

Report on

Demonstration on Hybrid Solar Inverter for PV Power Generation

Organized by Department of Electrical & Electronics Engineering

2-11-2018 to 3-11-2018



Department of Electrical & Electronics, Madanapalle Institute of Technology & Science organized a practical demonstration session on **“Hybrid Solar Inverter for PV Power Generation”** on 2-11-2018 to 3-11-2018 in the seminar hall followed by the Interactive session with the faculty members and Govt. Officials of AP Government in the Board Room of MITS to create awareness on the latest technologies available for the PV power extraction and further for integration with the grid.

Dr. Pavana Kumar, Simlife Electric Private Limited, Bangalore, an Industry Expert and consultant in the area of Power Electronics was the resource person for the event. He Started Multiple Centers of Excellence (COE) for GE, APC, Bloom, Schneider electric, SunEdison and Infineon which resulted in 100s of Millions of USD worth products Designed and Manufactured every year in India. He has more than 35 years experience in the area of Processor based Designs of UPS, Drives, SMRs, Fuel Cells, energy meters, Solar Inverters, Design for six sigma and DMAIC of six sigma, and other power electronic equipment's using Simulation Tools like Saber, Matlab, Mathcad, Minitab, P-spice, etc. He has developed and introduced several new products Globally which includes 350VA – 40kVA UPS, DC and AC Drives, Energy meters / Ballasts / SMRs-12000A, String inverters-25kW -50kW, Solar inverters-100W-50kW, SOFC Fuel cells, Wind Converterw-1.5MW etc. He has several Patents and Publications in his credit in addition to the products that he has developed satisfying/complying to international standards.

The Program started by 11.00 a.m. with the welcome address by Dr. Asha Rani M. A., HOD EEE Department. Further, Dr. C. Yuvaraj, Principal of our institution gave the presidential address where he highlighted about the consultancy activities our college has taken up in the recent times. Further, Dr. P B N Prasad, Associate Director R&D, given a special address and Dr. K. R. Kashwan- Dean EEE & ECE highlighted about the area of expertise of EEE department faculties and also about the consultancy works they are carrying out. Later, Dr. Pavana Kumar given a presentation about the various technologies available for solar PV power extraction with the merits of each of them. He also highlighted about the technologies he has developed for the same and he also suggested about the selection of topologies for power extraction based on location and demand. In addition, Dr. Mr. Sandeep Dama, Director-Quantum Energy Solutions Taiwan and one of the BOG Member of the institution was also present on the day. During his interaction with the faculty members he gave a presentation about the existing technologies available for Electric Vehicles and Energy Storage. He also mentioned about the future scope in this area as well. After the completion of the interaction session, Dr. Pavan Kumar and his team given a demonstration about how solar PV power can be extracted and can be integrated to the grid via Hybrid Solar Inverter.

The idea behind the interaction cum demonstration session is to give an insight to the participants (faculty members of MITS and Govt. Officials) working in this area about the advancements in PV power extraction technologies for efficient power generation and grid integration. Almost 50 faculty members from various department of our Institute got benefited with the course.

