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Preface: World Sustainable Construction Conference Series 2021

With great pleasure we are introducing the World Sustainable Construction Conference (WSCC) 2021, yet another series of rewarding conference this year. It has collectively four events organized successfully under the same group of people with a great vison ahead.

- 5th National Conference on Wind and Earthquake Engineering (NCWE)
- 3rd National Seminar on Sustainable Construction Engineering (NSSCE)
- 3rd International Conference on Agricultural Technology Engineering and Environmental Sciences (ICATES)
- 1st Water Symposium (WS)

Due to on-going pandemic, all the events were held through the long distance mode (on-line) only. These proactive measures were taken to minimize the physical contact among participants and to curb the spreading of COVID-19. The decision to hold the virtual conference was made after a mutual consent was received from all the collaborators. Yet WSCC did not fail to draw participants across the region including Indonesia, India, Pakistan, China, Bangladesh, Vietnam, Thailand and Japan. We from the organizing team were overwhelmed and felt privileged when was given the opportunity to organise the World Sustainable Construction Conference (WSCC) which was held virtually at the Chancellery Hall of Universiti Malaysia Pahang (UMP) on the 15th and 16th October 2021.

This virtual conference was organized with the support from Universiti Sains Malaysia, Chongqing University, China, the Tokyo Polytechnic University, Beijing Jiaotong University, Universitas Syiah Kuala, Indonesia and the Arba Minch University. The papers submitted were more than 100 and fellow reviewers have put their heart and soul in making sure only the best quality research and technical papers were selected for virtual presentation and publication. In line with the theme of the conference "*Beat the Odds"*, WSCC 2021 have seen many success in providing a common platform to discuss on issues, challenges, opportunities and technologies relating with the construction engineering, advanced materials, agricultural, environment and water.

This volume of conference proceeding not only has a good selection of refereed papers but there are more to it. You will find a compilation of 4 keynote lectures given by Professor Dr. Yukio Tamura, a prominent professor at the Chongqing University, China, Professor Dr. Shuyang Cao from Tongji University, China, Professor Dr. Guoqing Jing from the Beijing Jiaotong University and finally Dr. Ichwana Ramli, from Universitas Syiah Kuala, Indonesia. Many of the keynote topics discussed here was highly relevant and triggered healthy discussions and sharing of knowledge among participants.

The World Sustainable Construction Conference (WSCC) also served as a new platform to researchers and scholars from different disciplines that have interest in sustainable construction, advanced materials, agricultural technology and environmental sciences to share and discuss their research findings. Finally, on behalf of the organizing committee, I would like to thank all the presenters and participants for their great support. Last but not least, let us join our hands together in supporting and thanking our front liners battling COVID-19 pandemic.

Chairman, WSCC 2021

Assoc. Prof Dr. Mohamad Idris Ali

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Chongqing University, China
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Professor Dr. Shuyang Cao
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Dr. Ichwana Ramli
Universitas Syiah Kuala, Indonesia
“Flood Vulnerability Model Based on Physical, Social, and Economic Parameters in Krueng Pasee Watershed, Indonesia."

Professor Dr. Guoqing Jing
"Railway sleeper innovation recycled and green material application"
Beijing Jiaotong University, China

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Strategies for Improving Foreign Worker Productivity: Construction Manager Perspective

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Abstract. In line with the development of the construction sector, the shortage of construction workers is becoming a chronic problem that most construction companies face. Therefore, construction industries are employing foreign workers to cater to the demand. However, the use of foreign workers has caused several problems for construction companies because of their low productivity and poor quality of works. This study identifies management strategies for improving construction labor productivity of foreign workers and challenges to implementing those strategies. To achieve these objectives, the data collection involves individual interviews with 20 construction managers. The data is then analyzed using the thematic analysis technique. This study's findings suggest that the strategies for improving foreign workers' construction labor productivity include education, training, and mentoring. On the other hand, the challenges to implementing those strategies are lack of training resources, difficulty to satisfy training requirements, and mentor's limited ability. Researchers and industry practitioners may employ these findings to improve existing plans and develop new policies to improve the construction labor productivity of foreign workers.

INTRODUCTION

This Strategies can be referred to as "What do we want to achieve?" and "How do we intend to do it?". In contrast, productivity is a unit of output (product) by units of input (labor, capital, materials). Nowadays, construction worker shortages have been a critical and long-standing issue in developed and developing countries [1]. Due to rapid growth and low participation of local workers, the construction industry faces challenges accessing labor and retaining skilled labor. Following this, the construction industry must rely on foreign laborers to satisfy the rising need for skilled laborers. However, foreign workers' employment has caused several problems for construction companies because of their low productivity. The low performance of skilled workers has been the leading cause of inefficient construction project productivity [2,3]. Because of these problems, many construction companies could not complete their projects according to their planning, such as budget overrun and delay. These can cause issues between clients and contractors as the project's progress is not aligned as planned. Thus, improving construction foreign workers' productivity is crucial to overcome the problems related to their low productivity in construction projects.

The construction sector is already unappealing because of the large number of low-skilled and uneducated foreign laborers working there [4]. Most foreign workers were unskilled, reducing construction industry quality control and productivity [1]. Lack of skills is a significant problem and significantly affects the time to complete the tasks, labor costs, and product quality [5]. Because of this, cost overruns and schedule slippages due to low productivity are most likely to occur in construction projects. On the other hand, labor accounts for a sizable percentage of the total cost of a construction project, and labor productivity is frequently the primary cost driver [6]. Even with improved technology and innovative project management procedures, most construction companies still need to encounter cost overruns and projects that cannot complete on time. Thus, the problem related to cost

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