

Course Descriptions CiE

Course code: IF-I-M201

Course title : Knowledge-Based Systems

Hours per week: 4

Number of ECTS Credits allocated/work load: 5

Semester: 1st or 2nd (Master of Computer Science)

Course contents:

In order to solve problems for which there are no or only very complex mathematical models symbolic artificial intelligence techniques as well as neural networks are used. When doing so, various forms of knowledge representation, heuristic search procedures (rule-based systems, e.g. Prolog), fuzzy logic-based decision support (uncertain knowledge) and the learning ability of neural systems play an important role.

Prerequisites: none

Objective of the course/learning outcome:

theoretical principles of non-algorithmic problem-solving methods and testing of the practical applications through term work.

Recommended Reading:

U. Lämmel, J. Cleve: Künstliche Intelligenz, Fachbuchverlag Leipzig, 2008

S. Russell, P. Norvig: Artificial Intelligence: A Modern Approach, Pearson Education, 2003

Teaching methods: lectures with practical exercises (lab)

Assessment methods: written exam (60%), term work (40%)

Language of instruction: English or German

Name of lecturer: Klaus Köhler

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