

Source of Funding: OGCIO - 中學 IT 創新實驗室

Title: Virtual Reality (VR) Development(Project 1) and HoloLens (MR) Development(Project 2)

SWIFT coding and application course

Courses:

1. Project 1: 30 Hours

VR Metaverse Platform Development Course (10 Hours): 20-30 students

VR 2D/3D Environment Blender Design Course (10 Hours): 20-30 students VR Motion Platform Development Course (10 Hours): 20-30 students

2. Project 2: 20 Hours

MR (Microsoft HoloLens) Unity Development Course (10 Hours): 20-30 students

MR Design system and App Development Course (10 Hours): 20-30 students

3. Project 3: 24 Hours

3a Re-run “Swift and Xcode programming and coding”: 15 students

3b Re-run “Swift and Xcode programming and coding”: 15 students

Funding: \$247,500

Hardware:

Project 1:

- Virtual Reality Headset (Pico Neo 3 128G)
- 360 cam
- XYZ Printing – 3D Scanner
- DJI Tello
- PC with display card

Project 2:

- Mixed Reality Headset (Microsoft HoloLens 2)
Project 1: Engage VR virtual platform software license (Metaverse platform with Unity development tools)

Funding: \$160,462

Total: \$407,962

Title: Underwater robot workshop

Courses:

Workshop 1:

- Introduction to Micro Controller on using motors and sensors

(Class size: 26, 5 sessions of 2 hours, total: 10 hours)

Workshop 2:

-Dive into Underwater Robotics: Building and Operating Your First ROV (Class size: 26, 5 sessions of 2 hours, total: 10 hours)

Workshop 3:

Exploring the Deep: Advanced Techniques for Designing and Programming Underwater Robots

(Class size: 26, 5 sessions of 2 hours, total: 10 hours)

Funding: \$105,000

Hardware:

Underwater robot x 13

Funding: \$65,000

Total: \$170,000