049-CMC-12-03 ADDITIVE MANUFACTURING

Significance of the Program:

Additive Manufacturing is an exciting new field using diverse technologies for equally diverse applications. It's now possible to print everything from aerospace parts to biological tissue and even houses. This Diploma in Additive Manufacturing gives students the skills, to use these new technologies in their career with full potential. This is an advanced course with an emphasis on the design, analysis and implementation of Additive Manufacturing (AM) projects. It will equip the students with the engineering knowledge and practical skills necessary to develop AM strategies for solving real-world problems.

Career Options:

This evolving industry is revolutionizing the sectors where it is being implemented. Such as construction, aerospace and MedTech zones.

- Additive Manufacturing Engineers
- Digital Manufacturing Engineers
- Design Engineers
- R&D Engineers, Additive Manufacturing Technicians

Program Objectives:

The objective of the program is to

- evaluate the application of Additive Manufacturing technologies
- undertake individual research projects
- analyze, and communicate research findings in Additive Manufacturing.
- create a skilled manpower in the field of Additive Manufacturing with knowledge about various additive manufacturing technologies.
- design Additive Manufacturing, Post Processing and Reverse Engineering.

Outcomes of the Program:

At the end of the course the students can

- Understand the technical principles and workflows for AM of polymers, metals, and composites.
- Apply cutting-edge perspective on digital transformation and the factory of the future.

- Assess the value of a 3D printed part based on its production cost, performance, and use case.
- Learn how to select an AM process and material for a specific application.
- Design and develop the complex, multivariate landscape of AM equipment, materials, and applications.

Major Course Outline:

- Advanced Materials and Materials Selection.
- Additive Manufacturing Technologies.
- Research Methodology and Project Management
- Reverse Engineering
- Advanced Computer Aided Design