This is an introductory level course in Manufacturing Systems Technology and management. For most enterprises, the long term goal is to stay in business, grow and make profits. This is particularly true for manufacturing enterprises, which must understand the dynamic changes that are taking place in business environment and are flexible enough to change at every level. This course is an introductory course for engineering professionals who would like to take up careers in manufacturing and also for professionals who are already in manufacturing careers and would like to see the technological changes that manufacturing paradigm has witnessed in the last 3 decades.

**ABOUT INSTRUCTOR:**

Prof. Shantanu Bhattacharya is currently an Associate Professor at the Department of Mechanical Engineering at the Indian Institute of Technology Kanpur. Prior to joining IIT Kanpur he was associated with Suzuki Motors in the senior management level and has over 6 years of experience in various production capacities and positions.

**COURSE PLAN:**

- **Week 01**: Manufacturing properties of materials, Computer aided designing.
- **Week 02**: Manufacturing properties of materials, Computer aided designing.
- **Week 03**: Manufacturing properties of materials, Computer aided designing.
- **Week 04**: Principles and process planning of basic machining processes, Machine tools design.
- **Week 05**: Principles and process planning of basic machining processes, Machine tools design.
- **Week 06**: Computer aided process planning
- **Week 07**: Introduction to CNC part programming, Product design
- **Week 08**: Just-in-time manufacturing
- **Week 09**: Quality systems engineering
- **Week 10**: Cost of quality and statistical quality control
- **Week 11**: Cost of quality and statistical quality control
- **Week 12**: Robotic systems planning and designing