

# Department of Mechanical Engineering

Faculty Development Program  
“Sustainable Solar Skills Development” – 10<sup>th</sup> to 14<sup>th</sup> December

## Program Report

The Dept. of Mechanical Engineering and The Solarman Company have collaborated through Imperial Society of Innovative Engineers (ISIE, India) with a promising and very innovative program for faculty which was conducted from 10<sup>th</sup> December to 14<sup>th</sup> December at KL deemed to be University. The main aim of the program was to bring in hands on practical experience on the Installation, O&M and EPC of Roof top Solar Photovoltaic systems for house and commercial buildings application to the faculty of Mechanical Dept. and this program was open to individuals from other institutions and industries.

The resource person Mr. H Kartik Arun, CEO of Solarman India had many years of experience in developing renewable energy projects in South East Asia, India and Europe. His focus has been on Energy Efficiency and Solar Projects of developing countries.

The program commenced in the presence of Dr. A. Srinath, Head of Dept. ME along with the faculty of Mechanical Engineering who belonged to the research group Energy and CFD which was headed by Dr. P. Issac Prasad. Since the theme of the program was very innovative and futuristic, the second year Post Graduate students from the Thermal Engineering Specialization were also given an opportunity to be a part of this program. A few individuals from other institutions and an industry based person from Tata Solar power attended the program.

The entire program went on with interesting lectures by the resource person which included video analysis, statement opinions, debates and interactive discussions. The attendees were given an opportunity to discuss any sort of an innovative ideology in the field of Solar PV wherein which a few projects were pearly discussed.



The practical part and the hands on experience for Roof Top solar was carried out on the existing Solar PV system which is installed in the campus on the C-Block. The afternoon sessions on second, third and fourth days completed dedicated for practical work on solar roof top PV the concepts of System design confirmation, Construction plan, Layout & Installation of PV racking, Installation and wiring of the PV modules to form 2x separate strings, Installation of the inverter and Commissioning of the system were worked out with simultaneous and continuous discussions by the resource person. The faculty and the students were given an opportunity to study and bring out the Pros and Cons of the existing system which provides a chance to develop the existing system for better power output.



The last of the program was completely dedicated to open discussion and an sample exam paper where in which everyone had to work out of real time problem and the essential concept of Cost analysis and Return on Investment was discussed in detail. The program concluded with a group discussion session and a facilitation to Mr. H. Karthik Arun. The faculty and students have deliberated the program as a very advantageous and thought provoking which would help them in future entrepreneurship and research in the field of solar energy technologies.

