



भारतीय प्रबंध संस्थान कोषिककोड

Indian Institute of Management Kozhikode

*Globalizing Indian Thought*



## **ADVANCED OPERATIONS MANAGEMENT & ANALYTICS**

10 Months, Live Online Sessions

IIM Kozhikode Executive Alumni Status

# Overview

Digital disruptions led by emerging technologies, automation and data analytics have transformed the business-as-usual ways of managing manufacturing and service operations. Globally, businesses are realising the need to continuously adapt, evolve and transform their operations towards digitisation, not only as an innovative option but as an operational necessity. With the 'Make in India' initiative aiming to create 100 million jobs in the manufacturing sector by 2022 (IBEF, 2020), there is a high demand for skilled professionals in operations management and analytics with strategic business acumen.

The **Advanced Operations Management & Analytics** programme from the Indian Institute of Management Kozhikode (IIM Kozhikode) provides a nuanced understanding of advanced concepts and practices in this domain. Joining this comprehensive programme will enable you to explore how effective operations management driven by analytics can lead to improved efficiencies, significant cost savings, higher customer satisfaction, and organisational excellence.

## Starts On

December 30, 2021

## Duration

10 Months

## Format

Live Online Sessions

## Programme Fee

INR 1,60,000 + GST

## Why upskill in Operations Management and Analytics?



**90% of the manufacturing work done is in a predictable work environment (physical activities and machine operations) and has the potential to be automated.**

*Source: McKinsey, 2020*



**79% of executives see the predictive maintenance of industrial machinery as a primary application of industrial analytics in the next three years.**

*Source: Deloitte, 2020*



**The global industry 4.0 market is expected to surpass US\$210 billion by 2026.**

*Source: Facts and Factors Research Report, 2020*

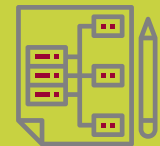
# Who is this programme for?

Whether you are an experienced professional in any major manufacturing or service-providing organisation, or a small business owner, understanding the integration of operations management with data analytics is critical to success. Gain expertise in lean operations management and analytics to improve project planning, manage the production scheduling process, and apply forecasting to meet demand-related challenges.

This programme is best suited for:

- Early and mid-stage professionals aspiring to build and advance their careers in operations management by learning to leverage effective operations strategies and analytics in improving operational efficiencies and achieving business outcomes
- Mid-stage Operations Professionals looking to acquire a strategic mindset and learn advanced concepts in operations management and analytics to transition into senior management roles

## Would you describe yourself as being....



**Organised?**



**Detail-oriented?**



**Good at prioritising tasks/ projects?**



**Diligent in managing budgets?**



**A team player with good communication and listening skills?**

*If this sounds like you, then you should consider a high-growth career in operations management with advanced skills in data analytics.*

# Programme Highlights

This cutting-edge programme will equip you with multi-faceted operations management strategies and analytical tools to improve operational efficiencies, forecasting, and risk management, and seeks to help you position yourself as an industry-ready professional in process optimisation.



Receive a Certificate of Completion from one of India's leading B-Schools (NIRF, 2020)



Learn from distinguished IIM Kozhikode faculty, Eruditus global faculty\* & reputed industry experts



Gain practical insights and experience high-impact learning with real-world case studies



Be eligible for the lifelong Executive Alumni Status and expand your professional network



Explore best practices and advanced perspectives in effective operations management & analytics



Gain hands-on learning through a project and assimilate learnings from industry-oriented curriculum

*\*Eruditus global faculty sessions could be scheduled on a different time zone, depending on speaker availability.*



**56% of CEOs emphasize the need to aggressively pursue operational agility and flexibility.**

*Source: IBM, 2021*



# Programme Director

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## Prof. Ram Kumar P. N.

Professor,  
Quantitative Methods and Operations  
Management

Professor Ram Kumar has an M.E. in Industrial Engineering from PSG Tech Coimbatore and a PhD from IIT Madras. His research areas include transportation network optimisation, military logistics, and operations research in healthcare. He is currently working on a project that tries to understand the suitability of ant colony algorithms for convoy movement problems. He is also the Chairperson of Doctoral Programmes at IIM Kozhikode.

### Recent Publications:

- Wenli Li, Kunpeng Li, P N Ram Kumar and Qiannan Tian (2021) 'Simultaneous product and service delivery vehicle routing problem with time windows and order release dates', *Applied Mathematical Modelling*, Vol. 89, pp.669 – 687.
- Hamid Mokhtar, Mohan Krishnamoorthy, Niraj Ramesh Dayama, P.N. Ram Kumar (2020), 'New approaches for solving the convoy movement problem', *Transportation Research Part E: Logistics and Transportation Review*, Vol. 133.
- Wenli Li, Yong Wu, P N Ram Kumar & Kunpeng Li (2020), 'Multi-trip vehicle routing problem with order release time', *Engineering Optimization*, Vol. 52(8), pp.1279-1294.

*Note: This is a tentative list, and the confirmed faculty will be shared closer to the programme commencement.*

# Programme Faculty

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## Prof. Anand G.

Professor,  
Quantitative Methods and  
Operations Management



## Prof. Rupesh Kumar Pati

Professor,  
Quantitative Methods and  
Operations Management



## Prof. Soumya Roy

Associate Professor,  
Quantitative Methods and  
Operations Management



## Prof. Arqum Mateen

Associate Professor,  
Quantitative Methods and  
Operations Management



# Programme Modules

## MODULE 1: FUNDAMENTALS OF OPERATIONS MANAGEMENT

- Fundamentals of operations in manufacturing and services
- Process and systems view of the organisation
- Product process matrix, process analysis
- Macroeconomics and supply chain

## MODULE 2: ANALYTICS IN OPERATIONS

- Statistics for managers
- Descriptive, predictive and prescriptive
- Data visualisation and interpretation
- Decision Tree
- Simulations

## MODULE 3: PROJECT PLANNING AND MANAGEMENT

- Project lifecycle management
- CPM and PERT
- Project scheduling
- Critical chain project management

## MODULE 4: INVENTORY MANAGEMENT

- Economic order quantity
- Inventory classifications

## MODULE 5: SUPPLY CHAIN DESIGN AND MANAGEMENT

- Supply chain planning, concepts, processes and bottlenecks
- Supply chain structure and design
- Network strategy
- Strategic sourcing and procurement
- Sustainability
- Forecasting and Supply chain analytics

“  
**Quality means doing it right when no one is looking.**

– Henry Ford

”



# Programme Modules

## MODULE 6: QUALITY MANAGEMENT

- Quality management principles and TQM
- Quality dimensions and measures
- Quality tools and methodologies
- Implementing quality planning and assurance
- Quality analytics

## MODULE 7: SIX SIGMA & LEAN OPERATIONS MANAGEMENT

- Six Sigma and Lean management concepts
- Theory of constraints

## MODULE 8: ADVANCED CONCEPTS

- Linking operations to overall organisational strategy
- Linking operations to financial goals
- Risk management and innovation
- Operational leadership and change management

*Note: Modules/topics are indicative only, and the suggested time and sequence may be dropped/ modified/ adapted to fit the total programme hours.*

## The Industrial Revolution



### Industry 1.0

The invention of steam engines increased the speed of production processes



### Industry 2.0

Electricity enabled the use of assembly lines, which led to mass production



### Industry 3.0

Computers were implemented to help automate production



### Industry 4.0

The complete digitalisation of the supply chain can ensure the safety, quality and efficiency of production processes.

# Capstone Project

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The hands-on group project with four to five members is an integral part of the programme completion and will enable you to apply your learnings in a real-world business scenario. You and your team members can work on any domain for the project, preferably your working domain. Guided by IIM Kozhikode faculty and industry experts, explore how sound operations management and analytics can enhance your ability to optimise in-house processes and systems to minimise costs and maximise business profit.

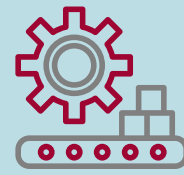
## Real-world Case Studies

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Enhance your conceptual understanding from the programme modules with real-world business use cases in operations management and analytics. Develop your strategic thinking skills, learn best practices and actionable insights to effectively drive operational efficiencies. These use cases will include:

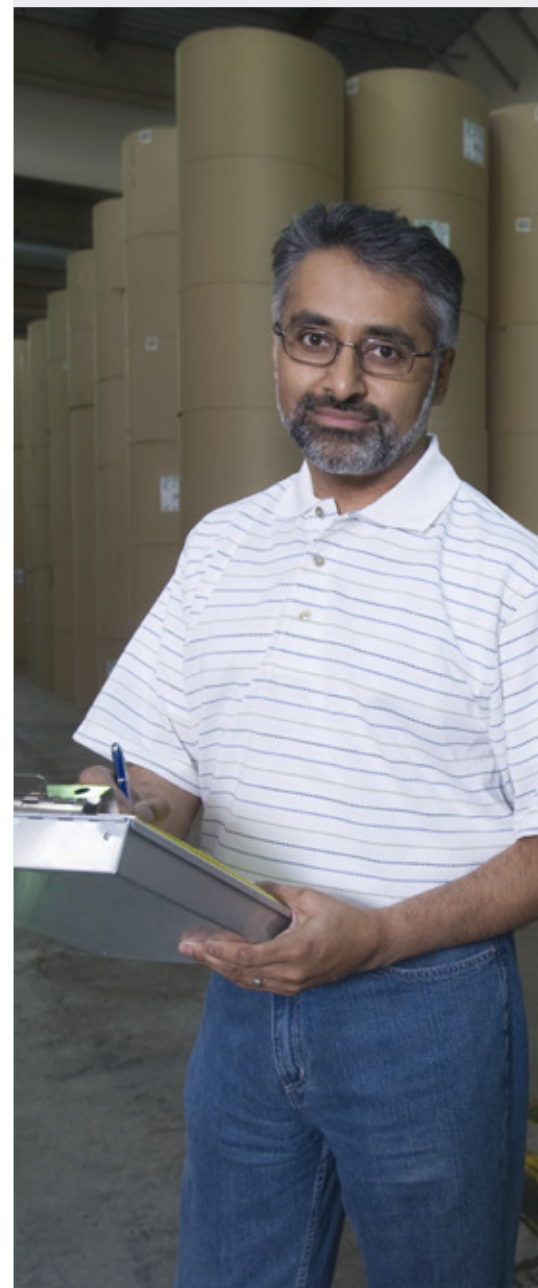
- Merck and Company - Evaluating a drug licensing opportunity  
**Learning Objective:** Decision Trees
- ABC Paper Manufacturing Case  
**Learning Objective:** Linear Programming
- AIC Netbooks  
**Learning Objective:** Assembly Line Balancing
- Three Jays Corporation  
**Learning Objective:** Inventory Management

*Note: Listed above are a few indicative case studies and the programme will include additional case studies specially curated by the faculty.*



**Cumulative Foreign Direct Investment (FDI) in India's manufacturing sector reached US\$ 88.45 billion from April 2000 to March 2020.**

*Source: IBEF, 2020*





# Learning Outcomes

Build in-demand skills in optimising the operations value chain with advanced strategies and analytics to achieve competitive advantage and operational excellence for your business.

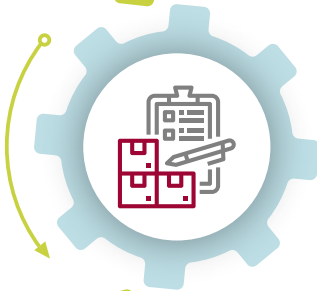
Joining this programme will enable you to:



Understand effective operations management along with analytical techniques and their applications across domains



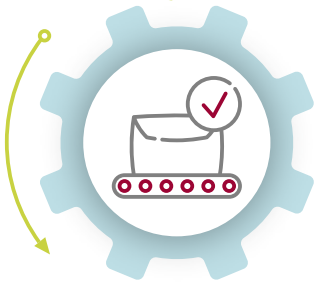
Learn about project lifecycles and various project planning and management techniques like PERT, CPM, among others



Gain expertise in economic order quantity, inventory classification and other inventory management techniques



Develop an in-depth proficiency in supply chain management including network strategy, sustainability and forecasting



Learn quality management principles like total quality management along with in-demand tools and methodologies



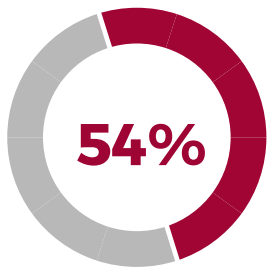
Gain a robust perspective on Six Sigma, lean operations management, risk management and innovation, operational leadership, and change management

**Ultimately, you will be well equipped to manage a sound operations management strategy using lean thinking and advanced analytics to help scale business efficiency and profits.**

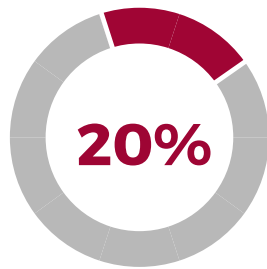


# Past Participant Profiles

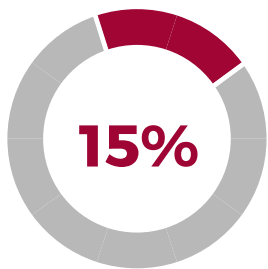
## Work Experience



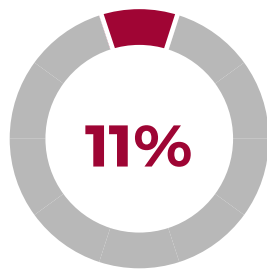
<=10 Years



11 to 15 Years

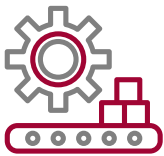


16 to 20 Years



21+ Years

## Industries



25%

Manufacturing



17%

IT & Services



12%

Healthcare



8%

E-commerce



4%

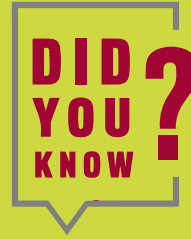
Retail



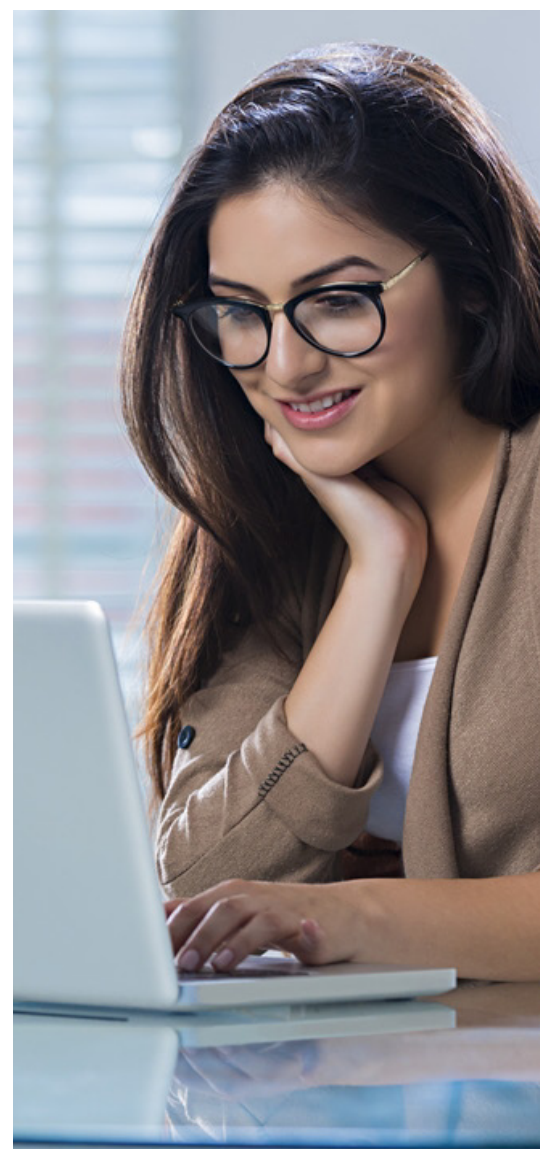
34%

Others\*

\*Others include Aerospace, BFSI, Consulting, Energy, and FMCG, amongst others.



Operations management propelled Flipkart, a business run from a two-bedroom apartment to develop into one of India's largest e-commerce enterprises, valued today at a net value of \$20 billion.



# Certificate

Participants will be awarded a completion certificate from IIM Kozhikode on successfully completing all evaluation components and maintaining a minimum attendance of 75%. Participants who are unable to clear all evaluation components, but have a minimum attendance of 75% shall be awarded a participation certificate.



*Note: All certificate images are for illustrative purposes only and may be subject to change at the discretion of IIM Kozhikode.*

## IIM Kozhikode Executive Alumni Status

On successful completion of the programme, participants will be eligible for the prestigious IIM Kozhikode Executive Alumni Status. These participants will subsequently receive the alumni registration details from IIM Kozhikode.

## Eligibility

Graduates (10+2+3)/  
Diploma Holders (only  
10+2+3) in any discipline  
from a recognised  
university with minimum 1  
year of work experience  
(after graduation or  
diploma) as on Dec 30, 2021.

## Evaluation

There will be periodic  
evaluations built-in  
throughout the programme  
at regular intervals. These  
may be in the form of  
quizzes, case study analysis,  
capstone project  
presentation, performance  
in the simulation or other  
objective/ subjective  
assessments. A minimum of  
75% attendance is a  
prerequisite for the  
successful completion of this  
programme. The  
participants will have to  
secure the minimum pass  
marks considering all  
evaluation components.



# Programme Details

**Programme Fee** INR 1,60,000 + GST

## Instalment Schedule

	Remarks	Amount
<b>Booking Amount</b>	Within 7 days post selection	INR 24,000 + GST
<b>Instalment I</b>	Jan 10, 2022	INR 40,000 + GST
<b>Instalment II</b>	May 10, 2022	INR 56,000 + GST
<b>Instalment III</b>	Sep 10, 2022	INR 40,000 + GST

Note:

- The actual programme schedule will be announced closer to the programme start
- In case a programme session corresponds with a public holiday, the session would be held on the following day
- GST (currently @ 18%) will be charged extra on these components

## Round-wise Application Dates

	Application Fee	Dates
<b>Round 1</b>	INR 1,500 + GST	Nov 10, 2021
<b>Round 2</b>	INR 2,000 + GST	Dec 22, 2021

Note: Admissions are on a first-come, first-serve basis. There might not be subsequent rounds if seats are filled in the initial rounds.

# Programme Schedule

## Academic Orientation

January 16, 2022

## Live Online Sessions

3 Hours/ Sunday  
12:15 PM to 3:15 PM

## Programme Application Link

[Click here](#) to apply to the programme.

## Finance options available.

[Click here](#) to learn more.

For more information, please email us at: [iimk@eruditus.com](mailto:iimk@eruditus.com)





# Application Requirements

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Applying to the programme? We suggest you keep the following 3 documents ready.

## 1. Your Photo ID Proof:

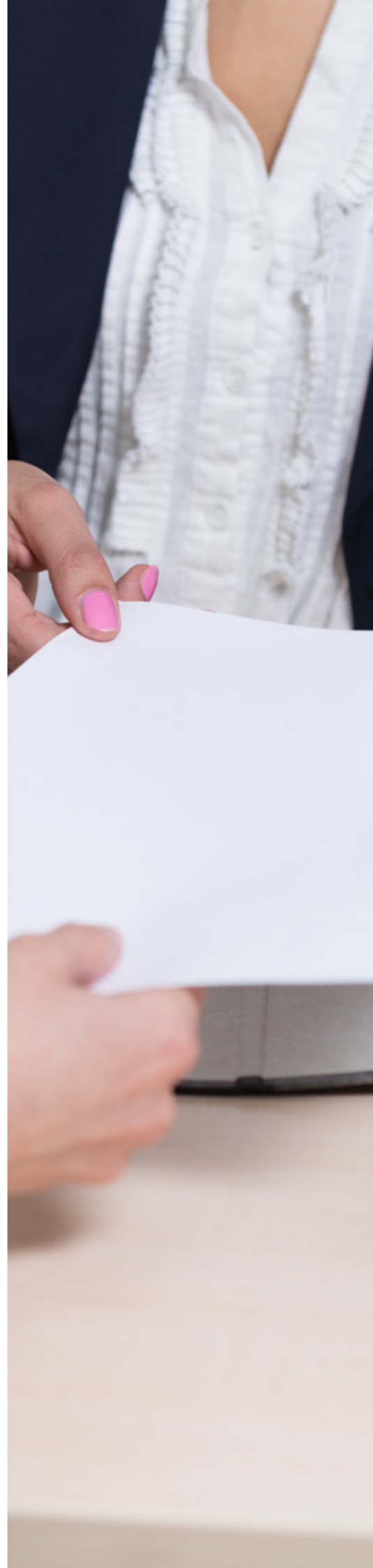
- You can submit a scanned copy of **ANY ONE** of: Aadhaar Card, e-Aadhaar, PAN Card or the first two pages of your Passport. In case you submit an e-Aadhaar card, please rename the file to its password so we can open the file.

## 2. Your Graduation/Degree:

- You can submit a scanned copy of **ANY ONE** of: Degree certificate, provisional Degree certificate, marks transcript or score transcript.

## 3. Your Work Experience Certificate:

- You can submit scanned copy(ies) of document(s) which demonstrate that you have the minimum work experience required by the programme.
- You can confirm the minimum work experience requirement of a programme under the heading '**Eligibility**' in the brochure or the programme website
- Examples of documents you can submit are joining letter, relieving letter, Bonafide work experience letter from your HR, salary slips etc.
  - These documents must be issued by your company.
  - Please ensure that the document(s) you submit contain a **date of joining** and a **date of leaving** or a **statement** about the **number of years** you have worked at the company.





# System Requirements

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This programme includes live online classes. To attend a live online class you will need to have a PC/Laptop/Mac with:

- Speakers and microphone: built-in or a USB plug-in or wireless Bluetooth
- Webcam: built-in or USB plug-in
- Processor: with Dual Core 2Ghz or higher (i3/ i5/ i7 or AMD equivalent)
- RAM: 4 GB or higher
- OS: Either MacOS 10.7 or higher OR Windows 8 or higher
- An internet connection: Minimum bandwidth of 3.0 Mbps (up/down)
- Browser: IE 11+, Edge 12+, Firefox 27+, Chrome 30+
- Zoom software client installed on your PC/ Laptop/ Mac

We use the Zoom software application to conduct live online classes. Zoom works on a variety of PCs/ Laptops/ Mac systems and also on phones and tablets.

You can join your live online class from a phone or tablet if it supports the Zoom client.

We recommend that you attend classes from a PCs/ Laptops/ Mac.



# About IIM Kozhikode

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IIM Kozhikode ranks 15th in Asia Pacific and #101+ globally in the QS World University Global Executive MBA Rankings 2020. Since its inception, IIM Kozhikode has successfully carved its niche in the area of management education, through a judicious blend of academics and real-world practice. The Institute continually adapts to the rapid influx of changes in the Indian business landscape by providing cutting-edge Management Development Programmes with innovative pedagogy and content to impart industry-relevant knowledge and skills to its executive education participants. Last year, IIM Kozhikode trained more than 3,400 executives through a wide gamut of programmes uniquely crafted for agile minds interested in thought-provoking questions and learning centred on business transformation and growth.

# About Eruditus

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Eruditus Executive Education offers customised and open programmes in India, Singapore, Dubai and other global locations in collaboration with MIT Sloan, Columbia Business School, INSEAD, Harvard Business School (HBS), Kellogg Executive Education, Berkeley Executive Education, Wharton Executive Education, IIM Lucknow Executive Education, IIM Calcutta Executive Education and Emeritus. Our world-class executive education programmes, supported by eminent programme experts, provide an immersive learning experience integrated with actionable insights and practical business applications. The meticulously curated programmes are delivered in a different range of formats; in-class, online, as well as blended programmes. Our extensive portfolio also includes short 2-4 day in-class workshops, online courses of 2-3 months duration as well as comprehensive learning journeys that run over 6-9 months, customised to an organisation's requirement.



Apply for the programme here

**APPLY NOW**

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For registration and any other information,  
please get in touch with us at [\*\*iimk@eruditus.com\*\*](mailto:iimk@eruditus.com)

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 [\*\*WhatsApp an Advisor on +91 7208889990\\*\*\*](https://wa.me/917208889990)

\* This number does not accept any calls. Please message your queries.



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EXECUTIVE EDUCATION