

Vision and Mission of the Department

Electrical Engineering Department nurses a vision to contribute in improving living quality by developing responsible, technical skilled, creative and industry ready electrical engineers in global context. To follow this vision, missions are:

- Provide pleasant learning environment, platform to strengthen the skills and expand the interest of graduates.
- Develop individual research and thinking power to understand and solve society's and industry's problems related to electrical and electronics systems
- Encourage and provide support to be an entrepreneur
- Inculcating attitudes, values, morals and vision that will prepare students for lifetime continued learning and leadership

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Electrical Times



Technical Training Program of Electrical Engineering Department

Electrical Engineering Department of Marwadi Education Foundations' Group of Institutions (MEFGI) had organized five day Short Term Training Program (STTP) 'Recent Trends and Practices in Electrical Systems' from 07th December 2015 to 11th December 2015.

The purpose of the event is to bring industry, academia and researchers on common platform, to discuss current trends in technology and research needs in the area of



Dr. Sarang Pandey, Dr. R B Jadeja, Dr. P N Tekwani, Mr. Naresh Jadeja

Dean MEFGI, Dr. Sarang Pande, Principal, FOPG, Shri Naresh Jadeja, Registrar, MEFGI, Dr. Siddharthsing Chauhan, HOD-EE & Co-ordinator, Training Program.

tendered by Prof.

Tapan Trivedi.

In the inaugural session Dr. P N Tekwani emphasized on need of power electronics in today's world for energy efficient systems as well as for interconnection of grid with renewable energy sources. He extended his talk by focusing on current control of multilevel inverter fed induction motor drives.



Dr. P N Tekwani

power system and power electronics and to create awareness about the modern tools available to carryout research.

The training program was inaugurated by lighting the lamp by dignitaries Dr. P N Tekwani, Director, Institute of Technology, Nirma University, Dr R B Jadeja,

Prof. P N Tekwani, Director, Institute of Technology, Nirma University was invited as Chief Guest of Inaugural ceremony. Dr. R B Jadeja had welcomed Dr. Tekwani and delegates. Dr. Chauhan had briefed participants of the program. Vote of thanks was



Dr. Siddharthsing Chauhan

Later on the same day Dr. Siddharthsing Chauhan

HOD's Desk

Electrical Engineering Department nurtured young talents in different fields of Engineering. Our major emphasis of imparting technical training to encourage curiosity and innovativeness among our students and lay a foundation from where they can acquire quick learning ability and adaptively with the fast changing needs of the industry. Our campus is an exciting place to study and grow where thinkers become leaders and where there is thirst for knowledge.

The interaction between students and professors greatly enriches the educational experience for all. Our campus provides students with the opportunities to gain and use knowledge to build successful lives and careers and become an integral part of the

"Electric science has revealed to us the true nature of light, has provided us innumerable appliances and instruments of precision, and has thereby vastly added to exactness of our knowledge."

- Nikola Tesla

Humor

A Polish airlines was on its daily flight from Warsaw to Switzerland. While flying over the Alps, the aircraft hit turbulence and started to shake violently and become unstable. The airhostess seeing the panicked reaction on the faces of the passengers took the microphone and said, "We need to make the aircraft stable. All Poles please move to the left half of the plane".

Technical Training Program...

enlightened participants to the application of current control to power quality compensation devices.

On the 2nd day Dr. Bhargav Vyas, Associate Professor, L. E. College, Morbi started the discussion with issues of applying protection in series compensated lines. He also addressed the need of digital signal processing in various application of Electrical Engineering. This session also included hands on practice on power system application using PSCAD as a tool. Later, Mr. Manish

Parashar, Senior Manager, Schneider Electric Pvt. Ltd. elaborated current industrial practices in the field of power system protection.

The 3rd day started with hands on session on OPAL RT-LAB tool and rapid control prototyping by Prof. Tapankumar Trivedi and Dr. Jignesh Makwana. Participants appreciated usage of RT-LAB tool by performing real time implementation of Variable Frequency Drive. Dr. Santosh Vora, Professor,

Faculty of Technology, Nirma University conferred Issues of smart grid in power system and future of smart grid.

Dr. Rakesh Maurya, Asstt. Prof., SVNIT highlighted the development of nano-grid and introduced participants



Dr. Santosh Vora giving his session.

to hybrid converters that can be used for mixed DC and AC outputs on the 4th day. Dr. Jignesh Makwana introduced participants to various controllers used in closed loop systems and design of controller using MATLAB tool.

Prof. Amit Ved started 5th day's session by discussing evolution of Gas Insulated Substation and Gas Insulated Lines. The urbanization has forced utilities to go for substations which are compact, safe, and

environment hazards and maintenance free. The talk was related to development of GIS technology right from inception to present day. Dr. S N Pandya, Associate Professor, LD College of Engineering discussed various issues of interfacing of renewable energy sources in micro-grid and its protection. Dr R M Patel, Principal, HJD institute of Technology added another dimension in terms of conditioning of electrical machines. The technology can provide industries relevant information

in terms of health of machines and possible failure which is critical to manufacturing process.

Nearly 50 participants, faculty members and students were benefitted with program outcomes. They had chance to learn real time control of induction motor drive using RT-LAB, Smart grid issues, Converter topologies for photovoltaic application, and hands on practice on protection of series compensated transmission lines.

-Prof. Tapan Trivedi

Adani Group and ABB visit by faculty members

Under the initiative *one faculty one industry* of the institute faculty of the department has started visiting industry. Prof. Rajnikanth Godasara, Prof. Rajesh Mahale, Prof. Nishant Kothari, and Prof. Atul Kunapara visited Adani Port and Sez Ltd, Adani Power Ltd, Jindal Steel Work Ltd, Mundra in Kutch. During the visit they met HR head and

Training of each industry to make possible of the for future benefit for, student



Prof. Rajesh Mahale, Rajnikanth Godasara, and Atul Kunapara with Officials.

placement, student and faculty training onsite, customized technical training module delivery by faculty and student project and consultancy. This one day visit was very in terms of student and institute growth and knowledge aspect.

In the same scheme, Prof. Anurag Gupta had visited ABB (ASEA Brown Boveri) India Ltd, in Vadodara.

37 Students of Electrical Engineering Department Secure Job

As final year approaches to end of academic year there is buzz for job and future. It is proud event for Electrical Engineering Department that a huge number of students are placed successfully in different companies throughout India.

Companies like SONY India CIBPL, Collabera Technologies Pvt. Ltd, PCB Planet (India) Ltd. (circuit and system), Dharkan Enterprise, HEXAWARE, Empire Measuring Tools absorbed students offering different packages to them.

Industry/Students	
SONY India Mahrshi Bhaveshbhai Jani Jay Rameshbhai Rupapara Deep Hitendrabhai Vaghani	Dharkan Enterprise Jay Pareshbhai Suchak Ajaysinh Jadeja
CIBPL Amit Gunvantrai Dave	Empire Measuring Tools Radhikaben Bhupatlal Sarvaiya Rushim Rameshbhai Chudasama Rucha Himanshu Joshi Keyur Kamleshbhai Raiyani
Collabera Technologies Pvt. Ltd Akash Udaybhai Joshi	
PCB Planet (India) Ltd. (circuit and system) Akash Udaybhai Joshi	HEXAWARE Ankit Dhirubhai Kabariya Mahrshi Bhaveshbhai Jani Suril Kaivalyabhai Pathak Parth Shaileshkumar Bhatt Jekin Kumanbhai Zalavadiya Nirav Rajendrakumar Buddhbhatti Kashyap Hashmukhbhai Gadhiya Suryadeepsinh Jayrajsinh Jadeja Hardik Navinchandra Paradva Deep Ketankumar Shah Atul Nepal Bhattacharya Amin Osman Halai Nakul Bhoopathbhai Panchasara Ishani Kirtikumar Bhatt Keval Haribhai Nakrani
PCB Planet Jekin Kumanbhai Zalavadiya Kevin Rohitbhai Pipaliya Mohit Jayantibhai Ghelani Hardik Navinchandra Paradva Hardik Nanubhai Sadariya Sagar Ganeshbhai Raval Ankit Ishvarlal Kabariya Mihir Vijaybhai Shah Vivek Mansukhbhai Kachariya Ankit Prakashbhai Savaliya	

Achievement of Pranav Vayas in Music

This year MEFGI team was selected for final auditions under music category from which

Mr. PRANAV VYAS was selected for various categories of singing and as a percussionist. He was shortlisted for one month training camp at Ahmedabad.



Pranav Vyas (extreme left) with his team

Pranav is not only the first student from MEFGI to get selected in GTU team but he

National level under the category of folk orchestra. He credited his success to his music teacher, Mr. Malav.

He believes in overall development of a person, if one has a hobby to achieve something in it so not waste the gift of talent which you have received, respect it, nourish it and enrich it

to develop yourself into a better human being.

STTP on Power Electronics at IIT Roorkee

Dr. R B Jadeja, Dr. Jignesh Makwana, and Prof. Dinesh Chabhadia attended quality improvement program focusing on power electronics application at IIT Roorkee



Dr. R. B. Jadeja, Dr. Jignesh Makwana, Prof. Dinesh Chabhadia

between 25 December and 30 December 2015. The

program was titled as on "Application of Microprocessor given by Dr, Pramod Aggrawal on various topics related to microcontroller and its architecture, and its application to power converter. It also includes various sessions on hands-on practice with controller. Our three esteemed professors have benefitted with and successfully completed 5 days program. They obtained a completion certificate at the end of the program.

Up Coming Events

GTU TechFest

Marwadi Education Foundation's Group of Institutions is going to host TechFest for zone 4 from 26 and 27 February 2016. Many students of Electrical Engineering have shown their keen interest in participating and coordinating technical and non-technical events. Prof. Nishant is the departmental coordinator for the event.

BioMedical Academy

BioMedical Academy is going to start its second module from 16th of February 2016. Registration link is open till 15th February. In this module, biomedical sensors, biomedical imaging (e.g., MRI, CT, X-ray) and biomedical signal analysis shall be discussed.

SIG Program

Spatial Interest Group (SIG) program will be held by Prof.

S. K. Bhagwan and his team to develop students' personality through two days interactive sessions. It will continue till the end of the semester. Student from various departments will be selected in a batch for the program.

Placement Companies

In the month of February, Anupam Electricals & Engineering Industries Pvt Ltd and Ashapura Minechem Ltd are scheduled to come for placement. We wish a very good luck for our students who will be appearing in the recruitment process.

Electrical Engineering

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*Knowledge is the
Currency of 21st Century*

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How Can I be a Contributor instead of just being a Consumer?

Energy is necessary for economic growth, for a better quality of life, and for human progress said by Mac Thornberry. We likewise know the need of power in our day to day life, but do we care about the Power Shortage? If we see All over India power supply position indicates that the country is expected to experience a peak shortage of 2.0% and energy shortage of 5.1%.

What is Power or energy Deficiency? It is a condition that occurs in an electric power system when the total real or reactive power of the power plants in the system is insufficient to supply all the consumers with electric power of the required quality.

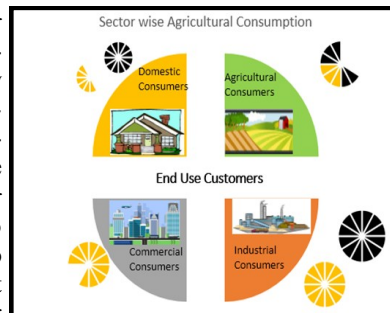
To meet our Peak Demand or our Power defi-

demand or to gain grid Stability for a Short Period of time through Demand Response. Consumer's convenience.

To maintain a grid stability over a day if utility divide a day in different time zones and each sector's consumer can be a contributor at a different time zone by modifying their Consumption for a short time period. Thus the grid reliability can be maintained and peak load is also met without affecting the

- Prof. Heema Joshi

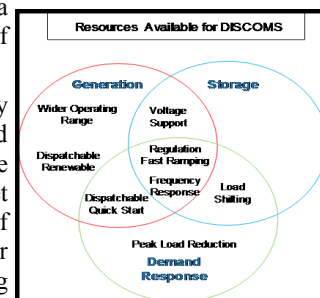
storage system which will also help to meet Peak Demand which is very costly. And the approach reduces our overall c o n -



sumption for a short period of time.

As we already know Indian grid is under severe stress and to meet the demand of electricity power sector is expanding its generation capacity but is it the only way to meet the demand? I think no there can be another way which is transformation our Consumers in to Contributors, but how is it Possible? Yes, Demand Response.

What is Demand Response?



Demand Response refers to the intentional modification of electricity usage by end-use customers during system imbalances and market prices. In simple terms when the utility ask Consumers or to reduce or shift the load

by any means either SMS or E mail we should slightly modify our consumption pattern and should become a contributor.

End-users of electricity are categorized in commercial, domestic, Industrial and agricultural.

Consumers from different category has different electricity consumption pattern so the Demand Response Programme will be different for each category. And each sector can act as a Power resource to Utility to meet their peak

Placement Preparation with AMCAT

Department has started classes for AMCAT (Aspiring Minds Computer Adaptability Test) for 8th and 6th semester classes. AMCAT belongs to a class of tests to check employability of the student. These tests are conducted by companies such as AMCAT, CoCubes, CEAT, and ELITMUS. Many companies use such kind of test for their recruitment process. Therefore, students of the department are expected to grab this opportunity to increase their chances of employment by attending AMCAT classes in full strength.

Prof. Pushkar Tripathi has been assigned to lead a team of faculty members that will put its effort to prepare students for next year's placement drive.