The Hong Kong ICT Awards 2021

Our Department's Chairman Prof. Raymond Tong and his team developed the **AR-Home & AR-Centre Rehab platform (**智能家居及中心 **AR** 復康指導訓練平台**)**. They award **Smart Living (Smart Healthcare) – Certificate of Merit** in The Hong Kong ICT Awards 2021.

Here is the brief description of their innovative project:

The AR-Home & AR-Centre Rehab platform utilises state of-the-art depth sensors (e.g. Microsoft Azure Kinect) for 3D body tracking, with customised software specially designed for a virtual interactive rehabilitation environment. The research team has invited more than 16 professional physiotherapists and occupational therapists from 7 local rehabilitation centres to design 46 training exercises, including upper-limb, lower-limb, balance, and coordination training modules. Some exercises can interact with special therapeutic tools (hula hoop, yoga ball, yoga stretch resistance band, balance board, and skateboard, for example). Therapists can design personalised traning plans for individuals from these modules. The team overcame the technological challenges by providing a platform for therapists to monitor users' body movements and provide real-time posture guidance, with secure tele-rehabilitation connection with data encryption. At home, the system can be easily set up as it simply requires a mini-PC, a depth sensor, internet connection and a TV/monitor.

http://www.bme.cuhk.edu.hk/arhome/

CU Press Release: https://www.cpr.cuhk.edu.hk/en/press/cuhk-innovative-projects-win-five-ict-awards-2021/

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