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International Conference on Sustainable Built Environment

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**The 7th International Conference on Sustainable Built
Environment (ICSBE 2022)**

Main theme:

**“Challenges and Strategies to Prepare for the Future
Sustainable and Resilient Development”**

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About ICSBE

International Conference on Sustainable Built Environment (ICSBE) is a forum initiated by the Faculty of Civil Engineering and Planning, Universitas Islam Indonesia (UII), through collaborations with worldwide universities and research institutions. The conference is aimed at nurturing the study, comprehension, and appreciation of the built environment.

The conference is intended to provide a forum for exchanging ideas, sharing knowledge, and disseminating information about the study of the built environment in different parts of the world. It seeks to further develop a regional and international network of academics, professionals, and policymakers on the management of the built environment.

The first ICSBE was held in May 2010 in Yogyakarta, which attracted participants from 8 countries. In response to the interests of the participants, the ICSBE conference was continued bi-annually. The previous edition of ICSBE (The 6th ICSBE) was held in 2021. Due to the COVID-19 pandemic, the 6th ICSBE was held in a virtual online meeting. In that edition, 80 papers were submitted. All the submitted papers were reviewed peer-to-peer and double-blind with two reviewers. Finally, 50 papers were accepted and presented in an oral session.

In the 7th edition of ICSBE, the theme is **Challenges and Strategies to Prepare for the Future Sustainable and Resilient Development**. Sustainable development issues that are strongly influenced by environmental factors, economic conditions, infrastructure, natural resources, and advances in science and technology are highlighted at the global level. Improving the economic welfare of the community on an ongoing basis, maintaining the sustainability of the social life, maintaining the quality of the environment as well as inclusive development and the implementation of governance which is able to maintain the improvement of the quality of life from one to the next generation cannot be separated from future challenges.

One of the main aspects of realizing sustainable and resilient development is disaster insight. The significant impact of hazards that have the potential in causing disasters, coupled with climate change, affected the environmental conditions across the globe, including human society, triggering the increase of human modifications in social, daily life, and infrastructure. As integral elements, research and innovation activities play an essential role in reducing risk and building human behavior and environmental system.

Facing this issue, nowadays, all the country in the world addresses environmental impact, in line with the disaster insight by investigating challenges and strategies to prepare for the future sustainable and resilient development that manages, implies smart systems and integrated solutions in all sectors including economic, health, public services, infrastructure development, and the environment. Some approaches, such as green building, life cycle assessment, eco-system,



etc., have been applied in several cities in reducing emissions and waste production by using green and smart materials.

The topic of challenges and strategies to prepare for future sustainable and resilient development raised as the main theme of the conference this time is very relevant to the conditions outlined earlier. As academics and practitioners, it should be at the forefront of thinking about this problem. Moreover, due to the pandemic COVID19 since 2020, ICSBE would take a part how to against the coronavirus, prevent daily life, and spreading knowledge and research finding as it impacts the environment and society. Therefore, this conference is held to accommodate ideas or thoughts about all challenges, strategies, and solutions to all problems mainly related to the vision of realizing future sustainable and resilient development.



Executive Summary

The International Conference on Sustainable Built Environment is a bi-annual conference that started in 2010 till now. Due to several considerations, and mostly considering travel restrictions in COVID-19 pandemic, the current edition of ICSBE is organized virtually.

The main theme of the 7th ICSBE is “Challenges and Strategies to Prepare for the Future Sustainable and Resilient Development”. This theme was dedicated to discussing and delivering an implementable solution to address the issues of urban planning, transport systems, water and sanitation, waste management, disaster risk reduction, access information, education, and capacity-building. Therefore, it is important to map, plan, and design a sustainable environment and infrastructure that may greatly encounter and reduce those issues above to reach sustainable development goals. Based on this, this conference focuses on the following topics but is not limited to livable rural and urban environments, green infrastructure, sustainable resource management, sustainable city, and disaster management.

The 7th ICSBE is organized by the faculty of Civil Engineering and Planning, Universitas Islam Indonesia, and supported by partners; Yamaguchi University (Japan), Universiti Kebangsaan Malaysia (Malaysia), University of Hawai’i at Manoa (USA), Anhalt University (Germany), Research Center for Islamic History, Art and Culture (Turkey), National Research and Innovation Agency (Indonesia), and other international institutions.

In this edition, we received more than 120 submissions covering five topics. All the submitted manuscripts were reviewed peer-to-peer and double-blind with two reviewers. The 7th ICSBE highly applied a strong and accurate review process prior to being published in the conference proceeding. In the end, 50 manuscripts are published in this proceeding. These published manuscripts comes from the authors from various countries namely Indonesia, Malaysia, Australia, India, Japan, UK, Bangladesh, USA, and Turkey.



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Prof. Karl Kim received undergraduate education from Brown University and Ph.D. in Urban Studies and Planning from the Massachusetts Institute of Technology. He is Editor-in-chief of Transportation Research: Interdisciplinary Perspectives; Associate Editor of Transportation Research, Part D, Transport and Environment; and formerly Editor-in-chief of Accident Analysis and Prevention and formerly Editor of Korean Studies. He has received more than \$67 million in research and training grants from federal, state, and international agencies and organizations. Served as Chairman of the National Domestic Preparedness Consortium (ndpc.us). Previously served as Vice Chancellor for Academic Affairs (Chief Academic Officer) of the University of Hawaii at Manoa, overseeing strategic planning, accreditation, tenure and promotion, and international programs. Holds faculty appointments in the Center for Korean Studies, and the School of Architecture. Serves on several committees of the Transportation Research Board. Served as Chair of the Pacific Risk Management Ohana. Elected to the Board of the North American Alliance of Hazards and Disaster Research Institutes (NAAHDRI).



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Ajeng Arum Sari is a Director of Research and Innovation Funding in National Research and Innovation Agency. She received her undergraduate degree from Environmental Engineering Department, Diponegoro University. She completed her Master and Doctoral Degree at Ehime University, Japan. She began her professional career as researcher in Research Center for Chemistry – Indonesian Institute of Sciences (LIPI) since 2006. Her research focus is on bioremediation of pollutants by fungi and wastewater treatment. Her directorate manages research funding that is accessible to all parties. Research funding schemes can be accessed at <https://pendanaan-risnov.brin.go.id/>. For further information about her profile, please visit <https://www.scopus.com/authid/detail.uri?authorId=55212494400> and email ajen001@brin.go.id



