

02284 Knowledge Based Systems Fall term 2004
02284 Videnbaserede Systemer E04

Description: The course deals with contemporary theories and language proposals for domain specification and knowledge representation. The course begins with an introduction to conceptual modelling using entity-relationship diagrams and similar tools; it then proceeds with theoretical analyses of these tools using logical notions. This year the course also addresses the notion of ontologies, which have become crucial e.g. for systems searching information in (text) data bases and on the net.

Course topics: Entity-relationship diagrams for systems specification. Formal languages for ontologies. Description logic. Classification by means of algebraic lattices and relation algebras. Complex objects and inheritance.

Course participants are expected to be familiar with predicate logic and logic programming theory (e.g. from the course 02280 Data logic), and furthermore with relational databases and object oriented programming.

Lectures (and exercises): Mondays 13 - 16. There will be lectures and exercises until the beginning of November. Then we proceed with weekly discussions concerning your report. Some of the lectures may be given by guest lecturers.

Examination: The participants are to turn in a report or paper on a subject chosen during the course. The report is to be written in groups of 1 or 2 participants.

Course material: The course is based on papers to be downloaded from various net sites supplemented with an inexpensive compendium of papers available at the beginning of September. The course material is in English.

OBS: Course participants should check CampusNet 02284 for further information.

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