Port Design and Management

May 5 - 7, 2025





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Ports handle dry, bulk liquid, or container cargo to facilitate the movement of goods and services between markets, reducing transport costs and enhancing efficiency. Since the beginning of 2022, more than 85 major port construction projects have been initiated at a total cost of over \$45.6bn. The global port infrastructure market size was estimated at USD 151 billion in 2022 and is expected to hit around USD 249.49 billion by 2032. A significant portion of the demand growth also arises from the mandated shift in the modal choice mix from road to waterways. For instance, Port of Rotterdam aims to move from the current truck/barge/rail split of 45/40/15 percent to 35/45/20 percent by 2035.

To increase handling capacity and to cope up with demand fluctuations, many ports are adopting advanced automation in terminal operations, cargo handling, and transportation. Since port infrastructure investments run into billions of USD, an understanding of port design principles and its effect on port performance is crucial. In this program, we would like to specifically focus on how leveraging technology advancements and operational design principles can improve ease of doing business at ports. Further, we will discuss how maritime data sources can be leveraged to improve operational performance including sustainability and remain competitive.

Objectives

Following are the key learning objectives:

- Develop an understanding of port design parameters
- Link port design parameters to operational performance
- Discuss the role of port automation and technologies on enabling responsiveness
- Introduce data-driven opportunities for effective port design and management
- Plan and design city around ports

Content

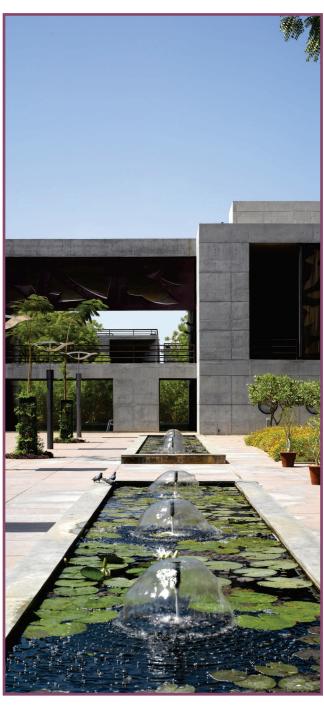
- Terminal Layout Choice
- Design Decisions at Ports
- Design Principles for ICD/CFS
- Maritime Data Sources, Analytics, and Optimizing Port Performance
- Technology Choices for Port Automation and Digital Transformation
- Design Principles for Container Terminals, Bulk Liquid Terminals, and Dry Bulk Terminals
- Benchmarking Port Performance
- Operational Strategies to Manage Port Performance
- Multi-modal Integration
- $\bullet \ Port \, City \, Planning \, and \, Design \,$

Pedagogy

The programme adopts mix of lectures, design exercise, case sessions, and presentations.

Target Audience

The programme is carefully curated for the senior and middle management professionals from Major/ Minor port authority, Private ports, CFS/ ICD Operators, Terminal Operators, Freight forwarders, Custom/ Brokers, Fleet Operators, Technology partners, Inspection and Testing lab operators, Rail Operators, Barge Operators, and Port consultants.



Faculty

Prof. Debiit Roy (Faculty Chair) Ph.D. and M.S. (University of Wisconsin-Madison)

Email: debjit@iima.ac.in



Debjit Roy is an Institute Chair Professor in the Operations and Decision Sciences area at the Indian Institute of Management Ahmedabad, India. He holds a Ph.D. in Industrial Engineering (with a major in Decision Sciences/Operations Research and a minor in Computer Science) and an

MS in Manufacturing Systems Engineering from the University of Wisconsin-Madison besides an M.Sc. (Engineering) from the Indian Institute of Science, Bangalore, India. He is also a visiting professor at the Rotterdam School of Management, Erasmus University, and Stephen M. Ross School of Business, University of Michigan, where he is actively involved in both teaching and research in the broad areas of operations and logistics. At IIM Ahmedabad, he serves as the chair of research and publications office and founding co-chair of the Centre for Transportation and Logistics.

His research focuses on improving system performance using quantitative methods such as stochastic modeling and optimization. His specific research interests are to estimate the performance of logistical and service systems such as container terminals, automated distribution centers, vehicle rental, healthcare, and restaurant systems. He has received several research awards including the IIE Transactions best conference paper award in Facility Logistics (2011, 2019), honorable mention for the Jack Meredith best paper award in Journal of Operations Management (2019), and honorable mention designation in the IIE Transactions best applications paper award competition (2016), and has published in several leading international journals such as Operations Research, Transportation Science, Journal of Operations Management, IISE Transactions, and Interfaces. He is also the lead author of the first book on Trucking Business Management published by McGraw-Hill in 2016. He served the Transportation Science and Logistics Society (INFORMS) board as an International Liaison Officer for Asia, Australia, and New Zealand (2017-2019). In 2019, he received the Innovative Teaching Award from Rotterdam School of Management, Erasmus University. He received the IIMA outstanding researcher award during 2018 and 2020. In 2020, he received the InsideIIM Best Professor of the Year Award and was also elected as the chair of the Facility Logistics SIG, Transportation Science, and Logistics INFORMS Society. In 2021, he received the Basant Kumar Birla Distinguished Research Scholar Award for Social Science and Management. In 2022, he received the INFORMS Innovative Applications in Analytics Award, IIMA's Distinguished PGPX Faculty Award, and the best paper award at the POM India International Conference.

At IIM Ahmedabad, he coordinates the executive education programmes in Restaurant Management, Warehouse Design and Management, Youth Transport Entrepreneurs Programme, Logistics Management, and Port Design and Management. His teaching interests include various courses in Operations and Logistics Management, Quantitative System Performance, and Manufacturing Strategy.



How to Apply

To register for the programme, fill in the application form through the link below:

https://bit.ly/41PZFpC

The closing date for receiving applications is **April 21**, **2025**. The last date for early bird discount is **April 14**, **2025**. All applications are subject to review and approval by the programme faculty (usually after the due date for receiving applications). A formal acceptance letter will be sent to the selected candidates. Applicants are requested to make their travel plans only after receiving the acceptance letter.

for more information, please email at **mdp-info@iima.ac.in**, connect with us on WhatsApp at 6357435951, or call us at 07971524624.

Certificate

A Certificate of Participation will be issued to the participants at the end of the programme, subject to their having attended all the sessions of the programme. Absence from any session needs to be with the prior approval of the Programme Faculty Chair.

Venue and Accommodation

The programme will be held at the Indian Institute of Management Ahmedabad. Participants would get full board and air-conditioned single room accommodation either on campus or with empanelled hotel partner.

IIMA norms do not allow participants to have guests staying with them during the programme.

Programme Fee and Payment

INR 1,20,000 plus GST per person for participants from India and its equivalent in US Dollars for participants from other countries. The fee includes tuition fee, programme materials, boarding and lodging.

The programme fee along with the application form should be received by the Executive Education Office latest by **April 21, 2025**. In case of cancellations, the fee will be refunded only if a request is received at least 15 days prior to the start of the programme. If an application is not accepted, the fee will be refunded to the person/organisation concerned.

The programme fee can be paid in one of these two ways:

[A] Electronic Fund Transfer

1. Name of Beneficiary: Indian Institute of ManagementAhmedabad

2. Savings Bank A/c IIMAHMOEP

HDFC Bank Limited, Ahmedabad Vastrapur Branch 21-Name of Remitten 0048 MICP C (Re380 24001) the name of the sponsoring organization

4. Purpose of Remittance: **Port Design and Management**

- 5. IIMA Permanent Account Number (PAN): AAATI1247F
- 6. IIMA Tax Deduction Account Number (TAN): AHMI00189A
- 7. IIMA GST Registration Number: 24AAATI1247F1Z4 (SAC: 999293)

After making the payment, please email us the complete transaction details so that we can link your remittance with your nomination.

[B] Payment Gateway

Please visit the following link for **Payment Gateway:**

https://bit.ly/4gHnc0r

Discount

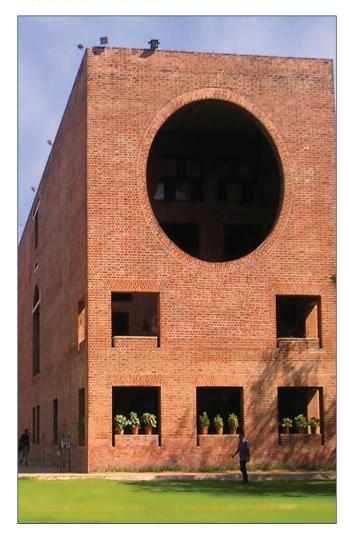
Early Bird Discount: Applications received with payments on or before **April 14, 2025**, will be entitled to an early bird discount of 7%. Early submission of fee and application does not, however, guarantee acceptance of the application.

Group Discount: Any organisation sponsoring four or more participants will be entitled to a discount of 7% on the total fee payable provided that at least four participants actually attend the programme. Organisations can avail themselves of both the discounts subject to a maximum overall discount of 10%.

Any organisation sponsoring 25 or more participants across all the programmes of IIMA in one academic year will be entitled to an overall discount of 15% on the programme fee payable.

The above discounts will be applicable only when the requisite numbers of participants actually attend the programmes.

Programme dates and fee are subject to change at the discretion of the Institute.



IIMA Alumni Association

Participants who are attending short-duration Executive Education Programmes for the first time, on or after April 1, 2012, will have to attend for a total of 21 days in one or more programmes in order to be eligible for alumni status and alumni identity card, both of which will be awarded on the payment of a one-time alumni fee of INR 10,000/-+ GST.

Indian Institute of Management Ahmedabad (IIMA).

IIMA was set up by the Government of India in collaboration with the Government of Gujarat and Indian industry as an autonomous institution in 1961. The Institute provides education, training, consulting, and research facilities in management.

Major Programmes Offered by IIMA

- Two-Year Post Graduate Programme in Management (MBA)
- Two-Year Post Graduate Programme in Food and Agri-business Management (MBA- FABM)
- Ph.D. Programme in Management
- One-Year Full Time Post Graduate Programme in Management for Executives (MBA- PGPX)
- Short duration Executive Education programmes through open enrollment, customisation and online for various levels of experienced professionals across industry
- Faculty Development Programme (FDP)
- Armed Force Programme (AFP)
- ePost Graduate Diploma in Advanced Business Analytics (ePGD-ABA)
- Online MBA
- Blended Post Graduate Programme in Management (BPGP)

The Institute has 100 plus faculty members working in the following management areas and centres:

Disciplinary Areas & Groups

- Centre for Management in Agriculture
- Communication
- Economics
- Finance and Accounting
- Human Resources Management
- Information Systems
- Marketing
- Organisational Behaviour
- Operations and Decision Sciences (O&DS)

- Public Systems Group
- Ravi J. Matthai Centre for Educational Innovation
- Strategy

Interdisciplinary Centres

- Ashank Desai Centre on Leadership and Organisational Development
- Brij Disa Centre for Data Science and Artificial Intelligence
- Centre for Digital Transformation
- Centre for Management of Health Services
- Centre for Sustainability and Corporate Governance Research
- Centre for Transportation and Logistics
- · Gender Centre
- IIMA Ventures (Formerly known as IIMA-CIIE)
- India Gold Policy Centre
- ISW School of Public Policy
- Madan Mohanka Centre of Excellence in Case Method of Learning
- Misra Centre for Financial Markets and Economy
- NSE Centre for Behavioural Science in Finance,



