



INDIAN STATISTICAL INSTITUTE
Online Course on
Applied Business Forecasting: Machine and Deep Learning Approaches

Dates: 05 - 07 December 2025
Mode: Online | **Duration:** 3 days | **Timing:** 9:30 am to 5:30 pm



Organized by:
SQC & OR Unit, Indian Statistical Institute, Bangalore - 560 059, INDIA

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Program Objective

This course equips professionals with practical skills in applying machine learning and deep learning techniques for business forecasting. Participants will learn how to design, build, and evaluate forecasting models.

Program Benefits

By the end of the program, participants will be able to:

- Transform time-series forecasting into a supervised learning problem.
- Apply ensemble learning methods such as Random Forest and Gradient Boosting for business forecasting.
- Build and implement deep learning models, including MLP, CNN, RNN, and LSTM for business forecasting.
- Develop Multivariate and Multi-Step forecasting models.
- Evaluate forecasting models using train/test split and walk-forward methods.
- Gain hands-on experience with Python.

Certification Criteria

An online examination will be conducted at the end of the course. Successful candidates will receive the certificates.

Course Content

Module	Topic
Module 1	• Introduction to Business Forecasting • Introduction to Python • Time series forecasting as a supervised learning problem • Ensemble learning methods (Random Forest, Gradient Boosting, etc.) for forecasting • Model evaluation and validation (train/test split and walk forward) techniques
Module 2	Deep Learning Approaches for Forecasting: • Multi Layer Perceptron(MLP) • Convolutional Neural Network (CNN) • Recurrent Neural Network (RNN) • Long Short-Term Memory (LSTM)
Module 3	• Multivariate and Multi-Step Forecasting

Course material and datasets will be shared with participants. Training sessions will be conducted online.

Course Fee

Category	Base Fee	GST (18 %.)	Total Fee	Eligibility Criteria
Standard Fee	Rs. 12,000	Rs. 2,160	Rs. 14,160	Applicable after 31 October 2025
Early Bird Advantage	Rs. 10,000	Rs. 1,800	Rs. 11,800	Apply on or before 31 October 2025
Corporate Discount	Rs. 10,000	Rs. 1,800	Rs. 11,800	Minimum 2 participants from the same organization

Note: Please mention the participant's name and course code (BF-09) in the "Additional Information" field during online transfer of fees.

Important Dates

Last date for submission of nominations: 02 December 2025

Course dates: 05 – 07 December 2025

Duration: 3 days

Timing: 9:30 am – 5:30 pm

Online Fund Transfer Details

Bank Account Details	
Name	Indian Statistical Institute
Bank	Uco Bank, Kengeri Branch
Account Number	02970200000702
IFSC Code	UCBA0000297
Type of Account	Current Account

Contact: Program Director : BF-09,
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About Indian Statistical Institute

The Indian Statistical Institute (ISI) is a unique institution of national importance, devoted to research, teaching, and applications in statistics, natural sciences, and social sciences. Established by an Act of Parliament, ISI functions as:

- A university with the authority to award degrees up to Ph.D.
- A leader in multidisciplinary research and consulting for industry.
- A center for excellence bringing together scientists, economists, and scholars from across the world.

SQC & OR Division

1. A pioneering division at the forefront of integrating statistical theory with industrial practice in India. Its core activities encompass:
2. Driving continuous quality enhancement across diverse industrial sectors through data-driven methodologies.
3. Delivering specialized training programs, workshops, and customized in-house sessions to build capacity and foster operational excellence.
4. Cultivating globally competitive professionals equipped with analytical rigor and industry-relevant skills.
5. Empowering industries to implement Quality Engineering and Six Sigma frameworks, while unlocking actionable insights through advanced analytics.
6. Advancing applied research to develop innovative methodologies tailored to industrial challenges and opportunities.