



SRI VASAVI INSTITUTE OF ENGINEERING & TECHNOLOGY
DEPARTMENT OF MECHANICAL ENGINEERING

Report of the Event

Event Name: Guest Lecture on Quality Control Techniques

Date(s): 22-10-2022

Coordinator: K.LakshmiPriya

Resource person(s): P.Satyanarayana

Participants: 30

Duration: 2.5 Hours

Brief Description:

In mechanical engineering, quality control techniques ensure components meet design and performance standards. Common methods include dimensional inspection, non-destructive testing (NDT), statistical process control (SPC), and tolerance analysis. These techniques help detect defects, maintain precision, and ensure reliability in manufacturing processes. They play a crucial role in improving product quality, reducing waste, and enhancing overall production efficiency.



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Report of the Event

Event Name: Guest Lecture on Variation of velocity and acceleration of piston on velocity, acceleration of water in pipes

Date(s): 27-10-2023

Coordinator: K.LakshmiPriya

Resource person(s): P.Satyanarayana

Participants: 7

Duration: 2.5 Hours

Brief Description:

In mechanical systems like reciprocating pumps, the piston moves with varying velocity and acceleration due to crank rotation. This unsteady motion causes fluctuating water velocity and acceleration in pipes, leading to pulsating flow. These variations result in pressure surges, known as acceleration head, affecting pump efficiency and system stability. Air vessels are often used to minimize these effects and ensure smoother water flow in suction and delivery pipes.



K LakshmiPriya
COORDINATOR

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Report of the Event

Event Name: Guest Lecture on Exhaust Emission Analysers

Date(s): 16-03-2024

Coordinator: T.Durga Prasad

Resource person(s): V.Nani

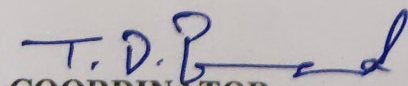
Participants: 7

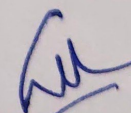
Duration: 2.5 Hours

Brief Description:

Exhaust emission analysers are devices used in automobile engineering to measure pollutants in vehicle exhaust gases, such as CO, CO₂, HC, NO_x, and O₂. They help assess engine performance, ensure compliance with emission standards, and diagnose faults in the combustion system. Common types include non-dispersive infrared (NDIR) analysers for gases and flame ionization detectors (FID) for hydrocarbons.




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Report of the Event

Event Name: Guest Lecture on Mico-machining process.

Date(s): 16-02-2024

Coordinator: K.LakshmiPriya

Resource person(s): Dr Kalluri Vinayak

Participants: 75

Duration: 3.00 Hours

Brief Description:

Micro-machining is a precision manufacturing process used to create small and intricate features on materials at the micrometer scale. It involves techniques like laser, electro-discharge, and ultrasonic machining to produce micro-sized components with high accuracy. This process is essential in industries like electronics, biomedical, and aerospace for fabricating micro-parts such as micro-channels, sensors, and nozzles, where conventional machining is ineffective.



K LakshmiPriya
COORDINATOR

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Report of the Event

Event Name: Guest Lecture on Tools Design in EDM

Date(s): 02-11-2023

Coordinator: V.Ravi

Resource person(s): P.S.R.K.Nageswara Rao,

Participants: 7

Duration: 3.00 Hours

Brief Description:

Tools design in EDM is a critical aspect that significantly affects machining performance, accuracy, tool wear and surface finish. The speaker educated the audience about advanced tool design concepts viz: rotating electrodes, multi-electrode tooling and CAD /CAM integration. EDM uses electrical discharges to remove material from a workpiece which is generally a hard metal.

Photos:



V.R.

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Report of the Event

Event Name: Guest Lecture on Transformation in the Solid State

Date(s): 12-02-2024

Coordinator: D.KiranBabu

Resource person(s): G.Leela Siva Rama Prasad

Participants: 20

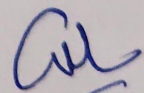
Duration: 3.00 Hours

Brief Description:

Solid state transformations refer to changes in the structure, composition or phase of a solid material without the material entering a liquid or gas phase. These transformations are critical in materials science and engineering. The resource person explained types of transformations to the students.




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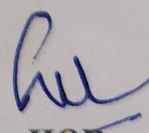
Report of the Event

Event Name: Guest Lecture on failure modes of sandwich panels
Date(s): 25-09-2023
Coordinator: D.KiranBabu
Resource person(s): D.Srinivas Rao
Participants: 21
Duration: 3.00 Hours
Brief Description:

Sandwich panels can fail via face yielding, face wrinkling, core shear, core crushing, debonding between face and core, and overall buckling. These failure modes depend on material properties, loading type, and geometry. Each mode compromises structural integrity, especially under bending, compression, or impact loads.




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Report of the Event

Event Name: Guest Lecture on Advanced joining technologies
Date(s): 13-03-2024
Coordinator: K Sukumar
Resource person(s): Dr. Santosh Kumar
Participants: 35
Duration: 3.00 Hours
Brief Description:

Advanced joining technologies in mechanical engineering involve innovative methods for assembling materials with enhanced strength, precision, and efficiency. These include techniques like friction stir welding, laser beam welding, ultrasonic welding, and adhesive bonding. They are widely used in aerospace, automotive, and electronics industries due to their ability to join dissimilar materials, reduce heat-affected zones, and improve overall product performance and durability.



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Report of the Event

Event Name: Guest Lecture on BOD & COD and coliform tests

Date(s): 09-04-2024

Coordinator: ReshmaSulthana

Resource person(s): V.SuryaTeja

Participants: 20


Duration: 2.5 Hours

Brief Description:

BOD and COD measure the oxygen demand of wastewater, indicating organic pollution levels. BOD reflects biological decomposition, while COD shows total chemical oxidation. Coliform tests detect bacteria indicating contamination. These tests help in designing and monitoring wastewater treatment systems in mechanical and environmental engineering.




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Report of the Event

Event Name: Guest Lecture on Disaster risk reduction measures

Date(s): 22-09-2023

Coordinator: M.Sruthi Madhuri

Resource person(s): K.L.A.V Haranadh

Participants: 43

Duration: 3.00 Hours

Brief Description:

Disaster risk reduction measures in mechanical engineering involve designing systems and structures to withstand natural and man-made hazards. This includes using robust materials, ensuring structural integrity under stress, implementing fail-safe mechanisms, and conducting regular maintenance. Risk assessments, safety audits, and adherence to engineering standards help minimize failure during disasters, protecting lives, equipment, and infrastructure in industries such as manufacturing, power plants, and transportation.



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