



# Industry 4.0: Management and Execution



## Introduction (Programme)

Adopting Industry 4.0 is not just a matter of preference; it is a strategic need for companies looking to prosper in the cut-throat, global marketplace of today. As technology develops at an accelerated pace, businesses that want to remain robust and relevant must adopt Industry 4.0. Increased production, cost optimization, and operational efficiency are just a few advantages of this paradigm change. By using intelligent technologies such as automation, artificial intelligence, and the Internet of Things, businesses may minimize downtime, optimize workflows, and make informed decisions based on data. Furthermore, Industry 4.0 makes it easier to create flexible and agile production processes, which enables companies to quickly adjust to shifting consumer tastes and market demands. Businesses who invest in this revolutionary strategy not only future proof their business but also unlock new avenues for innovation, customer engagement, and sustainable growth. Embracing Industry 4.0 is not just a need; it's a strategic imperative for organizations aspiring to thrive in the ever-evolving landscape of the modern industrial era.

## Objectives

The program objectives are:

- To enable managers to understand and appreciate the premises, fundamentals, and impact of Industry 4.0 adoption
- To help managers visualize the integration of Industry 4.0 vis-à-vis legacy systems
- To help managers develop an understanding of the way Industry 4.0 can help make operations and supply chain sustainable and understand interaction of Industry 4.0 in a project environment

Following indicative sessions are planned to be covered in the 3-day MDP program.

Industry 4.0, Artificial Intelligence fundamentals, Machine learning Fundamentals, Industry 4.0 & ERP, Digital Transformation of value-chains, Managing Sustainability in Industry 4.0, Industry 4.0 in Project Environment

## For Whom

The program is designed with a focus on middle and senior level managers who might be heading a group, department, work unit, or organization.

## Pedagogy

The program pedagogy will include various methods of training such as lectures, discussions, exercises, assessment instruments, and role plays.

## Programme Directors



### Dr. Mohit Goswami

Associate Professor, Operations & Qty Tech

Dr. Mohit Goswami is Associate Professor at the IIM Raipur. He is a unique amalgam of academics and industry. Prof. Goswami prior to joining academia was associated with global blue-chip firms including Caterpillar Inc. (Decatur, Illinois, USA), Tata Motors Ltd. (Pune and Jamshedpur) and Tata Hitachi Construction Machinery Co. Ltd. (Jamshedpur) in various engineering and technology management roles. At IIM Raipur, he teaches courses both at MBA and PhD programs. His research interests include new product development, supply chain design, product line management, risk modeling in supply chain. His research has been published in reputed journals as IEEE Transactions in Engineering Management, International Journal of Production Research, Technological Forecasting and Social Change, Journal of Intelligent Manufacturing, International Journal of Advanced Manufacturing Technology.



### Dr. Gopal Kumar

Associate Professor, Operations & Qty Tech

Dr. Gopal Kumar is Associate Professor of Operations Management at the IIM Raipur. He received his PhD in supply chain collaboration from the IIT Kharagpur and M. Tech. in Industrial Engineering & Management from IIT Kharagpur. He carried postdoctoral research at Dublin City University (DCU), Ireland. He has shop floor industrial experience in improving operations and process flow. He worked on facilitating easy access of advanced predictive modelling for improving productivity of SMEs in Europe in collaboration with various European SMEs—Ceramicx Ireland, Vistakon, ICMR—and University of Edinburgh, UK. Based on open-source philosophy, he developed a commercial tool, for European Union, which largely streamlined the expertise and time required for predictive modelling along with process optimization.



### Dr. Ramkumar M.

Associate Professor, Operations & Qty Tech

Dr. Ramkumar M. is currently working as an Assistant Professor in the Department of Operations Management at Indian Institute of Management Raipur. Prior to this, starting December 2019, Ramkumar was a Postdoctoral Researcher at the Chair of Logistics Management at the Swiss Federal Institute of Technology Zurich, Switzerland. Previously, he was with the Institute for Financial Management & Research as an Assistant Professor. He received his B.E. in Production Engineering from Anna University, Chennai (2007), Postgraduate Diploma in Management from SCMS, Cochin (2009), and Ph.D from the Department of Industrial & Systems Engineering, Indian Institute of Technology Kharagpur (2015). His research is interdisciplinary and lies on the interface between operations management and information systems, and encompasses supply chain technologies, supply chain sustainability, and humanitarian operations.