



Learn Beyond

**KPR Institute of
Engineering and
Technology**

(Autonomous, NAAC "A")

Avinashi Road, Arasur, Coimbatore.

Phone: 0422-2635600**Web:** kpriet.ac.in**Social:** kpriet.ac.in/social**ME047****NBA Accredited**
(CSE, ECE, EEE,
MECH, CIVIL)**FUNDAMENTALS OF MANUFACTURING PROCESSES**

Event No	ME047
Organizing Department	Mechanical Engineering
Associate Dept. NSC	Centre of Excellence
Date	28/02/2023
Time	09:35 AM to 10:25 AM
Event Type	Expert Talk
Event Level	Dept. Level
Venue	I CH
Total Participants	60
Students - Internal	60

Related SDG**Involved Staffs**

Sl	Name	Role
1	Sathish S	Coordinator

Outcome

Students able to,

1. Explain various casting process involved in small scale industries like sand casting, centrifugal casting, die casting and investment casting etc.
2. Discuss about working principles of different rolling process.
3. Explain about CNC programming, components involved and their applications.
4. Explain different welding process and their applications in engineering sectors.
5. Discuss about advanced machining process like laser cutting and EDM process.

Event Summary

Dr.M.Makeshkumar has delivered lecture on fundamentals of various manufacturing process involved in engineering fields. Totally 60 students were attended and interacted with concern member. He used power point presentation with some real time case studies happened in small scale industries. He delivered various aspects of manufacturing process and its applications. He explained various casting process involved in small scale industries like sand casting, centrifugal casting, die casting and investment casting etc. Casting defects with reasons also delivered. He discussed about working principles of different rolling process. He explained about CNC programming, components involved and their applications. Also, he explained about different welding process like TIG, MIG, metal arc welding, friction stir welding, plasma arc welding, gas arc welding and their applications in engineering sectors. He classified the welding process into liquid state and solid-state welding. He discussed about advanced machining process like laser cutting and EDM process. In addition to lab visit also arranged at mechanical department. Students were visited Centre for Machining and Material Testing, 3D printing and special machine shop for understanding practically. During lab visit, students were demonstrated stir casting process, compression moulding process, CNC machining operations and 3D printing process. At 3D printing lab, fused deposition modeling equipment was demonstrated. Welding scope in BHEL and other industries also explained. Difference between welding and soldering with suitable examples were explained. Various additive manufacturing process like FDM, SLS, SLA, Laser sintering and other few types were discussed. Components involved in additive manufacturing and its functions also explained with students.



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DEPARTMENT OF MECHANICAL ENGINEERING
In Association With
Centre For Machining and Material Testing
Organizes Special Invited Lecture On
Fundamentals of Manufacturing Processes



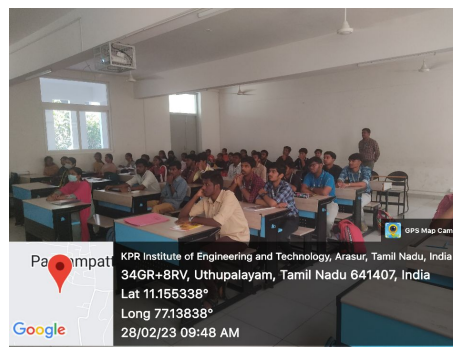
Resource Person
Dr. M. Makeshkumar
Associate Professor
Department of Mechanical Engineering
KPR Institute of Engineering and
Technology
Coimbatore.

Student Coordinators
S.S. Suriya Prasanna – I CH
A.S. Shalini – I CH

DATE : 28.02.2023
TIME : 9.35 AM – 10.25 AM
VENUE: CMMT

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