



Sri Krishnadevaraya Education Trust.

# SIR M. VISVESVARAYA INSTITUTE OF TECHNOLOGY

(Affiliated to VTU, Belagavi) | Approved by AICTE, New Delhi | Accredited by NAAC UGC, Bengaluru, Karnataka-562157



## About the Institution

Sir M Visvesvaraya Institute of Technology (Sir MVIT) is an Institute of repute in the state of Karnataka founded by Sri Krishnadevaraya Educational Trust (Sri KET) in 1986. The institute offers nine B.E. degree programs in Civil, Mechanical, Electrical & Electronics, Electronics & Communication, Computer Science & Engg., Industrial Engineering & Management, Telecommunication, Information Science and Bio Technology and four Masters Programs in Computer Applications, Business Administration, Computer Integrated Manufacturing and Electronics. The Institute is affiliated to Visvesvaraya Technological University and approved by All India Council for Technical Education, New Delhi and is accredited by National Board of Accreditation, New Delhi. Sir MVIT is an ISO 9001:2008 Certified Institution. Department of Mechanical Engineering, Department of Electrical & Electronics Engineering, Department of Electronics & Communication Engineering and Department of Biotechnology are declared R&D centers by the university. Sir MVIT is situated on a vast campus of 133 acres on the Bellary road near Air Force station, Yelahanka, close to Bengaluru International Airport (21 km from Bangalore city station). The institute has 2800 students & over 260 well-experienced faculty members, fully equipped labs (including project labs), seminar halls (For each department adequately equipped with multimedia facilities).

**Vision:** To become a leading learning Center in Mechanical Engineering

## Mission:

- Enrich the undergraduate experience through experimental learning, and fostering a personalized and supportive environment for their overall development.
- Provide opportunities to develop talented and committed human resource to meet the needs of profession and society.
- Provide research and intellectual resources to address contemporary and complex problems of industry and research.

## About the Program

Laser powder bed fusion (LPBF) is the most widely used additive manufacturing technique and has received increasing attention owing to the high design freedom it offers. The production of aluminium alloys by LPBF has attracted considerable interest in several fields due to the low density of the produced alloys.

In this talk, a research result of Al10SiMg alloy printed by LPBF is discussed. Residual stress, build direction effects on tensile properties, texture and microstructure are discussed in detail.

A compilation of research projects available in the field of Metal additive manufacturing is discussed at the end. This will help audience to draft proposals for funding in major funding agencies in India.

## Objectives:

- To enrich the knowledge of faculty & students in the area of metal additive manufacturing.
- Exposure towards latest technology and research in the field of laser powered fusion additive manufacturing.
- Scope of research projects in the field of metal additive manufacturing.

## Learning Outcome:

Participant will be able to understand:

1. The technology of Laser powder bed fusion (LPBF) additive manufacturing techniques which offering high design freedom.
2. A research outcome of Aluminum Magnesium alloy printed through LPBF in terms of residual stress, build direction effects on tensile properties & microstructure.
3. Future research scope in area of metal additive manufacturing.

## Registration:

The participants are requested to register their names by filling the google form using the below link.

<https://forms.gle/LYU94eoya6A3LRat9>

Join Whatsapp group for daily updates on webinar :

Group -1 <https://chat.whatsapp.com/EjeGeUITPlDBAqeRWxiAVM>

Group - 2 <https://chat.whatsapp.com/Hq65kpxD0LEEkZ2m3ixZ0v>

**Note:** There is no registration fee for participants. E certificate will be provided for those who register and attend the webinar.

## For more details:

**Mr Sampath Kumar L** Assistant Professor.

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**Mr Madhukumar K** Assistant Professor.

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## Important Dates:

Last date of registration: 11<sup>th</sup> June 2021

Confirmation of participation: 11<sup>th</sup> June 2021

Confirmation of candidates will be on first come first serve basis.

## Resource Persons

**Dr T Ram Prabhu**

Deputy Director / Scientist

Defence R&D Organization.

## Session Topic:

*Metal Additive Manufacturing: Research in printed Al10SiMg alloy and Project funding ideas in the field.*

## Session Date & Time:

12.06.2021 & 11:00 AM – 12:30 PM

## Chief Patrons:

**Dr A C Chandrashekar Raju** President, Sri KET

**Sri K Syama Raju** Secretary, Sri KET

**Sri G Prabhakar Raju** Academic Chairman, Sri KET

## Organizing Chair:

**Dr V R Manjunath** Principal,

Sir M Visvesvaraya Institute of Technology, Bengaluru.

## Convener:

**Dr K S Shanmukharadhya** Professor & Head, Department of Mechanical Engineering, Sir.MVIT, Bengaluru.

## Coordinators:

**Dr G Balakumar** Associate Professor.

**Mr Sampath Kumar L** Assistant Professor.

**Mr Madhukumar K** Assistant Professor.

**National Webinar On -  
“Metal Additive Manufacturing:  
Research in printed Al10SiMg alloy  
and Project funding ideas in the field”  
Date: - 12/06/2021**

## ORGANIZED BY

DEPARTMENT OF MECHANICAL ENGINEERING

Sir M. Visvesvaraya Institute of Technology,

Krishnadevarayanagara, Hunasemaranahalli,

Yelahanka, Bengaluru – 562157.