

**Area:** Module and System

## **THE MEASUREMENT METHOD OF I-V CURVE USING AN ARRAY TESTER WITH CAPACITOR**

Yu Na Park<sup>1</sup>, Gil Soo Jang<sup>1</sup>, Suk Whan Ko<sup>2</sup>, Gi Hwan Gang<sup>2</sup>, Jung hun So<sup>2</sup>, Young Seok Jung<sup>2</sup>,  
Young Chul Ju<sup>2</sup>, Hye Mi Hwang<sup>2</sup>, Hyung Jun Song<sup>2</sup>

<sup>1</sup>Korea University, Korea, <sup>2</sup>Korea Institute of Energy Research, Korea

Many studies about reducing the loss of photovoltaic system through the maintenance is implemented nowadays. It is hard to distinct the fault of photovoltaic system with naked eyes. Specially, at the huge photovoltaic array systems, the fault of individual modules can lead the huge loss of the entire systems. Therefore, it is necessary for diagnosis of PV array performance by measuring the multi-channel arrays simultaneously using the capacitor characteristics. Also, the mismatching loss of arrays in field is confirmed by comparing the simulation and measurement results.

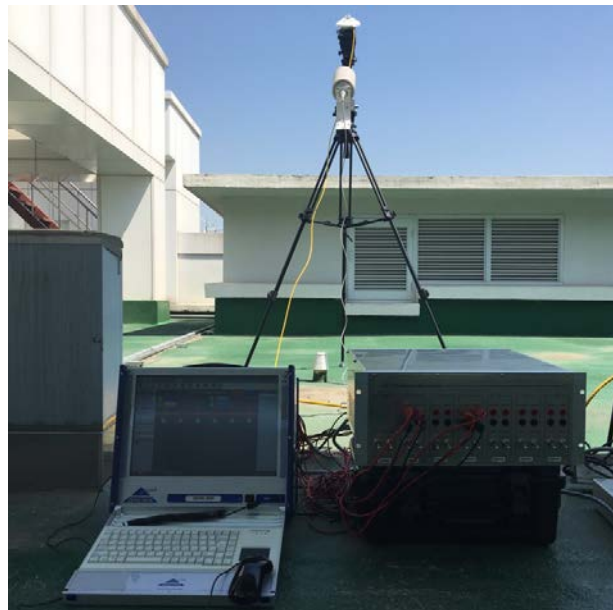


Figure 1: Measurement of 10kW PV arrays