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UDISHA CLUB

Campus Activity Report of August September– 2016

(Om Engineering College, Junagadh)

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Electrical Department

SR NO.	ACTIVITY INFORMATION
1	**Activity : Industrial Visit at KAKRAPAR ATOMIC POWER STATION** **Type : Industrial Visit** **Date: 19th &20th July 2016** **Venue: KAKRAPAR ATOMIC POWER STATION** Our main purpose for this visit is familiar with industrial environment and to get practical knowledge and learn where & how we apply our theoretical knowledge in real application.Total 120 students of 5 rd semester diploma, 3 rd semester degree and 7 th semester degree were got the idea of electrical power generation, transmission and distribution. Students will also get familiar with atomic power plant, types of reactor and types of cooling system used in atomic power plant. We entered in to the plant we got general information about atomic power plant and learnt safety rules to keep in mind while visit atomic power plant shown that there was 2 unit of 220MW have separate pressurized heavy water reactor and fuel is natural uranium.   At present the site comprises of two units of capacity 220MW each and two more units of 700MWe each are under construction. • Each operational unit consists of one reactor building and one turbine building ,a common service building and other common facilities • This atomic power plant totally work on the fission chain reaction of natural uranium oxide in pressurized heavy water reactor due to fission of uranium huge energy is realized and this energy is used to convert water in to steam through heat exchanger • Main cooling systems for the station is a closed loop, which comprises of condenser, natural draft cooling tower ,circulating water pumps and associated large diameter buried piping • For slow down the speed of neutrons in reactor moderator of heavy water or graphite material is used • For controlling the chain reaction control rod of boron material is used. • The operation of the station is controlled from centralized control room

- Atomic power plant is a very clean and less pollution then thermal power plant.

CONCLUSION:

120 students from electrical department visited atomic power station locate at Mandvi, Surat, Gujarat. Students got good knowledge regarding nuclear power station like operation, basic component & complete process of how electricity is generated. Students have curiously & enthusiastically involved in complete visit.

2

Activity : Industrial Visit at Thermal Power Station, Sikka

Type : Industrial Visit

Date: 13th July 2016

Venue: Thermal Power Station, Sikka

TPS (Thermal power station) situated at Sikka in the field of generation & has been incorporated with GSECL (Gujarat State Electricity Corporation Ltd.)
Our main purpose for this visit is familiar with industrial environment and to get practical knowledge and learn where & how we apply our theoretical knowledge in real application. We could also get knowledge about the final year projects based on Industries.

In this visit we learn mainly three measure part of power plant

1) Generation Process

2) Transmission Process

3) Control Process

Generation Process:

They start with Generation Process in power plant Some key points were discussed in Generation department,

1) What is Generation Process?

2) As a Electrical Engineer what are the prime duties in this department

3) Which types of equipment are used in generation process & its functions?

Transmission Process:

Some key points were discussed in Transmission department means switchyard.
1) What is Transmission System?

2) How it is Work?
3) Which types of equipment are used in transmission process & its functions?

Control Process:

In control process we use SCADA system for making the plant Automatic & we control plant as well as observe & calibrate the plant &its equipments.

Some key points were discussed in Control Room

1) What is the function of control Room?
2) How it is work?
3) What is the important of Automatic Control plant?

CONCLUSION:

From this visit, we get the information and practical knowledge about design and testing of transformer. Students got very clear idea about theoretical and practical design parameter. Some test should be performing for getting real practical data of Transformer with general discussion with experts in the industry. About 42 students were benefited. We also visit the workshop at which all the basic part should be prepared and mostly observe the buchholz relay arrangement.

3	**Activity : Short Term Training Program at L. D. College Of Engneering, Ahmedabad** **Type : STTP** **Date: 30th May to 3rd June 2016** **Venue: L. D. College Of Engneering, Ahmedabad** Centre of Excellence- Siemens has been established in August 2014 at L. D. Col- lege of Engineering, Ahmedabad as per MOU between (1) Industries Commis- sionerate, Government of Gujarat, (2) Sie-mens Industry Software (INDIA) Pvt Ltd., (3) DesignTECH Systems Ltd., India and (4) L. D. College of Engineering, Ahmed-abad. The state-ofthe-art level laboratories are as follows: MTAB Lab, Rapid Proto-typing Lab (RP), MCMT Lab, SITRAIN Automation I & Auotomation II, SI-TRAIN Mechatronics, SITRAIN Electri-cal and Nx- CAD/CAM & product design two computer Labs. Siemens is a German company headquartered in Berlin and Munich and the largest engineering company in Europe with branch offices abroad. The principal divisions of the company are Industry, Energy, Healthiness, and Infrastructure & Cities, which represent the main activities of the company.   Our main purpose for this training is to familiar with industrial environment and to get practical knowledge and learn where & how we apply our theoretical knowledge in real application. Students of 6 th semester will get the idea of introduction of motors and electrical drives. Students will also get familiar with electrical instruments like Ingress Protection, Duty Class, Testing Using Electronic megger, Tachometer, Wiring of DOL Starter, SimoCode, MCB, MPCB, MCCB, Fuses, Relays, etc. On 30 th May, 2016 at 8:44 am we reached at Ahmedabad. We got entry in L.D. College Of Engineering at 10:00 am. Lectures was conducted by experts from reputed institutes and industries. An industrial visit is planned to get actual exposure of renewable energy. Laboratories will be based on simulations and hands on experience on prototype models **Topics:** The Short Term Training Program covers the different fundamental topics of Electrical Laboratory: • Induction Motor, Ingress Protection, Duty Class, Test-ing UsingElectronic megger, Tachometer, Wiring of DOL Starter, SimCode, MCB, MPCB, MCCB, Fuses, Relays, etc. • Soft starters, Power meter, Parc 3200, Siemens Relays and Starters, etc. • Commissioning of drive, Ac & DC Drive

- Air Circuit Breakers
- Simaris Software
- Siemens Software tools, starters circuit breakers and relays.
- Hands on Experience based on Siemens Software and tool

CONCLUSION:

The programmed was provide excellent opportunities for all whoever is ready for fundamental work and hands on experience on Siemens Tools and from this training, we get the theory as well as practical knowledge about the electrical drives and its protection tools. We also do hands on practical work on Siemens tools. We also get information about the instrument which comes in our study in future.

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Mechanical Department

SR. NO	ACTIVITY INFORMATION
1	**Activity : Industrial vist AT RAVI HEAT TREATMENT & VISHAL FOUNDARY, RAJKOT** **Type : Industrial vist** **Date: 13st August 2016** **Venue : AT RAVI HEAT TREATMENT & VISHAL FOUNDARY, RAJKOT** Ravi Metal Treatment Pvt. Ltd is offering process of Heat treatment like Gas Carburising, Carbo Nitriding, Through Hardening, Tempering and Stress Reliving, Process Control and other Heat treatment processes. Student will get benefit regarding their theoretical subject of Material Science & Metallurgy. **Vishal foundrary Pvt. Ltd, group of Bajarang Enterprise** offering visit for manufacturing process, Where students gets practical approach of send casting, investment casting, metal furnaces as well as leading and largest manual manufacturing processes where lots of labours and large management work together. All coordinators and students are very thankful to Human resources Department Head and Production Department Head of RAVI METAL TREATMENT and VISHAL FOUNDARY, who give such wonderful guidance and knowledge about manufacturing process and heat treatment.   **PURPOSE OF VISIT** Industrial visit was carried out at Ravi Metal Treatment Pvt. Ltd. and Vishal Foundry Pvt. Ltd. on 13th August, 2016 especially for semester 3rd student of Degree and Diploma. The main objective behind the visit was to make student aware about how various activities related of manufacturing casting process and metal treatment to carried out in company. **ABOUT RAVI METAL** "RAVI METAL TREATMENT" a leading name in heat treatment service providers in Western India, started their journey in 1977 as "RAJESH HEAT TREATMENT" with only 3 persons limited

working space & equipments. Nowadays, we are capable to heat treat about 40 tons / day of ferrous material with work force of 200 persons at 6 different sites of company, all of them are certified ISO 9001:2000 Quality Management System. We, at RAVI METAL TREATMENT, believes in to achieve total customer satisfaction, professional approach for continual technological up gradation & consistency in quality without compromise. We have gained strengths & reputation in engineering field due to high quality of Heat Treatment services, accurate & precision processing, and timely delivery.Ravi Metal Treatment is offering process of Heat treatment, Gas Carburising, Carbo Nitriding, Through Hardening, Tempering and Stress Reliving, Process Control and other Heat treatment processes. After visit all this heat treatment processes Student will get benefit regarding their theoretical subject of **Material Science & Metallurgy.**

CONCLUSION:

All the students get knowledge regarding conventional send casting and precision casting process, as well as heat treatment processes, they are encourage for advance automation techniques, material treatment required in mechanical work, ISO, Quality management, safety, operation and control etc.

2	**Activity : Faculty Development Program on Inspection and Reverse Engineering by using CMM** **Type : FDP** **Date: 22nd ,23rd ,24th August 2016** **Venue : OM Engineering College,Junagadh.** India has a great number of engineering colleges and so are the engineers in the world. The unprecedented growth of engineering institutions in India in the past few decades has led to a declination in the quality of engineering education. Moreover Engineering needs application oriented approach where our education institutes lacks badly. Moreover we are facing a huge ridge between the knowledge we are giving to the students and the knowledge students must possess to work in the industry to meet the expected levels. This needs proper collaboration of industries and education institutes. But only collaboration cannot help in upgrading the education. It is therefore the need of time to upgrade our faculties in terms of industrial knowledge and application oriented approach that can be integrated into the normal curriculum of teaching for the betterment of whole engineering community. With the same vision and thought a Three day workshop on the use of "Portable Co-ordinate measuring machine" was planned under faculty development program at Om Engineering college in association with FARO TECHNOLOGIES PVT LTD. during 22 th August 2016 to 24 th August 2016. **Planning of workshop:** The workshop was planned in three days covering different modules of Portable Coordinate measurement Machine .The training session was conducted on Portable Faro arm. The plans followed were as follows: **Day 1:** Introduction to CMM Theories regarding dimensioning and tolerance Introduction about Geometric features Software installation CMM calibration Basic introduction about measurement methodology Practice session **Day 2:** Measurement of advanced features like cone Measurement of round lot, rectangular slot, tube, torus Data Importing from cad file & construction of geometry Study of alignment features Practice session **Day 3:** Introduction to scanning features of portable CMM Installation and calibration of scanner Practice session on scanning **Portable coordinate measuring machine (Portable CMM):** A CMM is a device for measuring physical geometrical features of an object. This machine may be

manually controlled by an operator or it may be computer controlled. Measurements are defined by a probe attached to the third moving axis of this machine. Probes may be mechanical, optical, laser, or white light, among others. A machine which takes readings in six degrees of freedom and displays these readings in mathematical form is known as a CMM.

Whereas traditional CMMs use a probe that moves on three Cartesian axes to measure an object's physical characteristics, portable CMMs use either articulated arms or, in the case of optical CMMs, arm-free scanning systems that use optical triangulation methods and enable total freedom of movement around the object.

Portable CMMs with articulated arms have six or seven axes that are equipped with rotary encoders, instead of linear axes. Portable arms are lightweight (typically less than 20 pounds) and can be carried and used nearly anywhere. However, optical CMMs are increasingly being used in the industry. Designed with compact linear or matrix array cameras, optical CMMs are smaller than portable CMMs with arms, feature no wires, and enable users to easily take 3D measurements of all types of objects located almost anywhere.

Certain non-repetitive applications such as reverse engineering, rapid prototyping, and large-scale inspection of parts of all sizes are ideally suited for portable CMMs. The benefits of portable CMMs are multifold. Users have the flexibility in taking 3D measurements of all types of parts and in the most remote/difficult locations. They are easy to use and do not require a controlled environment to take accurate measurements. Moreover, portable CMMs tend to cost less than traditional CMMs.

The inherent trade-offs of portable CMMs are manual operation (they always require a human to use them). In addition, their overall accuracy can besomewhat less accurate than that of a bridge type CMM and is less suitable for some applications.

Day 1:

The three day workshop was conducted by Mr Vikas Nain, Application Engineer from FARO Technologies. The session stated with the theory session on why we are here to take up this workshop, what is the importance of metrology in industries and how this portable CMM have made the cumbersome process of metrology to a simpler one. How this portable CMM can help in reverse engineering and how it can help in saving time at industrial application.

He stated with the installation of software, specifications, reliability and calibration of FARO ARM for measurement. Some basics on dimensioning and tolerance, geometric features like surface plane, line, circle were explained and how these basic things can be used for modelling of most complicated geometries. Concepts were made clear on 2D & 3D dimensioning, how Angularity or orientation measurements can be made to capture angle information between points on an object.

Day 2:

The second day started with the use and application of some of the advanced features of measurement like cone, different types of slots like round slot, rectangular slot, tube and torus. Further it was exemplified on how these features can be combined to form highly complex geometries. Later on practice session on advanced features was conducted. After lunch data import and export from one software and format to another was taught. Later on scope of alignment features was discussed.

Day 3:

The day stated with the discussion and application of scanning feature of FARO ARM , its special features, specification, installation and calibration of the same as portable arm. It was emphasised on how the scanning feature has made the reverse engineering easy and economic. Later on hands on sessions were performed on few components for the purpose of the reverse engineering

Concluding Remarks:

The three day Faculty Development Program was attended by nearly ten faculty members of the degree and diploma of OM Engineering College with the hope that they would be able to upgrade them self and help students to improve their skills too. We are thankful to FARO TECHNOLOGIES for providing support .We are really thankful to Mr Vikas Nain who took so much of pain and travelled all the way from Delhi for helping us. We are also thankful to our Trustees and Director sir to provide motivation and facility in which faculty upgrade their skill first for the betterment of the students. Faculties expect to conduct few more session on the same in the upcoming times shows the success of Organised Faculty Development Program.

3	**Activity : Faculty Development Program on Modelling in Solidworks software** **Type : FDP** **Date: 16th ,17th ,19th & 20th August 2016** **Venue : OM Engineering College,Junagadh.** The workshop was planned in four days covering different modules on SOLIDWORKS. The plans followed were as follows: **Day 1:** Introduction about Solidworks Basic awareness about software Scope & Application of 2D & 3D drafting & modelling Basic drwaing Commands Basic introduction of assembly Practice session **Day 2:** Use of advanced features of modelling and its applications like swept, loaf & pattern Basic assembly mechanism Practice sessions **Day 3:** Advanced modelling techniques /methods Simulation & Evaluation of mechanism Assembly , Import & Export of components **Day 4:** Special component design Sheet metal forming ,weldmet,etc. Use of commands like rib, draft, mold, tool **SOLIDWORKS:** Solidworks is basically a solid modelling software which is user friendly, reliable, less time taking that runs on Microsoft Windows . It was published by Dessault system. Solidworks can be used for 2D modelling, 3D modelling, assembly , programming , better , simulation, product data management and many types of analysis. The use of software has made the manufacturing quiet easy as the analysis can be done on software, thus reduces the cost of prototypes to a great times. There are many more advantages of using these modelling, designing, analysing and simulation software. Solidworks has many features which are user-friendly and easy to learn which makes it better than other modelling and designing software. Some of the features are **3D CAD** Solidworks 3D CAD solutions enables to quickly transform new ideas into great products. **Visualization** Design and market products faster by turning imagination into reality through impactful content and experiences. **Simulation** Subject designs to real-world conditions to raise the quality of your products while reduce the costs for live prototypes and testing.

Product Data Management

Easily find and repurpose files, parts, and drawings, share design information, automate workflows and ensure manufacturing always has the right version.

Day 1:

The first day started with the introducation of solidworks, some basics on 2D drafting and 3D modelling , sketching, how to add smart dimensions, mechanism sketching , saving a file in various models like solid , wireframe etc. Later it was explained how different commands, features , plane , sketch extrusion , fillets , rounds and design intents. How models can be viewed in different planes, how features can be defined can be in various planes, how assembly drawing can becreated, how various parts can be clubbed in software. Later the practice session was conducted for the same.

Day 2:

Second day stated with the introduction of advanced modelling features like swept, including pattern , load and some other commands. An emphasis talk was conducted on pattern options , skipping instances, geometric pattern, circular pattern, mirror pattern, linear pattern, sketch driven pattern etc. Later the use of shelling and ribs tool was taught , analysing and adding drafts, order of operation, face selection , adding thin features and converting edge. After lunch session various editing and repairing tools were explained like what are stages of the process, how information from the model can be obtained, finding and repairing problems, sketch issues, freezing features , fillets etc. Later on practice session was there for the taught commands.

Day 3:

The third day started with import and export commands that can be used for utilizing the repairing and editing imported geometry . Some of the important topics which were discussed are like

1. What to import?
2. Why do import fail
3. Resulting problems
4. Repairing models
5. Workflows
6. Editing imported parts
7. Using import surface and replace face

8. Using surfaces to create solid.

Simulation tools were also discussed for some assemblies for better understand of mechanisms. Later on training session was conducted for the same.

Day 4:

During the session of fourth day sheet metal conversion and weldmets were discussed like how sheet metal can be converted to components, associated features, switching between states, importing and converting using sheet metal hopper etc. Later weldmets features were discussed in which, weldmet configuration options, corner treatment options, profile position, settings and how to add plates , holes, gusset, endcaps, how symmetry can be used, advantages and disadvantages of multibody part etc were covered The fourth day concluded with the hands-on session for the above discussed topics.

Concluding Remarks:

The four day Faculty Development Program was attended by nearly fifteen faculty members of the degree and diploma of OM Engineering College with the hope that they would be able to upgrade them self and help students to improve their skills too. We are thankful to Khodiyar CADD Centre ,Ahmedabad for providing support .We are really thankful toMr Rases Manvar, trainer from khodiyar CAD Pvt Ltd who helped in understanding the whole of session in a profound and smooth way .We are also thankful to our Trustees and Director sir to provide motivation and facility in which faculty upgrade their skill first for the betterment of the students. Faculties expecting to conduct few more session on the same in the upcoming times shows the success of Organised Faculty Development Program.

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Civil Department

SR. NO	ACTIVITY INFORMATION
1	**Activity : Industrial Visit TO STEEL STRUCTURE OF INDUSTRIAL BUILDING** **Type : Industrial Visit** **Date: 25th July 2016** **Venue : Jetalsar** The steel structure which we have visited is one of the proposed chemical factory of Rajani group of company. These building is G+3 story factory shed,one office building of G+2 which is RCC building with provision of lift and residential building for worker G+2 and all three building are connected together The project started in march 2016 and foundation work completed in may 2016 and than steel work and RCC work is ongoing. Our main purpose for this visit is to be familiar with industrial environment and to get practical knowledge of Construction process. With the need of steel in construction industry due so many reason which should be economical, Eco-friendly, safe and efficient. The other reason was to figure out the joint(bolted connection & welded connection),roof truss,etc. Which used in steel structure as a civil engineers how these structures are constructed is always interesting. Some other purpose was to know about different members of roof trussand how they erected. We firstly got the overall technical information at from site supervisor and the owner. The plant consists of following components 1. Main industrial Building– 1 & 2 2. Office Building – 1 3. Residential Building 4. RCC Road 5. Drainage line 6. entry gate Structure **1. Main industrial Building– 1 & 2 :** It consists of a. Production unit b. packaging area c. Storage area **Production Unit :-** in this area main machinery works to produce some chemical and this machine will be very tall height near about 10m, special support of steel column will be provided for this machine and this area work as heart of this industrial buildings. **Packaging area:-** whatever product will be there is now packed in these area and than transfers to storage area. **Storage area :-** complete project is stored in this area and there will be several opening will provided where trucks can directly loaded.

Conclusion:

steel I section is used for column and 22 mm dia Bolt are used for joint and there are rafter, purlins, etc. members are clearly seen and how they are erected and for joint they used bolted connection as well as welded connection and for purpose of stability against wind, bracing is provided and for bracing connection butt type of joint for bolted connections provided. For roof covering material they use galvanized iron sheet and thermal insulator for purpose of heat insulation.

Office Building:-

This building is adjacent to steel structure but is constructed with RCC. This building is G+2 building for purpose of administration of the factory and currently foundation is completed and form work for column is ready and how cage of steel reinforcement is erected and place that we have learnt.

Residential Building:-

This building is also adjacent to main building and G+2 RCC building and in these building foundation work is completed and and few column is also casted and form work for stair case was also near to finish.

RCC Road:-

RCC road is provided surrounding the main building and second proposed building and in between of both building.

For that they excavated it and remove the loose soil and replace with aggregate and over that they construct rigid pavement. we are studying highway engineering subject in which different layers of road that we have seen over there and how soil is compacted for embankment and strength improvement we have see that soil is replaced by aggregate.

Drainage line:-

For purpose of drainage of water from main building and also for storm water drainage is provided. Because that industrial unit is near to nation highway which is very high embankment compare to near land so in the case of heavy rain there may be issue of water clogging. so that they planned drainage line all around the industry as well as inside and one more purpose is chemical industry so water requirement is high. They will use pre-casted cement pipe for drainage purpose.

Entry Gate:-

we have seen the construction of main entry gate at there form work for RCC and some plastering work which is ongoing that we have seen and in the design of main entry gate to industry long span

RCC slab is there. And they have design main entry gate so nicely that security cabin is included in the gate structure itself.

CONCLUSION:

From this visit, we get the information and knowledge about the components of Steel Structure and its Erection. We got very clear idea about the importance of different components of Industrial Building.

3	**Activity : Industrial Visit JETALSAR RAILWAY STATION** **Type : Industrial Visit** **Date: 25th July 2016** **Venue : Jetalsar** Jetalsar Junction is the main Railway Junction which connect most of trains of the Region of Junagadh. Jetalsar junction is also useful to civil engineering students to understand the civil structures practically like Foot Over Bridge, Gantry girder, Joints Between Rails, Connections, Elevated Water Storage Tank, Truss structure, etc. There is Maintenance yard, Scrap yard is available at junction for the primary maintenance of engine and coaches, storage of the scrap respectively. Presently Jetalsar Junction is the junction from which the Broad gauge and Meter gauge both type of trains are operated. Our main purpose for this visit is to familiar students with industrial environment and to get practical knowledge of Civil Engineering. For any Civil Engineer Practical Knowledge and Field Experience is Primary Requirement. Also this visit introduce the students with the various structural part of some special structures and their components as well as their safety features. The other reason was to find out the economical and safe way for structure designing and Developing as a civil engineers. Some other purpose was to know about the solutions of the Structural Deformation and Damage Prevention for any Structure as well as Maintenance of Structure. First of all we got the information about the Railway Station and Civil Structures of Railway Station from Station In charge Mr. Muhaiya sir. The Railway Station Consist following Civil Structure which is visited by us:- 1. Railway Track 2. Platform Truss 3. Platform Columns 4. Foot Over Bridge 5. Gantry Girder in Maintenance Yard 6. Elevated R.C.C. Water Tank **Railway Track :-** It consists three main components as listed below:- a)Rails b)Sleepers c)Ballast a) Rails:- Rails are made of well finished steel having different types of cross section which direct transfer the loads coming from train to sleeper. It is denoted that Train run on this Rail. Student also Learned different types of joints in Rails, i.e. Lap joint, Butt joint. **Sleeper:-** Sleeper is the second part of Railway track which transform load from Rails to Ballast. It may be made of Wood, Steel or Concrete. At Jetalsar junction two types of sleeper Made of Wood and Concrete are used. **Ballast:-** Ballast is used to transfer load coming from sleepers to sub grade. It is made of coarse aggregate having high strength to transfer the load coming from sleepers.

Platform Truss:-

The Railway platform is required to cover for the purpose of the safety of people and goods. This covering is done by the cement or steel sheet. This sheets are fitted on the this truss. Hence this truss support the covering the material. It consist the Main Girders and Purlins which are placed perpendicular to the direction of the main girders.

Platform Columns:-

Platform column is the main part which support the railway platform truss. Truss is directly supported on this columns and transfer the load of truss and roofing material to the footing or foundation.

Generally it is made of steel which is formed by single unit of I section or May be multiple steel sections are used. On jetalsar junction we have observed that two C sections are used Back to Back and column is formed. It also denoted that both C sections are connected with Lacing and Battening of steel section using Bolt Connection.

Foot Over Bridge :-

Foot Over Bridge is generally provided for the Pedestals to cross the Railway Platform or Railway track.For the safety of peoples and to solve the Accident problems of people on railway track. Generally it consist the Main Girder (Plate Girder), Cross Beams, and Finishing etc. This bridge has consist also intermediate support in form of column also having K type, X type or Lattice types of bracing. At Jetalsar junction we observed types of bracing K type.

Gantry Girder in Maintenance yard :-

Gantry girder at Yard is generally provided to transform or to carry the loads from the Railway Engine or Railway Coaches.

Maintenance yard is also covered with a sloping roof truss to provide protection against the weather effect.

Elevated R.C.C. Water Tank :-

At Jetalsar Junction we also visited the Elevated R.C.C. Water Tank Located near the Junction at the Railway Staff Colony. The Type of Water tank was Elevated Conical R.C.C. water tank. At site we also understand the configuration and design of its component as Top spherical dome, Conical side wall, Bottom spherical dome, and Supporting shaft. At the end of visit we take a group photograph of students & faculty members.

CONCLUSION

From this visit, we get the information and knowledge about the different Civil Structural Component of Railway Station. We got very clear idea about the importance of different Structural parts and their safety features as well as their Designing Concept.

College Leval Activity

SR. NO	ACTIVITY INFORMATION
1	**Activity : Industrial Visit at Cold -Storage** **Type : Industrial Visit** **Date: 20th August 2016** **Venue : Agro Cold storage** With a view to provide the practical exposure to the students of first year of Engineering, an Industrial Visit was held on 20 th August 2016 where more than 130 + students along with three faculty members have paid visit to Shree Raj Agro cold storage at Jalansar, Junagadh Dhoraji Highway, Junagadh. At the cold storage, first of all students are divided into groups and then they are taken for the visit. The visit begins with First important part of Transformer which provides electricity support to agro cold storage.   Then they were taken to the Electric Pannel Room, as well as To the chamber from where the Coldwaves are generated. Then they were taken to the chambers where they were informed about storage capacity and how the products are preserved.  

Points studied in detail:

1. Vapour compression cycle used in cold storage plant to store food products at desired temperature.
2. Details of blowers, precoolers and cold storage rooms.
3. Refrigerant used and its different properties.
4. Working of complete vapour compression cycle.
5. Working of open type reciprocating compressor.

Students Feedback

"Industrial visit to Shree Raj Agro Cold Storage organized by Om Engineering College was very informative."

"The guiding staff both college staff as well as site staff was very supportive to all students"

" We hope that this visit will help us in our future practical life and bring a positive change in our thinking and practical behavior regarding education and specially engineering."

2	**Activity : Celebration of Kargil Vijay Divas** **Type : Celebration** **Date: 26th July 2016** **Venue : OM Engineering College, Junagadh.** The celebration of this one of the special day begins with the speech of Mr. Yashpal Gadhavi (Asst. Prof., H & S Dept., OEC), where he first of has welcomed the audience.   Then, he informed the students about the Kargil War where he said, “Kargil Jung one of the important landmark in the history of India. It is also known as the Kargil conflict was an armed conflict between India and Pakistan that took place between May and July 1999 in the Kargil district of Kashmir and elsewhere along the Line of Control (LOC). In India, the conflict is also referred to as Operation Vijay which was the name of the Indian operation to clear the Kargil sector.” After giving Information about Kargil War, Students are shown one documentary of one of the survival of the Kargil War, Yogendrasinh Yadav. In this documentary, he has shared his experience that how he has fought the battle and able to survive in critical conditions. He has revived the scenario of the battlefield through his narration and students feels motivated themselves after watching this video. Then it was a time to remember those bravehearts sons of India because it is at the cost of their Sacrifice and Martyr hood,we have achieved this victory over the enemy. As more than 400 hundred soldiers of Indian Army have laid down their lives and gain martyrhood and make us to live in the proud moment. They have left an untold saga for us to convey their message of bravery to us. The audience paid a rich tribute to the those soldiers and prayed for their souls to rest in peace by keeping two minutes Silence. To celebrate our national spirit and respect towards the nation on this Very Special Day, the audience has chanted the National Anthem of Ours. Mr. Yashpal Gadhavi thanked all Trustees, Direcor, Principal for their presence in the function. He thanked to all head of the department for remaining present in the function. He also thanked students who remained present to remembering the greatest souls who lost their life and become martyrs for nation.The Function ended with vote of thanks

3	**Activity : Best out of West Activity** **Type : Activity** **Date: 13th August 2016** **Venue : OM Engineering College, Junagadh.** To provide a platform to the creative ideas of Future Engineers who has just entered into the filed of Engineering, we have organized one event called "WASTE OUT OF BEST". This event has become a good platform for the students where they have showcase their best of the talents in them. More then 50 students participated in this event.   At the beginning of the events, all the students are asked to form a group of four of their choice. Then they are given some waste material and they are also asked to collect waste material from their home or surrounding. After forming of the groups, one video which gives them idea about how to use waste to create best things is shown. We have organized this event to make them familiar aware about recycling and reusability of waste materials. Recycling is the process of converting waste materials into reusable objects to prevent waste of potentially useful materials, reduce the consumption of fresh raw materials, energy usage, air pollution and water pollution by decreasing the need for "conventional" waste disposal and lowering greenhouse gas emissions compared to plastic production. Recycling is a key component of modern waste reduction and is the third component of the "Reduce, Reuse and Recycle" waste hierarchy. There are some ISO standards related to recycling such as ISO 15270:2008 for plastics waste and ISO 14001:2004 for environmental management control of recycling practice. Recyclable materials include many kinds of glass, paper, metal, plastic, tires, textiles and electronics. The composting or other reuse of biodegradable waste such as food or garden waste is also considered recycling. Materials to be recycled are brought to a collection center or picked up from the curbside, then sorted, cleaned and reprocessed into new materials destined for manufacturing. In the strictest sense, recycling of a material would produce a fresh supply of the same material for example; used office paper would be converted into new office paper, or used polystyrene foam into new polystyrene. However, this is often difficult or too expensive (compared with producing the same product from raw materials or other sources), so

"recycling" of many products or materials involves their reuse in producing different materials (for example, paperboard) instead. Another form of recycling is the salvage of certain materials from complex products, either due to their intrinsic value (such as lead from car batteries, or gold from circuit boards), or due to their hazardous nature (e.g., removal and reuse of mercury from thermometers and thermostats).

Feedback:

The most common feedback we got is the event was very joyful and we enjoyed a lot. . In fact they all are interested for many more events like this. They felt very enthusiastic and energetic by organizing this kind of event. At the end seeing smiles on everyone's face they felt the hard work done by them was worthy.