

AMMR:12 MANUFACTURING PROCESSES: SELECTION AND DESIGN

Course Details:

Overview of manufacturing systems, Role of traditional & near-net shape processes in manufacturing industry, Basic attributes of manufactured products -size & shape complexity, machining requirement & machining losses, dimensional tolerance &, surface condition, mechanical properties & manufacture costs expendable mold & permanent mold shape casting processes, open die & closed die forging processes & design consideration, manufacturing process for making products such as sheets, round/sectioned bars, seamless tube /rings & wires, criteria for selection of metal & ceramic powder production processes for a given application, powder processing equipment & their selection. Joining processes, selection & design, case studies with CAD/CAM aspect.

Text Books and Reference:

1. Fundamentals of Manufacturing Processes, Lal & Choudhary (Narosa)