Date: 8-4-2016

GTU INNOVATION COUNCIL

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UDISHA CLUB

Campus Activity Report of March– 2016

(Om Engineering College, Junagadh)

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Electrical Department

SR NO.	ACTIVITY INFORMATION
1	**Activity : PLC - Skill Development Workshop** **Type : Workshop** **Date: 13th &14th February 2016** **Venue: Om Engineering College, Junagadh.** Department of electrical engineering from OM Engineering College arranged Two Days Skill Development Program on Programmable Logic Control(P90LC) dated 13 th & 14th February, 2106. Mr. M. K. Anandpara, Mr. N.D. Joshi and Mr. D.A.Divrania working as Asst. Professor in Department of Electrical Engineering at OM Engineering College rendered their expertise to all workshop participants on the topic of Programmable logic Control. Approximately 35+ diploma students from the all over the Saurastra region were attending the workshop.   Workshop was started at 10:00 am with inauguration in which introductory speech given by our honorable director Prof. C. N. Jasani, he inspire the students for importance of the skill development activities in engineering carrier also our chief Guest honorable HOD Nilesh Vinjuda sir from GP, Junagadh addressed the students for skill requirement in industrial also aware the students about the skill development programs. Now a day, Automation is everywhere & most part of this automation is based on the PLC & SCADA. A PLC can be define as a digitally operating electronic apparatus which uses a programming memory for the internal storage of instructions for implementing specific functions such as logic, sequencing, timing, counting and arithmetic to control through digital or analog modules, various types of machines or process. PLC can be used Manufacturing /Food / Beverage, Metals Power. Here are some the advantages of the PLC. 1)Mining Petrochemical / Chemical 2) Less wiring, Wiring between devices and relay contacts are done in the PLC program. 3) Easier and faster to make changes. 4) Trouble shooting aids make programming easier and reduce downtime.

5) Reliable components make these likely to operate for years before failure.

Day 1 Session 1:

In the session we cover the topic related to importance of PLC and its various application in different industries also we discussed carrier scope available in companies.

Day 1 Session 2:

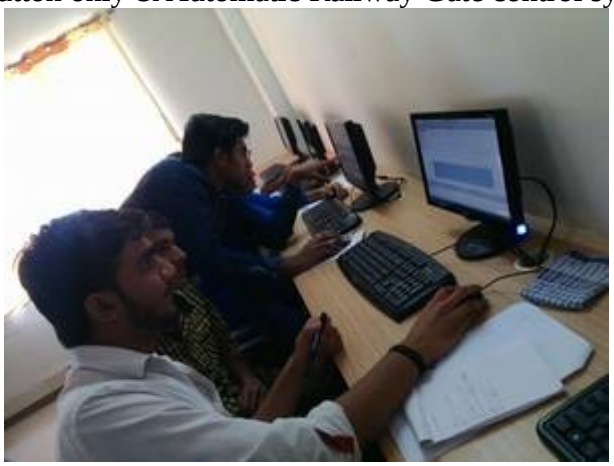
In this session students were learned about the basics of the PLC like principle of PLC and its working also origin of the PLC, different types of PLC based on its size its memory & on the base of no of I/O also student learned logic gates like AND, OR & NOT, Another thing was thought how PLC & computer is connected.

Day 1 Session 3:

This was the last session of the first day in this session student were learnt about the software which is used for the programming of PLC& also how to use the software, how to select the model of the PLC for which we can make the program. Also ladder logic of logic gates in terms NO & NC. In last they seen the one application which is working by the PLC it was a stepper motor application. In this application we can rotate motor in the forward direction by only one push button & also by another push button we can rotate the motor reverse side. As it was a stepper motor we can also rotate a motor for defined angle only as per our requirement & we can control its speed by the change in the programming. this was session for the first day student were very excited for the next day of session because next day they are going to do the programming in the PLC Simulation & can know about more application working by the PLC.

Day 2 Session 1:

As this was a practical session so students were came to the PLC simulation lab directly first they learnt simple programming of the PLC like AND operation in the ladder logic OR operation & connections. They did various examples which were based on the PLC. They learned about many applications like Stair case, two DC motor can rotate the forward as well as reverse by two push button only & Automatic Railway Gate control system.



Day 2 Session 2:

In the second session of the second day we divided the students in to the two groups one group were do programming & another were came to the PLC lab to understand how to connect the PLC with system as well as the wiring of the different types of the application via relays, they were know about the working of the relays its wiring diagram & its.

Day 2 Session 3:

Last session was conducted by the HOD of the Electrical department Prof.M. M. Baraiya. He share his idea about engineering & told how practical work is important for the engineers & also about the future vision center as well as how to choose the college after diploma for the degree.

CONCLUSION:

PLC is a device that is capable of being programmed to perform a controlling function. The PLC was designed to provide flexibility in control based programming and executing logic instruction. PLC allowed for shorter installation time and faster commissioning through programming rather than wiring.

The PLC have in recent years experienced an unprecedented growth as universal element in industrial automation .It can be effectively used in applications ranging from simple control like replacing a small number of relays to complex automation problems.

Today the PLCs are used for control & automation job in a single machine & it increases up to full automation of manufacturing / testing process in a factory.

More than 35+ Students from different colleges has successfully attended this workshop and got the benefit of practical based approach of the PLC programming which will be very much useful for the students.

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Mechanical Department

SR. NO	ACTIVITY INFORMATION
1	**Activity : An Expert Talk on ANSYS Under the subject of Computer aided design** **Type : Expert Talk** **Date: 21st March 2016** **Venue : OM Engineering College,Junagadh.** Department of mechanical engineering from OM Engineering College arranged One Day expert talk on ANSYS dated 21 st March 2016. Expert of the talk Prof. Vaibhav Choksi Director of CADD Center, Junagadh. Expert rendered his expertise to all Modules of ANSYS on effective use of subjective knowledge. Approximately 60 students from our degree 6th semester mechanical students were attending the expert talk.   Talk was started at 10:15 am with normal introductory speech by **prof. A G Makati** and session was hand over to speaker **Prof. Choksi** is well known in educationalist since **5 years** and he is willingly in association with so many institutions for creating awareness regarding importance of **Modeling, Simulation, Analysis and FEA** of any **mechanical part**, the development of subjective knowledge. **Some of the topics discussed during expert talk:** **Basic knowledge of FEA and its types:** The FEA is a numerical procedure for analyzing structure of complicated shapes, which otherwise would be difficult to solve by classical analytical methods. Its works on the principle of divide and rule, that is, it transforms a physical system having infinite unknowns into small finite elements having finite number of unknowns. The unknown are called “Degree of freedom”, and they represent the response to applied actions. There are two Methods of FEA(Finite Element Analysis), FEM(Finite Element Method) and FVM(Finite Volume method). The finite element method (FEM) is a numerical technique for finding approximate solutions to boundary value problems for partial differential equations. It is also referred to as finite element analysis (FEA). The finite-volume method (FVM) is a method for representing and evaluating partial differential

equations in the form of algebraic equations.
He had also discussed about NX UG software. With the help of NX UG, modification of any 3D Model is required less time as compared to other parametric software like Creo, Solidworks, Pro-E etc.

Importance of the Modeling Software:
Before the manufacturing of any part of machine, Automobile Vehicles and daily usage product, modeling is required for checking the durability and sustainability for the same and we can create the model with the help of modeling software only that's why software is important.
Industrial Applications:
Modeling software is used by any design industry to create the model, simulation and analysis purpose.

2	**Activity : Workshop on ProE/Creo** **Type : Workshop** **Date: 13th ,14th ,6th ,7th February 2016** **Venue : OM Engineering College,Junagadh.** Department of Mechanical Engineering arranged 2 days workshop on skill development program. There are many students from different 6 colleges of are participated in this program. Our department gives training on the Creo/ProE to final year diploma engineering college. Our motto is to make some extra skill which required for industry. The basic software knowledge must require for industry so that we worked on this workshop. Our registration process started at 9:00 am and all the students registered their names for workshop. We provide one kit to the students and it is useful during workshop.

Students are seating in the seminar hall and we ingrates the function of skill development program. Our guests are giving the guidance to the students and motivate the student for this kind of workshop participation.

What is Pro/ENGINEER?

Pro/ENGINEER is a computer graphics system for modeling various mechanical designs and for performing related design and manufacturing operations. The system uses a 3D solid modeling system as the core, and applies the feature-based, parametric modeling method. In short, Pro/ENGINEER is a feature-based, parametric solid modeling system with many extended design and manufacturing applications.

How is Pro/ENGINEER different from other CAD systems?

Pro/ENGINEER was the first CAD system entirely based upon feature-based design and parametric modeling. Today most software producers have recognized the advantage of this approach and shifted their product onto this platform. Nevertheless, the differences between feature-based, parametric solid modeling CAD system and a conventional CAD system include:

Pro/ENGINEER	**Conventional CAD Systems**
Solid Model	Wireframe and Solid Model
Parametric Model	Fixed Model
Feature-Based Modeling	Primitive-Based Modeling
Single Data Structure and Full	Function-Oriented Data Structure

Associativity	and Format Interpreters
Subject-Oriented Sub-Modeling Systems	A Single Geometry-Based System
Manufacturing Information Associated with Features	Texts Attached to Geometry Entities
Generation of an Assembly Assembling Components	by Generation of an Assembly by Positioning Components

Ease of Use:

- Expert users employ "map keys" to combine frequently used commands along with customized menus to exponentially increase their speed in use.
- Pro/ENGINEER provides the ability to sketch directly on the solid model; feature placement is thus simple and accurate.

Parametric, Feature-Based Modeling:

- Pro/ENGINEER's features features contain non-geometric information, such as manufacturing processes and associated costs, as well as information about location and relationships.
- This means that features do not require coordinate systems for placement, and they "know" how they are related to the rest of the model. As a result, changes are made quickly and always adhere to the original design intent.

Pro/ENGINEER Functionality:

The basic functionality of Pro/ENGINEER is broken into four major areas:

- Part Modeling and Design
- Assembly Modeling and Design
- Design Documentation (Drawing Generation)
- General Functionality

BASIC MODES:

Sketcher

Define the 2D cross-section (or section) of an object model for sweeping.

Part

Create the solid model of a part.

Assembly

Form the solid model of an assembly of multiple components.

Drawing

Produce engineering drawings of parts and assemblies created in Pro/ENGINEER. These drawings are fully associative with the 3D solid model. When a dimensioning the drawing is changed the dimension of the associated 3D model(s) will be automatically updated, and vice versa.

These are frequently used Pro/ENGINEER modes

There are many students are participating in this workshop. Different 6 colleges diploma engineering students are get benefits for this workshop. There are about 70 students are doing work in Proe software.

The review of the seminar that more than 90% students give excellent feedback of the workshop and they are willing to work more and take more interest in this workshop. We will try to give excellent when this kind of workshop will arrange in college campus.

Conclusion:

After completion this workshop we conclude that student gets more benefits about this workshop and they are more familiar about the software. In market scenario the extra skills are require for getting good job so that software knowledge is most important factor of industry.

We are very thankful to our Head of Department for such giving a good support as well as we are also thankful to our directorsir that he was continuously guiding and supporting to us. We are also thankful the people who gives direct and indirect support to make successful workshop. The students are very enthusiastic to learn the software and they are ready to do more study in this kind of workshop.

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Civil Department

SR. NO	ACTIVITY INFORMATION
1	**Activity : Expert talk on TENDERING & VALUATION** **Type : Expert talk** **Date: 29th February 2016** **Venue : OM Engineering College,Junagadh.** Om engineering college, department of civil engineering had organized the one day expert talk for "Tendering & Valuation" by expert **Mr.J.J.Kadivar**, Has more than **25 years experience** in the **Road & Building department of government of gujrat.** **Prof. H. H. Gajera, the Head Of Department of Civil Engineering** guided the students about the basic knowledge of estimation & importance of valuation;that are helpful to student in making carrier as **PROFESSIONAL VALUER.** Prof.Kadivar, the expert has conducted the one day sessions and gave the guidence to students about importance of estimation, contract & preocedure to fill the tender. At starting of seminar, **Prof.. B.R.ramani** welcome our expert **Prof. Kadiva**r,& introduce the talk person. Then **Prof.B.R.Ramani** gave basic knowledge to student about how to estimate the quantity & cost of any structure or building, & also comunicate the importance of tendering in the market at current scenario and also explained the requirement of civil engineers in upcoming years.They also explain difference between book knowledge & field knowledge.   **INFORMATION ON ESTIMATION & TENDERING:** **Mr.J.J.Kadivar** who give a brief introduction about important and Benifits of Tendering & Valuation for civil engineer.The purpose of estimating is to forecast the cost & quantity of a project prior to its actual construction. Cost estimating is a method of approximating the probable cost of a project before its construction. The exact cost of a project is known after completion of the project. Cost estimate is prepared at various stages during the life of a project on the basis of the information available during the time of preparation of the estimate.In Civil Engineering works the tendering procedure starts with the invitation in which the contract manager of the client through its team or consultant make a bill of quantities and invite from various different contracts to make a

bid and then contract manager will evaluate the bids and then select the most appropriate one.
He also give brief about the below mention three main stages of Tendering procedure
1. Invitation to Tender
2. Opening of Tenders
3. Final Award of Contract

CONCLUSION:

After attending this expert talk, student heartly thankful to **Mr. J.J.Kadivar sir**. They got knowledge about field for valuation, estimation & tendering which is helpful ater completion of their graduation and they know how work is excute in goverment sector.

Computer Department

SR. NO	ACTIVITY INFORMATION
1	**Activity : Seminar on Foregin Education** **Type : Seminar** **Date: 26th February 2016** **Venue : OM Engineering College,Junagadh.** **Mr. Atanu (Marketing Director of VIEC, Rajkot)** was give some general introdution about **VIEC**. VIEC is help those students who want to go at abroad for the ferthur study. They provide us a proper guideline as below: 1. How we can apply? 2. How much time need for the prepration? 3. Which kind of exam they take? 4. How VIEC help us to clear thas exam? 5. Give the information about top most univercity at abroad. 6. Which univercity is best for which cource? 7. They can also help us to choose a country as per our requrement   **PURPOSE OF THIS SEMINAR:** This Seminar is helpful for those students who want to go at the abroad for the further study. From this seminar student also get the information about univercity and their cources, duration of those all cources and helpful for students to choose proper place as per their requrement and financial condition. **Mr Atanu** gives importent guideline about scolership exam and which kind of part time job student can do with study at foregin. **CONCLUSION:** By conducting this seminar, students got some brief ideas regarding abroad top most univercity and cources and also get proper guide line about to take the admission to their. And how much time need for the prepration of the exam and visa. So this seminar is very helpful to the student who want to go abroad for the further study.

2	**Activity : Industrial Visit at Gujarat Vidhansabha** **Type : Industrial Visit** **Date: 14th March 2016** **Venue : Gujarat Vidhansabha, Gandhinagar.** Gujarat Technological University has co-ordinated with the Education Department, Government of Gujarat and allows our students and faculty members to visit the live session of Gujarat Vidhansabha. We are highly thankful to **Hon'ble Dr.Akshai Aggarwal sir, Vice Chancellor of GTU**, for providing such rare opportunity to our students and faculty members. The aim of this visit is that all students and faculty members should be familiar with the way democratic institutions work.   The students and faculty members of **OM Engineering College, Junagadh** visited Gujarat Vidhansabha on dated 14-03-2016 at 12:00 P.M. to 2:30 P.M.All the students and faculties reached to New Sachivalaya, Gate No.1 at 11.45 AM. In live session, we observed the running BJP party discussed the work and different scheme prepared by Government of Gujarat and in the opposition party **Shri SaktisinhGohil** raised many questions to running BJP Party. After hearing the live session, we all gathered at ground floor where students learnt about the contribution given by the former chief ministers by reading the monograph. Students and faculties made aware about different schemeswhich benefit to our citizens and students. Students and faculty members have interacted and captured the photograph with the **Smt. Aanandiben Patel, Honorable Chief Minister, Government of Gujarat.** Honorable Chief Minister talked very kindly with our students and motivated our students with inspiring words. Students were so happy and excited by meeting with our Honorable Chief Minister. Students and faculties then took a group photo outside the Vidhansabha. By visiting and attending the live interaction of Gujarat Vidhansabha, students and faculty memberslearnt about how the Government is functioning. **Total 56 students and 4 faculties** visited the live session of Gujarat Vidhansabha. List of Students and faculties members are attached hereunder. We, **OM Engineering College,Junagadh** are highly **thankful** to **Dr. Manish Rachchh,** Associate Professor, GTU for arranging this wonderful visit ofGujaratVidhansabha for our students and faculty members.

College Leval Activity

SR. NO	ACTIVITY INFORMATION
1	**Activity : Celebration of Mother Language Day** **Type : Celebration** **Date: 5th March 2016** **Venue : OM Engineering College,Junagadh.** As **21 st February, 2016** is celebrated as **"MatruBhasha Divas"** called as Mother Language Day, we celebrated this day by arranging a Quiz Competition based on the history of Junagadh City on 5 th March, 2016 as 21 st February was Sunday in collaboration with **DivyaBhaskar**. The students from Degree and Diploma had actively participated in this quiz competition. More than **500 students** had given the **quiz competition examination** and understood the **History of Junagadh City.**     **CONCLUSION:** **Om Engineering College & Om Institute of Enigneering & Technology have initiated** a method to explore the **history of Junagadh by the means of arrangin this quiz competetion** to **celebrate the "Matru Bhasha Divas" called as "Mother Language Day".**

2	**Activity : Seminar on Thalasssemia Awareness** **Type : Seminar** **Date: 17th February 2016** **Venue : OM Engineering College,Junagadh.** Om Engineering College is doing many activities towards the social awareness. As part of motivating students as social human being we arranged Thalassemia Awareness Program to aware the students of the admission year 2015-16 of all branches. As we know thalassemia is the illness due the genetic disorder & the awareness of this illness is very much important for the future of the students so that we can have Thalassemia Free world so that we arranged thalassemia awareness seminar to make student understand and to inspire students to do thalassemia testing.     **CONCLUSION:** Showing the importance of Lights, students of Om Engineering College have got the wareness about the genetical diseas Thalassemia. The students and staff members of degree and diploma college of Om Engineeirng Campus have gathered and donated blood. Thus, this activity was sucessfully executed.

3	**Activity : Workshop on Robotryst 2016 in association with IIT Delhi and Robosapiens** **Type : Workshop** **Date: 19th, 20th February 2016** **Venue : OM Engineering College,Junagadh.** Om Engineering College organized a **Robotryst-2016** as a **zonal host jointly organized** by **Robosapeins & IIT Delhi** on 19 th and 20 th February 2016 at seminar hall. After campaigning, the **Robotryst 2016** got more than **30 participants** from different colleges.   **Mr. deepak Raj Singh** in his speech, Explained the role of Robotryst - 2016 event and objective of Robotryst - 2016. event like Robotryst is an event which is conducted in association with Tryst 2016, IIT Delhi and Robotryst. To conduct Robotryst-2016 OM ENGINEERING COLLEGE was selected as one of the zonal partner. **The first stage of Robotryst - 2016** was conduct basic work shop of robotics. **The second stage of Robotryst - 2016** was Championship after the work shop at zonal centre and defines three winners of the championship. **The third stage of Robotryst** was all the three zonal winners compete in final round which is held at IIT Delhi on the date of 26 to 29 February After inauguration function Deepak Raj sir start the first session of the work shop at 10:45 am . Basically the first session was based on the basic information about the robots. In this session he gave the ideas of the different types of robots their mechanisms, basic components of robots and their applications. In this session of the workshop he also taught the basic theory about the basic components of robots like motors. Microcontrollers and also taught the interfacing of the components with microcontrollers. After end of almost 2 hours theory session he ended the first theory session at 12:45 pm. After the first basic theory session robotics kit was distributed in all the participated students by the events student coordinators which are provided by the Robosapiens for live practicing of robotics hardware. kit consist basic hardware's like motors basic structure of robots with supporting base and wheels different types of sensors like light sensors, voice sensors etc. power supply, circuit boards and Arduino board (microcontroller chip).

After the distribution of the kit the student are requested to form a group for the live practicing and final championship. After the group formation the lunch break was announced.

After the lunch break the second session of the work shop was started at 2:30 pm. In this session many Group activities was performed by Deepak sir like

- Hardware description of robotics kit and their Functionality.
- Installation Basic understanding of Arduino program.
- ROBOT assembling.
- Motor driving testing

After the covering above mention topics at 5:30 pm the second session of the first day of Robotryst 2016 work shop was ended and students are requested to practice the all things which is taught in past two session.

The first session of the second day was started at 09:00 am with concept to made actual robot with the help of Different sensors and logical programming of Arduino board. In this session students learnt to makes different robots like line follower robot, Edge Avoiding Robot, Obstacle Avoider Robot, Wall Following Robot, Sound Operated Robot & Light Searching Robot.

The final Robotryst 2016 competition was announced at 02:30 pm on a date of 20th February 2016. The final Robotryst-2016 competition was hosted by event faculty coordinator **Prof. Y.H.Joshi and judged by Mr Deepak Raj sir** (Official trainer of workshop).

winner was decided from the quality of output & time of completion.

4

Activity : Expert Talk on Interview Techniques by Rajoo Engineering

Type : Expert Talk

Date: 24th February 2016

Venue : OM Engineering College,Junagadh.

OM ENGINEERING COLLEGE, training & placement department has organized Seminar **"Interview Techniques"** on 24th February for all **B.E.& Diploma final year engineering students** to get interview techniques. "Interview Techniques" was organized by Training & Placement Department under the guidance of **Campus Director Prof.C.N.Jasani** The seminar was commenced at 11'o clock in seminar hall.

Seminar has been inaugurated with lighting the flame by **Miss.Sneha Desai, HR Manger Rajoo Engineering Ltd RAJKOT ,Prof.C.N.Jasani(Director) & Prof.H.V.Paghdar(Principal), Prof.Y.P.Gadhvi** addressed the students brief about this seminar & Appreciated the training & Placement team for their efforts made during this semester.

PURPOSE OF SEMINAR:

A successful interview takes planning and practice. The interview is an opportunity to present yourself as the best qualified candidate for the job. The biggest mistake made by job candidates is grossly underestimating the competition. District representatives do not hire the best candidates, but instead the candidates who are best at getting the job offers. Preparing for the interview and being ready to present yourself as the best candidate requires that you:

know your strongest skills and qualifications.

determine how you meet the requirements of the job.

- know your strengths and weaknesses.
- be ready to explain how your education and experience prepared you for the position.
- anticipate the questions the interviewer might ask you.
- research the district -- know something about their goals, history, annual reports, size, location, and growth patterns.
- think of questions that you would like to ask the interviewer to help you determine if you are interested in the job.

Miss Sneha Desai has also explained the concept of interview of the company and explained the working of the industry and company for the smooth penetration of student into the company.

	CONCLUSION: Seminar was successfully executed & student got best out of these. Interview techniques session was very much beneficial to students for enhancing their fundamental knowledge. 250 students from the B.E. & Diploma final semester engineering have attended this seminar and all the placement coordinator have also participated in this seminar for enhancing the knowledge. Seminar was successfully executed & student got best out of these.