

**Certificate Course on**  
**Additive Manufacturing: Principle, Technologies & Applications**

**September 24, 2022 to January 21, 2023**



परमाणु ऊर्जा का सामर्थ्य  
आत्मनिर्भर भारत



**Jointly Organized by**

**Incubation Centre, Raja Ramanna Centre for  
Advanced Technology, Indore**

**&**

**Indian Institute of Technology, Indore**

**Patrons**

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## About the Course

Additive Manufacturing (also known as Laser 3D Printing) is one of the advanced manufacturing techniques for fabricating engineering and prosthetic components directly from 3D Model. It is a step towards feature-based design and manufacturing and is identified as one of the premier technologies driving the fourth industrial revolution. Though this technology is growing very fast, but the existing workforce under 3D printing technology is not keeping up with current needs and opportunities. To respond to this talent gap and realize the full potential of additive manufacturing, a certification course will help in fill the gap to some extent. This way the proposed course will help Indian citizens namely research scholars, postgraduate students, scientists, R&D engineers' academicians, manufacturing engineer and startup entrepreneurs to upskill their knowledge in the field of Additive Manufacturing. The syllabus is designed with 16 modules to prepare the professionals for implementing 3D printing processes in their own organizations as a startup, bridging the gap between the opportunities enabled by AM and the skills necessary to implement it across multiple industries.

## Syllabus to be covered:

- Introduction to Additive Manufacturing
- AM Data Formats and pre-processing
- Direct Additive Manufacturing Methods
- Indirect Additive Manufacturing Methods
- Design for Additive Manufacturing
- High Energy Beam Sources used for AM
- Additive Manufacturing Sub-systems
- Material Feeding and Job manipulation system
- Metal Powder Processing, Handling and Characterization
- Post-Processing of AM developed Products
- Materials and Metallurgical aspects of AM products
- NDE of AM products
- Property Enhancement of AM product
- AM Product qualification and Certification
- Safety Considerations in AM
- Applications of AM and Industry 4.0

## Who Should Attend

Indian citizens looking forward for upskilling in Additive Manufacturing (AM) domain including Research Scholars/ Postgraduate Students/ Scientists/ R&D Engineers/ Academicians Manufacturing Engineers/ Startup Entrepreneurs. Selection of candidates will be based on first come first basis.

## Duration

16 weeks (online lectures on Saturdays, total 48 hours). + 1 week immersion program at IIT Indore & RRCAT (optional).

## Faculty Members

Faculty members from IIT Indore, Scientists & Engineers from RRCAT and Reputed AM industry Experts.

## Important Dates

Last date for Registration with payment	<b>September 15, 2022</b>
Start date of online course	<b>September 24, 2022</b>
Last date of online course	<b>January 21, 2023</b>

## Registration Fee (in Rs.)

Category	With immersion program	Without immersion program
Scientist/ Faculty members	10,000	7,500
Research scholar, PG students and industrial representative (start-ups, Micro and Small industries)	7,500	5,000
Other industrial representatives	15,000	10,000

## Mode of Payment

Mode of payment will be through direct bank transfer / Demand Draft.

The details will be informed to the selected candidates.

## For more information, please contact

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Prof. I A Palani	palaniia@iit.ac.in	90093 56097