Course Name   :   *Additive Manufacturing*

Course Duration   :   40 Hrs.

Course overview

o   **Intended audience**
   ▪   This course is suited for designers, engineers, manufacturing engineers, CAD/CAM managers, and system managers who need to manage and use additive manufacturing technology.

o   **Prerequisites**
   ▪   *Education*: Diploma completed or Degree 2nd year completed in any one of following Streams:
      •   Aeronautical, Automobile, Civil, Industrial, Marine, Mechanical, Mechatronics, Metallurgy, Production and Manufacturing Engineering.
   ▪   *Software:* **None**

o   **Course objectives**
   ▪   After successfully completing this course, you should be able to:
      •   Create and edit parametric solid models
      •   Generate STL files from solid models
      •   Prepare Build-setup for 3D printing
      •   Fabricate 3D components
      •   Perform post-processing

o   **Course Contents**
   1. NX User interface
   2. Create Parametric solid models
   3. Generate STL files from solid models
   4. Introduction to Additive Manufacturing (AM)
   5. AM Workflow Steps
   6. Design for Additive Manufacturing (DfAM)
      •   Design considerations and guidelines
      •   Part orientation, Support material creation, Slicing
   7. 3D Sprint Demonstration
      •   Exploring PREPARE module tools
      •   Exploring PRINT module tools
      •   Exploring QUEUE module tools
   8. AM Technologies
   9. Material Properties
   10. Demonstration on Projet MJP 2500 PLUS Printer
   11. Post Processing
      •   EASY CLEAN BULK wax remover
      •   EASY CLEAN FINE wax remover
      •   Hot soup solution for final post processing
   12. Maintenance of Projet MJP 2500 PLUS Printer
      •   Waste bag
      •   Particulate filters
   13. Summary