

# MANAGEMENT DEVELOPMENT PROGRAMME ON

# FUNDAMENTALS OF FORECASTING

(Online Programme)



**Date**

**Sep 04–08, 2023**

**SCAN OR  
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CALL FOR QUERIES

**01881-231120**

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**Continuing Education and Outreach Activities Office,  
2nd Floor, Academic Section, M.Vishveshvaraya Block (East Wing),  
Indian Institute of Technology Ropar, Rupnagar, Punjab-140001, India**

Forecasting is one of the various tools' businesses use to predict outcomes in relation to sales, supply and demand, consumer behavior, and more. When a company has a visual reference that offers an overview of anticipated results and trends, both new and established businesses typically operate more effectively. Forecasting models are frequently used by prosperous businesses when making future plans. Businesses utilize a variety of forecasting techniques that offer different levels of information. Once a forecasting model has been created, it may then be used to analyze data and create the most accurate future projections.

## OBJECTIVE

Objective of the program is to sensitize the participants about different forecasting/prediction tools of regression and machine learning so that they can use and implement these learning in their respective organizations for better decision making.

## FOR WHOM & WHAT

Program would be helpful for those who wants to transform their organizations from conventional thinking to more data driven thinking.

The program intends to address, but may not be limited to, the following topics using python:

Basics of Forecasting

Time-series Methods of Forecasting

Panel Regression

Predication using Machine Learning

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Lectures, case discussions, interactions and participation in discussions.

### PROGRAM DETAILS

**Delivery** Live online sessions

**Class schedule** Mon to Fri: 9.30 am to 1.35 pm

**Eligibility** Candidate must be a graduate

**Duration** 5 Days

1000 Minutes of Learning || 200 Minutes of sessions per day

**Admission Criteria:** Shortlisting will be done based on subjects studied in graduation. Programming knowledge in any computer language will be preferred

This programme will be delivered under the guidance of Dr. Ravi Kumar, Indian Institute of Technology Ropar. Dr Ravi Kumar is an M.Sc. in Applied Operations Research from the University of Delhi, and a Ph.D. in Operations Research from IIT Delhi. He has published his work in various scholarly peer-reviewed international journals. His research interests include the development of mathematical models and their solution methodology. He is proficient in various optimization software like PYTHON, MATLAB, LINGO, GLPK, and SPSS. He is a professional body member of the GLOGIFT society. His expertise is to develop mathematical models and their solution methodologies. He is also an expert in the implementation of multi-criteria decision-making techniques.

### Program Coordinator



Dr. Ravi Kumar

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Particulars	Amount
Program Fee for Indian participants	Rs. 15,000
GST@18%	Rs. 2700
<b>Total fees</b>	<b>Rs. 17,700</b>

Program Fee for Foreign participants      **\$400 US Dollar**

### Discounts Available

Any organization sponsoring 4 or more participants will be entitled to a discount of 10% on total fee payable provided that at least 4 participants attend the programme.

### PROGRAM TIMELINE

Application closure date	28th Aug, 2023
Shortlisted candidates will be informed by	30th Aug, 2023
Last date to submit the fees	02nd Sep, 2023
Program start date	04th Sep, 2023
Program end date	08th Sep, 2023

### CERTIFICATE

Candidates who have minimum attendance of 80% will receive a 'Certificate of Participation' from IIT Ropar CEOA.

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## INDIAN INSTITUTE OF TECHNOLOGY ROPAR (IIT ROPAR)

Indian Institute of Technology Ropar (IIT Ropar) is one of the new IITs (established in 2008) set up by the Ministry of Human Resource Development (MHRD), Government of India. The Government of Punjab has allotted 501 acres of land on the banks of the river Sutlej to IIT Ropar. The foundation stone of the Institute was laid on 24th February 2009. The institute enables students to gain exposure to recent trends in their chosen domains of study and practical experience through a wide variety of activities that the institute facilitates in its own campus and arranges for in collaboration with industry and other institutes. This campus is a self-contained township catering to all the needs of faculty, staff and students.

## Detailed description of lecture hours, if any

No.	Lecture description	(50 minutes of lecture = 1 program hour) Hours
1.	Course overview	1
2.	Basics of forecasting	2
3.	Discussion of a case	1
4.	Data processing for model building	1
5.	Prediction using Time Series models	4
6.	Panel Regression	5
7.	Prediction using Machine Learning models	5
8.	Course Summary and Conclusion	1

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