

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

Module name	Adaptive Dynamic Systems Lab
Module number	INF-25-Ma-FTI-ADS.Lab
Responsible lecturer	Prof. Dr. Diana Göhringer diana.goehringer@tu-dresden.de
Qualification objectives	Students have practical experience in the field of reconfigurable computing systems and their applications, for example image processing and machine learning. They are able to familiarize themselves independently and in depth with a given task in the field of reconfigurable computing systems and work on it practically using scientific methods.
Content	Contents of the module are the design, simulation, evaluation and verification of reconfigurable computing systems and their realization with FPGA platforms or simulators.
Teaching and learning methods	The module comprises practical courses of 4 SWS and self-study. The language of instruction for the practicals is English.
Prerequisites for participation	In the Diploma degree program in Computer Science, the skills acquired in the modules INF-25-Ba-GTI Fundamentals of Computer Engineering and INF-25-Ba-Prg Programming and RoboLab are required. In the Master's degree program Computer Science, programming skills in C/C++ and knowledge of Computer Engineering at Bachelor's level are required.
Applicability	The module is a compulsory elective module in the Computer Engineering and High Performance Computing subject area in the main course of the Diplom degree program in Computer Science, which must be selected in accordance with Annex 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 Computer Engineering and High Performance Computing and the supplement, which must be selected in accordance with Annex 2 to the Examination Regulations. The module can only be chosen once in the Master's degree program Computer Science. The module cannot be selected in the Master's degree program in Computer Science if this module or a module with the same content from a degree program in which the admission requirements according to § 3 of the study regulations have been fulfilled 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 complex course of 80 hours. 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 semester.

Workload	The total workload is 180 hours.
Module duration	The module comprises one semester.