

**3rd Amendment to the Study and Examination Regulations for  
the  
Master's Degree Programme  
Artificial Intelligence for Smart Sensors and Actuators, M.Eng.  
at  
Deggendorf Institute of Technology  
of 20 December 2023**

Pursuant to Articles 9, 80 (1), 84 (2) Sentence 1 of the Bavarian University and College Act (BayHSchG) of 5 August 2022 (GVBl. p. 414, BayRS 2210-1-3-WK), in its most recently amended version of Section 3 of the Act adopted on 23 December 2022 (GVBl. p. 709), Deggendorf Institute of Technology hereby enacts the following statutes:

**Section 1 Amendments**

The Study and Examination Regulations for the master's degree programme Artificial Intelligence for Smart Sensors and Actuators are amended as follows:

1. Section 5 (1) Sentences 3 and 4 will be amended to read:

<sup>3</sup>The examination involves complex tasks on relevant subjects relating to advanced mathematics for engineers and fundamental aspects concerning mechatronics, mechanical engineering, and electronic engineering and their applications, as described in detail, for example, in the Module Handbook for the bachelor's programme *Mechatronics and Project Management for Digital Production*. The following modules are technically relevant:

DPC-01 Computer Science 1, DPC-02 Mathematics 1, DPC-04 Physics,  
DPC-08 Computer Science 2, DPC-09 Electrical Engineering 1,  
DPC-11 Mathematics 2, DPC-13 Electrical Engineering 2,  
DPC-MT-33 Control Engineering.

2. Section 9 (4) will be amended to read:

(4) Students wishing to register to write their master's thesis must have attained at least *40 ECTS credits*.

3. Appendix 1 to the Study and Examination Regulations for the master's degree programme Artificial Intelligence for Smart Sensors and Actuators at Deggendorf Institute of Technology is amended as follows:

## Appendix 1:

| M.Eng. Artificial Intelligence for Smart Sensors and Actuators                    |            |   |        |           |           |           |           |                           |                     |  |
|---|------------|---|--------|-----------|-----------|-----------|-----------|---------------------------|---------------------|--|
| Semester hours per week (SWS)   |            |   |        |           |           |           |           |                           |                     |  |
| Overview – module/course no., module and course description, SWS and ECTS credits |            |   | Module | 1st sem   | 2nd sem   | 3rd sem   | ECTS      | Weighting of module grade | Form of instruction | Exam format <sup>1)</sup>  |
| Module No.  | Course no. | Module/Course                                 |        |           |           |           |           |                           |                     |  |
| MSS-01  | MSS 1101   | AI and Machine Learning                       | 4      | 4         |           |           | 5         |                           | SU/U                | GMPschr 90 min   |
| MSS-02  | MSS 1102   | Advanced Sensor Technology and Functionality  | 4      | 4         |           |           | 5         |                           | SU                  | GMPschr 90 min   |
| MSS-03  | MSS 1103   | Model-Based Function Engineering              | 4      | 4         |           |           | 5         |                           | SU                  | GMPschr 90 min   |
| MSS-04  | MSS 1104   | Advanced Programming                          | 4      | 4         |           |           | 5         |                           | SU                  | PoP  |
| MSS-05  | MSS 1105   | Edge Device Architectures                     | 4      | 4         |           |           | 5         |                           | SU                  | GMPschr 90 min   |
| MSS-06  | MSS 1106   | System Design                                 | 4      | 4         |           |           | 5         |                           | SU                  | GMPschr 90 min   |
| MSS-07  | MSS 2101   | Deep Learning and Computer Vision             | 4      |           | 4         |           | 5         |                           | SU                  | GMPschr 90 min   |
| MSS-08  | MSS 2102   | Big Data                                      | 4      |           | 4         |           | 5         |                           | SU                  | GMPschr 90 min   |
| MSS-09  | MSS 2103   | Case Study Machine Learning and Deep Learning | 4      |           | 4         |           | 5         |                           | U                   | PoP  |
| MSS-10  | MSS 2104   | Autonomous Systems                            | 4      |           | 4         |           | 5         |                           | SU                  | GMPschr 90 min   |
| MSS-11  | MSS 2105   | Case Study Edge Device Architectures          | 4      |           | 4         |           | 5         |                           | U                   | PoP  |
| MSS-12  | MSS 2106   | Network Communication                         | 4      |           | 4         |           | 5         |                           | SU                  | GMPschr 90 min   |
| MSS-13  | MSS 3101   | Subject-Specific Elective Course (FWP)        | 4      |           |           | 4         | 5         |                           | SU/U                | <i>The type of examination conducted for elective (FWP) courses is subject to the currently valid study regulations.</i> |
| MSS-14  |            | Master's Module                               |        |           |           |           | 25        |                           |                     |  |
|   | MSS 3102   | Master's Thesis                               |        |           |           |           | 20        |                           | MA                  |  |
|   | MSS 3103   | Master's Seminar                              | 2      |           |           | 2         | 5         |                           | S                   | mdIP 40min incl. presentation  |
|   |            | <b>Total SWS</b>                              |        | <b>24</b> | <b>24</b> | <b>6</b>  | <b>54</b> |                           |                     |  |
|   |            | <b>Total ECTS</b>                             |        | <b>30</b> | <b>30</b> | <b>30</b> | <b>90</b> |                           |                     |  |

<sup>1)</sup> See curriculum for further details

| Abbreviations: |                                   |
|----------------|-----------------------------------|
| MA             | Master's thesis                   |
| ECTS           | European Credit Transfer System   |
| GMPschr        | End-of-module written examination |
| PStA           | Written project assignment        |
| S              | Seminar                           |
| schrP          | Written examination               |
| SU             | Seminar-based tuition             |
| SWS            | Semester hours per week           |
| U              | Exercise                          |
| PoP            | Portfolio assessment              |

## Section 2 Coming into effect

The amendments shall enter into force on 15 March 2024.

Issued based on the decision by the Senate of Deggendorf Institute of Technology on 20 December 2023 and the supervisory approval of the Vice-President of Deggendorf Institute of Technology of 15 January 2024.

Signed  
Prof. Waldemar Berg  
Vice-President

The by-laws were recorded at Deggendorf Institute of Technology on 15 January 2024. The recorded by-laws were duly posted on the notice boards on 15 January 2024. Their day of announcement is therefore 15 January 2024.