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TABLE OF CONTENTS

EDITORIAL TEAM	i
TABLE OF CONTENTS	iii
PREFACE	iv
The Development of Tuberculosis Treatment Room in Humid Tropical Climate	1
Wisdom Sandjaya Papendang ¹ , Samuel Yudhatama ²	1
Review of BIM-Based Software in Architectural Design: Graphisoft Archicad VS Autodesk Revit	14
Lambertus Waas ¹ , Enjellina ²	14
Function, Role, Limitation, and Potential of Space Syntax Analysis in Architectural Field	23
Fitria Khairanisa ¹	23
Virtual Reality Application of Interactive Interior: The Development Study for Computer and Android Smartphones	32
Hendro Trieddiantoro Putro ¹ , Luhur Sapto Pamungkas ² , Suparno Sastra ³ , Murwantoro Panghargyo ⁴ , Endang Setyawati ⁵ , Endah Tisnawati ⁶	32
The Effect of the Reflective Interior Elements on the Illuminance Level in Classrooms	42
Pinthoko Nugroho ¹	42
JARINA Manuscript Template	50



PREFACE

As other countries in the world, Indonesia experiences the era of Industrial Revolution 4.0 (IR 4.0). This era is renowned by the vast development of computational as well as communicational technology encouraged by the rise of supercomputers, cybernetics, big data, Internet of Things (IoT), and machine learning. As consequences, most of conventional approaches dominated by self-oriented, narrow-minded measures are starting to be obsolete and irrelevant. Such approaches are incessantly being replaced by more efficient, integrated, holistic, self-corrected system that enables people to achieve their unimaginable goals before. This phenomenon permeates all aspects of modern life, including architecture, through the introduction of Artificial Intelligence (AI). Nowadays, Computer Aided Drawing (CAD) is no longer utilized to merely produce standalone drawing tasks due to the enhancements of IR 4.0 technology such as parameterization, optimization, synchronization, and collaboration features. Therefore, to be able to compete with other countries, Indonesia should put more efforts in acknowledging, developing, and maximizing the advantages of IR 4.0 technology.

Journal of Artificial Intelligence in Architecture (JARINA) provides information about the development and utilization of aforementioned technology, particularly in architecture. In this second issue, JARINA facilitates five authors to publicly present their innovative researches and findings. As an overview, the first author diligently implements Computational Fluid Dynamics (CFD) to design a healthcare facility in compliance with health standards. The second author reviews two well-known Building Information Modeling (BIM) products in terms of their advantages and limitations. The third author examines the role of a quantitative tool invaluable to analyse architectural spaces, the Space Syntax. The fourth author invents a Virtual Reality (VR) application that enables the users to interact with their digital environment. And lastly, the fifth author relentlessly tests a free lighting software in calculating various material reflectance inside a room.

Aside from those remarkable papers, we are also eager to invite new researches on digital art, informatics, neuroscience, technology in architecture, building sciences, urban design, and other similar topics without any methodological preferences.

We have high expectations that all of the papers in this second issue would inspire the readers to be interested in developing architecture and technology for the better future. Moreover, we would like to thank all of the authors and parties who involved in publishing this second issue.

Jackobus Ade Prasetya Seputra

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