

# GOVERNMENT POLYTECHNIC JAMNAGAR

## MECHANICAL DEPARTMENT NEWSLETTER

# GOAL

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Newsletter



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## **DEPARTMENT VISION & MISSION**

### **Vision:**

To provide quality education emphasizing technical skills to cater to the needs of industry and society.

### **Mission:**

- M1.** To impart technical knowledge by using latest available facilities.
- M2.** To inculcate technical skills into students for their professional development.
- M3.** To nourish personality by emphasizing ethical values.
- M4.** To facilitate career development support through proper guidance.

### **Programme Educational Objectives (PEO):**

- PEO1.** To apply the principles of Mechanical Engineering in various employment areas.
- PEO2.** To achieve professional success both as individual and in team environment.
- PEO3.** To pursue life-long learning through professional practice and higher studies.

### **Programme Specific Outcomes (PSOs):**

- PSO1.** Able to operate and maintain mechanical systems.
- PSO2.** Capable of manufacturing or processing the product as per society needs with environmental safety.

***Details of Industrial Visit are as below:***

**1) Geeta Machine Tools Pvt. Ltd.** New Bharat Engineering Works Pandit  
Nehru Marg, Jamnagar -361002  
**Phone: 0288-2750603**

Date of Visit: 21September, 2020

Faculty Name: Mr. L K Jethva, Mr. S Z. Pathan, Mr. D D Chhaiya,  
Mr. K.M. Chavda

Class during visit:3rdsemester, Mechanical Engineering (ME I)

**Description of the Visit:**

Geeta Machine Tools Pvt. Ltd. Manufacturing of machine tools Like Centre Lathe, Drill, Radial Drill machine, special purpose machines, NC machines etc.

We have visited Foundry of Geeta machine tools, we have seen pattern making process and also working of cupola furnace, and also seen the finishing process of work piece produce through the process of casting.

We have also seen different metal joining process like arc welding, gas welding.



Some Photos during visit of students and faculties of G P Jamnagar

## **Workshop on Refrigeration & Air conditioning by GISET (Gujarat Institute of Solar Engineering & Technology)**

**Date:**4<sup>th</sup> SEPT 2020 to 6<sup>th</sup> SEPT 2020

**Total Nos.** of participant: Final year 90 students

**Aim:** - to aware the students from practical knowledge about refrigeration and air-condition (R & AC).

### **About GISET:**

GISET(Gujarat Institute of Solar Engineering and Technology) is a top ranked institute of solar engineering and technology in India and a part of Ecoepicsolar Training Division which is affiliated by National Development Agency - Gov't of India. We give the large employment generation potential of solar in India and to overcome the skill gap as per the survey we trained and placed 10 million unemployed skill youth in renewable energy sector, a significant proportion of the Indian workforce would need to be trained with the necessary skills to support the solar market. Renewable energy is one of the targeted sectors, As India faces rising in fuel demand, threats to energy security, and the impacts of climate change, Solar energy offers Innovative clean energy solutions, including large solar parks and rooftop solar panels in dense urban areas, can help solve these daunting challenges, while increasing energy access, creating jobs, and reducing toxic pollution all over the world.

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**Further Information:**

With the help of govt initiative to provide practical based learning to technical wing candidates, Giset starts FREE OF COST two days workshop training to MECHANICAL wing students on AC & REFRIGERATION working mechanism and method of working principal.

All the necessary equipment for practical training and for demonstration will be carry by our institute. Daily 6-hour training will be provided by GOVT certified trainer only. After two days workshop training assessment will be made by GOVT and the candidates who will clear assessment will get SKILL ADD ON certificate from GOVT OF INDIA. Also, candidates will get following benefits.

- 1) Candidates will get 500 scholarships for being a participate in this workshop.
- 2) Training will be govt approve and will schedule as per govt guideline.
- 3) Only GOVT certified and approve trainer will provide training.
- 4) After completing assessment candidates will get govt approve skill add on certificates.

- 5) Candidates get loan on these certificates to start his own business on MUNDRA scheme.
- 6) Certificates is valid to get GOVT contract as well as PRIVATE contract in this field.
- 7) Certificates is valid to work in abroad on work permit.

To get a benefit of above workshop training program college need to prepare minimum 50 and maximum 300 candidates' batch with following necessary documents of each student.

***Details of training: -***

In modern world, refrigeration and ac are commonly used human comfort appliances. Everyone is familiar with the function of ac and refrigeration. As a mechanical engineer we should have the practical knowledge about refrigeration and air conditioning. So, the workshop on refrigeration and air conditioning (R & AC) was arranged by our collage and training center of Gujarat institute of solar engineering and technology (GASET) for us.

The workshop is on 3rd and 4th march of 2020at our collage and center of GASET. The training is free of cost and around 70 students is participated in this training. For training, our instructor is Narendra sir, Jaydeep sir, Ashok sir. First of all, Ashok sir tell us about importance of this training, future scope as an R &AC technician, become a self-employed in this field. They also told about importance of this certificate for this given by skill India program under the government of India. He also told us about history of renewable energy, potential and future project of government for renewable energy. He told that the two days are not to be enough to be an R &AC technician but the practice about this is makes you a R &AC technician, after this talks he announced that now Jaydeep sir will take a class. Jaydeep sir starts coaching about basic refrigeration and air conditioning cycle which is very important. They explain the cycle on board and

ask some question to student based on R&AC. they impressed because our basic knowledge is clear very well.

Then narendra sir tells us about compressor. They explain the winding arrangement and power supply path in compressor. then he told us about problems occurs in compressor and solution of them. They share some facts about particular company's compressor and problems of them. Then jayu sir, jaydeep sir and narendra sir shows us the tools for repair R&AC. They explain the function of each of the tools and show us how to use them practically. They also told us that how many tools should carried by a R&AC technician carry with him in his tool bag. Some of tools are flaring tools, swaging tools, charging line, piercing valve, compound gauge, Allen key, refrigerant cylinder, clip-ol meter, vacuum pump, etc. many other tools. They also share information about different types of refrigerant and properties of refrigerant. We also learned about refrigeration leak detection method. The students have many queries about R&AC they solve the query satisfactory. They also shared his experience with this field. They have about 17 years' experience in this field. And many other discussion was done between us on that day and a one day was ended with much of knowledge about R&AC.

On the 4th march we would learn about mounting of ac. They show us the component of ac which is required to mount. they explain about mounting of component of AC practically. They also told about required tools to mount the ac. On that day we discussed about location selection for munt ac, problems during mounting, safety precaution during mounting and repair, and servicing of ac during servicing time and then they told us about exam process of this training. There is two type of exam.1) online theoretical and practical MCQ type exam and 2) viva exam. They shared the previous exam question and give that us to solve the question. Also, the student has discussed about their queries with sir and the second day is completed with more much of knowledge about R&AC.

On the 5th March we have assessment exam for this training. The invigilator comes from head branch and he is taking our exams. The invigilator



told us about start the exam and submits of the exam. The MCQ type test is done on app named 'ESSCI'. There is time of 50 min for each MCQ type exam. After completing the MCQ exam our viva exam was remaining which is also conducted that sir. They told that the student who is passed with this both exam only that student is get the certificate. The both exams are very easy every participated student is passed in both exams. After completing the exam, we are taking a group photo with all sir for memories. It was such a nice experience and we got the much of practical knowledge from this training.



