



**Vadodara Institute of Engineering, Kotambi**  
**Electrical Engineering Department**  
**Academic Year 2015-16**

**Project Fair Report**

**Electrical Engineering Department**

**Date: 12<sup>th</sup> April, 2016**

A project fair was organized on 12<sup>th</sup> April 2016 by Electrical Engineering Department. This platform will help to make continuous contact between all stake holders from all team members, Faculty Guide, Industry-mentors, fabricators etc. This platform will increase collaboration and co-creation while improving novelty of project works. The online platform is developed to fill the physical gap between various stake holders for their needs to develop innovations. It provided a stage for industry persons to analyze ideas of students that can be helpful for industries in future. Moreover the pre final year students also had a clear idea as to how they are supposed to carry out their projects in the coming year by visiting the fair and interacting with the final year students. They also learned various managerial skills by helping in organization of the fair.

Total 35 projects were demonstrated by final year students. They have displayed the poster of their project and working models to make it easily understandable for junior students, visitors of the fair. An open invitation was sent to all the staff members and students of the institute and outside Industries.

Experts from industry, Faculties from hosting, second year and third year students have visited the fair. This fair provides a great platform for final year students to share their learning, ideas and experiences with the visitors to organize this project fair we had invited following industrial persons to evaluate and give necessary suggestions to the students:

<b>Sr. No</b>	<b>Name of Person</b>	<b>Name of Industry</b>
1.	Dr. Vinod Gupta	Director, ERDA.
2.	Shree N.D. Makwana	Rtd. Executive Engineer, GETCO.

An Interaction session was organized at the end project fair. Experts from industry have shared the experiences with faculty members and students. They discussed the important stages of project development and discussed the current trend in Electrical.



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**Project Demonstrated During the Fair**

Sr. No	Team Members	Project Title	Internal Guide
1	Jaivik J. Pandya. Jay r. ray Utkarsh Jani Soniya Purswani	Automatic Fire Detector and Extinguisher Robot	Prof. Madhusudan Gohil
2	Harnish Chawda Mayur patel Manthan Mehta	Hybrid energy system	Prof. Rachna parikh
3	Hardik A. Vaidh Jaiminkumar U. Patel Alkeshsinh P. Gohil Ranjitkumar R. Vanzara	Variable frequency drives to control speed of Induction motor using SPWM technique	Prof. Madhusudan Gohil
4	Roshni Shah. Shivani Pancha Prinsa Rathod Hardi Parikh	Static soft starter for 3-phase induction motor	Prof. Varun J. Pithwa
5	Patel Dharmik Dhobi Shashank Sharma Rikin Singal Kaushik.	Implementation and design of bidirectional speed regulator for PMDC Motor	Prof. Darshit patel
6	Hemil Patel. Nikunj Vaghasiya Ishan Mistrv.	Aqua Generator	Prof. Varun J. Pithwa
7	Hitakshi N. Kesarkar Vihangi J. Patel	Autophase switching during unbalanced loading & power theft detection	Prof. Madhusudan Gohil
8	Abhi Patel Bhumi Taylor Jyothish Eyyani Sujitkumar Yadav	Different protection scheme of 3-phase induction motor using 2 numerical relays	Prof. Varun J. Pithwa



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9	Bhatt Dhruvil Patel Gaurang Patel Dvipesh Uniyal Ayush	Disaster management using GSM embeded system	Prof. Varun J. Pithwa
10	Sonar Mohit Divyang Veshvikar Vinod Urdhva Tejas Joshi	GSM based energymeter monitoring & load carrying using 8051 microcontrollers	Prof. Darshit patel
11	Salmankhan Pathan Anup Patnaik Huzaif Fatak Chintan Shah	Wireless noticeboard displays with announcement system	Prof. Madhusudan Gohil
12	Vhora Sahir Falak Parikh Rushi K. Gandhi Divyaprakash Parmar	High frequency DC to DC voltage boost converter	Prof. Madhusudan Gohil
13	Pankaj Movaliya Dhaval Mathukiya Jigar B. Vyas Patel Pranav	Automatic monitoring conveyor belt with AC drive using PLC & SCADA	Prof. Rachna parikh
14	Kirtesh Parikh Jaydeep Patel Harka Chalaune Akuraj Patel	Street light intensity control detecting for movement using sensor	Prof. Rachna parikh
15	Patel Snehalkumar Kadivar Mahmadafzal Ankit Raj Jigar R. Vyas	Solar based air compressor pump for car, bike tire inflates	Prof. Darshit patel
16	Sagar Morkhade Chokshi Harsh A Dhakhada Vanraj J Patel Hiren K	Reactive Power measuring & control using hybrid filter	Prof. Rachna parikh
17	Deepak R. Sharma Darpankumar Panchal Rajan patel Naitik patel	Solar tracking path vehicle	Prof. Darshit patel
18	Anand Desai Choksi Sachin	Speed control of dc motor with use of buck boost converter	Prof. Darshit patel



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19	PARMAR HEMENDRA OAD ALPESH PANCHAI RHAVIN	THREE PHASE FAULT ANALYSIS SYSTEM WITH AUTO RECLOSING SYSTEM	PROF.ABHISHEK PATEL
20	PATEL JIGAR M BHAVSAR CHINTAN YADAV ANIKET VARIYA UMANG	Automation of Tem. Control in Boiler using Boiler	PROF.PARTH SHAH
21	JAIN MAHIT V. MISTRY KARAN R. NANDOLIYA SANKET D. PARMAR DEVANG R	ADAPTIVE PROTECTIVE SCHEME FOR UNINTERRUPTED POWER SYSTEM	PROF VIDIT DESAI
22	RAWAT PRAPTI VIKRAMSINGH ANKIT PARMAR CHIRAG MAGANBHAI ZINZUWADIA NIDHI BHUPATBHAI	1 PHASE Matrix converter using SPWM	PROF.PARTH SHAH
23	PATEL HARDIK ANILBHAI MAYAVANSHI MITESH ARVINDBHAI PARMAR VIVEK NAGJIBHAI BHATTI FAIZAL ABDULRAHIM	HIGH VOLTAGE IMPULSE GENERATION BY USING MARX GENERATOR PRINCIPAL	PROF.HENAL BHAGATWALA
24	MAKWANA JIGNESH R. DEVPURKAR TANUJ D. AGRAWAL ANKIT M. VARIA DHAVAL M.	AUTOMATIC RAILWAY CROSSING MODIFIED GATE USING SOLAR SYSTEM	PROF VIDIT DESAI



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25	<p>PATEL HARSHKUMAR V.</p> <p>VAGHELA BHAVIKKUMAR M.</p> <p>PATEL NIRALI S.</p> <p>PRAJAPATI HARSH M.</p>	HAND GESTURE ROBOTIC ARM	PROF.ABHISHEK PATEL
26	<p>CHAUHAN PRATIKKUMAR JAYANTIBHAI</p> <p>TALATI TIRTH SANJAYBHAI</p> <p>PATEL PANTHESH VINODBHAI</p> <p>PATEL MEET MAHENDRAKUMAR</p>	GENERATION OF ELECTRIC POWER USING RENEWABLE ENERGY SOURCE WITH THE HELP OF MEGLAVE WIND MILL.	PROF.HENAL BHAGATWALA
27	<p>AMHEDA VASANT H.</p> <p>VITHALANI RAVI S.</p> <p>PANDYA NACHIKETA G.</p>	DISTRIBUTION GENERATION USING RENEWABLE RESOURCES IN SMART GRID ENVIRONMENT	PROF. HENAL BHAGATWALA
28	<p>KULKARNI AJAY D.</p> <p>PATEL MILAN B.</p> <p>PHADKE ANANT U.</p> <p>ZAVERI AADARSH T.</p>	ENERGY SAVING AND SAFETY IN ELECTRICAL SYSTEM	PROF. HENAL BHAGATWALA
29	<p>DAVE PRAHARSH MAULIKKUMAR</p> <p>CHAVDA ARPIT A.</p> <p>PATEL POOJA V.</p> <p>MOKANI MAHESH K.</p>	GENERATION OF ELECTRICITY FROM SEWAGE, TREATMENT OF SEWAGE AND OBTAINING MANURE FROM SAWAGE	PROF VIDIT DESAI



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30	PATEL KIRAN R. PATEL PRATIK A. SULE SHARMIL R. THAKKAR DHRUV P.	MAXIMUM POWERPOINT DUAL TRACKING USING STEPPER MOTOR	PROF.PARTH SHAH
31	PAGEDAR SIDDHARTH D. MARATHE MILIND D. PARMAR RONIT H. KHANDELA NIKUNJ	MILITARY PROBLEMS IDENTIFICATION AND REMEDIES	PROF VIDIT DESAI
32	BHATI SURBHI AJITSINH SHAH SHIRALI DEVEN SONONE NEHA RAMESH	MAINTANING VOLTAGE PROFILE USING FC-TCR	PROF.ABHISHEK PATEL
33	GAJJAR SHIVANGI MILINDRA GHATGE SHWETA BALASAHEB SONAVANE GAYATRI RAMKRUSHNA	SOLAR BASED AUTOMISED SUBMERSIBLE PUMP.	PROF.PARTH SHAH
34	VARDHAN TEJESHW SOLANKI NIRMAL DIVEDI AMIT	PELTIER BASE HEATING & COOLING	PROF.PARTH SHAH



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35	LIMBANI DUSHYANTKUMAR MOHANLAL  HATHILA PRADIPKUMAR RATANBHAI  PANCHAL JIGARKUMAR VISHNULAL  PARMAR JITENDRAKUMAR	MORE EFFICIENT POWER GENERATION BY RENEWABLE ENERGY SOURCE - WIND	PROF ABHISHEK PATEL
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**Photographs of Project Fair Event:**

**Project showcase by Students Group**



**Project Evaluation by industry Experts**







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**Best Three Projects:**

By combining the judgment of experts from Industry, internal guide and faculty members, following projects were chosen as best three projects are as follows:

Sr. No.	Name of Students	Enrollment No.	Title of Project
1.	Hemil Patel Nikunj Vaghasiya Ishan Mistry	120800109070 120800109026 120800109038	“Aqua Generator”
2.	Kulkarni Ajay d. Patel Milan b. Phadke Anant u. Zaveri Aadarsh T.	130803109011 120800109107 120800109112 120800109113	“Energy saving and safety in electrical system”
3.	Bhatt Dhrumil Patel Gaurang Patel Dvipesh Ayush Uniyal	120800109007 120800109043 120800109044 120800109049	“Disaster Management using GSM embedded system.”

**Photographs of Students Best Three Projects:**

**1. Aqua Generator**



*Aqua Generator*

The project was undertaken to design a mobile electric power generator by means of Hybrid Power Generation to ensure that use of fossil fuels are used as less as possible and inspire to use renewable resources. As the non-renewable sources are vanishing quickly, we have to use renewable sources. An optimal system is supposed to produce a large volume of hydroxy gas using a very little power. Such a system will be able to reducing air pollution while generation of electricity using mobile generators. A revolutionary idea for cost saving of fuel in generation may lead to efficient and economical electricity. HHO cell technology which is used in automobiles is carried out for generation of electricity in mobile combustion engine generators.

**2. Energy saving and safety in electrical system**



The aim of the project is to focus on points which matters to residential and industrial system with an ample amount of information. We've divided our project in 3 parts

1. Safety
2. Energy Savings
3. General

**3. Disaster management using GSM embedded system**



***Disaster management using GSM embedded system***

In this project we have given protection against three disaster that are fire, gas leakage, and theft. Our project is based on 8051 microcontroller which is heart of our project. We have also used GSM Modem for sending the sms to the user about the disaster. In case of fire at home the fire sensor will sense the fire and the buzzer will sound an alarm and at the same time the water supply will be there. In case of gas leakage the gas sensor will sense the leakage and the buzzer will sound an alarm



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***Feedback:***

As every event is also an opportunity to learn something new and also to find shortcomings so that it can be managed better next time. So we have taken feedback from students, Industry experts and faculty members. Some of these are discussed herewith along with the photographs of the event.

**Student's feedback**

Being evaluated by company professional and explaining about our project to other students we can maximize our learning. I suggest making this kind of fair organized at zone or university level.

**Zaveri Aadarsh T.** (Enroll No. 120800109113)

We got good knowledge about recent trends in Electrical through various types of project ideas that can develop our reflective thinking

**Hemil Patel .** (Enroll No. 120800109070)

**Industry expert's Feedback**

It was pleasure to examine UG level project, I am thankful managing trustee, principal and head of department (Electrical) has given the opportunity to visit project fair as a industrial expert. Students come with really nice concept and thoughts some students put very good effort to make working model of new concept. I would also like to thank you for hospitality provided at your institute. Wishing all students for their bright future.

**Faculty's Experience**

**Prof. Ujjaival J. Patel** (HOD Electrical Engineering Dept.) - It was a learning phase for final year as well as pre final year student about creative ideas and recent trends in different fields of Electrical engineering. Organizing that kind of events help students and faculty members to interact industry expert and put their ideas in real situation.

**Prof. Abhishek M. Patel** (IDP/UDP Co-ordinator) - This kind of session provide good platform for student to know which type of problem can arise when implementation their ideas in industries. This can also helpful to another student to generating their ideas about various topics.

***Submitted By:***

***Prof. Ujjaival J. Patel***

***I/c HOD, Electrical Engg. Dept.***

***Vadodara Institute of Engineering***