inf537 - Intelligent Systems

Module label: Intelligent Systems
Module code: inf537
Credit points: 6.0 KP
Workload: 180 h

Used in course of study:
- Master's Programme Business Informatics > Akzentsetzungsmodul Bereich Wirtschaftsinformatik
- Master's Programme Computing Science > Angewandte Informatik
- Master's Programme Engineering of Socio-Technical Systems > Embedded Brain Computer Interaction
- Master's Programme Engineering of Socio-Technical Systems > Human-Computer Interaction
- Master's Programme Engineering of Socio-Technical Systems > Systems Engineering

Contact person:
Module responsibility
- Jürgen Sauer
- Die im Modul Lehrenden

Authorized examiners
- Jürgen Sauer
- Die im Modul Lehrenden

Entry requirements:

Skills to be acquired in this module

Professional competence
The students:
- name the structure of agent-based systems
- use problem-solving methods for complex problems
- characterise the application area of process planning
- evaluate the suitability of processes regarding to specific problems

Methodological competence
The students:
- assign problem-solving methods to different problems

Social competence
The students:
- implement selected methods in small teams

Self-competence
The students:
- develop own solutions for given problems

Module contents
A lot of application areas use "intelligent" problem-solving methods. These are the main focus of this lecture. They will be illustrated by examples in order to enhance the students' problem-solving abilities. These include:

- A brief introduction into AI
- Agent systems and
- Solution methods of AI like heuristics, meta-heuristics, soft computing methods.

To apply and foster the contents of the lecture, an intelligent planning system is implemented in practical exercises.

Reader's advisory
Suggested reading:

- Sauer, J.: Intelligente Ablaufplanung in lokalen und verteilten Anwendungsszenarien,
Teubner, 2004
- Ghallab/ Nau/Traverso: Automated Planning, Morgan Kaufman, 2004

Links
Languages of instruction
- German, English
Duration (semesters)
- 1 Semester
Module frequency
- once a year
Module capacity
- unlimited
Module level
- AS (Akzentsetzung / Accentuation)
Modulart
- Pflicht o. Wahlpflicht / compulsory or optional
Lern-/Lehrform / Type of program
- V+Ü
Vorkenntnisse / Previous knowledge
- Produktionsorientierte Wirtschaftsinformatik

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Total time of attendance for the module
- 56 h