



**Bharati Vidyapeeth's Jawaharlal Nehru
Institute of Technology (Poly.), Pune-43.
Department of Mechanical Engineering**

Mech News

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FOUNDER

Hon. Dr. PATANGRAOJI KADAM

Mission: “Social Transformation through Dynamic Education”

This Newsletter is published to give information about events that are taking place in Civil Engineering Department.

This is for internal circulation only.

Vision of the Department:

To strive for imparting quality education in the field of Mechanical Engineering and continue to play the foremost roles in the development of nation

Mission of the Department:

M1: By initiating students to become life-long learners

M2: By achieving societal development through Mechanical Engineering education

M3: By developing technocrats to cater ever changing need of the industries by being employable at entry level and furthermore in the long run becoming entrepreneur

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From HOD's Desk:

Dear students,

Nice to have a word with you all again! It is truly an immense pleasure and pride to be the leader of such an active department! I hope, enthusiastic students and responsive faculty/staff will act to achieve the vision of the department in the coming future.

“To strive for imparting quality education in the field of Mechanical Engineering and continue to play the foremost roles in the development of nation.”

This is the vision statement for our department. In current scenario, of general industries and social.

behavioral pattern of the supporting staff, we felt that it was necessary to implement a change in the educational system being followed conventionally. A student passing out of the department, not only should be an acceptable engineer but also an acceptable person who has credibility, honour for commitments and sense of responsibility towards all encompassing society. It is well said that ‘a child without education is a child lost’. It is our aim to provide much more than the contents offered in a given subject along with the understanding of the help that the student can provide to the society by this acquired knowledge.

We sincerely believe that we are so far successful in portraying the mission and goals of our department to all the concerned people. All students are aware of what exactly we are trying to do together. This is not possible without help from supporting staff and their clear understanding of the aims and challenges that are to be overcome and the difficulty of the task.

Prof. V. M. Patil
Head of Department

SMART MATERIALS AND STRUCTURES

Abstract:

Smart materials and structures are now days are used in most fields of engineering and technology. A lot of research is going on to utilize their potential in various engineering application which make prove useful for common people. A wide variety of smart materials exist which includes piezoelectric materials, magneto rheological materials (MR), electro rheological materials (ER), shape memory alloys, etc. in both ER and MR fluids, the change in fluid properties like viscosity can be manipulated by varying an electric supply, by varying the strength of the electric field, the particle change can be aligned in between the electrodes. The automotive, aerospace and robotic industries have for the first time used these smart materials for various applications. This paper is an attempt to illustrate some of the applications of these smart materials.*¹

Keywords: Smart materials, Smart structures, Piezoelectric materials, Shape memory alloys, Electro-osmosis, Electroluminescent materials, Rheological materials, Colour changing materials.

Guide: Prof. N.S. Deshmukh
Atharva R Pailwan

TECHNIQUES FOR WASTE HEAT RECOVERY FROM BOILER

Abstract:

Waste heat is heat, which is generated in a process by way of fuel combustion or chemical reaction,

and then “dumped” into the environment even though it could still be reused for some useful and economic purpose. The essential quality of heat is not the amount but rather its “value”. The strategy of how to recover this heat depends in part on the temperature of the waste heat gases and the economics involved.

Large quantity of hot flue gases is generated from Boilers. If some of this waste heat could be recovered, a considerable amount of primary fuel could be saved. The energy lost in waste gases cannot be fully recovered.

A waste heat recovery unit (WHRU) is an energy recovery heat exchanger that recovers heat from hot streams with potential high energy content, such as hot flue gases from a diesel generator or steam from cooling towers.

Guide: Prof. U. D. Bangale

DilipSuthar (TYME)



Godrej ALP batch 2 Convocation Ceremony“Mahwari- Boon or Bane” seminar



Blood Donation Camp



Glimpses of events of Mechanical Engineering Department



