| INMDM1004: Business Intelligence | | | | | | | |
|----------------------------------|---------------------------|----------|--|--|--|--|--|
| Teaching: Scheme | Examination Scheme | | | | | | |
| Lectures:02hrs/week | ISEI | 10 Marks | | | | | |
| Credits:2 | ISEII | 10Marks | | | | | |
| | ESE | 30 Marks | | | | | |

Course description: This course introduces engineering students to the fundamentals of Business Intelligence (BI), focusing on data analysis, reporting, and decision-making processes. The course covers various BI tools and techniques used to transform raw data into meaningful insights for business decision-making.

Course Objectives:

- To understand the concepts and importance of Business Intelligence.
- To develop skills in using BI tools for data analysis and reporting.

Course Outcomes

After completing the course, students will be able to:

| (| CO1 | Understand and apply Business Intelligence concepts. |
|---|-----|--------------------------------------------------------|
| (| CO2 | Use BI tools to analyze data and generate reports. |
| (| CO3 | Interpret and present BI insights for decision-making. |

Detailed Syllabus:

Course Contents:

| Unit 1 | Introduction to Business Intelligence |
|--------|-------------------------------------------------------------------------|
| | - Definition and importance of BI |
| | - BI components and architecture |
| | - BI lifecycle and processes |
| | - Practical: Case studies on the role of BI in business decision-making |
| Unit 2 | Data Warehousing and Data Mining |
| | - Concepts of data warehousing |
| | - Data mining techniques and applications |

| | - ETL processes | | | | | | |
|--------|-------------------------------------------------------------|--|--|--|--|--|--|
| | - Practical: Hands-on exercises with data warehousing tools | | | | | | |
| Unit 3 | BI Tools and Applications | | | | | | |
| | - Overview of BI tools (e.g., Power BI, Tableau, QlikView) | | | | | | |
| | - Dashboard creation and data visualization | | | | | | |
| | - Reporting and querying tools | | | | | | |
| | - Practical: Creating dashboards and reports using BI tools | | | | | | |
| | | | | | | | |

Text and Reference Books

- 1. Turban, Efraim, Sharda, Ramesh, and Delen, Dursun. "Business Intelligence: A Managerial Approach." Pearson Education, 2014.
- 2. Larose, Daniel T. "Data Mining and Predictive Analytics." Wiley, 2015.
- 3. Moss, Larissa T., and Atre, Shaku. "Business Intelligence Roadmap: The Complete Project Lifecycle for Decision-Support Applications." Addison-Wesley, 2003.

Assessment:

| ISEI: | Shall be based on Class Tests/ Assignments/Quizzes/Field visits/Presentations/ Course Projects |
|--------|------------------------------------------------------------------------------------------------|
| ISEII: | Shall be based on class test. |

Mapping of Course outcome With Program Outcomes

| Course | PO | POI | POI | POI | PSO | PSO | PSO |
|---------|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|
| Outcome | I | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0 | I | 2 | I | 2 | 3 |
| COI | | | | | | | | | | 1 | | 1 | | | |
| CO2 | | | | | | | | | | 1 | | 1 | | | |
| CO3 | | | | | | | | | | 1 | | 1 | | | |

Assessment Pattern

| Assessment Pattern Level No. | Knowledge Level | ISE1 | ISEII | ESE |
|------------------------------|--------------------|------|-------|-----|
| K1 | Remember | 05 | - | 10 |
| K2 | Understand | 05 | 05 | 10 |
| K3 | Apply | - | 05 | 10 |
| K4 | Analyze | - | - | - |
| KS | Evaluate | - | - | - |
| K6 | Create | - | - | - |
| Total Mars 50 | | 10 | 10 | 30 |

Assessment table

| Assessment Tool | K2 | K2 | K2 |
|------------------------|-----|-----------------|-----------|
| | COl | CO ₂ | CO3 |
| ISE I (10Marks) | 05 | 05 | - |
| ISE II (10Marks) | - | 05 | 05 |
| ESE (30Marks) | 10 | 10 | 10 |