Teaching

Topics of my courses include the following:

- **Knowledge Engineering**: Artificial Intelligence techniques such as Configuration, Diagnosis, Planning, Search, Probabilistic reasoning, or Recommendation support effective solutions for real-world problem settings (for example, the computer configuration environment of DELL or the recommender environment of amazon.com). A related lecture provides a detailed overview of those technologies - in the corresponding course, students learn to actively select appropriate technologies and to apply those to real-world application scenarios (configuration of computers, cars; recommendation of financial services, courses, or books).

- **Software Paradigms**: The understanding of program semantics is an important issue in Computer Science education. The course "Software Paradigms" has the goal to teach those concepts in the areas of procedural and object-oriented software development as well as in the context of functional programming and the development of logic-based programs.

- **Development of Enterprise Applications**: on the basis of state-of-the-art development environments such as Visual Studio.net. A related lecture (at the University of Klagenfurt) includes all the relevant technical basics as well as project management issues. In the course students have to cooperatively design and develop larger applications taking into account project management practices (defined roles within a project, reporting, reviews, effort estimation, etc.).

- **Object-Oriented Analysis and Design**: on the basis of a tailored version of the Unified Process (UP) major practices of object-oriented analysis and design are introduced. The course is based on student projects (5 students per projects) that are implementing an object-oriented software solution for a selected problem domain.

- **SAP Basic Technologies**: the inclusion of SAP technologies in Computer Science courses has a long tradition. In courses for small student groups we focus on SAP concepts related to configuration technologies, application development processes on the basis of ASAP, and SAP project management issues.

- **Persuasive Technologies**: psychological aspects of online user behaviour have to be taken into account in application development. Different theories from, e.g., cognitive psychology, decision psychology, or personal psychology clearly indicate the importance of related interdisciplinary research and teaching.

- **Recommender Systems**: recommender technologies improve the accessibility of (complex) products and services for online users. The major goal of a related lecture is to gain insights into basic underlying technologies such as collaborative filtering, content-based filtering and knowledge-based recommendation. Furthermore, students have the task to select the appropriate technology for a given application scenario and to prototypically develop a corresponding recommender application.