Course title: Electronic Business and Modeling (ID101)

Lecturer(s): Miloš M. Radovanović

Status: elective

ECTS: 7

Requirements: none

Learning objectives

In the modern environment of electronic business, a competitive advantage is acquired by those who are able to collect, model and analyze large volumes of data from the environment of interest, and, based on this, make the right predictions and decisions.

The course goal is acquaintance with methods for modeling and analyzing different aspects of electronic business, through techniques for time-series analysis, probabilistic models, data/text/Web mining algorithms, etc.

Learning outcome

A successful student will be able to:

- Critically assess aspects of electronic business suitable for modeling
- Critically assess techniques for analyzing and modeling different aspects of electronic business
- Critically assess and describe technical and research trends that can influence the design of an electronic business system
- Apply research methods in electronic business and modeling

Syllabus

Theoretical instruction

Topics: Motivation. Electronic business system. Collecting data from the environment. Time-series analysis. Probabilistic models. Data mining, text mining, Web mining. Prediction: classification, regression. Workflow diagrams, workflow mining. Modeling business processes with UML, etc.

Practical instruction

Recommended literature

1. B. Jošanov: *Introduction to Electronic Business*, University of Novi Sad, Higher School of Professional Business Studies, Novi Sad, 2006 (in Serbian)
2. P.-N. Tan, M. Steinbach, V. Kumar. *Introduction to Data Mining*. Addison Wesley, 2005
3. H.-E. Eriksson, M. Penker. *Business Modeling with UML*. Wiley, 2000

Weekly teaching load	Lectures: 2	Student research: 0

Teaching methodology

Lectures are organized using classic teaching methods with use of a projector. Students independently explore various research topics, present and discuss results with other students and the lecturer.

Grading method (maximal number of points 100)

Pre-exam obligations	**points**	**Final exam**	**points**
seminars	60	seminar paper	40