

## TV white spaces beneficiary profile:

### Highland Rural Connectivity in Fu-Hsing Township, Taiwan

*Singapore White Spaces Pilot Group*

**Fu-Hsing Township** is an aboriginal rural township located in eastern Taoyuan County, Taiwan. Famous for scenic spots including Sanmin Bat Cave, Jiabanshan Park and more, this is an eco-system tourism spot where the local aboriginal population co-exists in the highlands.

Based on the little existence of network connectivity within the highlands, Power Automation (PA) is working closely with the Institute for Infocomm Research (I<sup>2</sup>R) and local research partners to provide a greater and wider network infrastructure to the aboriginal township using TV White Space (TVWS). TVWS creates a wireless network whose signal can cover greater distances than traditional networks and travel through the forested terrain.



For a start, a TVWS base station was set up at the roof top of the Fu-Hsing Township Office building. This is a simplified base station setup whereby the main communication path will be to surrounding areas within 3 – 10km radius of the base station.



For this implementation, the TVWS clients are set at the higher grounds of locals of schools or community centres. Connectivity via TVWS will facilitate faster and communications from the various pockets of highlands and the more highly populated lower grounds.

Designed for optimum coverage to the populated pockets, TVWS could be easily expanded to various corners of the highlands to ensure better and faster connectivity within the island.

Moving forward, the establishment of more TVWS connections will ensure better communication linkage between the Township Office and the rural high grounds in the bid to improve latency of communication, rural medical services and even emergency services.



For more information, please contact Singapore White Spaces Pilot Group member from Power Automation, Kerk See Gim, at [sgkerk@pa.com.sg](mailto:sgkerk@pa.com.sg)