Organization

Teacher

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Module Objective:
Supporting Knowledge-Intensive Processes

- Knowledge-intensive processes are more unstructured processes with a lot of involvements of users with their experience.

- Supporting such processes at their levels requires modelling and enacting several different forms of knowledge.

- In general more explicit represented knowledge allows better support. But different forms of knowledge need different intuitive and adequate representations and inferences.

- After completion of this module, the participants will be able to assess which kind of knowledge representation and reasoning is adequate and are able to develop appropriate knowledge-based systems.

- They can value the advantages of knowledge-based systems with respect to their costs.

- Business Intelligence is concerned with supporting business decisions with facts. It supports business actors in turning data into knowledge that helps to make the right decisions.

- The module looks at different kinds of decisions (and hence requirements), at different kinds of data and different kinds of tools required to distill knowledge out of data.

Module Content

- Introduction: Knowledge in processes

- Decision Tables

- Rules
  - Textual represented rule (i.e. Horn clauses)
  - Forward and backward chaining
  - Data-driven and Goal-oriented
  - Negation-as-failure

- Object-centred Systems
  - F-Logic

- Fuzzy Logic

- Introduction into Business Intelligence

- Business Performance Management

- Multidimensional modeling

- Data Warehousing

- Data Mining

Module Organization

- Lectures: 9x3 Lections

- Assignments: additionally
  - Small exercises during weeks
  - Evaluated whole-course assignment

- Date: Spring

- Time and Room: see external announcements

- Credits: 6 ECTS

- Grades (both has to be passed)
  - Written exam
  - Whole-Course assignment

Module Schedule

- **April 14th - 16th**
  - Tuesday - April 14th, from 10am to 1pm
  - Wednesday - April 15th, from 2pm to 5pm
  - Thursday - April 16th, from 2pm to 5pm

- **April 28th - 30th**
  - PROPOSED Time slots
  - Tuesday - April 28th, from 10am to 1pm
  - Wednesday - April 29th, from 2pm to 5pm
  - Thursday - April 30th, from 2pm to 5pm

- **May 19th - 21st**
  - To be discussed

Module Information

- ■ Website
  - ◆ http://didattica.cs.unicam.it/doku.php?id=didattica:choiceexams:kebi:kebi2014

- ■ Literatur
  - ◆ No Books!
  - ◆ But reading material will be provided for download