Module title: Data Mining

Abbreviation: 10-I-DM-161-m01

Module coordinator: Dean of Studies Informatik (Computer Science)

Module offered by: Institute of Computer Science

ECTS: 5

Method of grading: Only after succ. compl. of module(s)

Duration: 1 semester

Module level: graduate

Other prerequisites: --

Contents:

Foundations in the following areas: definition of data mining and knowledge discovery in databases, process model, relationship to data warehouse and OLAP data preprocessing, data visualisation, unsupervised learning methods (cluster- and association methods), supervised learning (e.g. Bayes classification, KNN, decision trees, SVM), learning methods for special data types, further learning paradigms.

Intended learning outcomes:

The students possess a theoretical and practical knowledge of typical methods and algorithms in the area of data mining and machine learning. They are able to solve practical knowledge discovery problems with the help of the knowledge acquired in this course and by using the KDD process. They have acquired experience in the use or implementation of data mining algorithms.

Courses:

V (2) + Ü (2)

Method of assessment:

written examination (approx. 60 to 120 minutes).

If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate).

Separate written examination for Master’s students.

Language of assessment: German and/or English creditable for bonus

Allocation of places:

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Additional information:

Focuses available for students of the Master’s programme Informatik (Computer Science, 120 ECTS credits): IT, IS, HCI.

Referred to in LPO I (examination regulations for teaching-degree programmes):

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Module appears in:

Master’s degree (1 major) Computer Science (2016)
Master’s degree (1 major) Digital Humanities (2016)
Master’s degree (1 major) Computer Science (2017)
Master’s degree (1 major) Computer Science (2018)