Design and fabrication of a solar power system for an active rfid tag

Nji Raden Poespawati, author

Abstrak

An active Radio-Frequency Identification (RFID) tag is a low-power device, which is often used as a tracking device, where operation of this tag will be in remote areas from an electrical power source. Therefore, this device requires an independent power source. To meet these needs, solar power may be used, which can be accessed anywhere there is sunlight. Supercapacitors (SC) are used as an energy source to support a solar power system. The advantage of supercapacitors, as an energy storage device, is their long life cycle that means more charging and discharging processes compared to a conventional battery. The design and fabrication of a solar power system for an active RFID tag with supercapacitors as the energy storage will be covered in this paper.