

# RAMCO INSTITUTE OF TECHNOLOGY

Approved by AICTE, New Delhi & Affiliated to Anna University
An ISO 9001: 2015 Certified Institution



# **Department of Mechanical Engineering**

In Collaboration with

Institution's Innovation Council [IIC]



Online Webinar On

## IMPORTANCE OF MATERIALS IN ENGINEERING

04.05.2020

10.00 AM to 11.30 AM

&

04.00 PM to 05.30 PM

**Resource Persons** 



Dr.S.Karthikeyan,
Associate Professor,
Mechanical Engineering,
PSNA CET,
Dindigul.



Dr.P.Sureshkumar
Associate Professor,
Mechanical Engineering,
Ramco Institute of Technology
Rajapalayam

Faculty Coordinator

Mr.G.Prabu ram, Assistant Professor (Senior Grade), Ramco Institute of Technology, Rajapalayam Report - Webinar on Importance of Materials in Engineering

Department of Mechanical Engineering in Collaboration Institution's Innovation

Council [IIC] organized a one day online webinar in "Importance of Materials in

Engineering" on 04.05.2020. Sessions were handled during 10.00 AM to 11.30 AM &

04.00 PM to 05.30 PM through 'Google Meet' Platform.

Session I – 10.00 AM to 11.30 AM

Handled by: Dr.S.Karthikeyan

Topic: Surface Engineering: A key role in Modern Materials

The webinar was started by 10.00 AM through google meet platform with

welcome address and Introduction to the resource person by Mr.G.Prabu ram,

AP(Sr.Gr)/Mechanical. Totally 231 (two hundred and thirty one) participants attended

the session I.

Outline of Presentation

➤ Importance of Material science

> Reasons for Material Failure

Surface Damage

➤ Wear & Types of Wear

➤ Mechanism od adhesion

> Erosive Mechanism

Surface fatigue Mechanism

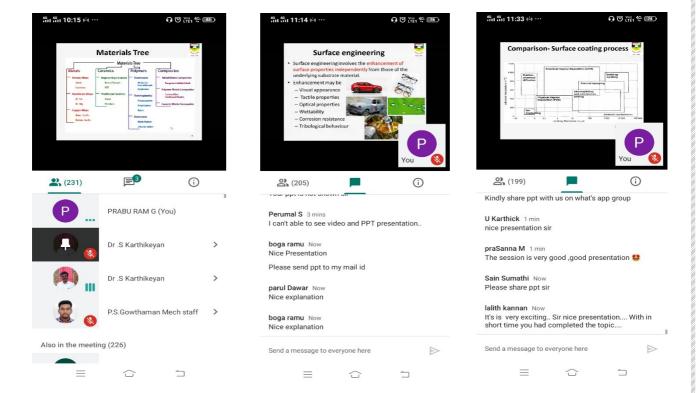
> Corrosion and types of corrosion

> Surface Engineering & Need of it

➤ Question & Answer session.

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#### **Session I Prevue:**



#### Session II - 04.00 PM to 05.30 PM

Handled by: Dr.P.Sureshkumar

Topic: Theory of Plasticity: Analysis through Engineering Application

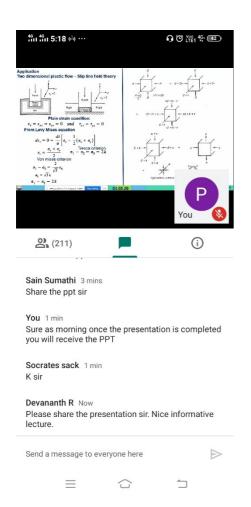
The webinar was started by 04.00 PM through google meet platform with welcome address and Introduction to the resource person by Mr.G.Prabu ram, AP(Sr.Gr)/Mechanical. Totally 211 (two hundred and Eleven) participants attended the session II.

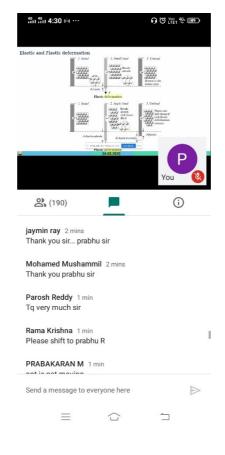
#### Outline of Presentation

- > Existence of Plasticity
- ➤ Non Linear behaviour of Materials
- > Stress Components
- > Elastic stress- strain relations
- Properties of Dislocations

- > Understanding Slip & Twinning
- > Deformation by slip
- > Deformation by Twinning
- Application of Plasticity theory
- > Flow curve
- > True stress & True strain
- > Incremental Theory of Plasticity
- > Yield Criteria

#### **Session II Prevue:**







#### **Question & Answer session:**



vignesh packkirisamy Now what are all the possible thrust research area?

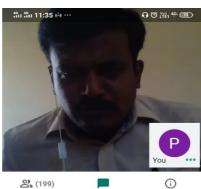
jeyaram m Now Kindly share your ppt sir

vaka venkata sai hasini Now it was such an informative presenation sir. thankyou so much for this presentation

Ashok K Now Sir can coating be given on the surface of natural fibres

Send a message to everyone here





**3** (199)

Sir can coating be given on the surface of natural

THOJESH NANDHA M Now

Muthu Chozha Rajan B Mech Now Sir what is resaon behind that hexagonal metal have low wear rate than cubic metal

Nice presentation, thank you sir

Send a message to everyone here





Ajay Kumar Reddy Now

Sir, for a coated material how to know the adhesion

d kameswararao Now

Nice presentation..Good

properties

RAJU D Now Sir, How surface fatigue can determined in bearings and how to overcome surface fatigue in bearings

sivaramakrishnan thirumurthy Now The coordination number of HCP and CCP lattice are same. Why do they differ in their solid state

Send a message to everyone here

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analysis of plasticity

(203)

Kannappan Subramaniam Now Thanks RIT & Team

b ramakrishna Now screw disslocation materials sir

karthik selvan Now Assessment link sir

Surender Pratap Now Sir I want to know have you seen plastic deformation in case of graphene??

Send a message to everyone here

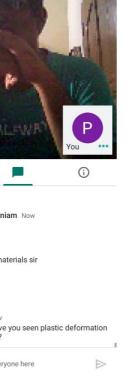




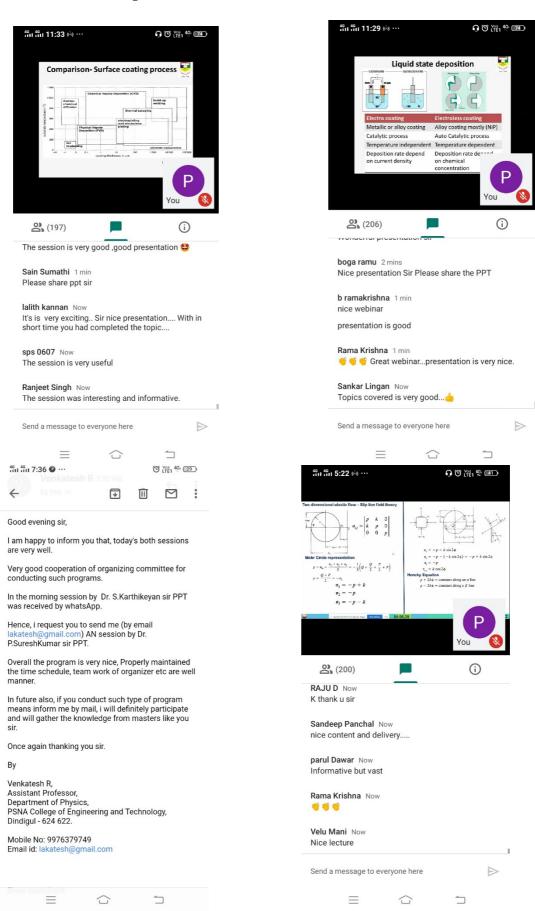




Thank you sir

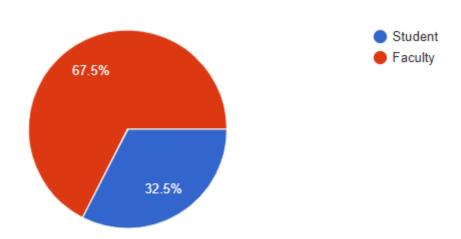


## **Live Feedback of Participants:**



## **Participation Details**





- ➤ Totally 400 (Four hundred) participants registered officially across **India**, **Oman**, **Ethiopia** etc., out of which **270** faculty members and **130** students registered.
- The participants from various prestigious colleges such as
  - IISC, Bangalore
  - Ibra College of Technology, Oman
  - Wollega University, Ethiopia
  - Mangalore University

- Aaivalayam-DIRAC, Coimbatore
- Uka Tarsadia University, Gujarat
- Central University of Himachal Pradesh
- Annamacharya Institute of Technology and Sciences,
   Rajampet
- Osmaina university, Hyderabad
- GIET University, Gunupur, Odisha
- Vels University Chennai
- GCRG Memorial Trusts Group of Institutions. Lucknow
- Shivaji University Kolhapur
- Bharati Vidyapeeth College of engineeing, Navi Mumbai
- Bannari Amman Institute of Technology, Sathyamangalam
- Anna University, CEG Campus
- Mepco Schlenk Engineering College
- Kamaraj College of Engineering and Technology
- Francis Xaviers Engineering college
- PSNA College of Engineering and Technology
- Sri Krishna College of Technology
- SNS Institute of Technology
- Sri Krishna College of Engineering & Technology
- SSM Institute of Engineering and Technology
- Government college of Technology, Coimbatore
- Dr.N.G.P Institute of Technology
- R.M.K. ENGINEERING COLLEGE

After assessment to the participants, Certificate was issued to the participants. Totally **510** participants received their certificate after assessments.

## Sample Certificate:



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Venganallur Village, Rajapalayam - 626 117 Virudhunagar District, Tamil Nadu

#### CERTIFICATE OF PARTICIPATION

This is to Certify

Joice Sophia Ponraj

of Aaivalayam-DIRAC has participated in online webinar on "Importance of Materials in Engineering" on 04.05.2020 conducted by Department of Mechanical Engineering.

Certificate ID: K6MHR8-CE000455







**E Certificate Requires No Signature** 



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Venganallur Village, Rajapalayam - 626 117 Virudhunagar District, Tamil Nadu

CERTIFICATE OF PARTICIPATION

This is to Certify

#### **RAMESH VELLAICHAMY**

of Ibra college of technology, ibra, Oman has participated in online webinar on "Importance of Materials in Engineering" on 04.05.2020 conducted by Department of Mechanical Engineering.

Certificate ID: K6MHR8-CE000376







**E Certificate Requires No Signature**