

COURSE	Name	: Business Intelligence
	Code	: EE185552
	Credit(s)	: 2
	Semester	: (Elective Course)

Description of Course

The Business Intelligence course discusses the scope and background of data mining and the types of data that can be mined. Besides, it provides an understanding of data patterns that can be mined such as frequent patterns, associations and correlations, classification, prediction, clustering, and patterns in various applications such as data streams, sequence data, WEB data.

Learning Outcomes**Knowledge**

(P01) Mastering the concepts and principles of science in a comprehensive manner, and to develop procedures and strategies needed for the analysis and design of systems related to the field of power systems, control systems, multimedia telecommunications, electronics, intelligent multimedia network, or telematics as a preparation for further education or professional career.

Specific Skill

(KK01) Being able to formulate engineering problems with new ideas for the development of technology in power systems, control systems, multimedia telecommunications, electronics, intelligent multimedia network, or telematics.

General Skill

(KU11) Being able to implement information and communication technology in the context of execution of his/her work.

Attitude

(S09) Demonstrating attitude of responsibility on work in his/her field of expertise independently.
(S12) Working together to be able to make the most of his/her potential.

Course Learning Outcomes**Knowledge**

Mastering the concepts of business intelligence, data mining, data warehousing, knowledge management, and business intelligence implementation techniques.

Specific Skill

Able to build Business Intelligence solutions using data warehouses and OLAP technology for data mining, applying prediction techniques for data mining such as loss functions, linear and non-linear models and applying clustering methods for data mining such as partitional, discriminative and generative hierarchies, and kohonen networks.

General Skill

Able to design and build a data warehouse for business intelligence projects.

Attitude

Demonstrating attitude of being responsible for the work in his/her area of expertise independently.

Working together to be able to make the most of their potential.

Main Subjects

1. Introduction to business intelligence.
2. Data mining.
3. Data warehousing
4. Knowledge management
5. Implementation of business intelligence.

Reference(s)

- [1] Jiawei Han and Micheline Kamber, Data Mining: Concepts and Techniques, Morgan Kaufmann, Second Edition, 2006.
- [2] Ian H.Witten and Eibe Frank, Data Mining: Practical Machine Learning Tools and Techniques, Morgan Kaufmann, Second Edition, 2005.
- [3] Nong Ye, The handbook of data mining, Lawrence Erlbaum Associates, Inc., 2003.

Prerequisite(s)

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