

### **ME 514 Computer Integrated Manufacturing (3-0-0-6)**

Evolution of Computer Integrated Manufacturing (CIM). Computer-Aided Design (CAD). Computer-Aided Manufacturing (CAM). CAD/CAM Integration. Review of automation and control technologies. Material Handling technologies. Data Communication technologies. Automatic Data Acquisition technologies. Database Management technologies. Various Manufacturing Systems: Group Technology & Cellular Manufacturing Systems, Flexible Manufacturing Systems, Transfer lines, Automated Assembly Systems. Quality Control Systems. Computer-Aided Process Planning. Concurrent Engineering. Production Planning and Control Systems. Lean and Agile Manufacturing. Web-based manufacturing.

#### *Texts/References:*

- [1] Groover, M. P., Automation production systems, and computer-integrated manufacturing, second edition, Prentice-Hall of India, New Delhi, 2001.
- [2] Vajpayee, S. K., Principles of computer-integrated manufacturing, Prentice-Hall of India, New Delhi, 2005.