

#### Course description:

Information systems are used to process increasing amounts of data delivered daily by industry, trade, statistical offices or the state administration. Therefore, more and more noticeable is the difference between the information and - despite the large amount of data available, there are often problems with obtaining specific information contained therein.

Exploration data (called. Data mining) is a modern branch of computer science, a drop-down dynamically in recent years in research centers around the world, the aim of which is to provide algorithms and data processing techniques allow the acquisition nontrivial knowledge accumulated large amounts of data. Data mining methods are mainly based on artificial intelligence and computational statistics.

The lecture will cover popular data mining algorithms, for both classic issues such as the classification using decision trees and association rules structure, and modern systems undertook to recommend related and decision support systems.

#### Program (Program)

- Introduction to Data Mining
- Issues grouping and classification of data
- Basic numerical data clustering algorithms
- data classification using decision trees
- classification of numerical data
- construction association rules
- the issue of time-series forecasting
- text data processing issues
- recommending systems
- decision support systems