

## **Experimental investigation of mitigation method of flashover discharge on solar array**

In the satellite development, higher voltage has become necessary in order to transmit higher power efficiently. As a result, the electrical discharge accidents on the solar arrays have been increased. Electrical discharge accidents on the solar arrays can cause serious damage of the satellite. Therefore, it is necessary to develop the technology for mitigate electric discharge immediately. The most serious electric discharge is called “Secondary arc”. There are several processes to reach secondary arc such as electrification, electrostatic discharge and flash over on the solar cell.

My research purpose is mitigating flash over current on the solar cell. I tried two ways to mitigate discharge. As the first way to mitigate discharge, I use insulator screen and conductor screen to reduce the amount of current which flow into discharge point (Flash over current). And as the second way, I insert reactor into the current pass of flash over.