



**INSTITUTE OF HUMAN RESOURCES DEVELOPMENT**  
(Established by Govt. of Kerala)  
Thiruvananthapuram, Kerala.

**Short-term Course on 3D Printing**

[Scheme 2020]

Course Code : ST2001

1. Aim: To recognize the basics of printing which help the students to acquire the knowledge of 3D printing in current scenario and enables them for employment in private & public sectors.
2. Duration of the course : 100 Hrs. (Within 3 months period)
3. Eligibility for admission : Plus two or above
4. Intake : 40 Students/batch
5. Course Fee : Rs. 3,000/-+GST applicable.
6. Eligibility for Certificate :
  - i) Student shall have minimum 75% attendance during the course.
  - ii) Student shall pass the evaluation test conducted by the training centre.

Thiruvananthapuram  
January 01, 2020

Sd/-  
Director

[Course Code : ST2001]



INSTITUTE OF HUMAN RESOURCES DEVELOPMENT

## Short-term Course on 3D Printing

[Scheme 2020] Duration: 100 hrs

**Module 1: Introduction to printing industry.** (6 Hrs)

Introduction to printing industry -History of printing ,basics of printing & printing industry-kinds of D's and printing -3D printing –Basics of prototyping ,3D packaging, 3D advertising ,3D modeling ,3D miniatures,3D homes-Materials used for 3D printing.

**Module 2: Basic printing knowledge and various printing methods.** (6 Hrs)

Structure of a printing press-introduction of basics of pre-press, press and post-press-safety in press-flexography- printing-offset, screen, digital printing.

**Module 3: Introduction to 3D printing.** (5 Hrs)

Connection between printing and 3D printing-3Dprinting importance, influence, simplicity.

**Module 4: 3D printing in various industries.** (10Hrs)

3D printing advantages and disadvantages-3D packaging, advertising, modeling, homes, fashion designing ,medical field ,customer products, film industry, construction works and other fields-commercial aspects of 3D printing-rapid prototyping - AM process-application and advantages of AM process.

**Module 5: 3D printing methods and techniques.** (8Hrs)

Stereo lithography technology and applications-DLP technology and applications- FDM technology and applications –SLS technology and applications -SLM technology and applications - EBM technology and applications -LDM technology and applications -BJ technology and applications.

**Module 6: Introduction to 3D printing software.** (25Hrs)

Basics of 3 D printing software-Sketch up tools and applications.

**Module 7: 3D designing and slicing and blending.** (28Hrs)

Basics of Designing and slicing and blending.

**Module 8: 3D printing machines.** (12Hrs)

3 D printing machines-Types, Parts, working, Advantages and disadvantages.

\*\*\*\*\*

Thiruvananthapuram  
January 01, 2020

Sd/-  
Director