



SREE VIDYANIKETHAN ENGINEERING COLLEGE

(Autonomous)

Sree Sainath Nagar, Tirupati – 517102

Department of Electrical and Electronics Engineering

A two day Skill Development Programme on “**Hardware implementation and Troubleshooting of Power Electronic Converters**”

A two day Skill Development Programme on “**Hardware implementation and Troubleshooting of Power Electronic Converters**” is organized under TEQIP-II for IV B.Tech Students of Electrical & Electronics Engineering and M.Tech students of Electrical power systems in Simulation Lab on 15th & 16th October, 2016.

On 15th October, 2016 the first day morning session was handled by Dr. Elangovan D, Associate Professor, School of Electrical Engineering, VIT University. He explained about the importance of Power Electronics and its applications in various Electrical Engineering fields. Also he gave brief knowledge on recent trends in power electronics, problems associated with the integration of renewable energy to the grid, necessity of green power, fuel cell type renewable energy conversion and explained about his recent projects in power electronics.

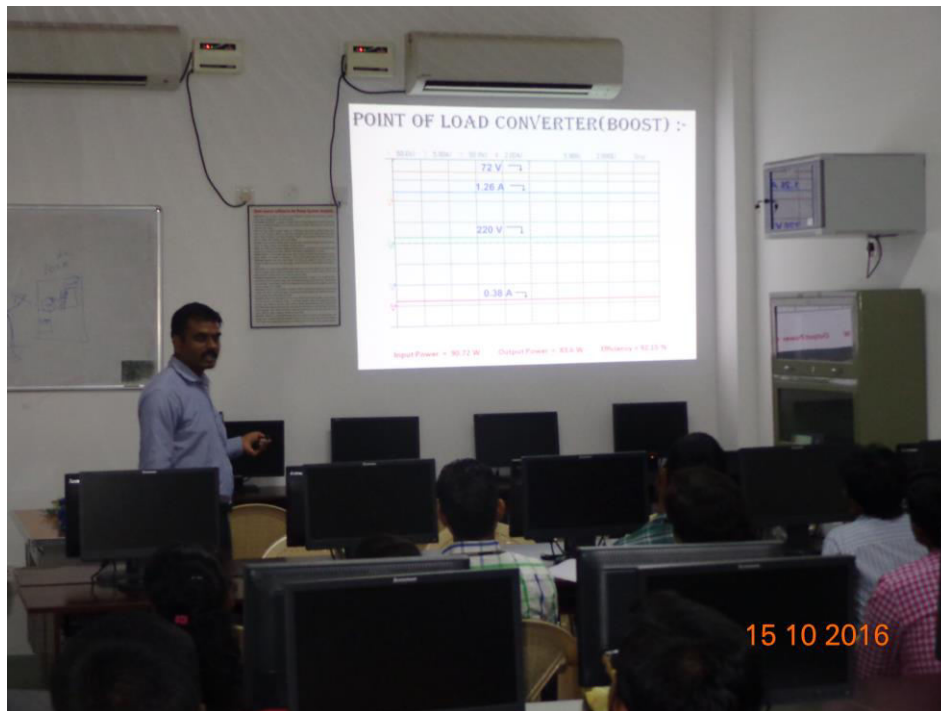
The session pre lunch was taken by **Mr. D.S.B. Nagasudhan**, Design Engineer, Raana Semiconductor Pvt. Ltd., Salem. He explained in detail about the different types of rectifier circuits and also gave hands-on training on designing of different rectifier circuits.

The session post lunch was taken up by **Mr. G. Arunkumar**, Assistant Professor (Sr.), School of Electrical Engineering, VIT University, who gave detailed information about Single phase thyristor bridge rectifier along with firing circuits and control strategies. He also gave a hands-on training session on design and implementation of the single phase half bridge rectifier circuits with UJT firing for R-load.

On 16th October, 2016 morning session was continued by Mr. G. Arunkumar and he explained about DC-DC boost converter and its applications. He also explained the problems that are commonly faced during the design and implementation of power electronic circuits. A Hands-on training session was also held on designing a DC-DC boost converter with the help of **Atmega-328** microcontroller. The participants were introduced to Arduino programming software for writing programs for microcontrollers and were also made to simulate the hardware design using PROTEUS simulating tool.

The session post lunch was taken up by **Mr. E. Rajasekhar**, Design Engineer, Raana Semiconductor Pvt. Ltd., Salem. He explained about Single phase/Three-phase two level inverter with Sinusoidal pulse width modulation & multi level inverters and also gave hands-on training on design and implementation of a boost inverter using MOSFETS as switching devices.

The two-day programme session ended with an interactive session with the faculty members, tutors and student participants.



Dr. D. Elangovan Delivering lecture on recent trends in power electronics



Mr. E. Rajasekar showing the working of DC- DC Booster circuit



Mr. G. Arunkumar explaining the design of converter circuits



Mr. E. Rajasekhar and Mr. B. Nagasudhan explaining the troubleshooting of converter circuit.