

IEEE Malaysia Section Newsletter

IEEE Dielectrics and Electrical Insulation Society (DEIS)

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Smart Hybrid Solar Energy Harvesting and Storage System Design Challenge

The IEEE Dielectrics and Electrical Insulation Society (DEIS), in collaboration with IEEE University of Malaya Student Branch (UM SB) and Power and Energy Society (PES) Malaysia Chapter, had successfully secured the 2020 IEEE Region 10 Educational Activity (R10 EA) New Innovative Challenge Fund. They were awarded USD \$500 as the winner in the University Category. The title of the proposal is “Smart Hybrid Solar Energy Harvesting and Storage System Design Challenge.”

Solar energy harvesting is increasingly gaining attention due to it is freely available and environmentally friendly. However, solar energy cannot be used at night, thus requiring an energy storage system. Individual solar energy harvesting and storage systems are less practical due to the cost and maintenance issue. Therefore, an alternative solution is to have a hybrid energy harvesting and storage system. They are more practical due to their potential in providing autonomous power sources, such as sensors, wearable electronics, and autonomous monitoring. The hybrid device architecture needs to be carefully selected according to the specific intended application to ensure adequate durability.

The challenge is expected to be held in October and November 2020 at the University of Malaya. The participants will consist of first and second year undergraduate students from public and private universities in Malaysia.

