



THIAGARAJAR
SCHOOL OF MANAGEMENT
(AUTONOMOUS)



FACULTY DEVELOPMENT PROGRAM

FOUNDATIONS OF BUSINESS ANALYTICS USING PYTHON



PROGRAM OVERVIEW

This Faculty Development Program (FDP) aims to empower faculty members with the foundational knowledge of Python and its applications in Business Analytics. Participants will learn essential Python packages, data visualization techniques, and statistical methods to gain insights from data. This program is structured to blend theory with hands-on sessions, ensuring practical exposure to real-world business analytics.

WHY PROFESSORS AND RESEARCH SCHOLARS NEED BUSINESS ANALYTICS PROFICIENCY?

Professors and research scholars need business analytics proficiency to stay relevant in today's data-driven world. Mastery of business analytics enables them to teach critical data interpretation and decision-making skills, bridging the gap between theory and real-world applications. For researchers, these tools are essential for conducting advanced data analysis, enhancing the quality of their research, and gaining insights into emerging business trends. Proficiency in business analytics empowers educators to better prepare their students for the evolving global market.

ABOUT TSM

Thiagarajar School of Management (TSM) is one of India's premier business schools, renowned for its rich heritage of over six decades. Located in Madurai, Tamil Nadu, India, TSM is committed to creating future leaders by providing cutting-edge management education and encouraging a culture of innovation, leadership, and excellence. TSM holds a unique position in Indian academia with its legacy, outstanding faculty, strong industry connections, and unwavering focus on research and experiential learning. TSM's commitment to excellence is further validated by its institutional membership in AACSB International – The Business Education Alliance, demonstrating its global standards in business education.

In addition to its legacy, TSM has earned recognition from various ranking bodies over the years. It is ranked #82 in the 'Management' category by the National Institutional Ranking Framework (NIRF) ranking 2024, underscoring its quality education and competitive edge. The institute also holds an 'A+' grade from NAAC, reflecting its academic rigor, infrastructure, and commitment to continuous improvement. These accolades position TSM as a leading institution in the field of management education in India.

KEY TAKEAWAYS

01.

**Master
Python**

GAIN PRACTICAL PYTHON SKILLS
FOR BUSINESS ANALYTICS

02.

**Data
Powerhouse**

BECOME PROFICIENT WITH NUMPY AND
PANDAS FOR EFFECTIVE DATA PRE-
PROCESSING

03.

**Visualize
Insights**

LEARN TO CREATE COMPELLING DATA
VISUALIZATIONS AND PERFORM
DESCRIPTIVE ANALYTICS

04.

**Statistical
Expertise**

UNDERSTAND AND APPLY INFERENTIAL
STATISTICS (ANOVA, CHI-SQUARE, T-TESTS)
TO REAL-WORLD PROBLEMS

05.

**Predictive
Modelling**

BUILD PREDICTIVE MODELS USING LINEAR
REGRESSION (SIMPLE AND MULTIPLE) AND
UNLOCK FUTURE INSIGHTS

SESSION PLAN



Time

3.00pm - 5.00pm



Mode

Online

DAY 1
01.04.25
(2 HOURS)

DR. ANOOP

INTRODUCTION TO PYTHON FOR BUSINESS ANALYTICS

Introduction to Python programming language- Overview of Python IDEs - Data types, variables, and control structures

DAY 2
03.04.25
(2 HOURS)

DR. ANOOP

KEY PYTHON LIBRARIES: NUMPY AND PANDAS

Introduction to NumPy and Pandas libraries- Data structures in Pandas: Series and DataFrames- Data cleaning and manipulation with Pandas

DAY 3
07.04.25
(2 HOURS)

DR. SENTHIL

DESCRIPTIVE ANALYTICS & DATA VISUALIZATION

Descriptive statistics using Python- Data visualization using Matplotlib and Seaborn- Hands-on practice with case studies

DAY 4
09.04.25
(2 HOURS)

DR. NATARAJ

INFERENCE STATISTICS WITH PYTHON

Hypothesis Testing: T-Test, ANOVA, and Chi-Square- Application of inferential statistics in business problems- Using Python to perform statistical tests

DAY 5
11.04.25
(2 HOURS)

DR. NATARAJ

SIMPLE AND MULTIPLE LINEAR REGRESSION

Introduction to Linear Regression- Simple and Multiple Linear Regression analysis- Hands-on exercises and real-world applications

RESOURCE PERSON

Dr. Anoop, Assistant Professor

Dr. Anoop holds a Ph.D. in Computer Science from Cochin University, specializing in AI, with a focus on conceptual graphs from unstructured data. A postdoctoral fellow at Queen's University, Canada, he has published in top journals and conferences. His research spans NLP, text mining, and analytics in healthcare, social networks, and climate change. He has received the Responsible Computing Research Grant from Mozilla and USAID.



Dr. Nataraj, Assistant Professor

Dr. Nataraj, Chairperson of MDPs and the PG Diploma in Data Science at TSM, has 14+ years of experience in teaching, research, and industry. An expert in business analytics and data science, he is skilled in Python, R, and statistical tools. His research spans CRM, predictive analytics, and sustainability, with publications in top journals. He also conducts MDPs for companies like Accenture and SPIC and serves as a reviewer for reputed journals.



Dr. Senthil, Associate Professor

Prof. Senthil has over 17 years of teaching experience and three years in the industry. His research focuses on ICT applications, e-Tourism, climate change, and digital sentiment analysis. A Summer Research Fellow at IIT Delhi and ISI Kolkata, he has presented at international conferences in South Korea, Malaysia, and the UAE. He has published extensively, with his latest paper in July 2024.



FACULTY COORDINATORS



Dr. Selvalakshmi
Principal, TSM



Dr. Manju Jayakumar
**Coordinator, International Collaborations,
TSM**

FEE DETAILS

NATIONAL PARTICIPANTS

₹1,000

Bank Details:

Name of the Institution - THIAGARAJAR SCHOOL OF MANAGEMENT

Bank Name - Federal Bank

Account No. - 20940200000175

IFSC CODE - FDRL0002094

INTERNATIONAL PARTICIPANTS

\$25

Contact Dr. Manju Jayakumar for payment instructions
+91 7259126684

REGISTRATION LINK
[Click Here](#)

CONTACT US



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<https://tsm.ac.in/>

WHO CAN ATTEND?

- Faculty Members looking to enhance their knowledge in business analytics
- Research Scholars interested in applying data-driven methods to their research
- Industry Participants seeking to integrate business analytics into decision-making
- Final Year Students aiming to build a career in analytics and data science