Statutes on the Aptitude test

for the Master's programme of the Faculty of Electrical Engineering and

Information Technology M.Eng. AI Engineering of Autonomous Systems

at Technische Hochschule Ingolstadt from 13.02.2023

Preamble

On the basis of Art. 89 Para. 2 of the Bavarian University Innovation Act (BayHIG) of 5 August 2022 (GVBl. p. 414; BayRS 2210-1-3-WK)) and §§ 32 para. 2, 19 para. 2 of the Qualification Ordinance (QualV) of 2 November 2007, GVBl p. 731, BayRS 2210-1-1-3-UK/WFK, Technische Hochschule Ingolstadt issues the following statutes:

Preliminary remark on the use of language

For reasons of readability and clarity, all references to persons and functions are in the masculine form and apply equally to all genders.

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§ 1
Purpose of the aptitude test

(1) Admission to the Master's degree programme AI Engineering of Autonomous Systems at Technische Hochschule Ingolstadt requires, in addition to the prerequisites listed in the currently valid version of the SPO, proof of the corresponding aptitude in accordance with these regulations.

(2) [1]In the aptitude test, the applicant should prove whether, in addition to the qualifications demonstrated by the completion of an engineering or natural science degree or a degree in computer science, he or she has the aptitude for the special qualitative knowledge and requirements of the Master's degree programme AI Engineering of Autonomous Systems, which leads to the expectation of a successful course of study. [2]For this degree programme, the following aptitude requirements must be met in addition to the completion of an engineering or natural science degree or the study of computer science:

1. Distinct mathematical knowledge as well as the ability to think abstractly and system-oriented and to formalise approaches to solutions

2. Competences in engineering fields and the methods and processes of software development

§ 2
Selection Committee

The selection procedure is carried out by a selection committee consisting of at least two professors appointed by the Faculty Council of the Faculty of Electrical Engineering and Information Technology.

§ 3
Suitability procedure

(1) The aptitude test takes place in the summer semester for the following winter semester and in the winter semester for the following summer semester.

(2) [1]The documents for the aptitude test must be added to the application for admission by the application deadlines specified in the enrolment statutes of Technische Hochschule Ingolstadt in the online application procedure to Technische Hochschule Ingolstadt. [2]In justified exceptional cases, an extension of the application deadline is possible.

(3) The application must be accompanied by the following documents

a. A completed questionnaire prepared by the Faculty of Electrical Engineering and Information Technology and made available via the online application procedure.

b. If already available, a copy of the degree certificate from the first degree course according to § 3 Para. 1 lit. a of the study and examination regulations for the Master's degree course AI Engineering of Autonomous Systems, alternatively a current grade sheet.

c. a copy of the cover sheet, an abstract and an outline of the thesis for the assessment of knowledge of the methods of independent scientific work and experience in the field of engineering problem solving.

§ 4
Admission requirements

[1]All applicants who have applied for admission in accordance with § 3 Para. 2 and 3 and who fulfil the general qualification requirements according to § 3 of the study and examination regulations for the Master's degree programme AI Engineering of Autonomous Systems will be admitted to the aptitude test. [2]If this is not the case, no admission to the aptitude test will be granted.

§ 5
Content of the suitability procedure

(1) The selection committee will carry out the selection procedure by evaluating the submitted documents with regard to the following criteria:

    a. Grade of the degree of the Bachelor's degree in engineering or natural sciences or the Bachelor's degree in computer science

    b. Competences in mathematics, engineering fields, programming, software development and computer science

    c. Independent scientific work and experience in the field of engineering problem solving

(2) [1]For the assessment of suitability, one mark is formed from two weighted sub-marks:

    a. the final grade of the engineering or natural science Bachelor's degree or the computer science Bachelor's degree with a weight of 0.6

    b. a grade with a weighting of 0.4, with which engineering competence, independent scientific work and experience in the field of engineering and software-oriented problem solving are assessed. [2]The sum of the following assessment points is first calculated to form this partial grade:

        aa) Credit points (ECTS, CP) of the modules of teaching mathematical as well as statistical competences (max. 20 points)

        bb) Credit points (ECTS, CP) of the modules of imparting competences on programming, methods and processes of software development (max. 30 points)

        cc) Credit points (ECTS) of subject competences from the following engineering or natural science fields and computer science: control engineering, system theory, modelling and simulation, electronics, microcomputer technology, communication networks, systems of computer science (max. 10 points).

    dd) Points for the assessment of the thematic and subject-specific reference of the final paper in the Bachelor's degree programme to the engineering problem solving, which required knowledge of the methods of software development:

- 0 points: no thematic or subject-specific reference
- 3 points: thematic reference and subject-specific reference of up to 30%.
- 6 points: thematic reference and subject-specific reference from 31% - 60%.
- 10 points: thematic reference and subject-specific reference above 60%.

The partial grade is finally determined as follows:

- 54 - 70 points: Grade 1.0
- 36 - 53 points: Grade 2.0
- 18 - 35 points: Grade 3.0
- 1 - 17 points: Grade 4.0
- 0 points: Score 5.0

[3]For the assessment, the grade levels of § 7 Para. 5 RaPO shall apply accordingly.

(3) [1]Suitability is deemed to have been established if the aptitude procedure is assessed with an overall grade of at least "good" (2.5). [2]Applicants with an overall grade worse than "good" (2.5) cannot be determined to be suitable for the Master's degree programme AI Engineering of Autonomous Systems. [3]Re-application is possible at the earliest for the next application procedure.

§ 6
Transcript

A record of the course of the aptitude test shall be made, which must show the date and place of the aptitude test, the names of the applicants and the evaluations according to § 5 by the selection committee.

§ 7
Determination and announcement of the result

The result of the aptitude test for the Master's programme AI Engineering of Autonomous Systems will be communicated by the Service Center Study Affairs.

§ 8
Entry into force

The Articles of Association shall enter into force on the day following their publication.

Issued on the basis of the resolution of the Senate of Ingolstadt University of Technology of 13.02.2023, the resolution of the University Council of 02.03.2023 and approved by the President.

Ingolstadt, 28.03.2023

Prof. Dr. Walter Schober

President

These Statutes were deposited at Ingolstadt University of Technology on 29.03.2023. The laying was publicly announced digitally on 29.03.2023 by posting on the homepage of Ingolstadt University of Technology. The date of the announcement is therefore 29.03.2023.