

Sarvajanik Education Society

Sarvajanik College of Engineering & Technology

SUTEX – Faculty of Electrical Engineering

**Report on one day workshop on Energy Conservation Awareness**

*One day workshop on Energy Conservation Awareness was arranged by Electrical Engineering Department (EED) on 11<sup>th</sup> September 2017. The program was sponsored by Gujarat Energy Development Agency (GEDA) – A Government of Gujarat Organization. The program was conducted by M/s. Global Energy Consultancy Agency, Vadodara. More than 100 students registered for the workshop. In the inaugural function, Dr. Shabbir Bohra, Head of Electrical Engineering Department, delivered welcome speech which was followed by a key-note address by Mr. R M Panchal, proprietor, Global Energy Consultancy Agency, Vadodara. He focused on activities and initiatives taken for energy conservation and awareness by GEDA. Dr. Vaishali Mungurwadi – Principal, faculty of engineering, SCET encouraged the participants for energy conservation through her motivational message. Dr. Hardik P. Desai concluded the inaugural function by presenting the vote of thanks. Ms. Mahima Patel, Master of Ceremony, beautifully and successfully anchored the program.*

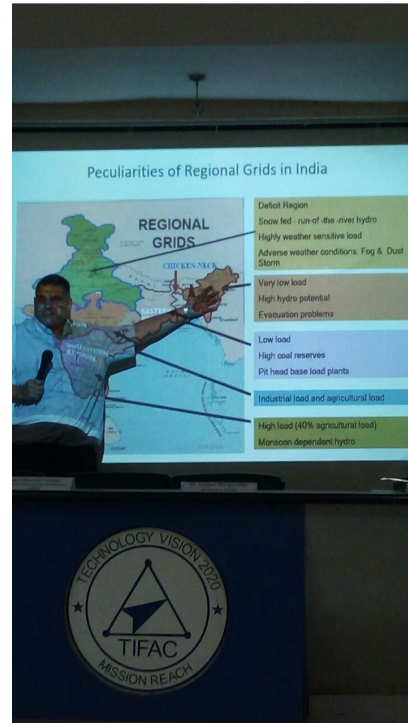




*The technical session started with the overview of the energy sector and Energy scenario in India, where Mr. R M Panchal explained different commercial sources, their reserve and expected life. He remarked that heavy dependence on imported energy (80% of oil, 15 to 20% of coal and Gas), poses serious questions about energy security and balance of payment. To meet challenges of climate change and environmental pollution, improving energy efficiency is a cost effective solution.*

*He also discussed about why energy should be saved. He explained how the investment can be reduced using energy efficient tube lights, fan etc.*

*Residential, Commercial, and LT Industries Tariff was discussed by him. Case study for bill analysis of engineering industry was also discussed. He has talked about getting rebate by industry by improving power factor and by shifting load to night/off peak period from peak period.*



*In the technical session II, conducted by Mr. Devesh N. Shah, Executive Engineer, GETCO history of electricity was discussed. He explained power system components from generation of electricity to end consumer. State and regional grid system was discussed by him. Main features of electricity act 2003 were highlighted by Mr. Shah. As well how the grid discipline is maintained and how can power be managed economically and how the voltage level is maintained were explained by Mr. Devesh.*

*Measures of saving electricity in motors & pumps were highlighted by Mr R M Panchal. Different standards like IS 7538-1996 (agriculture motors), 12615-2004 Energy efficient motors, American standard - Nema-mg-1-2003 Premium efficiency ,IS 12615-2011, ISO 50001 etc. were covered.*

*To make the sessions interesting, various case studies were included to highlight the energy conservation practices employed by various industries towards energy conservation, cost reduction and sustainable development. Power factor and its importance were also discussed. Some of the case studies were discussed. Public/government organization can also identify energy conservation opportunities (ECO) and can contribute towards sustainable development. In this context, it was presented that Vadodara Municipal Corporation achieved the annual saving of Rs. 294 lakh by replacement of 45000 36W tube*

*lights (45W consumption) with 15W LED. Information on Energy Conservation Act was also disseminated and the importance of BEE star rating and the energy consumption and the method of calculating energy for these different starred equipments was also discussed. The significance of BEE star rating while purchasing the TV (LCD, plasma), room air conditioner, heater, refrigerator, washing machine etc. was communicated to the participants.*

*Mr. R M Panchal, Proprietor, Global Energy Consultancy Services, explained the process of Energy Audit. Energy audit is aimed to improve energy productivity i.e. To reduce energy consumption per unit product. Different steps for energy audit like monitoring and control, reduction of losses, maintenance, more efficient equipments, more efficient processes etc. were highlighted. Mr. R M Panchal also gave information regarding different renewable sources and use of renewable sources.*

*All the sessions were highly interactive and participants actively interacted with the experts. The workshop was very interesting and successful and met the objective for which it was planned and organized. At the end co-ordinators Dr. Hardik P. Desai and Dr. Shabbir S Bohra extended thanks to all the experts, Global Energy Consultancy Services, GEDA and all the participants for making the workshop a success.*

*Dr. Hardik P. Desai,  
Dr. Shabbir S. Bohra  
Workshop Coordinators*

*Dr. Vaishali B. Mungurwadi  
Principal,  
Faculty of Engineering,  
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