AVIT AARUPADAI VEEDU INSTITUTE OF TECHNOLOGY | VINAYAKA MISSION'S RESEARCH FOUNDATION (Deemed to be University under section 3 of the UGC Act 1956) | Accredited by NAAC | Approved by AICTE

DEPARTMENT OF MECHANICAL ENGINEERING

INDIAN INSTITUTE OF METALS (IIM) & INSTITUTIONS INNOVATION COUNCIL (IIC)

Report – Webinar on "High Entropy Alloys -Basics"

28th October 2020

Resource person: Dr.C.Lakshmanan,
Post Doctoral Research Associate,
Materials Physics Group,
IGCAR,Kalpakkam.

Participants: 52

Department of Mechanical Engineering in association with Indian institute of metals (IIM) Kalpakkam chapter and Institutions Innovation Council(IIC) jointly organised a Webinar on the topic **"High Entropy Alloys- Basics " on 28th October 2020.**

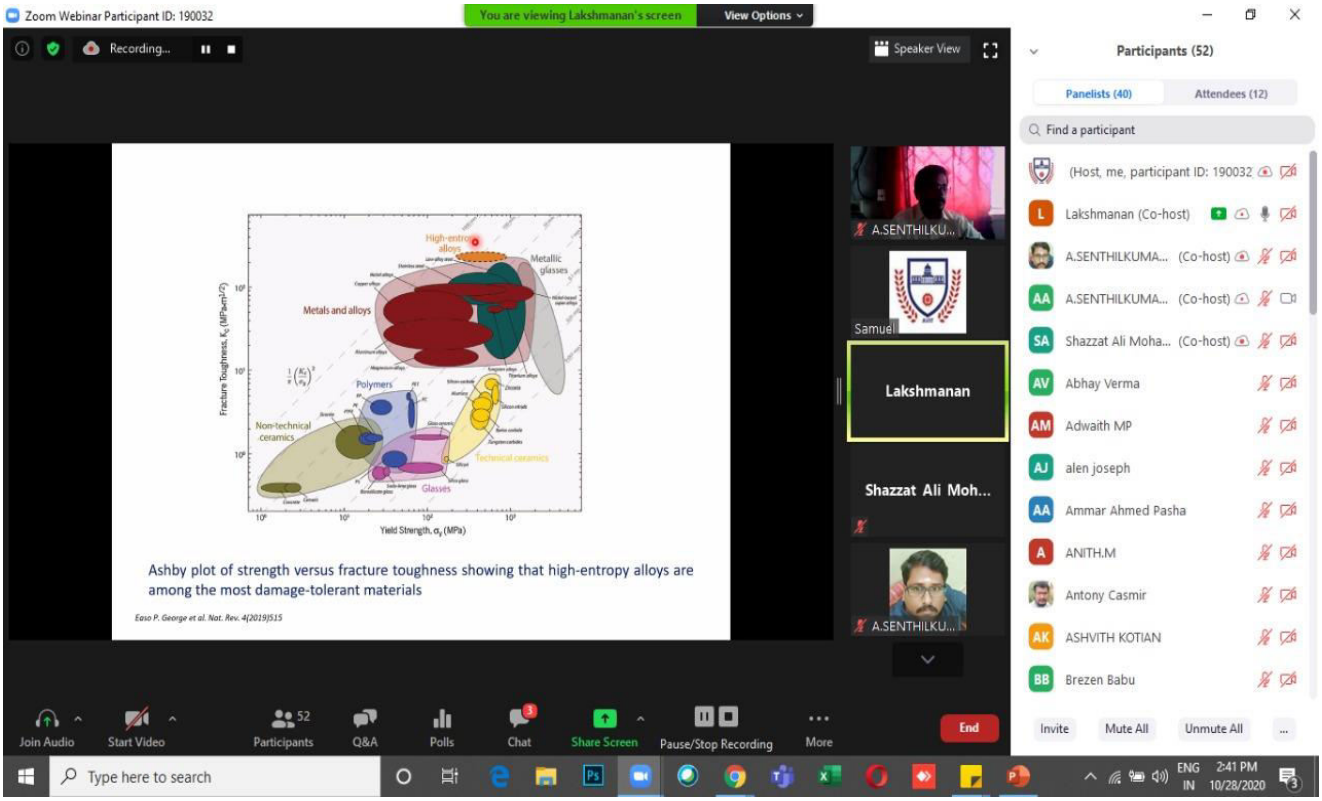
The topics covered in Webinar

- Introduction to High entropy alloys
- Fundamental Understanding and Applications of High-Entropy Alloys.
- Microstructure and texture analysis of High entropy alloys
- Multicomponent High entropy alloys.
- Development and Exploration of Refractory High Entropy Alloys
- Strengthening mechanisms in high entropy alloys
- Modeling the structure and thermodynamics of high entropy alloys
- Methods for preparation of High entropy alloys.
- Chemicals used.
- Application of High entropy alloys in mechanical field.
- Current Research on High entropy alloys.

Webinar Outcome

- Students understood the importance and different types of High entropy alloys.
- Preparation process and microstructure of different alloys.
- Learned the properties of different high entropy alloys.
- Preparation methods and chemical used in high entropy alloys.
- Application of high entropy alloys in mechanical engineering field.

The Webinar was coordinated by Mr.A.Senthilkumar Assistant Professor (Gr-II) and Prof L.Prabhu VP(Administration),President-IIC and HOD Mechanical department given the presidential address.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Speaker View
Metals and alloys
Polymers
Non-technical ceramics
Technical ceramics
Glasses
Metallic glasses
High-entropy alloys
Fracture Toughness, K_c (MPa$m^{1/2}$)
Yield Strength, σ_y (MPa)
Ashby plot of strength versus fracture toughness showing that high-entropy alloys are among the most damage-tolerant materials
Easo P. George et al. Nat. Rev. 4(2019)515
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Shazzat Ali Moh...
Participants (52)
Panelists (40)
Attendees (12)
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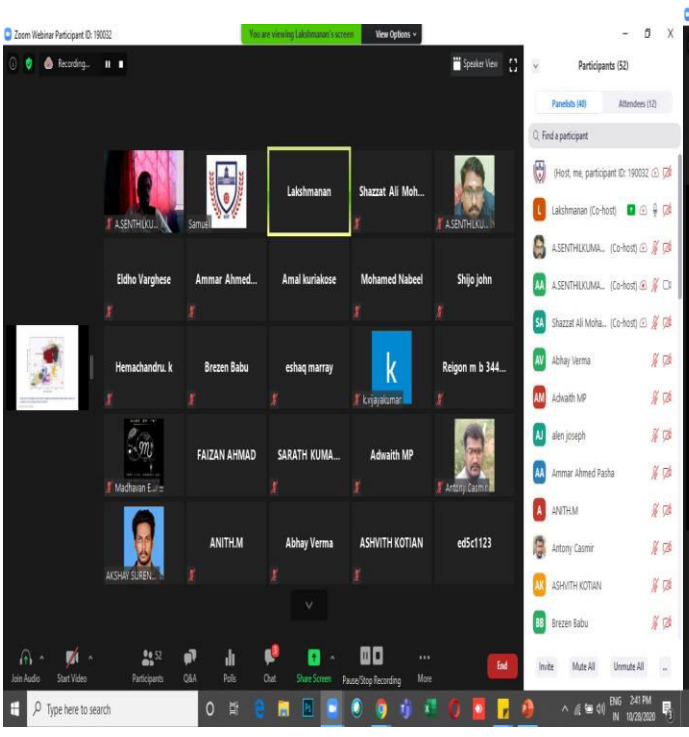
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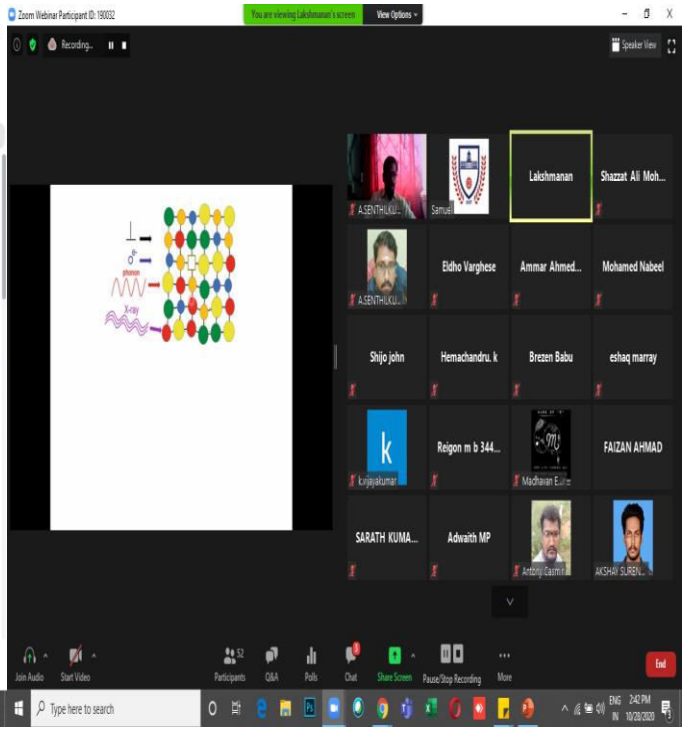
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