Curriculum MB-511 (Data Science for Managerial Decisions) Graded Curriculum

Units

- Introduction to Data Science

- Information Technology: An Overview

- MIS and Control Systems

- Data Collection and Data Pre-Processing

- Building Information Systems

- Support Systems for Management Decisions

- AI For Managers

Sub-Units

- Introduction to Data Science

    - Overview of Data Science and its Importance

        - Data Science and its applications.

        - Role of data scientists in various industries.

        - Historical context and evolution of data science.

    - Key Concepts in Data Science

        - Fundamental concepts: data, information, knowledge, and wisdom.

        - Data lifecycle: collection, cleaning, analysis, and visualization.

    - Importance of Data in Decision Making

        - Impact of data-driven decision-making on businesses and society.

        - Case studies demonstrating successful data-driven strategies.

- Information Technology: An Overview

    - Foundations of Information Technology

    - Information Systems and Management

    - Cybersecurity and IT Governance

    - Future Trends in Information Technology

- MIS and Control Systems
    - Introduction to MIS and Control Systems
    - Design and Implementation of MIS
    - Control Systems in Action
    - Challenges and Future Trends
- Data Collection and Data Pre-Processing
    - Introduction to Data Collection
    - Methods of Data Collection in Management
    - Designing Data Collection Instruments
    - Sampling Techniques
    - Data Collection Planning and Management
    - Understanding Data Pre-Processing
    - Data Cleaning Techniques
    - Quality Assurance in Data Pre-Processing
- Building Information Systems
    - Introduction to Information Systems in Management
    - Planning and Designing Information Systems
    - Implementation and Integration of Information Systems
    - Managing and Evaluating Information Systems
- Support Systems for Management Decisions
    - Introduction to Decision Support Systems (DSS)
    - Design and Implementation of Decision Support Systems
    - Enhancing Decision-Making with Advanced DSS Features
    - Implementation Challenges and Future Trends in DSS
- AI For Managers
    - Machine Learning & Deep Learning for Managers
    - Cloud Computing for Managers
    - Generative AI for Managers
    - Building AI Solutions