



A Practitioner Course in Data Analytics & Artificial Intelligence

Event Report

Event Name: A Practitioner Course in Data Analytics & Artificial Intelligence	Event Date: 13-18 May 2024
Faculty Coordinators: Dr. Fehmina Khalique	Event Timings: 10:00 AM Onwards
Number of Participants: 110	Venue: Zoom Meeting
Guest Speakers: Dr. Saumendra Mohanthy Dr. Neeta Kamra, Ms. Neha Issar. Mr. Mohit Agarwal, Ms. Rohini Matta	MOC: Online

Objectives

- To equip faculty members with the practical knowledge and tools to teach data analytics and AI effectively.
- To enable participants to integrate AI and data analytics into their courses, aligning educational content with the latest industry trends and demands.
- To provide faculty with hands-on experience using popular data analytics tools and AI platforms, ensuring they can confidently apply these techniques in their teaching.
- To foster an understanding of how data analytics and AI can drive decision-making processes in various fields, from business to academia.

Detailed Report

Day 1: Foundation Course in Statistics for Business Analysts

The first day of the FDP focused on the foundational aspects of statistics, specifically tailored for business analysts by Dr. Saumendra Mohanthy. The session gave participants an overview of key statistical concepts, including descriptive and inferential statistics, probability distributions, hypothesis testing, and regression analysis. The aim was to ensure faculty members could confidently teach and apply statistical methods in their respective fields.

Key Activities:

- Introduction to statistical methods relevant to business analysis.
- Hands-on exercises in data collection, analysis, and interpretation.
- Case studies demonstrating the application of statistics in business scenarios.

Day 2: Database Management

The second day was dedicated to Database Management, where participants explored the principles of designing, implementing, and managing databases by Ms. Neha Issar. The session covered various aspects of relational database management systems (RDBMS), including database normalization, SQL queries, data warehousing, and data integrity.

Key Activities:

- Overview of database design principles and best practices.
- Practical sessions on SQL query writing and database management.
- Discussion on the role of databases in business analytics and decision-making.

Day 3: Data Visualization Using Power BI and IBM Watson

On the third day, the focus shifted to Data Visualization, with participants learning to use tools like Power BI and IBM Watson to create insightful visual representations of data by Dr. Neetu Kamra. The session emphasized the importance of data visualization in communicating complex data findings clearly and effectively.

Key Activities:

- Introduction to data visualization concepts and best practices.
- Hands-on training with Power BI and IBM Watson to create dashboards and reports.
- Exploration of advanced features in visualization tools to enhance data storytelling.

Day 4: Data Science - Introduction to Python

The fourth day introduced participants to Python, a key programming language in Data Science, by Dr. Saumendra Mohanthy. The session covered Python programming basics, including data structures, libraries like Orange and NumPy, and their application in data analysis. Participants gained practical experience in writing Python scripts and performing data manipulations.

Key Activities:

- Overview of Python programming and its relevance in data science.
- Hands-on exercises with Python for data analysis and manipulation.
- Case studies demonstrating the use of Python in solving real-world data problems.

Day 5: Predictive Analytics: Introduction to Artificial Intelligence

The fifth day was dedicated to Predictive Analytics and Artificial Intelligence (AI) by Ms. Rohini Matta. Participants were introduced to machine learning concepts, AI models, and their applications in predictive analytics. The session covered various AI algorithms, including decision trees, neural networks, support vector machines, and their practical applications in business contexts.

Key Activities:

- Introduction to machine learning and AI concepts.
- Practical exercises on building and deploying predictive models.
- Discussion on the ethical considerations and challenges in AI and predictive analytics.

Day 6: Project Execution and Certification

The final day of the FDP focused on Project Execution and Certification. Participants were required to apply the knowledge and skills they had acquired over the previous days to complete a capstone project. The day concluded with a project presentation session, where participants showcased their work, followed by a certification ceremony.

Key Activities:

- Capstone project execution involving data analysis and visualization.
- Presentation of project findings and recommendations.
- The certification ceremony recognizes the completion of the FDP.

Learning Outcome

- **Enhanced Technical Skills:** Faculty members gained a strong foundation in data analytics and AI and practical skills in using relevant tools and technologies.
- **Integration of AI and Analytics into Curriculum:** Participants began developing plans to incorporate AI and data analytics into their courses, ensuring that students receive education aligned with current industry standards.
- **Improved Teaching Strategies:** The program equipped faculty with innovative teaching strategies that make data analytics and AI accessible and engaging for students.
- **Strengthened Industry Relevance:** By aligning their teaching with industry trends, faculty members are better prepared to provide students with the skills needed for the modern workforce.