

## **Web Engineering**

### **Description**

This curriculum introduces the students with the modern, state-of-the-art client and server side web technologies, methodologies of web engineering, the programming and design patterns, especially with the web service oriented architectures. By the end of the course the student has a global overview of the up-to-date web trends and technologies, and, with the help of them, is able to develop a web application and web information systems.

Introduction to Web Technologies and Web Engineering: specialties, characteristics, categories of web applications.

Web Architectures: multi-tier, data-centric architectures

Requirement Analysis of Web Applications

Specialties of Large Enterprise and Small and Medium Enterprise Web Applications

Development Process of Web Applications

Model-Based Web Application Design and Development, WebML

Testing, Quality Management.

Design of Web 2.0 and Enterprise 2.0 Applications

Web Business Models

Web project management

Design of Mobile Web Applications

Semantic Web Applications, integration to Web Information Systems

Web Application Models, Cloud computing

Service Oriented Architectures, Web Information Systems

### **Literature**

- Kappel, G., Pröll, B., Reich, S., Retschitzegger W. (Eds.): Web Engineering: The Discipline of Systematic Development. John Wiley & Sons Inc., Chichester (2006).
- Mendes, E., Mosley, N. (Eds.): Web engineering. Springer-Verlag, Berlin (2005).
- Murugesan, S., Deshpande, Y. (Eds.): Web Engineering: Managing Diversity and Complexity of Web Application Development. LNCS 2016, Springer-Verlag, Berlin (2001).