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# SREYAS INSTITUTE OF ENGINEERING AND TECHNOLOGY

Beside Indu Aranya, GSI, Bandlaguda, Nagole, Hyderabad, Telangana

# DEPARTMENT OF MECHANICAL ENGINEERING QUARTERLY NEWS LETTER



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#### Vision and mission of the institution

- Vision : "Sreyas will be a global leader in imparting futuristic technical education with human values. It fosters ethical social and moral values through holistic learning to groom young minds into responsible and successful global citizens".
- Mission :"To strive relentlessly and vigorously to realize the vision by making the best use of quality infrastructure, resources and experienced, talented and committed faculty"

#### Vision and mission of the department

- VISION : Striving for global recognition for excellence in Mechanical Engineering Education and Research. for the advancement of the industry and society.
- Mission:
  - Providing quality education to the students and enhancing their skills to make them globally sustainable Mechanical Engineers.
  - Providing state of the art laboratory and research facilities to the students and faculty with opportunities to create, interpret, apply and disseminate practical knowledge.
  - Interact with industry to integrate R&D activities along with academic learning to engineer in response to the change requirement, needs of the society and industry.

# Industry visit by III B. Tech students

III B.Tech I Semester Mechanical Engineering students under the guidance of C.L.N.Kameswara Rao Asst Professor along with Mr. Mr. Bhaskar, Asst Professor of Mech Engg vent on local industrial tour on 9th September at Uppal industrial area, Uppal. 45 students were visited M/s Sarathi Engineering Enterprises Pvt Ltd and subsequently & M/s NRB Bearings.



Sarathi Engineering students gained good exposure on manufacture of springs spring hangers and Rigid hangers. At NRB Bearings learned quality measuring system followed in inspection of bearings. The was a demo class on industrial environment and opportunities for mechanical students and also in doing projects. By forming student groups visited all units for the industry.

Faculty development programme

The continuous development of faculty in subject is essential for improving the efficiency of teaching. In this regard faculty development program was conducted for Mechanical and civil Engineering faculty on Engineering Graphics which is common subject for all branches. The resource person is nun other than Dr. BVR Gupta who served for long time at Andhra University and also written a book on engineering drawing. It was conducted on 20.09.2016 from 4..pm to 5.00pm. All faculty of Mechanical engineering and Civil engineering were attended and the program was much useful for improving the concepts of Engineering Drawing.



#### Guest lecture

The guest lecture conducted for third and fourth year students of mechanical engineering on  $21^{st}$  Sept 2016 by Dr S. Karunanidhi Scientist G from DRDO. Dr Karunandhi brought some valuable points about ancient educational system an also connected the scientific reasoning to some of the spiritual believes for encouraging the students. Some of the points stressed by him are

- Simple living and high thinking
- Education motto is self realization
- Importance of Character and how it is synonymous to attitude
- Essence of spirituality is to live life to its fulfillment

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• How motivation in life turned a layman to be a creative writer of Ramayana



• How there was a systematic destruction of our culture, self esteem and heritage during British rule. And how the motto of education has been transformed to Selfishness instead of self realization

## Orientation for M. Tech program

The orientation program for M.Tech Mechanical (CAD/CAM) held on  $17^{th}$  October at 11.00AM at auditorium. Vice -President, Principal , HOD-Mechanical, HOD- ECE, PG coordinators along with M.Tech students were attended the program. Respected principal spoke on PG course importance and successful completion by full utilization of the resources available in the college such as faculty, labs and library. HOD described the value and significance of higher studies in professional courses like entry qualification for research admissions. PG coordinator supplied the material for course structure, syllabus copy, time tables and insisted for regular attendance subject wise for getting eligibility for appearing end examinations. EO and other administrative personal were also attended in making the program success.



#### Student motivaltion program

Bright students who stand first in II B.Tech assignment tests have been encouraged by means of gifts such as book on Vivekananda quotations, pen, etc from the subject faculty as token of appreciation. The students are

very happy and every student is inspired to concentrate in studies to get appreciations from the department and the college. The faculty felt that it such small prize will bring competitive environment among the students and certainly help to promote for quality education.



# Use of quality teaching methods in the department

The department of Mechanical Engineering uses quality methods in teaching. Regular use of video lectures, PPTs is the practice in all classes by all faculty.



# Using of CAD/CAM Lab and other facilities

The Department of Mechanical Engineering is provided with excellent CAD/CAM lab. It is provided with licensed softwares such Autocad, ansys, abaques simulation software, heavy duty CNC lathe of worth more thant. Large number of sponsored projects at B.Tech level, M.Tech level and even research level are at different stages with the use of all these facilities.

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Article on I C Engines

by Mr. SAINADH, ASSO. PROFESSOR

An internal combustion engine (ICE) is a heat engine where the combustion of a fuel occurs with an oxidizer (usually air) in a combustion chamber that is an integral part of the working fluid flow circuit.

The term internal combustion engine usually refers to an engine in which combustion is intermittent, such as the more familiar four-stroke and two-stroke piston engines, along with variants, such as the six-stroke piston engine and the Wankel rotary engine. A second class of internal combustion engines use continuous combustion: gas turbines, jet engines and most rocket engines, each of which are internal combustion engines on the same principle as previously described. Firearms are also a form of internal combustion engine.

Typically an ICE is fed with fossil fuels like natural gas or petroleum products such as gasoline, diesel fuel or fuel oil. There's a growing usage of renewable fuels like bio-diesel for compression ignition engines and bioethanol or methanol for spark ignition engines. Hydrogen is sometimes used, and can be made from either fossil fuels or renewable energy.

Career prospects in Mechanical Engineering

Mechanical engineering is one of the oldest branches of engineering. It is also referred to as the 'mother' branch of engineering. Almost all inventions during the ancient period and a vast majority in the modern era are direct contributions of one or the other application of mechanics.

After successful completion of the graduate program, you can go for the two-year masters program in mechanical engineering through GATE/PGCET.Students interested in further studies can do a PhD.

### JOB PROSPECTS

Since Mechanical Engineering is the broadest of all engineering fields, the job prospects on offer for skilled mechanical engineers are aplenty and unending. They require in to design, test, manufacture, install, operate and maintain a wide array of machines and that are used in countless industries. There is great demand for skilled mechanical engineers in different segments of the industry. In recent times, the services of expert mechanical engineers have even been sought in fields such as nanotechnology, biomedical engineering, energy conservation and environmental engineering.

According to a survey, mechanical engineering is amongest the most sought after branches of engineering preferred by students seeking admission to various technical institutes across India in the recent years.

## PAY PACKET

The average monthly salary of mechanical engineers who are new to this profession is approximately in the range between Rs.10,000 and Rs.25,000. Good campus placements can fetch even better packages for deserving students. Mechanical engineers who hold a post-graduate degree from a reputed academic institute tend to get better offers than diploma and degree holders.Highly skilled mechanical engineers can easily command pay packets as high as Rs 40-45 lacs per annum.

The activities of the department are essential to be brought to the notice of all members of the department including students. One of the best way to spread among the avareness of the students and parents is only possible through news bulitions. We are strongly beliveing that this quartely released letter can meet this requirement..... Editor

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Education is the manifestation of the perfection already in man — Swami Vivekananda

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