Turbines

Newsletter 09/04/2017
Volume 2 Issue 2

SECAB.I.E.T, MECHANICAL ENGINEERING
DEPARTMENT, BAGALKOT ROAD,
NAURASPUR, VIJAYAPURA- 586109

INSIDE THIS ISSUE

1. From HOD's Desk
2. Newsletter Articles

"Education is the most powerful weapon which you can use to change the world"

From HOD'S Desk

It is my pleasure to welcome you to the department of mechanical engineering at the SECAB institute of engineering and technology Vijaypur. Mechanical engineering has been thought of traditionally as a professional discipline and the mechanical engineers of today are multidisciplinary, with knowledge from other branches of engineering.

The academic programmes of the department reflect not only the core areas of mechanical engineer but also the research specialization of the faculty. All the faculties are working in close co-operation while retaining individual identities. We provide our students with a solid engineering education that focuses on creativity, innovation, strong ethical responsibility and place equal emphasis on developing strong leadership qualities in our students.

As far as the faculties of the department is concerned, I am very happy to inform you that, we have great team of well qualified, dedicated, devoted, young, energetic and dynamic faculty members who are very brilliant in handling the challenging subjects in a very easy and graspable way by applying a various new teaching methods and intelligible demonstrations during the course of work. Further, Faculty pay dedicated attention to vigorous research and students' projects engendering in them untiring efforts, indomitable will, immense patience and soft skills as desired by industry.

Babajan Patel
4th SEM

ENVIRONMENTAL POLLUTION

Introduction

The term ‘pollution’ has gained a wider significance in recent years. Pollution refers to the release of chemical or substances into the environment that is injurious for human, animal and plant life. The water, air, noise and other forms of pollution in one terminology is known as the pollution of the eco-system.

Water Pollution

Water Pollution refers to the contamination of water bodies such as water, sea, lakes, ocean, etc. It happens when pollutants are discharged into water without proper treatment. The organic sources of water pollution are food-processing wastes etc. The inorganic sources are acidic industrial discharge, silt, etc. Proper treatment of pollutants before their introduction to the water bodies is of utmost importance to diminish the growing water pollution.

Air Pollution

Air pollution is introduction of chemicals to the atmosphere. It damages environmental balance and causes several diseases. The major causes include massive deforestation, atomic explosions, old vehicles, industrial fumes, Ozone layer depletion, global warming etc. Global warming is alarming to save our planet. Massive deforestation should be immediately stopped since it has altered the balance between oxygen and carbon dioxide. Industrial and vehicle law relating to air pollution should be properly implemented.

Noise Pollution

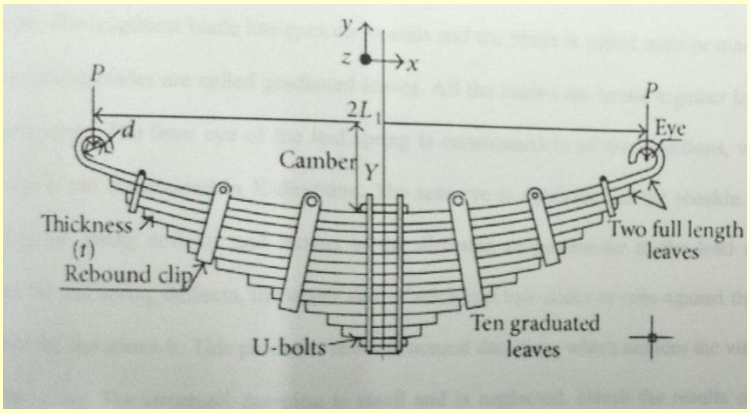
Noise pollution is the excessive sound that may cause harm to the humanity. The sources of indoor noise pollution are machines, television, music activities. The external sources of noise pollution are industries, vehicles, trains, etc. Noise control measures such as noise barriers, smooth roadways, etc. can be introduced to reduce the pollution.

Conclusion

The principal cause behind this pollution is ‘exploitation of nature’. The environmental laws across the globe make an attempt to control pollution. But people are addicted to break the law. Since we all know the causes of these hazards, we should behave responsibly towards the environment as an attempt to control pollution.

Seema B Kolli.
6th SEM

LEAF SPRING SUSPENSION SYSTEM



A leaf spring is a simple form of spring commonly used for suspension in all vehicles. It is also one of the oldest form of springing. Semi-elliptical leaf springs are most universally used for suspension in light and heavy commercial vehicles. For cars also these are widely used in rear suspension. The spring consists of number of leaves called blades. The blades are varyring in length as shown. It is also called as cart spring. It takes the form of a Slender arc shaped length of Steel of rectangular cross-section. The centre of the arc provided at either end for attaching to the vehicle body. For heavy vehicles a leaf spring can be made several leaves stacked on top of each other in several layers.

Leaf spring were common on automobiles, right up to 1970's when they move to front wheel drive and more sophisticated suspension design, saw automobile manufacturers use superior coil spring instead. However leaf springs are still used in light commercial vehicles such as vans, trucks and Railway carriages. More modern implementations are the parabolic leaf spring. This design is characterized by fewer leaves whose thickness varies from Centre to end following a parabolic curve. In this design inter leaf friction is unwanted and therefore there is only contact between the string at the ends and at the centre where the axle is connected. Spare prevents contact at other points. Aside from weight saving, the main advantage of parabolic spring is there greater flexibility, which translate into vehicle ride quality that of coil spring there is a trade-off in form of reduce the load carrying capacity.

The blades are usually given initial curvature for Cambered so that they are they will tend to straighten under a load. The spring is based upon the theory of beam of uniform strength. The lengthiest blade has eye on its end and blade is called main or master leaf, the remaining blades are called graduated leaves. All the blades are bound together by means of Steel straps. The front eye of the leaf spring is constrained in all the directions where as a rear eye not constrained in X-direction. The rear eye is connected to the shackle. During loading the spring deflection and moves in the direction perpendicular to the load applied. When the leaf spring deflection, the upper side of each leaf tip slides are rubs against the lower side of the leaves above it. This produces some structural damping which reduces the vibration of the spring the structural damping is small and is neglected hence the result obtained will be conservative.

Sameer Mithaigar
8th SEM

Welcome to my department
MECHANICAL ENGINEERING

A dream of creative people.....
When I asked to my heart, it told me that I can do it, but I failed.
When I asked to my brain, it told me that I can't,
When l asked to my heart and brain the combination told me that we can.....
If you want to complete the mechanical engineering you should listen your heart as well as your brain.
Before joining mechanical engineering be aware of these subjects which are going to kill you, but if you believe in yourself you can do it.
I would like to introduce the subjects
MOM is there to beat you;
BTD is there to eat you;
ATD is there to meet you;
TURBO is there to rotate you;
DME is there to tight you;
HMT is there to heat you;
VIBRATION is there to vibrate you;
Finally CONTROL is there to control you.

Best of luck for all the mechanical engineering students who are taking admission for academic year.....
I hope you will do your best in the academics.....

At last I would like to thank our all teachers who are supported me

ENIFFER .P.S 7th sem

For Details Contact

Nauraspur Bagalkot Road,Vijaypur(Vijayapura) 586109,KARNATAKA.(INDIA)
Website:siet.secab.org, e-mail:secab_siet@secab.org phone:08352-278912,276425
cell:+91 9513314007 , 9880674370, 9986085198, 8904146113