# Organization

# Teacher

## Prof. Dr. Knut Hinkelmann

## Prof. Dr. Holger Wache

# 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: 10x4 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

| Lessons Schedule for KEBI | | | | Room |
|---|---|---|---|---|
| 29/02/2016 11am - 1pm | 3pm - 5pm | Holger/Knut | | R. Milner |
| 01/03/2016 9am - 1pm | | Holger/Knut | | R. E. Kahn |
| 31/03/2016 9am - 1pm | | Holger | | R. Milner |
| 01/04/2016 3pm - 7pm | | Holger | | R. Milner |
| 04/04/2016 11am - 1pm | 3pm - 5pm | Holger | | R. Milner |
| 05/04/2016 9am - 1pm | | Holger | | R. E. Kahn |
| 11/04/2016 11am - 1pm | 3pm - 5pm | Knut | | R. Milner |
| 12/04/2016 9am - 1pm | | Knut | | R. E. Kahn |
| 18/04/2016 11am - 1pm | 3pm - 5pm | Knut | | R. Milner |
| 19/04/2016 9am - 1pm | | Knut | | R. E. Kahn |

# Module Information

- ## Website

  - http://didattica.cs.unicam.it/doku.php?id=didattica:magistrale:kebi:ay_1516:main

- ## Literatur

  - No Books!

  - But reading material will be provided for download