RTU academic master study program Business Informatics

DSP708 Advanced Data Technologies

Abstract

Database is a backbone an information system. There is a large variety of information systems, therefore different types of database data models, query languages and architectures are needed. In this course the following advanced data models are discussed: object database models; multidimensional database models; temporal database models; active database models; multimedia database models; deductive database models; intelligent database models. In the course above-mentioned models are combined with well-known and very wide used relational database models. The course includes main groups of query languages used in advanced database systems, such as SQL and its object and temporal extensions; multidimensional query languages for data warehousing systems and artificial intelligence languages. The course concerns also issues on information systems architecture for large variety of possibilities to organize storing, searching and presenting data, information and knowledge: different client/server architectures with application servers and web servers, distributed database architectures and multibase architectures. Databases are not only for data storage and retrieval, they can perform different algorithms to provide needed information and knowledge. To illustrate this database capability deductive databases, data mining, and intelligent databases are considered.

Within course cooperation with:

Faculty team

Responsible instructor
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