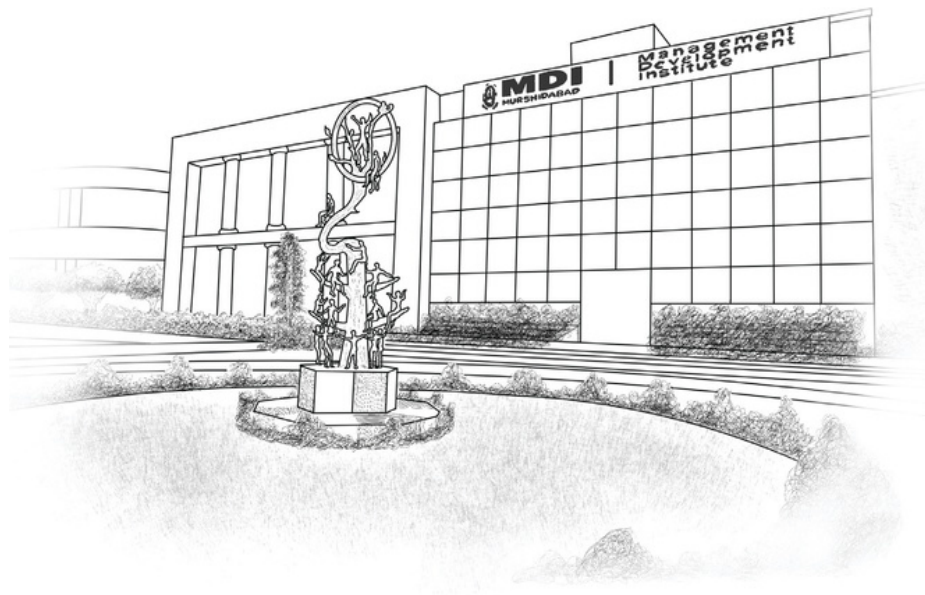


MANAGEMENT DEVELOPMENT INSTITUTE MURSHIDABAD

MANAGEMENT DEVELOPMENT PROGRAMME

ANALYTICS USING EXCEL, PYTHON, AND POWER BI



Course Overview

In a data-driven world, organizations depend on analytics to gain insights, drive performance, and make informed decisions. This comprehensive course equips participants with hands-on skills in Excel, Python, and Power BI—three of the most powerful tools used in business analytics today. Designed for professionals from all domains, the course blends foundational analytics concepts with practical applications, enabling learners to harness data for strategic advantage.



Course Objectives

By the end of this course, participants will be able to:

- Understand the core concepts and techniques of business analytics.
- Perform data cleaning, transformation, and analysis using Excel and Python.
- Develop predictive models using Python libraries such as Pandas and Scikit-learn.
- Design interactive dashboards and visual reports in Power BI.
- Use real-time data to make data-informed business decisions



Contents

1. Foundations of Business Analytics

- Role of analytics in decision-making
- Types of analytics: descriptive, diagnostic, predictive, prescriptive
- Case examples from different functions (Marketing, HR, Finance, Operations)
- Introduction to the tools: Why Excel, Python, Power BI?

2. Analytics with Excel

- Data cleaning and preparation using Power Query
- Pivot tables, pivot charts, and slicers
- Descriptive statistics and trend analysis
- What-if analysis (Goal Seek, Scenario Manager)
- Forecasting with Excel (moving average, exponential smoothing)
- Limitations of Excel and when to switch to Python or Power BI

3. Analytics with Python

- Intro to Python for business users (using Jupyter or Google Colab)
- Data handling with Pandas

- Data visualization with Matplotlib and Seaborn
- Exploratory Data Analysis (EDA)
- Building basic predictive models: Linear regression, classification (Logistic Regression)
- Interpreting model output for business impact

4. Dashboards with Power BI

- Introduction to Power BI interface
- Data import and transformation with Power
- Query Creating calculated columns and measures (DAX basics)
- Building visuals: cards, tables, bar/line/area charts, maps
- Filtering, slicers, drilldowns
- Publishing and sharing reports

5. Integration and Real-Life Projects

- Combining Excel, Python, and Power BI in workflows
- Automating reports (e.g., Python scripts feeding into Power BI)
- Capstone project: End-to-end business analytics case
- Presentation of findings and decision recommendations

Who Should Attend

Entry and Middle level executives working in large and medium organizations. The program is of great use for Micro, Small and Medium enterprise owners engaged in own businesses.

Faculty

The faculty will comprise of MDIM core faculty

Method of Delivery

The program is designed with an emphasis on application and reflection. The experiential exercises right from the psychometric test, games, and case study will constitute the integral part of the learning module.

Registration & Fees

Participants should be nominated by their organizations. The enclosed nomination form should be completed and returned with all the details. The fee of the program is **Rs. 10,000/ day /participant+ GST** which includes a professional fee and all charges for lodging and boarding and supply of course materials. GST as applicable will be charged extra in addition to the programme fee. Payment should be made by Cheque/ NEFT/RTGS.

The program fees can be paid through bank transfer as per the bank details given below:

Account Name: **Management Development Institute Society**

Bank Name: **ICICI Bank**

Account Number: **201505024814**

IFSC Code : **ICIC0002015**

Branch Name: **Jangipur**

(Please share the transaction details for verification purposes after making payment)



Venue & Duration

The programme is scheduled on a residential basis at MDIM Campus, Kulori, P.O.-Uttar Ramna, P.S.- Raghunathganj, Dist.- Murshidabad, West Bengal, PIN-742235, India. Accommodation for participants would be available at MDIM Campus

Enquiry

For any Additional information/enquiry, please write to:

**Department of Continuing Education
Management Development Institute Murshidabad**
Kulori, P.O.-Uttar Ramna, P.S. - Raghunathganj
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Programme Director



Dr. Bikramjit Pal

Assistant Professor – Information Management

Dr. Bikramjit Pal has established himself as a prominent figure in the field of engineering and technological studies, particularly within academia.

His academic journey began with a profound interest in engineering, which led him to pursue advanced studies and research in the field. Dr. Pal earned his PhD in Engineering from the Department of Engineering and Technological Studies at the University of Kalyani, where he laid the groundwork for his future contributions to academia and industry. Dr. Pal's association with academia spans more than 25 years, during which he has served in various capacities, including faculty member, project trainer, and researcher.

About MDI Murshidabad

Management Development Institute (MDI) was set up as an autonomous body in 1972. With an intention to impart management education, nurture local talent, and groom them to become global Leaders, Management Development Institute (MDI), launched its second campus in Murshidabad in the year 2014. The foundation stone was laid on the 31st of October 2010 at Jangipur, Murshidabad, West Bengal by the then Honorable Union Minister of Finance, Govt. of India, Shri Pranab Mukherjee. In 2014, MDI Murshidabad (MDIM) launched its Post Graduate Diploma in Management (PGDM). It was commemorated in the presence of the then honorable President of India Shri Pranab Mukherjee, by an inspiring address by him to our first batch of PGDM students on the 24th of August, 2014. This was followed by a deliberation made by Shri Arun Jaitley, then Hon'ble Minister of Finance, Defence & Corporate Affairs, Govt. of India. PGDM offered by MDIM is recognized and accredited by the All-India Council for Technical Education (AICTE), New Delhi, National Board of Accreditation (NBA). PGDM course is also recognised as equivalent to MBA by AIU for a period of three years (01.07.2024 to 30.6.2027). The Murshidabad campus is a part of MDI's vision to nurture and promote local talent and enterprise. The campus of MDI Murshidabad is in the central part of the State of West Bengal, India. MDIM prides itself in not only providing management Education but also developing ethical corporate citizens for tomorrow's India.

MDI Murshidabad continues to uphold its commitment to excellence in management education, as evidenced by its consistent IIRF rankings. In 2025 MDI Murshidabad has secured the **prestigious position of State Rank 1 among the Best B-Schools (Private) for PGDM General** and has also secured the **prestigious position of Zone Rank 3 for the overall category**.

Management Development Programme (MDP)

MDI Murshidabad has been conducting Training Programmes of strategic intent since inception. In this regard our MDPs not only aim at acquiring and upgrading knowledge and competencies in generic areas but also assist in specific areas to thrive in the competitive world of business. Our fundamental programmes revolve around leadership, Change Management, Managerial Effectiveness, Sales Excellence, Service Excellence, Sales & Distribution Management, How to build a Strong Brand, Cost Management, as well as emerging issues like AI&ML, Business Analytics, HR Analytics, Digital Marketing, and Data Science. MDIM is committed to impart quality management education. It understands the requirements of the modern business organizations and offers need-based customized MDPs to meet the organizations' excellence. To do so, the pedagogy adopted across the MDPs is based upon experiential learning exercises that believe in learning while doing. We are also conducting open MDPs for several valued clients who herald from various sectors. Such MDPs have been developing the holistic perspectives of the clients to resolve any given issues through cross-pollination of ideas.

Certificate of Participation shall be provided after the completion of the Course.



CAMPUS DETAILS



Campus Address:
Management Development Institute Murshidabad
Kulori, P.O.-Uttar Ramna, P.S. - Raghunathganj
Dist. Murshidabad, West Bengal, PIN-742235
Contact Details: +91 9674727164/ +91 9674757164 (Extn: 127/183)
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