CEPT
UNIVERSITY
FACULTY
OF TECHNOLOGY

ENGINEER'S DAY
2015

ROOFTOP SOLAR PHOTOVOLTAIC (SPV) SYSTEM

About E-Day

Engineer's Day is celebrated on 15th September as a tribute to Bharat Ratna Shri M. Visvesvaraya, on his birth anniversary.

Academic activities done on E-Day

- Socio-Economic issue that concerns Ahmedabad, today.
- Think, Develop, Detail and execute a structure on campus.
- Expert Lectures.
- Student activities, wall painting, quiz, cultural event, treasure hunt.

Topics for past E-Days

1999: Fire Fighting Measures in Multi-Storied buildings
2000: Study of Causes for Dengue in Ahmedabad
2001: Assessment of School Building Vulnerability and its Preparedness for Disasters
2002: Rain Water Harvesting: As a means of Averting Crisis in Ahmedabad
2003: Construction Safety and Labour Condition in and around Ahmedabad
2004: Study on Signalization of Junctions in Ahmedabad city
2005: Study on Waste in Construction
2006: Home buying Made Easy
2007: Energy Conservation in Residential Building
2008: Traffic Safety
2009: Development and maintenance of Infrastructure in Municipal Schools
2010: Water management at consumer-end in residential Ahmedabad
2011: Plastic management
2012: Socio-economic condition of Construction Workers in Ahmedabad
2013: Impact and Response of Real Estate Developers and Consumers towards Green construction in Ahmedabad

Topic of E-Day 2015

Rooftop solar photovoltaic (SPV) system

Need :-

- The burning issue of the 21st century is climate change. A key driver of climate change is greenhouse gases (GHG) emissions. The need of the hour is to curb the GHG by reducing the use of conventional sources of energy and encourage the use of renewable energy sources.
- One particular source is, Solar, India having combine solar potential of 750 GW, yet it is not able to utilize this source.
- Ahmedabad receives abundant solar radiation for minimum of 6 hours a day.

Objectives :-

To promote the use of SPVs instead of the conventional sources; and to explore the possibility of using solar energy as a means to achieve the same for Ahmedabad.

Scope :-

-Study of feasibility of SPV system in city of Ahmedabad.
-Analysis of the gap between new and old policies.
-Study of existing scenario (in the city) to analyses the opportunities available for installation of SPVs.
Identifying opportunities by gaining facts about SPV from new and existing users.
-Spreading awareness among developers and non-user for generating electricity using renewable energy sources such as SPV.

Working Committee

Faculty Advisory Committee

Dr. A Srivathsan
Academic Director
Acting Dean
FT, CEPT University

Prof. Reshma Shah
UG Co-Ordinator
FT, CEPT University

Prof. Devanshu Pandit
Associate Professor
FT, CEPT University

Faculty Co-Ordinator

Prof. Komal Parikh
Assistant Professor
FT, CEPT University

Student council

Yashrajsinh Rana
President
(9662999333)

Harshil Prajapati
Administrative Secretary
(9687146418)

Devashish Soni
Academic secretary
(8238059890)

Akshat Shah
Cultural Secretary
(9427614907)

Nirbhay Gadhavi
Sport Secretary
(9409656418)

Date : September 26th, 2015, 10:00 AM onwards.

Venue :
GIDC Bhavan, CEPT University,
Kasturbhai Lalbhai Campus University Road, Navrangpura,
Ahmedabad-380009.

Schedule of E-day Event on 26th September 2015 (Saturday)

Event	Timings
Prayer	10:00 am
Lighting of Lamp, CEPT Song	10:05 am
Release of E-day Compendium	10:10 am
Welcome address by Acting Dean Prof. A. Srivathsan	10:15 am
Address by Chief Guest Prof. T. Harinarayana , Director GERMI Gandhinagar	10:20 am
Key Note Session on "Solar Photovoltaic Technology" by Mr. Rakesh Arya, Assistant Project Executive, GEDA Gandhinagar	10.35 am
Expert Session on "Gujarat Government initiative for promotion of renewable energy " by Dr. Sagar M. Agravat Scientist C, GERMI, Gandhinagar	10:50 am
Presentation of Student work on "Rooftop solar photovoltaic (SPV) system"	11:05 pm
Vote of thanks by students council	11:50 pm
Inauguration of Erected structure	**11:55 pm**
Visit to showcasing students work	**12:10 pm**
High Tea (SID Plaza)	**12:30 pm**
Venue: GIDC Bhavan, CEPT University	

Brief CV

Prof. T. Harinarayana
Director
Gujarat Energy Research and Management Institute (GERMI)
Gandhinagar, Gujarat, India
Email: harinarayana@germi.res.in

Dr. T. Harinarayana is the Director of the Gujarat Energy Research and Management Institute, Gandhinagar, Gujarat. He also holds the position of an Independent Director, Gujarat State Petroleum Corporation Limited. Prof. T. Harinarayana has over 30 years of experience of working with CSIR-National Geophysical Research Institute as Scientist “G”. He is a leading scientist, well recognized for his excellence in deep EM Technique- Magnetotellurics among the national and international scientists.

Prof. T. Harinarayana holds two doctoral degrees in the field of Electromagnetics-one from Edinburgh University, UK & the other from Indian School of Mines, Dhanbad. His academic and research excellence created opportunities for him to serve as a visiting professor and scientist at the University of Tokyo, Japan and the University of Texas at Austin, USA respectively. He has also organized and chaired a large number of conference / seminars and technical sessions.

Prof. Harinarayana has done research studies at NGRI, Hyderabad for more than 30 years. His extensive study of Cuddapah sedimentary basin area of Tadiparti-Gooty-Anantapur and also in search of Kimberlite rocks for diamonds. These studies have helped to go for detailed studies that has led to the discovery of minerals in the Cuddapah basin and more diamondiferous Kimberlite pipes in Wajrakarur and surrounding regions. Harinarayana have led a team of Australian scientists to different geothermal areas of Andhra Pradesh like Bugga, Agnigundala etc. locations for possible assessment of the region and the work is under progress under Indo-Australian scientific co-operation.

Profile

Rakesh Arya, Assistant Project Executive, GEDA, Gandhinagar

Education: B.Sc. (Engineering) Electronics & Communication
from Birla Institute of Technology, Mesra, Ranchi completed in 1984.
MIE & Chartered Engineer from The Institution of Engineers (India)

Professional Experience:
29 years in Solar Energy field for Execution of Works, and implementation of Solar Photovoltaic (SPV) Programme at Gujarat Energy Development Agency (GEDA), Gandhinagar.

- Working include right from design of SPV systems, tendering, execution under various SPV programme of Government of India & GEDA. Implementation of Solar Policy in the State. The state of Gujarat through GEDA has been awarded various National & International Awards in the field of Solar PV and Renewable Energy.:

- ***Training Abroad:***
  Completed an intensive training course on Solar Electric/ Photovoltaic Technology during 1993 at U.S.A.

  Participated as one of the 12 Indian delegates in India-Japan New and Renewable Energy Seminar during 2010.

Contact Email: rakesharya@yahoo.com, rakesharya@geda.org.in

Dr. Sagar Agravat
Solar Research Wing
Scientist-C
GERMI-RIIC, Gandhinagar, Gujarat, India.
Email: sagar.a@germi.res.in

Dr. Sagarkumar Agravat is Scientist in Solar Energy Research Wing of GERMI, Research, Innovation and Incubation Centre, Gandhinagar, Gujarat, India. Dr. Agravat started his career as scientist with Sardar Patel Renewable Energy Research Institute, Vallabh Vidyanagar, where he worked on projects sponsored by Ministry of New and Renewable Energy, Indian Council for Agricultural Research and Bureau of Standards for solar thermal and photovoltaic R&D, testing and demonstration.

Dr. Agravat has a Masters in Solid State Electronics and is a certified project manager and a Ph.D. aspirant. His research interest is in development of organic photoconductors. Dr. Agravat has some very good research publications in leading national and international journals. Currently he is involved as trainer during solar technical training programs organized by GERMI Training and Development Centre and in couple of utility scale grid – connected power projects where GERMI is providing consultancy.

Engineer's day 2015:

Survey work

As a step towards its commitment for sustainable environment & continuing with the institution's rich tradition of carrying out detailed study on a topic which is techno-social in nature , Faculty of Technology(SBST), CEPT university has conducted survey in various parts of Ahmedabad to understand the problems faced by the residents and developers in adopting rooftop solar photovoltaic system as a means for generating electricity substituting the conventional sources and also spreading the awareness amongst them. Apart from this, the students had analyzed the gap between the new and the old Gujarat Solar Policy and identifying the opportunities and its limitations to be overcome in order to make the system feasible. The official announcement for the onset of the engineer's day celebration was done in a creative manner by doing a flash mob in the campus premises.

Structure summary

As a part of Engineers day, every year students at Faculty of Technology (SBST), CEPT University install a structure on the campus. The uniqueness about these structures is that they are planned, designed and executed by the students on their own, which means that the students themselves constitute the work force, decide the material to be used, prepare estimates and finally execute the structure which would be used by everybody on campus. It is the time at the Faculty of Technology, when students use their skills acquired by the virtue of their academic curriculum for creating purposeful things that are utilitarian in nature. This year the students have planned to make a structure using ecologically sound "Paper tubes". This large structure will be inaugurated on 26th September 2015.

Showcasing students work

SBST is a 10 semester program with equal emphasis on on-site training along with theoretical prowess & fostering an inquisitive outlook among students & preparing them to innovate in the construction industry.

After the concluding ceremony, an exhibition will portray the work done by students through all academic years in form of posters and reports that highlight the advances in construction technology field. The exhibition aims to map out the variety of work done by students on sites that includes advance high rise construction technologies, tunneling technologies for infrastructure projects, metro, bridges, dams and other hard core construction projects involving the use of complex technologies.