Module title		Abbreviation
Self-aware Computing		10-AI=SAC-242-m01

Module coordinator		Module offered by
Dean of Studies Informatik (Computer Science)		Institute of Computer Science

ECTS	Method of grading	Only after succ. compl. of module(s)
5	numerical grade	--

Duration	Module level	Other prerequisites
1 semester	graduate	--

Contents

The lecture provides knowledge about techniques and methods for Self-Aware Computing Systems. Current algorithms and concepts for Self-Aware Computing Systems as well as related concepts such as e.g. Autonomic Computing, Self-Organized Systems, or Self-Adaptive Systems are taught. Additionally, current application areas such as i. e. Internet of Things or Cyber-Physical Systems are discussed. Basic capabilities of these systems, methods for evaluating their performance, and how they can be improved through the use of artificial intelligence are taught.

Intended learning outcomes

The participants have basic knowledge of methods and techniques in the field of Self-Aware Computing Systems and are able to independently identify and apply suitable methods for concrete problems and to evaluate systems appropriately.

Courses (type, number of weekly contact hours, language — if other than German)

V (2) + Ü (2)
Module taught in: German and/or English

Method of assessment (type, scope, language — if other than German, examination offered — if not every semester, information on whether module is creditable for bonus)

Written examination (approx. 60 to 120 minutes)
If announced by the lecturer at the beginning of the course, the written examination may be replaced by an oral examination of one candidate each (approx. 20 minutes) or an oral examination in groups of 2 candidates (approx. 15 minutes per candidate).
Language of assessment: German and/or English
Creditable for bonus

Allocation of places

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Additional information

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Workload

150 h

Teaching cycle

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Referred to in LPO I (examination regulations for teaching-degree programmes)

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Module appears in

Master's degree (1 major) Artificial Intelligence (2024)