## G. Pulla Reddy Engineering College (Autonomous): Kurnool IEEE Student Branch (STB15721)

09/01/2016

Sub: Report on Renewable Energy and Smart and micro grid - Reg

G.Pulla Reddy Engineering took an initiation in organizing a workshop on "Renewable energy and Smart, Micro Grid" in order to cope up with the latest trends in renewable energy by the faculty, researchers and practicing engineers and hence to transfer the knowledge for the benefit of the humanity. Prof B.K Bose and Dr KSiva Kumar were invited for this workshop as resource persons. A total of 93 members were attended this workshop.

Dr. Bose held the Condra Chair of Excellence (Endowed Chair Professor) in Power Electronics at the University of Tennessee, Knoxville, since 1987. He also has served the IEEE in various capacities. He is presently Honoris Causa, IEEE Life Fellow, Department of Electrical Engineering and Computer Science The University of Tennessee Knoxville, TN, USA.

Dr. Siva Kumar K has rich experience in the areas Multilevel inverters, open-end winding induction motor drives, Switched Mode Power Conversion, microgrids, Power quality and control. He is working as Assistant Professor, Department of Electrical Engineering, IIT Hyderabad since March 2011. Previously he worked as Design Engineer, American Power Conversion (India) Pvt. Ltd., Bangalore and as Adhoc faculty, Department of Electrical and Electronics Engineering, NIT Warangal.

During the workshop the following topics were covered.

- ➤ Brief review of evolution of industrialization and increasing demand of energy due to rising world population and the quest for the improvement of pour living standards.
- > Global warming by green house gases due to burning of fossil fuels.
- > The methods of solving or mitigating the global warming.
- > Features of various renewable energy sources.
- > Brief review of bulk storage techniques and modern smart grid systems.
- Micro grid design and operational challenges.
- ➤ Power electronic converters for hybrid AC/DC micro grids.

The following are few snapshots of this workshop.



