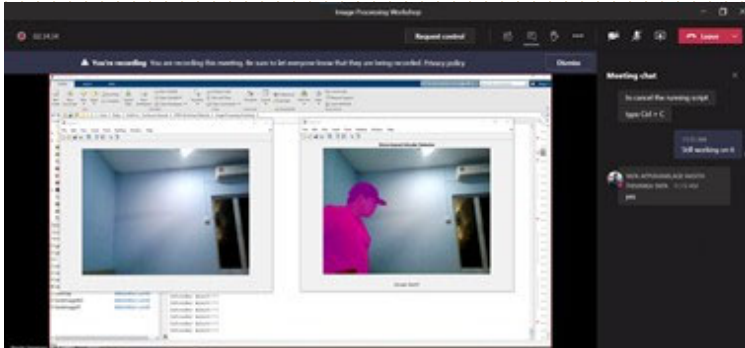


## IEEE Malaysia Section Newsletter IEEE Sarawak Subsection

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### Virtual Image Processing Workshop



IEEE Sarawak Subsection organized an Image Processing Workshop on 31 October 2020 through virtual (fully online) medium. The workshop aimed to introduce university students with basic concepts and applications of image processing using MATLAB software and accompanying toolboxes. Participants were exposed to acquiring video feed using their laptop camera for applications of intruder detection in a building and analyzing machine-readable codes, such as barcodes and QR codes.

The workshop was conducted by Dr. Riady Siswoyo Jo, Educational Activities Chair of IEEE Sarawak Subsection and Lecturer in Robotics & Mechatronics from Swinburne University of Technology Sarawak Campus and co-organized with IEEE Swinburne Sarawak Student Branch and members of Swinburne Sarawak Robotics and Automation Club.

### Unity Game Development Workshop



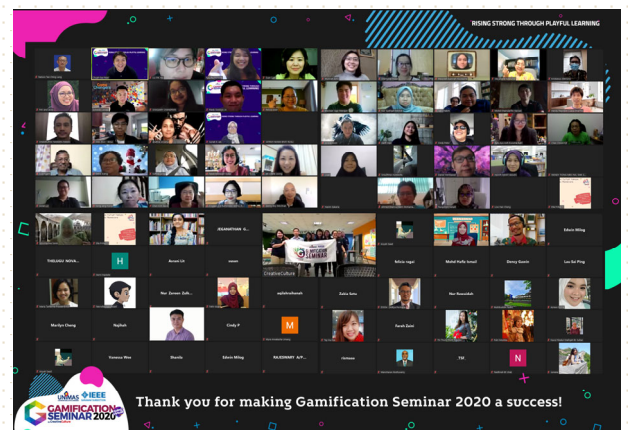
On a separate occasions, the IEEE Sarawak Subsection once again in collaboration with IEEE Swinburne Sarawak Student Branch, Swinburne Computer Science Club and, Swinburne University of Technology Sarawak hosting the first event in a series of game development workshops using Unity on 14 Nov 2020 via Microsoft Teams.

The workshops aimed to provide participants an overview how games are created, figure out how to integrate virtual environments with microcontroller hardware, and observe Object-Oriented Programming in action within the 3-hour hands-on session.

The workshop has attracted 60 participants from the public, college and university student as well as students from local high school.

### 3<sup>rd</sup> Gamification in Learning Seminar

The 3<sup>rd</sup> Gamification Seminar in collaboration with the CreativeCulture, IEEE Sarawak Subsection and UNIMAS was held virtually on the 21 December 2020. The theme is Rising Strong Through Playful Learning and this year, we had an international flavour of speakers from the UK, Indonesia, Vietnam, and inspirational local teachers and educators, and kids were sharing their experience in playful learning during the pandemic. We had over 150 participants coming from Malaysia, Indonesia and Vietnam. All participants had a chance to participate in the bite-sized workshops on (i) Engineering for Young Learners by Dr. Riady Siswoyo Jo and (ii) SDGs and Schools by Dr Tan Chong Eng and Dr Leonard Lim under the GCRF ACES project, and they also had a chance to play the virtual escape room game.



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### 8th IEEE R10 Humanitarian Technology Conference 2020 (R10HTC2020)



The IEEE Region 10 HTC 2020 is the flagship premier international conference of IEEE Region 10 Asia Pacific. This year, R10 HTC 2020 was held virtually from 30th November to 3rd December 2020.

The theme of the conference, Digital Ecosystem for Humanitarian, is to draw special attention to the societal expectations of humanitarian technologies' ability to provide practical and lasting solutions which is also vital during this COVID19 pandemic.

IEEE R10 HTC 2020 accepted full papers (to be indexed by Scopus and IEEEExplore) from authors

coming from Malaysia, India, Bangladesh, Philippines, Sri Lanka, Indonesia, Japan, China, Australia, Mongolia, Singapore, Taiwan, United Kingdom, United States and France.

According to Prof Akinori (IEEE Region 10 Director), IEEE Sarawak is the first subsection in the history of IEEE Region 10 (Asia Pacific countries) which successfully bid and organized the Region 10 Flagship conference. Many volunteers from Swinburne Sarawak academic members serve in this conference. They are Prof. Su Hieng Tiong, Dr. Hudyjaya, Dr. Riady, Dr. Then Yi Lung, Dr. Tay Fei Siang, Dr. Siti Salwa, and Dr. Mark Tee.

The organising committee from IEEE R10 HTC 2020 would like to take this opportunity to express their gratitude and appreciations to all parties from IEEE Region 10, IEEE Malaysia Section, Sarawak Tourism Board, Swinburne University of Technology, Sarawak Campus, volunteers and participants for their contributions and supports to make this conference a success.

### Winning IEEE Humanitarian Activities Committee and R10 HTA Initiate Program Supporting Fund



The IEEE Sarawak Subsection and the IEEE R10 HTC 2020 has established collaboration with Swinburne University of Technology, Sarawak Campus volunteers, Dr Xavier Chee, Dr Chew Jiuang Jing, Lai Jia Chi and Dr Angelia Liew San Chuin and has won USD2000 as well as USD5000 from the challenges under the IEEE Region 10 HTA Initiate Program Support Fund 2020 and IEEE HAC respectively. The two funded Humanitarian Technology Projects has been executed in Dec 2020 in Sarawak.

The first project titled “Community Empowerment Promoting Safe and Sustainable Food Production” aims to boost the local communities’ resilience of food supplies (i.e., enhance food security) through encouraging the establishment of family/kitchen gardens with the use of organic fertilizer, compost.

The second project titled “Enhancing Humanitarian Engineering within The Vulnerable Communities” project aims to spread the awareness of climate change, clean water, hygiene and pandemic COVID-19 to the vulnerable communities (i.e. rural communities and school children). While the final project of “Tackling Challenges To Water-energy-food Security (WEF) Nexus” aims to introduce and start a student discourse on the challenges and potential solutions on the WEF Nexus.

More information and updates about the projects are available at <https://r10htc2020.org/projects>