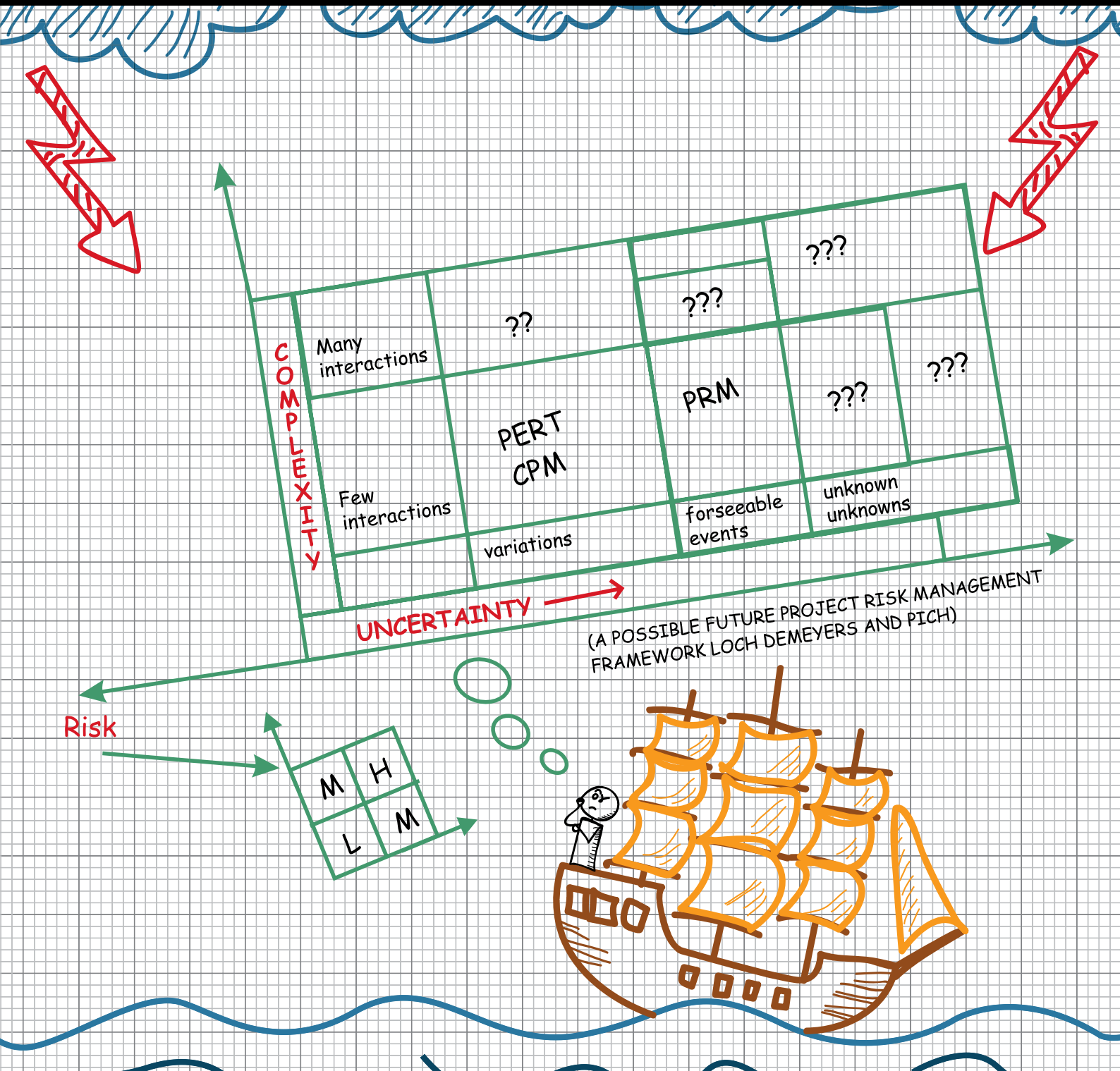


# UNCERTAINTY, COMPLEXITY, AND **RISK** IN PROJECTS

March 27 – April 18, 2021



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## Introduction

Emerging economies in Asia and India are going through major transformation. While about 70 trillion dollars' worth of projects are being executed in the world, a majority of these projects will require new knowledge in managing projects that go beyond critical path, network diagram and conventional Project Risk Management (PRM) as practiced by Project Management Book of Knowledge (PMBOK).

## Background

COVID-19 has hit the world in an unprecedented way, affected the lives around the globe and highlighted the need for management of unforeseen uncertainty. Some of the events in the past like the shifting of location of the project construction site of the world's cheapest car factory from eastern India to western India, Chandrayan-II in 2019, etc. focus on the need for specialized training in PRM. Even the Challenger and Columbia disasters are examples that demonstrate the need for proper PRM. A report (January 2020) by the Ministry of Programme Implementation indicates that out of 1692 major projects funded by the central government (worth Rs.1000 crore or more) totalling Rs. 2075212 crore (about 284 billion USD), 552 are behind schedule. In financial terms, the cost overrun translates to a loss of more than Rs. 402804 crore (about 55 billion USD).

## The Essence

The essence of new paradigm PRM lies in understanding the three dimensions of PRM: *Uncertainty, Complexity, and Risk*. This programme is aimed not only at introducing PRM as a process but developing it in a matrix of uncertainty and complexity also. Hence our programme goes much beyond conventional matrix of impact and likelihood method and conventional definition of project risk.

## Objectives

- Acquaint the participants with three types: Variations, foreseen and unforeseen uncertainties
- Discuss issues related to risk identification, risk analysis, and risk response planning in projects in mitigating cost and time overrun
- Develop knowledge about system, task, and organizational level complexities
- Discuss various statistical principles in risk management and introduce new concepts of cumulative impact factor and cumulative likelihood factors, risk cost, risk time, corrective cost, corrective time, expected cost, and expected time

- Discuss advanced concepts like simulation, Dependency Structure Matrix, selectionism and learning
- Discuss the difference between PRM in ordinary projects and technology start-up projects
- Discuss various legal issues including statutory reporting of project risk management
- Discuss Indian and international cases of application of PRM in several industries

## Programme Highlights

- Basics of Critical Path Method and Program Evaluation and Review Techniques
- Probability Concepts and Dependency Structure Matrix
- PRM Process: SHAMPU, PMBOK, and RAMP
- Case Study of PRM in India and Abroad
- Integration of Project Risk with Financial Risk
- Develop the Profile of PRM in Variation, Foreseen and Unforeseen Uncertainty, and Complexity
- Recent Developments, NTCP (Novelty, Technology, Complexity, and Pace)
- Statutory Reporting in PRM

## Participants' Profile

This programme is aimed at executives who are planning to be involved in management of risks in large national and international projects. The principles of risk management in projects will be applicable equally to conventional construction and project management sectors, service sectors (hotels, airlines, railways, telecom, internet service providers, power plants, call centres, BPO's and Information Technology and software projects), defence services projects as well as projects in manufacturing sectors (process industries such as steel, aluminium, polymer, zinc, petrochemicals, cement, pharmaceuticals etc.)

## Pedagogy

A mix of pedagogical tools will be used - cases and articles from international journals, software developed by IIMA, videotapes, and guest lectures.

## Faculty

- Dutta, Goutam, Ph.D. (Northwestern University, USA) (Faculty Chair)  
E-mail: [goutam@iima.ac.in](mailto:goutam@iima.ac.in)  
Phone: +91 98251 08105
- Prof. Laha, Arnab K., Ph.D (Indian Statistical Institute)
- Agarwal, Anurag, LL.M (Harvard) There will be guest faculty from Academia and Industry.

## Nominations

Nominations should reach the Executive Education Office latest by **March 22, 2021**.

All nominations are subject to review and approval by the programme faculty (usually after the due date for receiving nominations). A formal acceptance letter will be sent to selected nominees.

Click below to apply to the programme.

**APPLY NOW:** [http://eepcrm.iima.ac.in/crm/nomination\\_form.php](http://eepcrm.iima.ac.in/crm/nomination_form.php)

For more information please write to us at [exed@iima.ac.in](mailto:exed@iima.ac.in) or call us at +91-79- 7152 6400

## Certificate

To receive a certificate of participation from the institute, the participants need to fulfil the minimum requirement of 80% attendance. Absence from any session needs to be with the prior approval of the programme faculty chair.

## Schedule

The programme will be delivered live in an online format. There are no classroom sessions or any other on-campus interactions in this programme.

Dates: March 27 – April 18, 2021 Session Timings for March 27, April 3,9,11: 5:00 PM – 9:30 PM Session Timings for April 4,10,17,18: 5:00 PM – 8:00 PM	
Week 1	Week 2
March 27 (Saturday)	April 3 (Saturday)
	April 4 (Sunday)
Week 3	Week 4
April 9 (Friday)	April 17 (Saturday)
April 10 (Saturday)	
April 11 (Sunday)	April 18 (Sunday)

## Programme Fee

**INR 84,000 plus 18% GST** per person for participants from India and its equivalent in US Dollars for participants from other countries.

The programme fee should be received with the nomination form by the Executive Education Office latest by **March 22, 2021**. 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 a nomination is not accepted, the fee will be refunded to the person/organization concerned.

For more information, please visit the respective programme listed on our website [www.iima.ac.in/exed](http://www.iima.ac.in/exed).

Programmes, dates, fees and faculty are subject to change at the discretion of the Institute without any prior notice.

## 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)
- Executive Education offers short duration programmes through open enrollment, customisation and online for various levels of experienced professionals across industry
- Faculty Development Programme (FDP)
- Two-Year e-Mode (online + campus) Post Graduate Programme in Management (ePGP)
- ePost Graduate Diploma in Advanced Business Analytics (ePGD-ABA)

The Institute has 103 faculty members working in the following management areas and centres:

#### Disciplinary Areas and Groups

- Centre for Management in Agriculture (CMA)
- Economics
- Human Resources Management
- Marketing
- Production and Quantitative Methods
- Ravi J. Matthai Centre For Educational Innovation (RJMCEI)
- Communication
- Finance and Accounting
- Information Systems
- Organizational Behaviour
- Public Systems Group
- Strategy

#### Interdisciplinary Centres

- Centre for Digital Transformation
- Centre for Innovation, Incubation and Entrepreneurship (CIIE)
- Centre for Management of Health Services (CMHS)
- Centre for Transportation and Logistics
- Gender Centre
- IIMA-Idea Telecom Centre of Excellence
- India Gold Policy Centre
- Misra Centre for Financial Markets and Economy (MCFME)
- NSE Centre for Behavioural Science in Finance, Economics and Marketing



कार्यकारी शिक्षा  
भारतीय प्रबंध संस्थान अहमदाबाद

Executive Education  
INDIAN INSTITUTE OF MANAGEMENT AHMEDABAD

Vastrapur, Ahmedabad 380 015.

Phone: +91-79-7152 6400; Email: [exed@iima.ac.in](mailto:exed@iima.ac.in)

Website: [www.iima.ac.in/exed](http://www.iima.ac.in/exed)