

Sarvajanik Education Society
Sarvajanik College of Engineering & Technology, Surat
Department of Electrical and Chemical Engineering

A
Report on
One Day Workshop
“Energy Conservation Awareness”

Conducted by Soham Technologies



Date: 30th September 2019

Time: 9.30-4.00 PM

Venue:

1. TIFACE Seminar Hall
2. Electrical Engineering Dept. Laboratory
3. N.J. Seminar Hall

Participants: BE IV Sem-VI Electrical Engineering & Chemical Engineering students

Total Participants:

Faculty coordinators:

Electrical Engineering

1. Prof. Sharad Patel
2. Dr. Sandhya Rathore
3. Dr. Kalpesh Patil

Prof. Aditi Hajari

HOD (Electrical Engg. Dept.)

Chemical Engineering

1. Dr. Swati Sharma
2. Prof. Srujal Rana

Dr. Swati Sharma

HOD (Chemical Engg. Dept.)

One Day Workshop on **“Energy Conservation Awareness”** Schedule is as follows:

| Sr. No | Timing | Event/Topic |
|---------------|------------------|---|
| 1 | 9:30 to 10:00 am | Inauguration of Workshop |
| 2 | 10:00 to 1:15 pm | <ul style="list-style-type: none">- Need for Energy Conservation – Energy Scenario- EC Opportunities in Industrial Utilities- Energy Audit & Instrumentation- EC Act & BEE Schemes – PAT, S&L and ECBC- Recent Developments in Renewable Energy Systems |
| 3 | 1:15 to 02:00 pm | Lunch Break |
| 4 | 02:00 to 3:30 pm | <ul style="list-style-type: none">- Energy Audit / Monitoring Instrument Demonstration- Q&A Session- QUIZ |

One day workshop on Energy Conservation Awareness was arranged by Electrical Engineering Department (EED) and Chemical Engineering Department together on 30th September 2019. The program was sponsored by Gujarat Energy Development Agency (GEDA) – A Government of Gujarat Organization. The program was conducted by M/s. Soham Technologies, Vadodara. More than 100 students registered for the workshop. In the inaugural function, Dr. Utpal Pandya I/C principal, SCET delivered welcome speech which was followed by a key-note address by Mr. B. N Raval, proprietor, Soham Technologies, Vadodara. He focused on activities and initiatives taken for energy conservation and awareness by GEDA. Mr. Srujal Rana – Faculty of Chemical Engineering Department, SCET encouraged the participants for energy conservation through her motivational message. Dr. Kalpesh Patil- Faculty of Electrical Engineering Department concluded the inaugural function by presenting the vote of thanks. Mr. Kashyap , 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. Rajendra Pandya 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 were 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.

He discussed how Chemical Engineering People will think about the energy conservation and implies in the practical field.

The second session was conducted by Mr. B. N. Raval where along with the theory different energy conservation practical were included. He discussed about the GETCO. 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. As well as how the grid discipline is maintained and how can power be managed economically and how to maintain voltage level. Moreover, measures of saving electricity in motors & pumps were highlighted. 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.

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 were 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. B. N. Raval, Proprietor, Soham Technologies, 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. He 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 Prof. Surjal Rana, Dr. Swati Sharma, Dr. Kalpesh Patil, Prof. Sharad Patel, Dr. Sandhya Rathore extended thanks to all the experts, Soham Technologies, GEDA and all the participants for making the workshop a success.

The feedback is given by the Electrical and Chemical Students:

“It was very interesting topics about the energy conservation and learnt many more as final year electrical students “said by Raj Ladha.

“ It was a good understanding about how to increase the efficiency of Chemical plant by applying energy conservation scenario as final year students” said by Vivek Rana.

The positive feedback about the one day workshop on “Energy Conservation Awareness” list goes on...

Thank you



