A Report on Final Year Project Fair

Fair Organizer : Automobile Engineering Department, NSIT, Jetalpur
Date : April 25, 2016
Reported by : Bharadwaj Rao
Preparation Date : April 27, 2016
• **Introduction**
  
  - We have arranged a project fair of the final year Automobile engineering students, as a Part of GTU innovation council program. In which **total 25** groups of the students had participated actively and shown their innovative ideas by posters and working model.
  - Project fair gives platform for the students to show their skills so that they can get inspiration and also positive interacts from Indusial expert, internal faculties, HODs and Principal.

• **Guest/Experts’ Profile**
  
  - For the evaluation and exposure to the industrial ideas and techniques we have invited an expert from the industry.
  - **Mr. Chintan Shah**  
    Manager  
    Sharma Hyundai (Ashram Road)  
    Ahmedabad

• **Some moments of project fair**
Best three Projects

As per the evaluation by the experts we have selected three best projects among 25 projects.

1st Winner:

<table>
<thead>
<tr>
<th>SR. NO.</th>
<th>ENROLLMENT NO.</th>
<th>NAME OF STUDENT</th>
<th>IDP OR UDP?</th>
<th>PROJECT TITLE</th>
<th>GUIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>120340102024</td>
<td>Hardik Bhavsar</td>
<td>UDP</td>
<td>Pollution Free Transportation System</td>
<td>Mr. Bharadwaj Rao</td>
</tr>
<tr>
<td></td>
<td>120340102003</td>
<td>Jignesh Patel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340102029</td>
<td>Brijesh Patel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340102013</td>
<td>Yash Patel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340102040</td>
<td>Shubham Patel</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Abstract:

Pollution is major problem all around the world, so it may be controlled for human welfare. When we discuss about air pollution, automobile sector is the major contributor of air pollution. Especially in developing countries like India, the use of all type of vehicles are too high which increase the air pollution.

If we use electricity as an option of fuel in transportation system this problem can be solved. The first edition of wireless charging is carefully planned description of the Capstone Design Project held by undergraduate students at Rutgers University.

The goals are....

1. To build and understanding of concepts and ideas in terms of learning.
2. To emphasize the relationship between conceptual understanding and real world applications of the theory.
3. To provide engineers strong Foundation for developing the project.
2nd winner:

<table>
<thead>
<tr>
<th>SR. NO.</th>
<th>ENROLLMENT NO.</th>
<th>NAME OF STUDENT</th>
<th>IDP OR UDP?</th>
<th>PROJECT TITLE</th>
<th>GUIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>120340102007</td>
<td>Jayesh Gupta</td>
<td>UDP</td>
<td>Advance Mileage Indicator</td>
<td>Mr. Bharadwaj Rao</td>
</tr>
<tr>
<td></td>
<td>120340102017</td>
<td>Shaikh Sarfaraj</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340102038</td>
<td>Sandeep Jha</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340102042</td>
<td>Abhijeet Mahanti</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Abstract:

- The project advance mileage indicator is very useful for that purpose to people know there fuel economy as well as fuel use is also effect the environment so it can be useful to us to reduce fuel use by increasing vehicle fuel economy.
- If we know the vehicle fuel economy and then if it is reduce so we can know and try to find the reason behind that ultimately it increase vehicle life also. Presently there is different mileage recorder available in some vehicles (like Bajaj pulsar). But it can give only the mileage that is obtained between two successive refueling. Moreover it will give only the distance traveled in terms of kilometers not giving the read as per kilometer/litter. It’s nothing but another kilometer indicator with a reset button, from which mileage will be calculated manually.
- Our advance mileage indicator will show the mileage [in Km/lit] on a display. Our mileage indicator will give how much km the vehicle will travel per liter of fuel. Thus the driver can know the optimized driving condition to saving fuel.

3rd winner:

<table>
<thead>
<tr>
<th>SR. NO.</th>
<th>ENROLLMENT NO.</th>
<th>NAME OF STUDENT</th>
<th>IDP OR UDP?</th>
<th>PROJECT TITLE</th>
<th>GUIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>120340102043</td>
<td>Vijay Dubey</td>
<td>UDP</td>
<td>Design &amp;</td>
<td>Mr.</td>
</tr>
</tbody>
</table>
Abstract:

Our project is to design, build & fabricate a robust driveline & braking system off an off road All-terrain vehicle which functions to operate in various off road conditions like hill-climb, rock-climb, desert ride, defense purpose etc.

The Society of Automotive Engineers International (SAE) has selected the NSIT College to design and build ATV for competition use.

The team must make a robust ATV which can be tested under all severe condition in off-road racing. Also as we aim to build lightest possible ATV, we had mainly focussed on Topology optimization technology which deals with weight reduction upon possible area of field without affecting the output efficiency.

As the challenge to build lightest & robust transmission, we are working on this problem statement by making use of a automatic CVT driven spool drive.

Also as we want to lock up all four wheels at same time of braking with minimum of stopping distance. So we are using hydraulic Disc braking system at all four wheels & calculated the required braking terminology in theoretical calculations.

The project aims also to reduce the overall cost which is certainly possible by this type of driveline system use.

- Feedback from the industrial expert:

It was my pleasure to come and evaluate the projects of the Automobile engineering dept. It was really good experience the projects. I found that students have innovative ideas and trying to implement them in their project prototypes. I found maximum projects which were made by students were trying to increase the engine efficiency & were trying to utilize the renewable sources of energy for the engine working.

I have founds some students were energetic & keen to learn new things & I hope such students can be placed in our workshop as well. I will be prevelidged to attend such project fairs in near future as well.

Mr. Chintan Shah
Manager
Sharma Hyundai
• Feedback from the students:

Project fair which was conducted by our college was very appreciable and we got to learn many practical things from it. The expert who has come from industry has given us more ideas to develop our project in even better manner. I hope such events are organized every year in our college.

Sarfaraj Shaikh
8th Auto A

Project fair which was conducted on 25th of April was very innovative & usefull to us as well as to our juniors because all the projects of department were in display to all the students in campus and by which many of the juniors must have got some new better ideas to prepare their projects in next year. As well as industrial expert has given us a great feedback in every individual project & by which we are able to rectify our mistakes.

Vijay Dubey
8th Auto A

• Feedback from the Faculties:

Project fair is a podium for the final year students to show their hard work of 1 year in which they worked hard under the guidance of faculty guide & built their projects. An expert from industry takes a look & gives them a feedback by which they can even more improvise in their project before the external examination. I feel its a really useful fair which our college is organizing every year in our campus.

Biren Desai

• Outcomes

Overall from this academic project fair students knew the application implementation of designing in the project, project innovation techniques and ideas, further modification in the project and actual technologies going in industries. And moreover they got motivation towards technology for future business.

Final Year Project Poster Exhibition 2016 (25/04/2016)
## Civil Department

<table>
<thead>
<tr>
<th>SUBJECT</th>
<th>PERTICULARS</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE</td>
<td>25/04/2016</td>
</tr>
<tr>
<td>PLACE</td>
<td>NSIT, JETALPUR</td>
</tr>
<tr>
<td>COLLEGE</td>
<td>Narnarayan Shastri Institute Of Technology, Jetalpur</td>
</tr>
<tr>
<td>OUTLINE OF EVENT</td>
<td>Poster Presentation Per Group, Model, Canvas Presentation &amp; Evolution By Expert</td>
</tr>
</tbody>
</table>
| EXPERT PANEL           | 1) Mr. Atul Nandankar (VPAN Industries)  
                          He has an experience of 9 years on many Commercial, Institutional, Hospitality, Residential Projects. He had done various projects in India. (TCS IT Park-Mumbai, US Consulate-Mumbai, Danish Trade Commission-Ahmedabad.  
                          2) Mr. Harshal Parikh (VMS Consultancy)  
                          Associate Consultant at VMS Engineering Consultancy of more than 9 years of experience. Industrial expert of Vishvakarma Yojana of GTU |
| NUMBER OF TEAMS        | 40 Teams                                                                    |
| FEEDBACK FROM EXPERTS  | • Atul Nandankar:  
                          Overall topics taken by students are very innovative.  
                          Need improvement in presentation on project topic.  
                          Detail cost factor working is require.  
                          Overall experience was good.  
                          • Harshal Parikh:  
                          Literature summary needs to be improve  
                          Indian Standard Codes provision are required in all projects  
                          Title for all projects needs proper justification & then it can be finalize |
| FEEDBACK FROM FINAL YEAR STUDENTS | Poster presentation is helpful to us to present our topic before external project exam (Students from 8th Sem Civil Department) |
| FEEDBACK FROM FACULTY  | • Good efforts by the students to compete in this corporate world (Axay Shah)  
                          • Students represent their project work in poster very nicely (Darshan Shah)  
                          • All students have the idea about their project work & take part in this competition (Darshan Shah)  
                          • Good team work had seen during the project fair (Axay Shah) |
| FEEDBACK FROM 3RD YEAR STUDENTS | • Nice & innovative topics were taken (Vraj Shah)  
                          • Model presentation was really good (Patel Umang)  
                          • We all are inspired a lot after seeing this fair & it will be helpful to all of us to carry out our project work in last year (Harsh Patel) |
LEARNING FROM EVENT

- Students have good exposure of presenting their research work
- Students can understand about the research gap
- Students enjoy the team work

TOP THREE GROUPS:

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Enrol. No</th>
<th>Name</th>
<th>Project Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12034106011</td>
<td>Archit Patel</td>
<td>Geosynthetic Materials</td>
</tr>
<tr>
<td></td>
<td>120340106052</td>
<td>Shubham Desai</td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340106058</td>
<td>Jay Maniyar</td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340106059</td>
<td>Shail Patel</td>
<td></td>
</tr>
</tbody>
</table>

Abstract: Geotextiles can be defined as a fabric or synthetic material placed between the soil and a pipe, gabion or retaining wall, to enhance the water movement & retard soil movements and act as a blanket to add a reinforcement & separation. Geotextiles also known as industrial & high performance textiles. They are materials and products manufactured primarily for their technical & performance property rather than for aesthetic & decorative characteristics. Our aim of the project is to provide economical design of pavements.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Enrol. No</th>
<th>Name</th>
<th>Project Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>120340106083</td>
<td>Panchal Dhyanesh</td>
<td>Steel Fibre Reinforced Concrete</td>
</tr>
<tr>
<td></td>
<td>120340106091</td>
<td>Verma Jeet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340106106</td>
<td>Patel Vatsal</td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340106111</td>
<td>Barolia Rehain</td>
<td></td>
</tr>
</tbody>
</table>

Abstract: Steel Fibre Reinforced Concrete (SFRC) is defined as concrete containing randomly oriented discontinuous discrete steel fibres. In this study the effect of steel fiber content on properties of concrete is investigated by using beams specimens. A comparative study is conducted by applying a dynamic load. The tests were carried out to on different percentage of steel fibres specimens to detect the flexural behaviour of steel fibre reinforcement concrete and its cracking behaviour. Laboratories studies on SFRC specimen suggest that dispersion of steel fibres in concrete improves the mechanical characteristics of the composites, notable resistance to dynamic load, fatigue resistance and post cracking strength. Steel fibre reinforced concrete emerged to have the respective desirable properties of the ideal repair material.

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Enrol. No</th>
<th>Name</th>
<th>Project Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>120340106022</td>
<td>Kishan Soni</td>
<td>Waste Disposal Handling &amp; Management</td>
</tr>
<tr>
<td></td>
<td>120340106039</td>
<td>Yash Patel</td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340106040</td>
<td>Jay Mehta</td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340106057</td>
<td>Kinchit Kakadiya</td>
<td></td>
</tr>
</tbody>
</table>
Abstract: In present study, two major cities Ahmadabad & Mumbai were being surveyed for the different problems they are facing & the different methodologies being used for the improve of the surrounding atmosphere by doing proper handling of Solid Waste Management. The results which they get from it for the MSW Disposal, Handling & Management. The main objective of the project is to minimize the waste, energy cost saving, recycling of material, reuse & recycle of solid waste material. Certain methods are suggested after the survey by which we can make our city clean & green by reducing the volume of Municipal Solid Waste.

PHOTOS:
TABLE OF CONTENT

1. INTRODUCTION

Project fair is organized for all the final year students on 25th April 2016. There are 19 projects from Electrical Engineering Department. Out of 19 Projects we have given the rank for the best innovative projects.

2. TOTAL NO. OF PROJECTS: 19

3. TOP PROJECT DETAILS

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of the Student</th>
<th>Title of IDP/UDP</th>
<th>Rank No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Soni Sujal R</td>
<td>RAILWAY ACCIDENT AVOID SYSTEM</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Pathan Rizwan khan</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Smit Patel</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sanket Patel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Patel Kishan R.</td>
<td>EDDY CURRENT BRAKE</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Patel Dhruv B.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Patel Mahrshi A.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jiwani Lalit N.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>Bhadani Raseshkumar</td>
<td>MINIMIZING PENALTY IN INDUSTRIAL POWER CONSUMPTION BY ENGAGING APFCUNIT</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Thummar Dhrushik</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Makwana Rajan</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Noghavdara</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Axaykumar Kantilal</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1st - RAILWAY ACCIDENT AVOID SYSTEM

ABSTRACT

The increased growth in the railway sector has resulted in an increase in the train traffic density across the world. This has resulted in the increase in the number of accidents involving trains. This work is concentrated on predicting the major cause of railway accidents that is collision on the same track. The primary goal of this anti-collision system is to identify collision points and to report these error cases to main control room, nearby station. So that if any collision likely to occurs then this system will help to avoid such conditions by giving an alarm to concern units. The system is integrated with the braking system of the train and is capable of detecting the possibility of collisions in real time. All sub modules have been designed and simulated using Proteus electronic simulation package and the prototype is implemented. It is expected that if this system is implemented widely, train collisions and accidents can be avoided.

2nd - EDDY CURRENT BRAKE
ABSTRACT

Many of the ordinary brakes, which are being used now days, stop the vehicle by means of mechanical blocking. This causes skidding and wear and tear of the vehicle and if the speed of the vehicle is very high, the brake cannot provide that much high braking force and it will cause problems. These drawbacks of ordinary brakes can be overcome by a simple and effective mechanism of braking system ‘The eddy current brake’.

It is an abrasion-free method for braking of vehicles including trains. It makes use of the opposing tendency of eddy current Eddy current is the swirling current produced in a conductor, which is subjected to a change in magnetic field. Because of the tendency of eddy currents to oppose, eddy currents cause energy to be lost. More accurately, eddy currents transform more useful forms of energy such as kinetic energy into heat, which is much less useful.

A study of the properties of eddy current brakes suggests some lag effect in the action of eddy currents which increases with frequency. Using this conception, the eddy current brake works on the principle of electromagnet. It is essential use for the high speed vehicles and it comes to quick in action as compared to the mechanical brakes.

3rd-MINIMIZING PENALTY IN INDUSTRIAL POWER CONSUMPTION BY ENGAGING APFCUNIT

ABSTRACT
Automatic power factor correction device reads power factor from line voltage and line current by determining the delay in the arrival of the current signal with respect to voltage signal from the function generator with high accuracy by using an internal timer. This time values are then calibrated as phase angle and corresponding power factor. Then the values are displayed in the 2X16 LCD modules. Then the microcontroller calculates the compensation requirement and accordingly switches on different capacitor banks. This is developed by using 8051 microcontroller.

4. PROJECT FAIR EXPERT DETAIL

R. K. Sharma

Section engineer (Western Railway)

Comments on Project Fair:
NSIT had organized a very good Project fair on 25th April 2016. This fair provides a very good environment to students to interact with industry person. This fair provide proper idea to students how project model can be implemented in real time industries. How industries problem statement can be resolved by their logical model had been seen. I am thankful to get this opportunity to judges such a great fest. By this fair I got to know about latest technology altogether I guide them about the fundamental and basics of engineering. Also I teach them different analysis and statistical data collection in which they were lacking.”

5. STUDENT FEEDBACK OF 8TH SEM STUDENTS

“By this project fair we got this opportunity to represent our project model to industrial expert. With this the application and implementation of our model in today’s industrial world can be know.”

--BAGUL MIHIR S.
(120340109051)

“We got the knowledge of analysis of project by experts. They give excellent comments and encourage us.”

--RANA BALKISHAN V.
(120340109010)

“Expert told us to improve our model by different methods and guide about such latest technologies.”

-- JIWANI LALIT N.
(120340109003)

A Report on Final Year Project Fair
Introduction

- We have arranged a project fair of the final year Mechanical engineering students, as a Part of GTU innovation council program. In which total 39 groups of the students had participated actively and shown their innovative ideas by posters and working model.
• Project fair gives platform for the students to show their skills so that they can get inspiration and also positive interacts from Indusial expert, internal faculties, HODs and Principal.

• Guest/Experts’ Profile

• For the evaluation and exposure to the industrial ideas and techniques we have invited two experts from the industry.

• Mr. Bhadresh J Mistry
  Advance Tool Technologies

• Mr. Jaydeep Desai
  Varia Engineering Works Pvt.Ltd.

• Some moments of project fair
Best three Projects

As per the evaluation by the experts we have selected three best projects among 39 projects.

Best three Projects.

➢ 1st Winner:-

<table>
<thead>
<tr>
<th>SR. NO.</th>
<th>ENROLLMENT NO.</th>
<th>NAME OF STUDENT</th>
<th>IDP OR UDP?</th>
<th>PROJECT TITLE</th>
<th>GUIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1203401191118</td>
<td>vataliya himanshu a</td>
<td>UDP</td>
<td>To investigate the thrust force and material removal rate during drilling</td>
<td>Mr. Pratik Vataliya</td>
</tr>
<tr>
<td></td>
<td>120340119081</td>
<td>vaghela ravi k</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340119123</td>
<td>jha bhaskr s</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340119090</td>
<td>vaghela hardik m</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

• Abstract

Radial drilling machine is used for drilling hole in work piece. It is widely used in automobile and mechanical industries. During drilling the workpiece met with a thrust force due to drilling tool due to which sometimes the tool get damage due to continue and high thrust force. Investigation of MRR during drilling is also important to increase the production level and productivity of the work piece. So in this project investigations of the thrust force and MRR for the different parameters by using taguchi design and find the optimum condition of working on drilling machine. by this project the productivity increases tool life span is get increased and reduction in production time will take place.
2nd winner:

<table>
<thead>
<tr>
<th>SR. NO.</th>
<th>ENROLLMENT NO.</th>
<th>NAME OF STUDENT</th>
<th>IDP OR UDP?</th>
<th>PROJECT TITLE</th>
<th>GUIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>120344119003</td>
<td>Dhirajsingh Mahendrasingh Rathore</td>
<td>UDP</td>
<td>design and analysis of offshore horizontal axis wind turbine</td>
<td>Mrs. Neha Patel</td>
</tr>
<tr>
<td></td>
<td>120344119002</td>
<td>Jay Mansukhbhai Panchal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>130344119003</td>
<td>Shakunt Mukeshbhai Shah</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>130343119023</td>
<td>Mohit Maulikbhai Rathawa</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Abstract

With the world burning in the fire of global warming and the growing needs of alternative source of energy, it has become a necessity to get into the unexplored domains or sources of energy. Offshore horizontal Wind Turbine is one of the prominent tools which is used in many major countries as a source of energy and is also claimed as the emerging source considering the present conditions and needs. In India, the feasibility to make it happen in terms of resources and the required climate is very favorable still the implementation of offshore horizontal Wind Turbine as an alternative source of energy is not in force and unexplored. We are designing an offshore Horizontal Axis Wind Turbine suitable for Indian conditions and we will be working on different types of research and analysis on that design and will also make a working model on its feasibility.
**3rd winner:**

<table>
<thead>
<tr>
<th>SR. NO.</th>
<th>ENROLLMENT NO.</th>
<th>NAME OF STUDENT</th>
<th>IDP OR UDP?</th>
<th>PROJECT TITLE</th>
<th>GUIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>120340119082</td>
<td>Brahmbhatt Pathik Jayeshkumar</td>
<td>IDP</td>
<td>Connector assembly improvement quality problem solving automation and reducing time</td>
<td>Mr. Swaraj Darji</td>
</tr>
<tr>
<td></td>
<td>120340119026</td>
<td>Joshi Parth Trikam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340119089</td>
<td>Sharma Yashkumar Krishnakumar</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340119080</td>
<td>Mistry Rahul Dharampal</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Company: Molex India Private Limited**

Leading provider of electronic components and solutions, Molex views innovation as a tool for solving complex customer challenges.

Company contact person and contact: Santosh Salve
7600029175

Address: Shop No. C - 7 & 8, GIDC Electronics Estate, Near Green City, K Rd, Sector 25, Gandhinagar, Gujarat 382025

- **Abstract**

Molex Pvt. Ltd. is one of the leading manufactures of the Cable Connectors worldwide. The sole aim of our project is to bring the necessary improvement in the productivity, precisely **OEE-Overall Equipment Efficiency** of the product MX150 BW header assembly line. The whole pneumatic assembly line includes a number of stations and there are many Quality errors, Human errors, Delay time, Wastage of material witnessed in the whole line. Hence the OEE is to be improved by...
taking the necessary steps for Quality problem solving, also by reducing change over DOWN Time. At some of the stations there is a little introduction of the Mechanical Automations for the easy and fast handling of the process and to reduce the Human Interventions.

- **Feedback from the industrial experts:**

  It was my pleasure to come and evaluate the projects of the mechanical engineering dept. It was really good experience the projects. I found that students have extra ordinary and innovative ideas. I will be highly obliged if I will be invited in future for this kind of project fairs.

  **Mr. Bhadresh J Mistry**
  Advance tool technologies

  It was nice experience to come to NSIT for evaluating the projects of the final year students of the mechanical engineering dept. I observed that students have good potential with innovative ideas. Some the projects were really extraordinary. I wish all of them best of luck and I hope that Institute and University will organize this kind of project fair in future.

  **Mr. Jaydeep Desai**
  Varia Engineering works Pvt.Ltd.

- **Feedback from the faculty:**

  It is very glad to me that all students whose guided by me are selected as a first winner out of 39 project and as well as other student group are work very well in final year project also I appreciate all student spirit team work and hard effort. They were continue stick with their work and go very deeply study in all task of project. Students are also motivated by this kind of project fair.

  - Pratik Vataliya
• The project work done by the final year student is really appreciable. This time I found very new and innovative projects in project fair organised at our institute. It is a good sign that student are focus on advance technology, software, and utilized the concept in their project work. So in this way they came to know practical application of new technology in their research work. This type of project fare helps the students to buildup their confidence level and encourages them.
  -Manish Patel

• Now-a-days, in recent field of technology, students must have the knowledge of core and basis of fundamentals of engineering. And in this way, by organizing project evaluation activities, students got idea of invention to something. They also can improve their past project and get in to depth to the technology.
  -Manish Dobariya

• Feedback from the students:

  The project fair which was held in our NSIT was well and good. We enjoyed it we have also seen the different idea of the student which was innovated by them as their project. We have learned many things from this fair.

  Mehta Mayank

  The atmosphere of the fair was very lively, the experience was wonderful. It was very good to see the student coming up with innovative project. The guidance of the external faculty was extra ordinary and motivates the student. Such fair must be organized frequently as it encourages the students to think beyond their imaginations.

  -Desai Vimal

  We attended project fair on 25th april 2016, overall from this project fair we have learnt ability to present our concepts regarding project. The management of project fair was very excellent and I would like to thank project fair committee and our HOD for organizing such a good project fair

  -Rajat Patel

• Outcomes

  Overall from this academic project fair students knew the application implementation of designing in the project, project innovation techniques and ideas, further modification in the project and actual technologies going in industries. And moreover they got motivation towards technology for future business.
1. Introduction

Project fair was organized for all the final year students on 25th April 2016 by our collage. There are 36 total projects from Our Department. Out of 36 Projects Expert Team from Industry gave three ranks to the best Projects. By this type of project fair, student have a opportunity to show their skills related to the area/field of the Project.
List of Top Three Projects

**RANK - 1**

**Project Title:** RTO (IDP)

**Team Members:**
- POOJA RAI (120340131004)
- JYOTI LALANI (120340131013)
- KHUSHBU GUPTA (120340131035)

**Abstract of Project:**

In RTO System, administrator has the power to verify the data entered by the user. Processing of data and provide appropriate solutions.

Any authorized person should have a user name and password who access detailed information from the site excluding or accessing general information in shared, public pages.

User is the person who get full advantage of this application.

By introducing the new system we have been organizing an effective facilities.

Registration of vehicle through online. Complete RTO facilities are available in our project.

**RANK - 2**

**Project Title:** Let Us Solve It (IDP)

**Team Members:**
- Shaikh Ayasha N. (130343131011)

**Abstract of Project:**

Definition of this project is “Let Us Solve It”. As the name suggests Let Us Solve It is network of questions and answers (or internet based knowledge exchange) website which will be asked and replied by its users on diverse fields. Here user has multiple way to solve it’s problem.

Here each user can give feedback by upward and downward to question or answer. And this vote is used to generate reputation of particular user.
This system is fully self monitoring system because the user reputation is generated automatically by vote of its particular Question or Answer.

**RANK – 3**

**Project Title:** E-Intercarrier (UDP)

**Team Members:**
- Patel Kinnari R. (120340131002)
- Parekh Urvashi S. (120340131007)
- Patel Jaimin J. (120340131054)

**Abstract of Project:**

This app provides stock-tacking and inventory management in most simplistic way. Be it for your home or for the business. It will help you easily track your inventory. It also helps in managing purchase orders and sales orders. You can send those to suppliers or customer. Soon you can manage business expenses too.

So it is a complete app to run your business from mobile. This app develop of large scale of inventory stocks and Inward stock, utilize order and Reports (Sales, dead stock, return stock, replace stock).

**INDUSTRY EXPERT TEAM**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Company</th>
<th>Name of External expert</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CompIndia Technologies ,Abad</td>
<td>Mr. Gandhi Ravi</td>
</tr>
<tr>
<td>2</td>
<td>CompIndia Technologies ,Abad</td>
<td>Ms. Kasvala Daksha</td>
</tr>
</tbody>
</table>

**Feedback from Experts**

Project Concepts of IDP/UDP is good. It may be useful in our day to day online business activities. We would like to thank college management to provide us an opportunity to evaluate final semester student’s projects.

Mr. Gandhi Ravi  
CompIndia Technologies, Abad
It was a good and charming experience. Students were also found to be brilliant. Projects given by the guide was good. Internal staff was also supportive. Students work is nice.

Ms. Kasavala Daksha  
CompIndia Technologies, Abad

Feedback from 3rd year students

- The project fair provided insight about the problems of the industry and their solutions.
  
  Richa shah  (Student- 6TH SEM CSE)

- This Project Fair gives the opportunity to learn how to make projects.
  
  Dhruvi Vaza (Student- 6TH SEM CSE)

Feedback from Final year students

- This fair is very beneficial for us to show our skills related to Projects Area.
  
  Jyoti Lalani  (Student- 8TH SEM CSE)

- Very informative and useful for juniors, researchers and people having urge to learn about latest development in field of computer science and IT.
  
  Nidhi Parmar  (Student- 8TH SEM CSE)

Feedback from Faculties

- This fair provides open forum to discuss new ideas and their implementation for benefit of society.
  
  Vijal Patel, Assistant Professor

- The project fair helps students to get aware about different kinds of projects of each student. As well as you came to know about projects of other branches.
  
  Saumil Patel, Assistant Professor
Photographs
Report On Project Fair (8th EC)

(EC Department)

Narnarayan shastri institute of technology-Jetalpur

Date :- 25/04/2016

Place:- NSIT EC Department

Project fair of final year projects was organized by E & C Department at NSIT on 25/04/2016. Total 25 groups were participating in project fair with various innovative projects, we had also invited Experts from industries for project marking. All projects were innovative and best in respective areas & Application. Invited examiners had examined all the projects one by one and gave ranking to best three projects.

The detail of best three projects is given below.

<table>
<thead>
<tr>
<th>Sr no.</th>
<th>Enrollment no.</th>
<th>Name</th>
<th>Project title</th>
<th>Internal Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>130343111008</td>
<td>TAPAN DAMJIBHAI MOJIDRA</td>
<td>&quot;spot Sound now the sound where you want</td>
<td>Kinjal Kapadiya</td>
</tr>
<tr>
<td></td>
<td>130343111004</td>
<td>SHALINBHAI SHANTIBHAI KATHIRIYA</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>130343111006</td>
<td>SOHAM RAJENDRAKUMAR MARFATIA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>120340111019</td>
<td>Shah Shivansh Bhrundrabhrai</td>
<td>master and slave base multinode wireless sensor network</td>
<td>Garima Kothari</td>
</tr>
<tr>
<td></td>
<td>120340111024</td>
<td>Patel Marmik</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340111061</td>
<td>Mehta Harsh Kamleshbhai</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340111066</td>
<td>Chavla Himanshu</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>120340111042</td>
<td>Parikh Ruchir</td>
<td>solar tracking system with smart power supply</td>
<td>Garima Kothari</td>
</tr>
<tr>
<td></td>
<td>120340111052</td>
<td>Kansara yash</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>120340111039</td>
<td>Thakkar Deep</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Invited Examiner:-  (1) Taral shah - Embedded Engineer (Soft web solution –Ahmedabad)
  (2) Saiyam doshi - Embedded Engineer (E infochip –Ahmedabad)
Rank -1
Title: - "spot Sound now the sound where you want
ABSTRACT

Have you ever imagine that if you are watching T.V. and only you can listen sound of your T.V without disturbing others within your T.V. room. Have you ever imagine that in merrage's D.J. Party only "Janniya" can enjoy the sound without disturbing nearby hospital,schools. Yes your imagination is possible, We worked on such speakers that can focus sound where you wants and only within that area it entertains and elsewhere is silence. This projects operate on principle of modulation of sound signal beyond audible range and demodulation of sound signal within audible range within air medium itself.

Rank -2
Title: - "master and slave base multinode wireless sensor network”
ABSTRACT

Today, the industries are getting more advanced and hi-tech using the latest technologies. Still they face some problems like unusual utilisation of space because of bulky instruments. Whenever they wanted to measure different parameters, they had to use different instruments which were wastage of time and labour and also very tedious. The main objective of project is to interface LCD, Xbee with PIC controller 16f877a for sensing various parameters from multiple
areas also it includes Rtc, EEPROM along with buzzer, temperature sensor and humidity sensor are used to sense temperature and humidity respectively. This project will make the work easy and simple for the industry which uses these devices to achieve the required readings that are necessary for proper working of the appliance or product.

Rank -3  
Title: - solar tracking system with smart power supply  

ABSTRACT

Main idea is to develop a efficient solar panel which uses sun rays as energy and generate maximum power. The main use of this project is to provide solution for solar systems for generating maximum power from the solar panel by grasping maximum sun rays for entire day. This system use rotation solar panel which will rotate in the direction of sun. This Production of Power is from conventional source of energy. So, it is Production of green power of energy which is useful in all applications of all type of electronics and electrical works. Here, we have use a Battery Charger circuit to obtain optimum and reliable output. Battery Charger circuit will charge our battery. Then we have put an inverter to get a pure AC voltage. The out put of the inverter is 230V AC with 50-60 Hz
Feedback of Examiners:-
“We are very thankful to the institute for inviting us as a project evaluator. We examined all the projects and Projects was so innovative & they have done the hard work. They were trying to provide better service to the society through innovation. We have guided all the students for better improvements of their projects. After all it was a great experience during the entire event. Thanks”
_Taral shah, Saiyam Doshi

Faculty Feedback:-
“We are happy to see that students had tried to do excellent projects and evaluator had also appreciated the work of students. We wish them they will keep doing excellent work.”
_HOD-EC

Students Feedback:-

(1) “By the arrangement of project fair we came to know how projects can be presented and we can develop our technical skill”
_Patel Marmik (8th Sem EC)

(2) “We got the idea from industry experts and my classmates to improve our project. Further for Future scope”
_Soni Vrushanki (8th Sem EC)

(3) “We have seen project fair and every project were innovative and advancing. Every student worked so hard. We got inspiration for our future work.”
_Gandhi Paneri (6th Sem EC)
“Students work so hard and they have done applicable Projects so it can be useful for the society. We will try to make this type of innovative projects so we can serve better service to the society.”

_ Nandi Nayan (6th Sem EC) _

**Few Memories of project Fair**