplina	060
Soggetti	Civil engineering Building materials Sustainability Buildings - Design and construction Environmental sciences - Social aspects Civil Engineering Structural Materials Building Construction and Design Environmental Social Sciences
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Intro -- Preface -- Contents -- Damping Design Approach Based on the Damping Performance Curve of Structural Additional Viscosity -- 1 Introduction -- 2 The Method -- 2.1 The Performance Curve of Energy Dissipation System with Additional Viscous Damping -- 2.2 Calculation Steps -- 3 Calculation Process of Additional Viscous Damping -- 3.1 Calculation Model -- 3.2 The Calculation Process of the Model -- 4 Results -- 5 Conclusions -- References -- Assessment of Indoor Thermal Condition on Traditional Vernacular Masjid: A Case Study on Masjid Kampung Laut, Malaysia -- 1 Introduction -- 1.1 Current Masjid Issue -- 1.2 Masjid Kampung Laut -- 2 Research Methodology -- 2.1 Field Measurement -- 2.2 Outdoor Measurement -- 2.3 Indoor Measurement -- 3 Result and Discussion -- 3.1 Outdoor Performance -- 3.2 Indoor Performance -- 3.3 Olgyay's

Bioclimatic Chart -- 4 Conclusion -- References -- Scopes of Work in Property Management Services: Perspective and Performance of Residential Property Managers -- 1 Introduction -- 2 Property Management in Residential Buildings -- 3 Scopes of Work in Residential Property Management -- 4 Research Method -- 5 Findings and Discussion -- 6 Conclusion -- References -- Cold-Formed Steel Structure for Mid-Rise Residential Building: A Literature Review -- 1 Introduction -- 2 Methodology -- 3 Methodology -- 3.1 Cold-Formed Steel Structure Design -- 4 Research Gap -- 5 Conclusion -- References -- Evaluation of Water Hyacinth Ash, Extract, and Fiber in Concrete: A Literature Review -- 1 Introduction -- 2 Research Methodology -- 3 Experimental Investigation -- 4 Effect of Water Hyacinth Ash, Extract, and Fiber to Water Absorption, Compressive Strength, Modulus of Elasticity, and Chloride Resistance of Concrete -- 5 Structural Applications -- 6 Conclusion -- References.

Reinforced Concrete Beam-Column Joint: A Review of Its Cyclic Behavior -- 1 Introduction -- 2 Methodology -- 3 Beam-Column Joint Mechanism -- 4 Design Provisions on RC Beam-Column Joints -- 4.1 American Concrete Institute (ACI) Code -- 4.2 New Zealand Standard Code -- 4.3 Eurocode -- 5 Beam-Column Joint Behavior on Cyclic Loads -- 5.1 Crack Patterns -- 5.2 Energy Dissipation -- 5.3 Bond Behavior -- 5.4 Strength and Stiffness Degradation -- 6 Design Code Assessment -- 7 Challenges and Limitations -- 8 Conclusions -- References -- Challenges Faced by Students in Online Architectural Design Studio During COVID-19 Pandemic: Universities in Sarawak -- 1 Introduction -- 2 Literature Review -- 3 Research Method -- 4 Results and Discussions -- 4.1 Distance Between Students' House and the City Area -- 4.2 Infrastructure -- 4.3 Digital Competency -- 4.4 Efficiency in Doing Studio Projects in the Home Environment -- 4.5 Remote Site Analysis and the Difficulties in Collecting Data -- 4.6 Students' Perception of the Effectiveness of Online Teaching -- 4.7 Discussion and Conclusion -- References -- Covered Pedestrian Streets in Kuala Lumpur Heritage Enclaves: Public Perception -- 1 Introduction -- 1.1 History and Theory of Pedestrian Street -- 1.2 Community of Melaka and Conservation -- 2 Methodology -- 2.1 Observation Method -- 2.2 Questionnaire Survey -- 3 Findings and Discussion -- 3.1 Case Study: Petaling Street (Observation) -- 3.2 Case Study Kasturi Walk -- 3.3 Case Study: Petaling Street and Kasturi Walk (Questionnaire Survey) -- 3.4 Survey Findings -- 3.5 Relevancy of Roofing Structure -- 4 Design Factor of Roofing Structure -- 5 Conclusion and Recommendation -- References -- Sponge Town: Addressing Water Crisis for Future Urban Development in Malaysia -- 1 Introduction -- 2 Literature Review -- 3 Methodology -- 4 Results and Discussion.

5 Findings from Interview -- 6 Conclusion -- References -- BIM as the New Sustainable Design-Construction Manager: Case Study of ALN Building Project Experience -- 1 Introduction -- 2 Literature Review -- 3 Project History -- 4 Interview with Markus Neuber-CEO and Project Leader in ALN -- 4.1 Advantages and Disadvantages of the Project Working Within BIM 3D? -- 4.2 Design Experience of the N188b Project? -- 4.3 Quality Experience of the Project Within 3D BIM Software? -- 4.4 The Team Involved, How Many Team Members Were Involved in the N188b Project? -- 4.5 Design, Are You Happy with the Design? Do You Think that if the Project Was Designed with 2D Software It Would Have Had the Same Features as the BIM 3D Design? -- 4.6 Do You Think that the Same Project Design Would Have Been Managed with 2D Software Within the Same Period of Time? -- 4.7 Ability to Change the Design, Did You Have Problems in Finding the Final Design? -- 4.8 Working with other Engineering/Architectural

Companies. How was the relation and communication with other project participants as, e.g., the construction company (Brandl Bau) and the client during the Design Phase? -- 4.9 Ability to Work Within Building Construction Chain. Do You Think You Managed the Shifting from the Planning Side to the Building Construction Well? -- 5

Conclusion -- References -- Mosque Institution and Building: Evaluating Sustainable Space, Function, Program, and Activities -- 1

Introduction -- 2 Activities Concerning Mosque Form Historical Precedence -- 3 Inclusiveness of the Mosque's Program -- 4

Methodology -- 5 Functional Requirement of Mosque in Contemporary Muslim Societies -- 6 Findings and Discussion -- 7 Compilation of Recorded Activities -- 8 Conclusion -- References -- Integration of Design and Theory Courses in Architecture Learning for Introductory-Level Students.

1 Introduction to Architecture Studies -- 2 Architectural Courses -- 2.1 Architecture Design Course -- 2.2 Architectural Courses Problem and Approach -- 3 Methodology -- 4 Findings -- 5 Discussion and Conclusion -- References -- Students' Engagement in Virtual Learning of Heritage Building During the Pandemic -- 1 Introduction -- 2 Literature Review Students' Engagement in Learning -- 2.1 Architecture Measured Drawing -- 3 Methodology and the Approach -- 4 Finding and Discussion -- 5 Conclusions -- References -- Towards the Betterment of Workers' Quarters Within Construction Site in Light of Covid-19 Pandemic: Case Study of Workers' Quarters in Kuching City South, Sarawak -- 1 Introduction -- 2 Literature Review -- 3 Research Method -- 4 Case Study -- 4.1 Construction Site A -- 4.2 Construction Site B -- 4.3 Construction Site B -- 5 Conclusion -- References -- An Improved Monthly Oil Palm Yield Predictive Model in Malaysia -- 1 Introduction -- 2 The Fresh Fruit Bunch Index (FFBI) Model -- 2.1 Correlation Test Between Malaysian Oil Palm Yields and Oceanic Niño Index (ONI) -- 2.2 Time Series Forecasting -- 3 Results and Discussion -- 4 Conclusions -- References -- Review of Aesthetic Components in 'Sponge City': Toward Sustainable Urban Stormwater Management -- 1 Introduction -- 2 Problem Statement and Objectives -- 3 Development of Sponge City -- 4 Aesthetic Components of Sponge City -- 5 Conclusion -- References -- Drones and Architectural Visualization: Exploring Building (Re)Presentation Through Thermal Patterns Data -- 1 Introduction -- 1.1 Drones and Architectural Visualization -- 2 Methodology -- 2.1 Pre-Flight Procedure -- 2.2 Picturing Flight Mapping -- 2.3 Post-Flight -- 3 Results and Discussion -- 4 Conclusions and Future Directions -- References -- Employment of Foreign Workers at Construction Industry in Malaysia-A Review. 1 Introductory Background -- 2 Problem Statement -- 3 Malaysia Economic Condition -- 4 Malaysian Construction Sector -- 5 Problems in Malaysian Construction Sector -- 5.1 Labour Shortage in Construction Industry -- 5.2 Low Efficiency and Productivity -- 6 Employment in Malaysia -- 7 Foreign Workers in Malaysia -- 7.1 Factors of Employing Foreign Workers -- 7.2 Problems of Employing Foreign Workers -- 8 Conclusion -- References -- Application of Jointless Bridges in China -- 1 Introduction -- 2 Evolution -- 3 Types of Jointless Bridges -- 3.1 Introduction of Jointless Bridge Types -- 3.2 Application of Various Types in China -- 4 Length of Jointless Bridge -- 5 Structure of Jointless Bridge -- 5.1 Superstructure -- 5.2 Substructure -- 5.3 Connections Between Superstructure and Substructure -- 5.4 Approach Slabs and Seamless Bridges -- 6 Last Remarks -- References -- The Composite of MPCM and Building Materials and Its Application in Building Walls: A Review -- 1 Introduction -- 2 Characteristics and Performance of MPCM -- 3 The

Composite Method and Application of MPCM and Building Materials --
3.1 Composite of MPCM and Concrete Wall -- 3.2 Composite of MPCM
and Gypsum Wall -- 3.3 Composite of MPCM and Brick Wall -- 4
Conclusion -- References -- The Hospitality Mechanisms of Traditional
Indonesian Houses: A Systematic Literature Review -- 1 Introduction --
2 Method -- 3 Result and Discussion -- 3.1 Earthquake Structure --
3.2 Changes of Function -- 3.3 Social Status -- 3.4 Zoning -- 3.5
Gender-Based and Islamic Values Influence -- 4 Conclusion --
References -- Recent Application and Development of Concrete-Filled
Steel Tube Arch Bridges in China -- 1 Introduction -- 2 General
Characteristics -- 2.1 Number of CFST Arch Bridges -- 2.2 Span -- 3
Structural Systems -- 3.1 Application -- 3.2 Distribution of Span
Lengths.
4 Sectional Forms, Materials, Rise-To-Span Ratio, and Arch Axis Shape
for Arch Ribs.

Sommario/riassunto

This book presents selected articles from the 6th International
Conference on Architecture and Civil Engineering 2022 (ICACE 2022),
held in Malaysia. Written by leading researchers and industry
professionals, the papers highlight recent advances and addresses
current issues in the fields of civil engineering and architecture.
