National Institute of Industrial Engineering (NITIE)
(An autonomous body under the Ministry of Education, Govt. of India)

Presents

Online MDP on

"Manufacturing Excellence"

4 - 6 June 2021 [Friday to Sunday]

Duration ↦ **15** contact hours [Friday: 5-8 pm, Saturday and Sunday: 9 - 4.30 pm]

Eligibility ↦ Junior & mid-level graduate/diploma engineers with experience in manufacturing industry

Programme Fee ↦ INR 8,260 [All inclusive] | **Mode of delivery** ↦ online/web-based

Group Discount **applicable for three or more participants from same organization.**

Certificate of completion will be provided on successful completion!

Registration Link:
https://forms.office.com/r/sLpM6A2x75

Programme Overview

Manufacturing industry in the era of Industry 4.0 is facing phenomenal shift in terms of practices and opportunities. India is a rapidly growing economy with a thrust on manufacturing under "Make in India" and other initiatives. Several researchers and studies have explored the opportunities to improve productivity, reliability, sustainability and profitability of these industries by adopting technologies such as artificial intelligence, data science, robotics and cyber-physical manufacturing. Present-day manufacturing industry generates huge volumes of heterogeneous spatial-temporal industrial data from assets, products, customers and manufacturing/external environment. Facilitating data-driven operational, tactical and strategic decision making and providing information-based-services to various stakeholders of the industry are proven to lead towards manufacturing excellence. Large-scale data-driven simulation models and optimization models are found to represent complex dynamic systems in manufacturing setup in real-world which are rudimentary in the development of automated and autonomous manufacturing systems. This course will focus on to unleash the opportunities of optimizing and improving the manufacturing processes using analytical tools and techniques for enhancing the productivity and profitability across manufacturing supply chain thereby driving towards manufacturing excellence. This will be demonstrated through manufacturing case studies that help in creating better plans and shop floor schedules real-time capturing the dynamics of the production system. This also helps to explore several possible combinations of "what-if" scenarios and come up with various configuration designs and alter the manufacturing systems for better flexibility and efficiency. This course also helps operations manager to assess and improve the existing manufacturing practices by diving deep into the multi-stage manufacturing process using analytical models and determining the latent relationships and patterns among several process variables and then optimize the process for better yield and quality.

Highlights of the programme:

- Recent Perspectives and Practices in Manufacturing for achieving excellence
- Case Examples in Technological Advances, Current trends, Future of Manufacturing
- Analytical Modelling for manufacturing
- Industry 4.0 in Manufacturing
    - Building Visibility in Manufacturing Systems
        - Industrial Big Data for Condition Awareness
        - Industrial Internet of Things (IIoT)
- Performance assessment and prediction models for manufacturing excellence

Practical sessions in

- MS Excel® based Analytics
- Matlab Simulink based Analytics
- ML in RStudio and Google Colab platforms

For Further details contact

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Course Coordinators

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