

Only the german version of the module description as part of the study regulations is legally binding.

Module name	Wireless Sensor Networks
Module number	INF-25-Ma-FSA-WSN
Responsible lecturer	Dr. Waltenegus Dargie waltenegus.dargie@tu-dresden.de
Qualification objectives	Students have a qualified understanding of wireless sensors, the networks built with them, their architecture, protocols and common applications. They are able to evaluate existing sensor systems and set up new sensor networks at .
Content	The module covers solutions for collecting, processing and communicating data using sensor nodes. This includes local system aspects, self-organization algorithms, communication ns procedures, routing algorithms, localization techniques and data storage mechanisms for wireless sensor networks.
Teaching and learning methods	The module comprises lectures of 2 SWS, exercises of 2 SWS and the selfbststudium. The language of instruction for the lectures and exercises is English.
Prerequisites for participation	In the Diploma degree program in Computer Science, the competencies to be acquired in the modules INF-25-Ba-RN Computer Networks, INF-25-Ba-SWT Software Technology, INF-25-Ba-DMF Data Management Foundations, INF-25-Ba-SWTP Software Technology Project and INF-25-Ba- AI Artificial Intelligence are required.
Applicability	The module is a compulsory elective module in the Diploma program in Computer Science in the main course in the subject area of Systems Architecture, which is to be selected in accordance with Appendix 2 to the examination regulations . In the Master's degree program in Computer Science, the module is a compulsory elective module in the Open Track in the subject area of Systems Architecture and the supplement, which must be selected in accordance with Annex 2 to the examination regulations and in the Distributed Systems Engineering Track, which must be selected in accordance with Annex 3 to the examination regulations. The module can only be selected once in the Master's degree program in Computer Science. The module cannot be selected in the Master's degree program in Computer Science if this module or a module with essentially the same content from a degree program in which the admission requirements according to Section 3 of the study regulations have already been met has already been completed. The module fulfills the prerequisites for the modules listed under prerequisites for participation.
Requirements for earning credit points	The credit points are earned if the module examination is passed. The module examination consists of a written examination lasting 60 minutes. The examination language is English.
Credit points and grades	6 credit points can be earned through the module. The module grade corresponds to the grade of the examination.

Module frequency	The module is offered every summer semester.
Workload	The total workload is 180 hours.
Module duration	The module comprises one semester.