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# ABSTRACT BOOK 2023

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MULTIMEDIA AND COMPUTER SCIENCE

INVENTION AND INNOVATION EXHIBITION

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## **2023**

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

# **Virtual Award Ceremony**

**8th November 2023**  
**Wednesday**

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## 2023

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

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# Plastopoll: A Serious Game to Raise Awareness About Plastic Pollution

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**Abstract**—Plastics are widely used due to their durability, versatility, and affordability. However, their excessive and improper use has resulted in a significant build-up of plastic waste, especially in Malaysia. This plastic pollution poses a significant threat to wildlife, with millions of animals suffering harm or death from ingesting or becoming entangled in plastic debris. To address this, this project introduces a serious game application that may assess students understanding, raises awareness about plastic pollution, and promotes environmental protection through an enjoyable learning experience. Furthermore, the Rapid Application Development (RAD) methodology, which consists of four phases, was chosen for the project due to its efficient and rapid development process, allowing for quick production and deployment of the game. The Knowledge, Attitude, Practice (KAP) scoring with an 80% cut point are used to determine participants' levels of knowledge, attitude and practice regarding plastic pollution. Additionally, the findings from 40 respondents, especially among male participants aged 7 to 12 years old, indicated raised knowledge, attitude and practice. This suggests that the Plastopoll game assesses students' understanding of plastic pollution effectively. However, further research with a larger and more diverse group of participants may be necessary to validate and expands on these findings.

**Keywords**—*Game Based Learning, Plastic Pollution, Educational Technology*



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