

## **Industrial Workshop**

**Organiser: Vincent Lee**

**Company/Organisation: TMY Technology Inc. (TMYTEK)**

**Title: 5G & 6G Communication Testbeds**

**Abstract:** TMYTEK's mmW-SDR accelerates wireless advancements, integrating mmWave tech with Software Defined Radio. This state-of-the-art testbed empowers researchers with beamforming, frequency conversion, and SDR capabilities, unlocking mmWave potential for 5G FR2, radar sensing, and beam management. Engineered for precise wireless communication and sensing, mmW-SDR prioritizes features like fast beam switching, rapid T/R switching, and wide beam steering. Tailored for creativity in researching 5G FR2, O-RAN, radar telecom, NTN, JCAS, JCR, JRC2LS, and more, it marks a year of driving wireless innovation since its inception.

### **I. Introduction**

Challenges in mmWave Research High cost and limited accessibility of mmWave instruments

Industry Insight Sharing (5G/B5G and 6G, SATCOM and Radar sensing)

### **II. Barrier Breakthrough: TMYTEK Rapid mmWave Prototyping Solution**

Collaboration with NI USRP platform

Comprehensive Coverage in Wireless Communication Prototyping

### **III. Research Enabling Features**

Facilitating 5G/B5G and 6G Research

Addressing Key Research Topics MIMO

Communication and Sensing

mmWave Beamforming

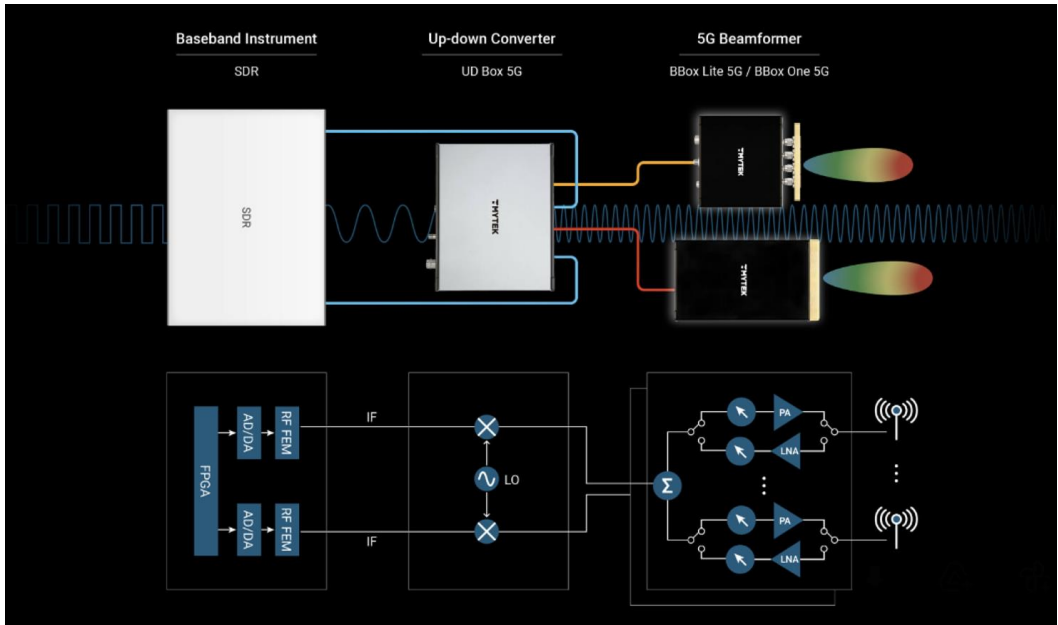
Reflective Intelligent Surface (RIS)

### **IV. Case Study**

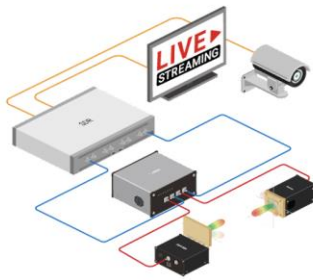
### **V. Conclusion**

Significance of TMYTEK and NI USRP Collaboration in Overcoming Barriers

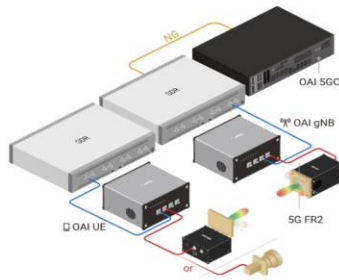
Paving the Way for Future Innovations in mmWave Research



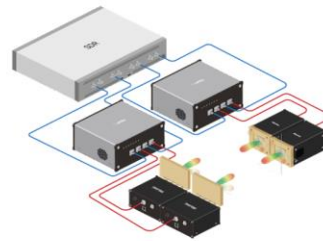
**LIVE HD Video Streaming**  
For Capability Presenting



**OAI Integration**  
For O-RAN Ecosystem Developer



**MIMO**  
For mmWave Communication System & Beam Algorithm Developer



**Speaker:**



**Vincent** has been with TMY Technology Inc., the world's leading provider of 5G/SATCOM beamforming solutions, since 2019. He works closely with European universities, delivering cutting-edge 5G mmWave prototyping platforms for antenna verification and wireless communication. Vincent's deep understanding of the industry's complexities and trends, combined with his commitment to expanding internet access using TMY's state-of-the-art technology, makes him a valuable asset to the company's mission. Vincent's leadership and sales abilities have contributed to the growth and success of TMY Technology Inc., earning him respect in the industry.