

**Lab name: Broadband Multimedia and Wireless (BMW) Lab., Taiwan
Tech**

Advisor: Ray-Guang Cheng

Broadband Multimedia and Wireless (BMW) Laboratory offers design, analysis and optimization services for wireless/mobile networks supporting Internet of Things (IoT) applications. Currently, we have two research teams: 5G and IoT.

The 5G team is mainly involved in OpenAirInterface (OAI) open source project. This team was invited by EURECOM as a Core Team Member of OAI Software Alliance (OSA) and actively participate in NB-IoT and 5G New Radio (NR) projects. In 2018, we are invited by the Open Source Intelligent Network Research Center, National Chiao-Tung University, Hsinchu, to participate in the "OAI-based 5G base station" research project. Drawing and jointly developing the world's first 5G network with fully virtualized RAN Slicing and Network Slicing capabilities combined with OAI and M-CORD technologies.

The IoT team is mainly involved in the "Taiwan Building Technology Center" Project. We cover all aspects of an IoT system, including the embedded system collecting data from sensors, the network gateway driver software, the cloud platform, the IoT management platform, as well as big data analysis. We use PTC ThingWorx commercial IoT platform to develop IoT system integration and management platform. In recent years, we have developed management system for solar energy, smart meter, smart space, and smart dispenser.