

"Research-Driven Innovation and Technology"

## PRODUCT PROFILES

24-25 July 2019

IMPERIAL HOTEL, KUCHING, SARAWAK

















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## Assisted Navigation and Object Detection for Blind Person Using Deep Learning

Johari bin Abdullah, Lim Yi Swen Universiti Malaysia Sarawak



For blind people, navigation and recognizing objects are activities which are challenging due to their disability. Therefore, their quality of life is affected to some extend and in situation where they encounter a new environment, it might contain harmful objects. The traditional methods to assist blind people to navigate such as walking stick and guide dog do provide some assistance to some extent but still does not provide accurate information to the blind person. There is also

technology assisted navigation approach such using sensors and so on, but it does not provide actual information about the objects in the environment to the blind person. Therefore, this project proposed an assisted navigation and object detection solution using deep learning approach on a low-cost single board computer to allow the recognition to be done on the site itself without relying on external Internet/network connection. It is expected that the proposed solution will enable the blind people to navigate and detect objects and improve their quality of life.

Information & Communication Technology





## Audiences Engagement with Digital Arts Exhibition

Mohd Fahmi bin Yahaya, Nordiana Binti Ahmad Nordin Universiti Malaysia Sarawak

This research was conducted to investigate the manner in which audiences engage with digital arts exhibition.

Social Sciences & Humanities



## Augmented Reality and Virtual Reality Based System for Sarawak Museum

Rehman Ullah Khan, Hui Sia Wong, Amalia bt Madihie, Oon Yin Bee Universiti Malaysia Sarawak

This AR/VR based system for the Sarawak Museum. This emerging technology is used to change the way of interaction with artifacts in the Museum. In the Museum the artifacts are not clear and visible which makes the tourists boring during their





