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i - Ja M C S I I X  
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# **i - J a M C S I I X**

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## 2023

INTERNATIONAL JASIN MULTIMEDIA & COMPUTER SCIENCE  
INVENTION AND INNOVATION EXHIBITION (I-JaMCSIIx) 2023

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# The Development of Edu-Fertiblox Digital Game Using Roblox as ABM in The Topic of Fertigation Systems for The Subject of Design and Technology Level 1

Hafiz Athram Nasir<sup>1</sup>, Fardila M Zaihidee<sup>2</sup>, Siti Fairuz Yusof<sup>3</sup>

<sup>1,2,3</sup> Department of Engineering Technology, Faculty of Technical and Vocational, Sultan Idris Education University,  
35900 Tanjong Malim, Perak, MALAYSIA.

hafizathramn@gmail.com , fardila@ftv.upsi.edu.my , siti\_fairuz@ftv.upsi.edu.my

**Abstract**— A lack of practical facilities frequently causes problems for teachers and students.. The Edu-Fertiblox digital game has been developed for the purpose of being a teaching aid for the topic Fertigation System Design Technology Level 1. The purpose of this study is to identify the needs of ABM for the topic of fertigation system, the development of the Edu-Fertiblox digital game as ABM and the usability of the digital game. The development of this digital game is by using the ADDIE model as a research design. The digital game was developed using Roblox Studio. After that, Edu-Fertiblox was evaluated for its usability through 3 informants consisting of teaching staff in the field of Technology Design to be interviewed. The findings that have been obtained have been analyzed using the content analysis method which shows that all the informants agree that the Edu-Fertiblox digital game can be used as a teaching aid for the Fertigation System of Technology Design Form 1 topic.

**Keywords**— *Roblox, Digital, ABM, ADDIE, Gamification*



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Kampus Jasin

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Tel: 062645000

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