

**Training Content**

**MODULE 1** – Introduction to Laser Processing and Metal 3D Printing

How laser works? Types of lasers used in AM process and its effect on 3D printing. It explains what metal 3D printing is, its types, advantages, limitations

**MODULE 2** – Raw Material for Metal 3D Printing

It explains powder morphology, powder testing, effect of change of powder quality on part quality, materials available for 3D printing

**MODULE 3** – Design for Additive Manufacturing (DFAM)

It explains shift in design strategy and ease of achieving complex designs, limitations must be considered while designing a part, when to choose additive manufacturing, software used in AM

**MODULE 4** – Metal 3D Printing Process

Describes 3D printing process from the very beginning to dispatch (On-Field training as well)

**MODULE 5** – Metal 3D Printing Applications

Describes various applications in Automobile, tool, Aerospace, Medical, Interior design industries, why and how to adopt 3D Metal Printing

**MODULE 6** – Future Development in Metal 3D Printing

 Describes research going on in the field and its implications on additive

 manufacturing industry in coming years



 **Schedule of the program**

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| **Time** | **Module/Event** |
| 10:30 am | Reporting |
| 11:00-11.15 am | Introduction to Metal 3D printing and laser processing |
| 11:15-11:30 am | Introduction to Raw Material in 3D printing |
| 11.30:12:00pm | Design for Additive Manufacturing |
| 12:00-12:30 pm | Raw material - on field Demo |
| 1:00-2:00 pm | Lunch |
| 2:00-2:15 pm | 3D Metal Printing Process |
| 2:15-2:45pm | Metal 3D Printing Applications |
| 2:45-3:00 pm | Future of metal 3D printing |
| 3:00-3:15 pm | Tea/coffee |
| 3:15-4:00 pm | 3D Printing shop floor demo |
| 4:00-4:30 pm | Career Opportunities in Additive Manufacturing |