EEE Insider

Sept 2015 to Feb-2016

EVENTS AND ACTIVITIES HELD IN ELECTRICAL & ELECTRONICS DEPARTMENT

VOLUME-1

Complete Insider

By: S.Mohd.Haider Rizvi (EEE-3rd year)

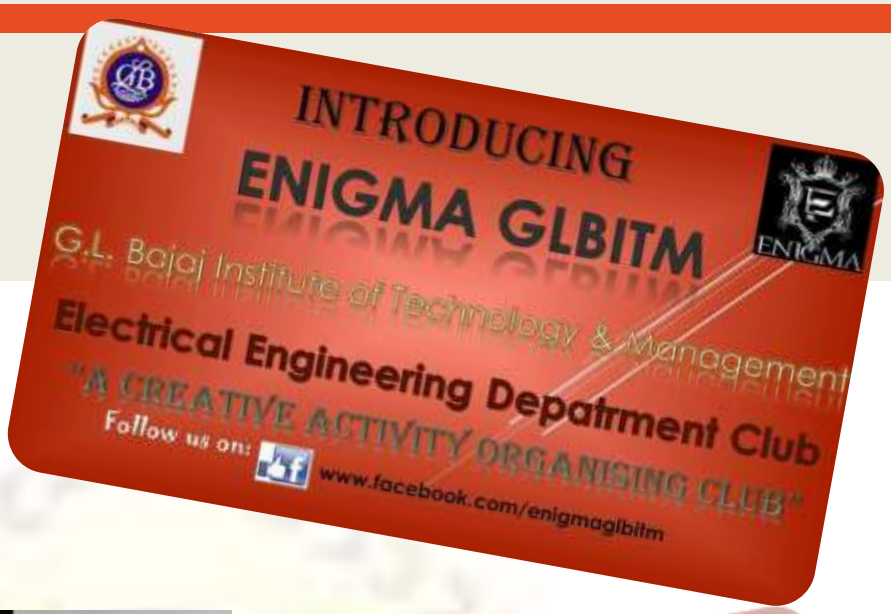
Being one of the greatest emerging branches of not only our college but also worldwide Electrical & Electronics department is setting up great milestones.

This is first of the many newsletters that will be published in this year later. It will provide a glimpse of the activities and events that are taking part in the department so that everyone would know about the hard work of the faculty and the students.

Some of the activities that took place in recent months such as formation of the departmental club "ENIGMA", industrial visit, tour, Student Development Program,FDP and much more.

"Enigma"

THE CLUB



*"An **enigma** is someone or something that is mysterious or puzzling like the hidden and unknown talents in students."*

In October 2015 in order to provide a platform for students to take part in extracurricular activities a departmental club was formed. On the same day many of the students revealed their talents, a competition of Group Discussion was also organized.

Pawan Chaudhary was selected as the president of the club and with him several other coordinators of the club were also chosen and given the responsibility of organizing future activities and to make the club a success.

From then onwards the club had organized various activities and events so that students may be able to develop their skills in various fields by taking part in competitions like speech, quiz, group discussions and much more.

Industrial Visit to Tata Motors, Rudrapur

Students inside TATA MOTORS, Rudrapur

On September 15th 2015 students visited **TATA MOTORS**, Rudrapur with faculty in charge **Mr. Kailash Sharma** and **Mr. Jitin Goyal**. Where they were put through the working of the industry and then a factory tour was arranged in which it was shown how a manual conveyer system works and how man-machine interface is carried out. Several other parts of industry were also visited**.**

Fun at Nainital

Along with studies there should also be some fun. Thus Department organized a trip to Nainital so that students can have a refreshment. At Nainital the beautiful Naini Lake was visited and Mount Everest was seen via telescope. The famous candle Market was also one of the places explored along With other beautiful places of Nainital.

Farewell

"We may lose and we may win, though we will never be here again".

VELOMA 2K16: was the name given to farewell to the final year students. Along their journey of these years they may have seen many ups and downs but in the end as it is said everything gets ok. Eyes of students were filled with tears as they were leaving behind each other though they promised to remain in touch whenever possible. Complete arrangement was done by the students of 3rd year with the help of department to make this farewell a memorable one so that whenever these students remember their last day of college it could bring a smile on their faces.

Article

Solar Power Brighter, Greener Future in India

By-S.Md.HaiderRizvi (EEE-3rd Year)

The World Bank Group is moving to help India deliver on its unprecedented plans to scale up solar energy, from installing solar panels on rooftops to setting up massive solar parks. This will catapult India to the forefront of the global effort to bring electricity to all, mitigate the effects of climate change, and set the country on a path to become the 'India of the future'.

“The world must turn to (the) sun to power our future,” India’s Prime Minister Narendra Modi said at the historic COP21 climate conference in Paris last year. “As the developing world lifts billions of people into prosperity, our hope for a sustainable planet rests on a bold, global initiative.”

Unveiling its own bold initiative, India pledged that it would derive at least 40% of its energy needs from renewable sources by 2030. This includes plans for the development of 100 GW of solar energy by 2022, an extremely ambitious target considering the world’s installed solar power capacity in 2014 was 181 GW.

Supporting India’s solar push is a key part of WBG President Jim Yong Kim’s agenda as he visits the country this week. Over FY 2017, the World Bank hopes to provide more than $1 billion to support India’s solar plans.

“India’s plans to virtually triple the share of renewable energy by 2030 will both transform the country’s energy supply and have far-reaching global implications in the fight against climate change,” said Kim. “Prime Minister Modi’s personal commitment toward renewable energy, particularly solar, is the driving force behind these investments. The World Bank Group will do all it can to help India meet its ambitious targets, especially around scaling up solar energy.”

“The world must turn to (the) sun to power our future. As the developing world lifts billions of people into prosperity, our hope for a sustainable planet rests on a bold, global initiative. "

NARENDRA MODI

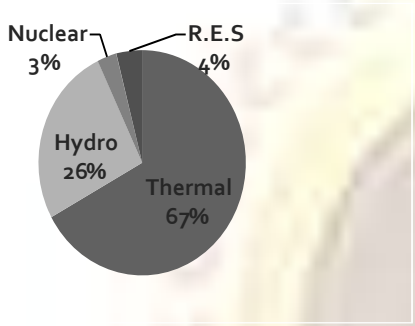
Prime Minister of India

Potential of Hydro Power Plant in India

By: Mritunjay Kr.Thakur (EEE-3rd Year)

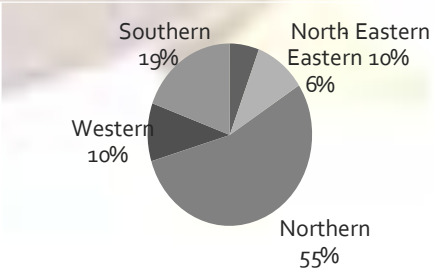
INTRODUCTION

About 26% of energy is contributed by hydro power to India. For India, the total capacity is more than 2 Lakh MW and so holds the 5th position for electricity generation in the world. According to the 2010 census of India planning commission, nearly 28.8% of Indian are below poverty line. India's per capita consumption is among the lowest in the world. In many villages household have no access to electricity? The government has programmed for an increase in per capita availability to 1000 KWh from existing 600 KWh by the end of 11th five year plan. To provide "Electricity for all" by 2012 is an attempt by the Indian government which was requiring an installation of additional capacity of more than 100,000 MW. The major electricity resources plant are thermal, hydro, nuclear and other renewable energy resources which includes solar, wind, geothermal, tidal, etc.



HYDRO POWER PLANT PROJECTS IN INDIA

India ranks third after China, USA and Russia in the world in terms of numbers of dams. Nearly 4720 large dams have been completed in the country. Hydro generating unit sizes has been increased from 22 MW (from the independence) to 250 MW till today. India has 20 underground power stations with total installed capacity of 9930 MW commissioned so far and 21 power stations with total capacity of 9951 MW are under construction. At present maximum station capacity is 2400 MW is at NathpaJhakri hydro station in Himachal Pradesh. The Tehri dam on Bhagirathi River near Tehri in Uttarakhand, is the highest dam in India and possess the tenth position for being the tallest dam in the world. The Hirakud dam on the Mahanadi River, near Sambalpur, Odisha is the longest dam (57.8Km) in the world and was first hydro multipurpose project after independence. The second largest hydro power plant is the Koyna Hydroelectric dam (capacity of 1,960MW) situated at the western ghat of India. Beside these, the Srisailam Dam across the Krishna River at Srisailam in the Kurnool district of Andhra Pradesh, the Sardar Sarovar Dam on the Narmada River near Navagam, Gujarat, the Bhakra-Nangal Dam a concrete gravity dam across the Sutlej River, Bilaspur, Himachal Pradesh and the Nagarjuna Sagar Dam on the Krishna River at NagarjunaSagar Andhra Pradesh are other major leading hydro project in India under operation.



ENVIRONMENTAL ASPECTS

Benefit of hydro plant

Renewable and green: It's a green and renewable form of energy. Its availability is unbounded. It emits low carbon emission and is ecofriendly. Its help in reducing the global warming. However, Water is source which is unlimited and cannot finish at any point of time, there are limited number of areas where a profitable hydro power plants can be constructed. But still it is a step to green energy.

Reliability: Hydroelectricity is very reliable. The fluctuation in terms of electric power is very less. This fluctuation is also seen when there is demand of different output. So, Countries which large hydro resources use hydroelectricity as energy source base load.

Flexibility: Using the closing and opening of gate the water flow control become easy. As the time of high consumption there the opening of extra gate increase the water flow and more electricity is produced. Similarly which there is low consumption, some the gate are closed to meet the requirement.

Vegetation and Fishery: The area near to a hydro plant can be used for various vegetation. Since water is stored in reservoir the water never get surplus so even in summer the vegetation can be watered from the plant. Beside hydro plant also promote fishery farms.

Safety: It a safer compare to fossil fuels and nuclear energy. These plant uses chemical whose regular expose to body can lead to various health problems. Beside this construction of dam also provide safety during the flood.

LIST OF HYDRO PROJECT IN INDIA

Sl. No.	State	Total capacity (MW)	Projects installed Capacity (MW)	Number of installed project
1.	Andhra Pradesh	250.50	178.850	57
2.	Arunachal Pradesh	1243.47	45.240	68
3.	Assam	119.54	2.110	3
4.	Bihar	149.35	50.400	7
5.	Chhattisgarh	482.82	18.05	5
6.	Goa	4.60	0.05	1
7.	Gujarat	186.37	7.0	2
8.	Haryana	36.55	62.70	5
9.	H.P.	2019.03	141.615	61
10.	Jammu & Kashmir	1294.43	111.83	32
11.	Jharkhand	170.05	4.05	6
12.	Karnataka	1940.31	441.25	70
13.	Kerala	455.53	98.12	16
14.	Madhya Pradesh	336.33	51.16	9
15.	Maharashtra	484.50	209.33	29
16.	Manipur	92.75	5.45	8
17.	Meghalaya	197.32	30.71	3
18.	Mizoram	135.93	17.47	16
19.	Nagaland	149.31	20.67	9
20.	Odisha	217.99	7.30	6
21.	Punjab	270.18	123.90	29
22.	Rajasthan	27.82	23.85	10
23.	Sikkim	214.33	39.11	14
24.	Tamil Nadu	373.46	89.70	14
25.	Tripura	30.85	16.01	3
26.	Uttar Pradesh	267.06	25.10	9
27.	Uttaranchal	1478.24	80.67	88
28.	West Bengal	213.50	98.40	23

Result

EEE-2ND YEAR (4TH SEMESTER)

1st - Saiyed Mohd. Haider Rizvi

2nd- Shivam Singh Patel

3rd- Salil Srivastava

EEE-3RD YEAR (6TH SEMESTER)

1st- Triloki Nath Sharma

2nd- Prakash Kumar

3rd- Akshay Kr. Tripathi

EEE-4TH YEAR (8TH SEMESTER)

1st- Sonal

2nd- Jyotsana Gautami

3rd- Barun Gupta