



# INDIAN INSTITUTE OF MANAGEMENT CALCUTTA

## Internet of Things (IoT) – What every manager needs to know about IoT and Industry 4.0



Dates

November 23 - 26, 2020



Programme Director

**Prof. Debashis Saha**

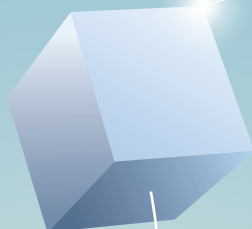


Venue

Management Development Centre (MDC),  
IIM Calcutta Campus, Diamond Harbour Road  
Joka, Kolkata – 700104

Phone: 033 7121 6000 (D) / 7121 1000 (B),

Extn: 6000/6001



# Internet of Things (IoT) – What every manager needs to know about IoT and Industry 4.0

## INTRODUCTION:

When remote monitoring, operation, control and optimization will be the new normal in Industry 4.0, operational technology (OT) has to leverage smart connected objects fitted with network-connected context-aware sensors/actuators, thereby embracing mass-scale digitalization. Digital disruption will reach a new height during fourth industrial revolution with physical objects captured in digital twins enabled by IoT – the most transformative technology of recent times. Hence, IoT to every contemporary business should not be merely a technology, it's a leadership opportunity to shift the ways companies do business, thereby achieving valuable, inimitable differentiation. Touted as IT + OT, IOT is going to blur the boundary between IT and OT completely. It will rewire cyber-physical-systems by interconnecting machines, facilities, goods, robots, and even people into a smart ecosystem; feeding the generated big data into analytics applications; and improving actions taken by humans/machines via artificial intelligence. From demystifying IoT to creating a roadmap for its real-world applications, this MDP explores (a) how to blend IT and OT disruptively for reimagining business in various industries, (b) how to link IoT to the company's core business processes, operational models and managerial roles, (c) how to adopt flexibility that enable companies to adjust to rapidly changing digital environment in Industry 4.0, and (d) how IoT brings in business agility toward achieving competitive edge.

## OBJECTIVES:

The program aims to help managers envision and lead IoT-based business transformations, not just understand the technical elements. The goal is to demystify IoT and Industry 4.0 so that managers can plan to achieve the strategic advantage IoT makes possible in Industry 4.0. The content provides many examples where IoT is already transforming customer experience, value creation, automating operations, and business models. In short, the programme introduces the participants to the necessary skill components, technologies, enablers and constraints for using IoT in business. Whether you're a manager, senior leader, entrepreneur, or a new business owner, this program will help you identify as well as better understand - how IoT is transforming your business environment in Industry 4.0, how it will affect your organization outside-in and inside-out, and how to capitalize on the opportunities IoT provides. The program's teachings are transferable across a multitude of industries. For instance, if you're involved in the field of operations, this program will help you have a direct impact on production strategy using IoT. This program is also aimed at those in more technical roles who would like to take on a leadership or managerial role in implementing a unique and effective IoT-enabled business strategy for their organizations in Industry 4.0.

## KEY TOPICS:

IoT is a growing field that is unfolding significant impact on business operations and strategy with every passing year. The following modules contribute to the holistic approach this programme takes:

- IoT and Digital Twin in Industry 4.0 – To explore the inner workings of IoT and some of the key technologies that make it possible so as to understand how these can improve organizational productivity and add value. Customers want seamless experience, but can companies do it using IoT and make any money out of it? Does the software industry offer a possible model for finding revenue from IoT-based products and services in Industry 4.0?
- Selling smart Product as a Service – aka servitization of products in Industry 4.0; for instance, how IoT-enabled smart bots are transforming warehouse operations, self-driving autonomous vehicles upending transportation industry, smart buildings aim to add value for real estate companies, and so on. As the systems increasingly value efficiency and outcomes, IoT applications are changing strategy, business models, and operations. While some changes will be incremental, others will be transformative. Yet the need to capture value remains as acute as ever.
- Embracing IoT to make your company Industry 4.0 ready – This module demonstrates the role of leadership and technological capabilities in implementing IoT for strategic advantage in business. Also, it tells you how to recommend strategies for developing the necessary skills and foundational capabilities to support the implementation of IoT technologies within an organization.
- Unique Value Creation and Capture in Industry 4.0 – In the IoT ecosystem, companies share space with players from adjacent industries; some will be competitors, others collaborators. The established principles of strategic differentiation, process flow, and network economics will go a long way toward revealing a path to long-term success. And there is the derivative effect: How connected value chain can make IoT technology pay off.

- Relevant technologies in Industry 4.0 – Cloud, Analytics, AI/ML, AR/VR etc. should help guide corporate players through minefields of opportunity opened up by IoT. It's a lot of disruptions, especially when it comes to still-developing IoT technology that holds great promise.

## PEDAGOGY:

Delivery would be through a balanced mix of case studies on success stories of companies, experience sharing, classroom lectures, discussions, and reflections on real-life corporate examples. Lecture inputs are primarily drawn from contemporary studies and survey findings on the topic. Discussions will be experiential and interactive through individual and/or group presentations, and/or in-class assignments to guide participants, as they construct a personal roadmap to gain strategic advantage from IoT.

## WHO MAY ATTEND:

This program is designed for those who want to plan/understand/carry out the transformation IoT will bring, by leading a competitive operational strategy within their organization and capitalizing on the skills necessary for the change Industry 4.0 brings. The content especially helps the managers ensure that their business stays relevant by exploring the opportunities for potential application of IoT. Moreover, if you realize that IoT is a strategic concern that needs to be prioritized by leaders, and that it is not exclusive to IT experts, you must attend this programme.

## PROGRAMME DIRECTOR:

**Dr. Debashis Saha**, a Full Professor in the MIS area, has been teaching IT for more than 25 years now. In the full-time executive programmes in IIMC, he has designed and delivered IoT-related courses for Managers, Team Leaders, and Senior Executives. He has delivered several thought-leadership lectures on IoT-related topics in leading organizations/universities in USA, Japan, Singapore, Korea, China, Australia, Sweden, Singapore and Taiwan, on their invitation. He also has the experience of providing consultancy to several Indian firms on their transformational IT projects. His research interests include IT strategy and governance, Emerging IoT paradigms, Digital Disruption, Business Transformation, and IoT Ecosystem. He has authored several research papers, books/monographs, book chapters, case studies, and published in both national and international journals. He has visited USA, UK, Australia, Brazil, China, South Africa, Japan, South Korea, Hong Kong, Switzerland, Sweden, Portugal, Taiwan, Singapore, and Dubai, in connection with Industry Interactions, International Programmes and Conferences. He holds BE (Jadavpur University), MTech (IIT-KGP) and PhD (IIT-KGP) in Electronics & Communication Engg. Prof. Saha can be contacted by email at: ds@iimcal.ac.in.

## PROGRAMME DETAILS:

<b>Duration:</b>	<b>November 23-26, 2020</b>
Programme Commencement:	9:00 AM on November 23, 2020 (Monday)
Programme Conclusion:	2:00 PM on November 26, 2020 (Thursday)
<b>Venue:</b>	<b>Management Development Centre (MDC), IIM C Campus</b>
Accommodation:	For Residential participants <b>Check in:</b> November 22, 2020 (6:00 pm onward) <b>Check out:</b> November 26, 2020 (2:00 pm)
Participant Fees:	Residential (R): ₹ 84,000/- Non-Residential (NR): ₹ 10,000/- less than the Residential fee Taxes and surcharges extra, as applicable. However, we would strongly encourage candidates to enroll as Residential participants, as the experience of an MDP is optimized in a full-immersion mode.

### Discount on Programme Fees

A discount of 10% on the fees can be availed by an organization if it nominates at least 4 participants for this particular MDP

## Terms & Conditions:

- Participants would have to make their own travel arrangements.
- Accommodation at IIM C will be provided till 2.00 p.m. on the last day of the Programme. Participants staying beyond this time will have to bear additional stay and food charges, which they have to settle directly with the hospitality service provider, conditional upon room availability.
- Cancellation Policy: In case you/your nominated candidate(s) does(do) not attend the programme, 40% of the programme fees will be retained, as per policy.
- Executive Education Alumni: With effect from April 1, 2017, participants of IIM Calcutta's 'Open' MDPs who attend 20 days of learning through two or more Open MDPs will be eligible to apply for 'Executive Education Alumni of IIM Calcutta' status.





## HOW TO APPLY:

- You can apply/nominate your personnel by clicking on the “Apply Now” link corresponding to the particular MDP, as appearing on our online calendar available at: <https://iimcal.ac.in/mdp/mdp-calendar>
- Once the candidature(s) is(are) approved, the sponsoring authority or participant (in case of self-nomination) will be intimated over email along with the Payment Advice seeking programme fees in advance.
- Programme fees can be remitted online through Electronic Fund Transfer (NEFT/RTGS).
- Upon remitting the fees online, kindly intimate CMDP office with the UTR No./relevant transaction details through email, so that we can connect your remittance to your nomination(s).

**Please note that confirmation of participation is subject to receipt of Programme fees by CMDP Office before commencement of the MDP.**

## IIM CALCUTTA'S RANKINGS AND ACCREDITATIONS:

- Only Management Institute in India with **triple accreditations** by AACSB (Association to Advance Collegiate Schools of Business), AMBA (Association of MBAs) and EQUIS.
- Part of the prestigious CEMS Alliance comprising 31 top Business Schools from around the world (The Global Alliance in Management Education or CEMS (formerly the Community of European Management Schools and International Companies)).
- An internationally recognized Business school, IIM C stood at rank **23<sup>rd</sup> globally and 2<sup>nd</sup> in Asia** in the Financial Times' Master in Management B-School Survey 2018.



Our correspondence address is as follows:

CMDP Office

Management Development Centre (MDC)

Indian Institute of Management Calcutta, Diamond Harbour Road, Joka, Kolkata - 700 104 Phone:

+91 33 7121 6000-01 (Extns: 6012/6005)

Email: [program\\_mdp@iimcal.ac.in](mailto:program_mdp@iimcal.ac.in) Weblink: <https://www.iimcal.ac.in/mdp/mdp-calendar>

*For all other details on administrative matters please refer to the 'Guidelines for Participants' on our website or e-mail to [program\\_mdp@iimcal.ac.in](mailto:program_mdp@iimcal.ac.in)*