Syllabus: Industry 4.0

Course Content

- Introduction to Industry 4.0: Evolution: Industry 1.0, Industry 2.0, Industry 3.0, Industry 4.0 - Definition of Industry 4.0 - Components - Difference between conventional automation and Industry 4.0 -Definition of a smart factory - Technological pillars of Industry 4.0.
- Industrial Internet of Things Concept, Advanced Analytics, Peer (M2M) Communication, IT Tools and Methodologies, Role of Identification, Sensing, Actuation& Control, Challenges;
- Artificial Intelligence Concept, Basics of Heuristics, Markov Decision Process, Artificial Neural Networks and Machine Learning, Applications.

Reference:

1. Industry 4.0: The Industrial Internet of Things by Alasdair Gilchrist
2. Industry 4.0: Revolutionizing Manufacturing in the Digital Age by Aditya K. Shukla
3. Industry 4.0: Managing The Digital Transformation by Christian Hocken
4. Industry 4.0: The Industrial Internet of Things by Thomas L. Szabo