

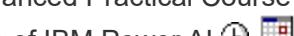
Curriculum / 16 030 Informatics (20181, Master's program, discontinued)
Academic year 2022/23

16 030 Informatics (20181, Master's program, discontinued)



Node filter-Name	rec. sem.	Credits	WF
[20181] Master's Program Informatics		120	1
Master's Thesis		30	1
[IN2108] Master's Thesis		30	1
Master's Thesis	4.	30	1
Examination(s) in academic year 2022/23	Part/Exam	Lecturer (Assistant)	Place (1st session)
IN2108 22W 10SWS FA Master's Thesis			Time (1st session)
IN2108 23S 10SWS FA Master's Thesis			
Advanced Practical Course		10	1
[IN2106] Advanced Practical Course		10	1
[EI78077] Dodo Alive! - Resurrecting the Dodo with Robotics and AI: Simulation & Control	-	10	1
[IN4399] Advanced Practical Course - Applied AI	-	10	1
[IN4392] Advanced Practical Course - Data-based Testing of Process-Centric Information Systems	-	10	1
[IN4392] Advanced Practical Course - Data-based Testing of Process-Centric Information Systems	-	10	1
[IN4392] Advanced Practical Course - Data-based Testing of Process-Centric Information Systems	-	10	1
[IN212809] Advanced Practical Course - Enterprise Cloud Platform Operations - On the Example of SAP	-	10	1
[IN213003] Advanced Practical Course - Message Correlation and Inter-Instance/Process Communication in Process Aware Information Systems	-	10	1
[IN4364] Advanced Practical Course - Retrieval Augmented Generation: Enhancing LLMs with internal knowledge	-	10	1
[IN212817] Advanced Practical Course - Run-Time Data Visualization for Business Processes	-	10	1
[IN213004] Advanced Practical Course - Solving Information Systems Problems Through Data Science Methods	-	10	1
[IN212818] Advanced Practical Course - There and Back Again - Foundations and Applications of Process (Re-)Discovery with Petri Nets and Process Trees	-	10	1

Node filter-Name	rec. sem.	Credits	WF
[IN40017] Advanced Practical Course Deep Learning for Audio, Speech, and Language	-	10	1
 			
[IN40018] Advanced Practical Course Machine Learning for Health	-	10	1
 			
[IN4314] Applied Deep Learning in Medicine	-	10	1
 			
[EI78043] Cybathlon Challenge: Mechanism Design & Control	-	10	1
 			
[EI78041] Cybathlon Challenge: Task Control & User Experiments	-	10	1
 			
[IN40003] Development of LLM-driven GUI Agents	-	10	1
 			
[EI78044] Dodo Alive! - Resurrecting the Dodo with Robotics and AI: HW/SW Components Development	-	10	1
 			
[EI78042] Dodo Alive! - Resurrecting the Dodo with Robotics and AI: Mechanism Design & Control	-	10	1
 			
[IN2131] Practical Course Internet-Based Information Systems	-	10	1
 			
[IN2129] Practical Course Software Engineering for Business Information Systems - Web Applications	-	10	1
 			
[IN212803] Advanced Practical Course Enterprise Software - Automotive Services	-	10	1
 			
[IN212804] Advanced Practical Course - Business Intelligence	-	10	1
 			
[IN212807] Practical Course Enterprise Software - Future Business Labs	-	10	1
 			
[IN212802] Advanced Practical Course Enterprise Software: Big Data Analytics - Development of innovative Applications on SAP HANA	-	10	1
 			
[IN212801] Advanced Practical Course: Enterprise Services - Software Development on the Example of SAP ABAP	-	10	1
 			
[IN4393] GPU-Pro (Computer Games Laboratory / Informatics Master Practical)	-	10	1
 			
[EI78062] Intelligent Machine Design Lab: Advanced System Design	-	10	1
 			
[EI78062] Intelligent Machine Design Lab: Basic System Design	-	10	1
 			
[IN4097] Advanced Practical Course Internet Lab - ilab ²	-	10	1
 			
[IN4060] Advanced Practical Course Internet ilab1	-	10	1
 			
[IN4284] Machine learning for clinical decision support in radiology	-	10	1
 			
[IN40005] Master - Praktikum - Deep Learning for Spatial AI	-	10	1
 			
[IN40006] Master - Praktikum - 3D Shape Analysis and Virtual Humans Applications	-	10	1
 			
[IN4297] Master Lab Course – Ethical AI: Problems and Applications	-	10	1
 			
[IN4286] Master Lab Course - Explainable AI for Machine Learning	-	10	1
 			
[IN4316] Master Practical Course - Legal Data Analysis Lab	-	10	1
 			
[IN4324] Master Practical Course: Computer Network Simulation	-	10	1
 			
[IN4261] Master Practical Course: Edge Computing and the Internet of Things	-	10	1
 			
[IN4262] Master Practical Course: Internet Measurements and Reproducibility Lab	-	10	1
 			
[IN4277] Master Practicum: Ethically Implementing and Practicing Inverse Transparency – A new form of data privacy	-	10	1
 			

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[IN4369] Master Praktikum: Advanced Testing of Deep Learning Models: Towards Robust AI  	-	10	1
[IN4232] Master Praktikum - Hacking Greybox Fuzzers to Spot Software Vulnerabilities  	-	10	1
[IN4368] Master Praktikum: Agile Entwicklung eines Lernassistenten auf Basis von generativer KI  	-	10	1
[IN213005] Master Praktikum: Approaching Information System Challenges with Natural Language Processing  	-	10	1
[IN4250] Master Praktikum: Automatic Diagnosis of Drone Crashes  	-	10	1
[IN4345] Master Practical: Accelerating Convolutional Neural Networks using Programmable Logic  	-	10	1
[IN710602W] Master Lab Course Games Engineering - Social Games  	-	10	1
[IN710616W] Advanced Practical Course Games Engineering: Augmented Reality  	-	10	1
[IN710616S] Advanced Practical Course Games Engineering: Augmented Reality  	-	10	1
[ICMSIN7106W] Advanced Practical Course Games Engineering: Building Information Modeling (IN7106)  	-	10	1
[IN4233] Master Praktikum: Mikroservice Integrity Protection  	-	10	1
[IN4263] Praktikum: 3D Scanning & Spatial Learning  	-	10	1
[IN2106] Advanced Practical Course  	-	10	1
[IN40007] Masterpraktikum - Development of a Modular Construction Robots  	-	10	1
[In4023] Master-Praktikum - Advanced Topics in 3D Computer Vision  	-	10	1
[IN4370] Master-Praktikum - Applied Foundation Models in Computer Vision  	-	10	1
[IN4249] Master Lab Course - Applications in Natural Language Processing (NLP)  	-	10	1
[IN212810] Advanced Practical Course - Application Challenges for Machine Learning on the Example of IBM Power AI  	-	10	1
[IN4298] Masterpraktikum - Applications for analysis of integrated circuit layout images  	-	10	1
[IN4264] Masterpraktikum - Aufbau eines Service Roboters unter ROS Umgebung  	-	10	1
[IN4398] Masterpraktikum - Autonomous Aerial Robotics Challenge  	-	10	1
[IN4299] Masterpraktikum - Autonomous driving for mobile service robots  	-	10	1
[IN4383] Masterpraktikum - Autonomous Mobile Robots for Unstructured Environments  	-	10	1
[IN4278] Master-Praktikum - Beyond Deep Learning: Uncertainty Aware Models  	-	10	1
[IN4247] Model Development in Biomechanics  	-	10	1
[IN4241] Master Labcourse - Build Your Own Demonstration Platform for Autonomous Cars  	-	10	1
[IN40008] Masterpraktikum - Building an Autonomous Truck  	-	10	1

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[IN40009] Masterpraktikum - Building Autonomous Agents and Bots: Applications on the Web and Beyond  	-	10	1
[IN4283] Advanced Practical Course – Building Digital Workflows with the Enterprise Platform ServiceNow  	-	10	1
[IN4287] Masterpraktikum - Cloud-Based Machine Learning in Robotics  	-	10	1
[IN4244] Master Labcourse - Cognitive Robotics Implementation Challenge  	-	10	1
[IN4325] Master-Praktikum - Computational Surgineering  	-	10	1
[IN4288] Practical course: Correspondence and Matching Problems in Computer Vision  	-	10	1
[IN4248] Practical Course - Deep Computer Vision (IN2106, IN4248)  	-	10	1
[IN4354] Masterpraktikum - Deep Learning in Robotics  	-	10	1
[IN4289] Masterpraktikum - Developing a Resource Planning Platform for Autonomous Vehicles  	-	10	1
[IN4300] Masterpraktikum - Development of Biologically-inspired Methods for Autonomous Driving  	-	10	1
[IN4381] Master Practical Course - Digital Product Innovation and Development  	-	10	1
[IN4265] Masterpraktikum – Embedded Web-Radio Development in C on ARM  	-	10	1
[IN4372] Master-Praktikum - Advanced Medical Augmented Reality  	-	10	1
[IN4385] Masterpraktikum - Formal Methods for AI-Enabled Cyber-Physical Systems  	-	10	1
[IN4266] Master-Praktikum - Advanced Praktikum for Deep Learning for Video Analysis  	-	10	1
[IN4346] Master-Praktikum - Geometric Scene Understanding  	-	10	1
[IN4326] Masterpraktikum - Hyperautomation: Computer Science for the Startup Singularity  	-	10	1
[IN4245] Master Lab Course - Implementation of IEEE 1588 protocol (PTP Slaves) on embedded devices  	-	10	1
[IN4290] Masterpraktikum - Intelligent Mobile Robots with ROS  	-	10	1
[IN4342] Masterpraktikum - Machine Learning for Smart Grids  	-	10	1
[IN212812] Advanced Practical Course - Machine Learning for Information Systems Students  	-	10	1
[IN4267] Master-Praktikum - Machine Learning in Crowd Modeling & Simulation  	-	10	1
[IN4235] Master practical course - Micromouse: Designing an Educational Racing-Robot from Scratch  	-	10	1
[IN4291] Masterpraktikum - Modular Robotics  	-	10	1
[IN4251] Masterpraktikum - Planning Robust Behavior for Autonomous Driving  	-	10	1
[IN4306] Master-Praktikum - Mobile Robotics Practicals  	-	10	1
[IN4217] Advanced Practical Course - Control of modular robots  	-	10	1
[IN4355] Masterpraktikum - Reinforcement Learning and Benchmarking for Modular Robots  	-	10	1
[IN4307] Masterpraktikum - Reinforcement Learning for Robotics  	-	10	1

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[IN4373] Masterpraktikum - Robotic manipulation via Reinforcement Learning  	-	10	1
[IN4327] Masterpraktikum - Robotics Intelligence Lab Course  	-	10	1
[IN4386] Masterpraktikum - Safe Reinforcement Learning for Modular Robots  	-	10	1
[IN4347] Master-Praktikum - Shape Reconstruction and Matching in Computer Vision  	-	10	1
[IN4348] Masterpraktikum - Simulation-Based Autonomous Driving in Crowded City  	-	10	1
[IN4328] Masterpraktikum - Simulation-Based Machine Learning in Robotics  	-	10	1
[IN4252] Masterpraktikum - Software Engineering in Robotics  	-	10	1
[IN212816] Advanced Practical Course - Supportive Process Automation and Worker Assistance  	-	10	1
[IN4303] Advanced Practical Course - Sustainable Process Automation: Humans, Software and the Mediator Pattern  	-	10	1
[IN4268] Masterpraktikum - Tools and Model-Driven Approach for Robotics Perception  	-	10	1
[IN4295] Master-Praktikum - Tracking and Detection in Computer Vision  	-	10	1
[IN4329] Masterpraktikum - Vehicle E/E Architecture Synthesis  	-	10	1
[IN4269] Masterpraktikum - Verification, Controller Synthesis, and Design of Cyber-Physical Systems  	-	10	1
[IN4279] Masterpraktikum - Verification, Controller Synthesis, and Design of Cyber-Physical Systems  	-	10	1
[IN4270] Masterpraktikum - Vision-Based Navigation and Learning for Autonomous Vehicles  	-	10	1
[IN4271] Masterpraktikum - Visual Servoing for a Multi-DoFs Robot  	-	10	1
[IN4253] Masterpraktikum - 3D Laser Scanning and Calibration with Robot Arms  	-	10	1
[IN4330] Masterpraktikum: Applied Locomotion and Full-Body Control on Elastic Quadrupeds  	-	10	1
[IN4331] Master Practical Course: Artificial limbs - Design and control  	-	10	1
[IN4124] Advanced Practical Course Automotive Software Engineering  	-	10	1
[IN4272] Master Practical Course: Edge Computing  	-	10	1
[IN710615W] Advanced Practical Course Games Engineering: Computer Graphics and Visualization  	-	10	1
[IN710615S] Advanced Practical Course Games Engineering: Computer Graphics and Visualization  	-	10	1
[IN710624S] Masterpraktikum Games Engineering: Connected Mobility  	-	10	1
[IN710606W] Advanced Practical Course Games Engineering: Robotics and Embedded Systems  	-	10	1
[IN710606S] Advanced Practical Course Games Engineering: Robotics and Embedded Systems  	-	10	1
[IN710605W] Advanced Practical Course Games Engineering: Scientific Computing  	-	10	1

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[IN710605S] Advanced Practical Course Games Engineering: Scientific Computing  	-	10	1
[IN4302] Master Practical Course: Knowledge-based Training Planning Solving  	-		1
[IN4387] Masterpraktikum: Learning Robotic Skills from Demonstration  	-	10	1
[IN4356] Master-Praktikum: Resilient Cognitive Systems  	-	10	1
[IN4254] Master-Praktikum: User-centered Design of Applications on Public Displays  	-	10	1
[IN4273] Master-Praktikum - Learning for self-driving cars and intelligent systems  	-	10	1
[IN4280] M.Sc. Praktikum: Modern Wave Propagation - Discontinuous Galerkin & Julia  	-	10	1
[IN4317] Practical Course - Analysis of new phenomena in machine/deep learning  	-	10	1
[IN40010] Practical Course - Deep Learning for Human Modelling  	-	10	1
[IN4906_8] Practical Course - Human-Centered Computing: applications in natural language processing, network science, machine learning, and AI  	-	10	1
[IN212819] Practical Course - JavaScript Technology  	-	10	1
[IN4332] Practical Course - Profiling & Tuning Large Functional Programs  	-	10	1
[IN4236] Practical course - Program optimization with LLVM  	-	10	1
[IN4318] Practical Course - Recent Advances in Model Checking  	-	10	1
[IN212811] Practical Course - Server-Side Swift  	-	10	1
[IN4357] Practical Course - Technical Project Leadership  	-	10	1
[IN4358] Practical Course: Data Structure Engineering  	-	10	1
[IN4319] Practical Course: Deep Learning for 3D Perception  	-	10	1
[IN4344] Practical Course: Hands-on Recommender Systems  	-	10	1
[IN4359] Practical Course: High-Performance Query Processing  	-	10	1
[IN4308] Practical Course: Open Source Lab  	-	10	1
[IN40011] Practical Course Projects in Recommender Systems  	-	10	1
[IN4374] Praktikum - A Hands-on Introduction to Deep Reinforcement Learning  	-	10	1
[IN4375] Praktikum - Advanced Algorithms in Competitive Programming Problems  	-	10	1
[IN4195] Advanced Practical Course - Advanced Machine Learning in Neurorobotics  	-	10	1
[IN4363] Praktikum - Advanced Reconstruction Methods in X-ray CT using Stochastic Gradient Methods  	-	10	1
[IN4218] Advanced Practical Course - Advanced Roboy Student Team  	-	10	1
[IN4349] Practical Course - Applied Optimization Methods for Inverse Problems  	-	10	1
[IN4376] Praktikum - Autonomous Driving  	-	10	1
[IN4231] Practical course - Building a modular robot  	-	10	1
[IN4004] Advanced Practical Course Operating Systems - Google Android  	-	10	1

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[IN4258] Practical Course - Operating Systems - L4-Microkernels  	-	10	1
[IN4296] Practical Course - Operating Systems - seL4 & TRENTOS  	-	10	1
[IN4219] Advanced Practical Course - Motion Prediction of Traffic Participants  	-	10	1
[IN4274] Practical Course - Building Smart Services for a Tourism Platform  	-	10	1
[IN4350] Praktikum - Cognitive Robotics  	-	10	1
[IN40012] Praktikum - Dataset Generation for Human Robot Interaction  	-	10	1
[IN4259] Practical Course - Deep Learning from Scratch in C++  	-	10	1
[IN4197] Advanced Practical Course - Design of an Automated Bicycle  	-	10	1
[IN4187] Advanced Practical Course - Development and Control of a Bio-snake Robot  	-	10	1
[IN4309] Praktikum - Development of Biologically-inspired and Conventional AI Methods for Autonomous Robots  	-	10	1
[IN4185] Advanced Practical Course Energy Informatics  	-	10	1
[IN4292] Practical Course - Creation of Deep Learning Methods  	-	10	1
[IN4377] Praktikum - Execution Platform Development  	-	10	1
[IN4237] From Sensors to Driving Functions - develop your own car  	-	10	1
[IN4310] From Sub-Systems to Systems of Systems – Developing Autonomous Driving Functions  	-	10	1
[IN4333] Fusion of Quantum Computing and Compiler Design  	-	10	1
[IN213006] Practical Course - Business Process Simulation and Optimization  	-	10	1
[IN4186] Advanced Practical Course - Image Reconstruction and Visualization using C++  	-	10	1
[IN4243] Praktikum - Imaging Data Quality Assurance through Continuous Integration Services  	-	10	1
[IN4304] Practical course - Implementation of Process Mining Algorithms: Transformative Business Knowledge  	-	10	1
[IN4234] Practical Course - Interactive Learning  	-	10	1
[IN4240] Practical Course - Internet Lab - llabX  	-	10	1
[IN4334] Praktikum - Introduction to Model-based System Engineering – Develop Your Own Car  	-	10	1
[IN4049] Practical Course iOS  	-	10	1
[IN4361] Praktikum - Large Scale Software Architectures: Analysis, Design, and Implementation  	-	10	1
[IN4192] Advanced Practical Course - Large-Scale Graph Analytics and Machine Learning  	-	10	1
[IN4335] Praktikum - Low-Level Software Security  	-	10	1
[IN4293] Practical Course - Contributing to an Open-Source Project  	-	10	1
[IN4382] Praktikum - Proof Assistants in Practice  	-	10	1
[IN4351] Praktikum - Reinforcement and Feature Learning for Robotic Manipulators  	-	10	1

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[IN4189] Advanced Practical Course - Securing Android  	-	10	1
[IN40013] Praktikum - Software for Visual Arts or Music  	-	10	1
[IN4301] Practical Course - Static Analysis: Automated Bug Hunting and Beyond  	-	10	1
[IN40014] Practical Course - Static Analysis: Do Not Stop at the Octagon  	-	10	1
[IN40015] Practical Course - Static Analysis: Strengthen Equalities by Relaxing Polyhedra  	-	10	1
[IN40016] Practical course - Static Analysis: Strong Results with Weak Relations  	-	10	1
[IN4260] Praktikum - Trusted Execution Environments and Software Security  	-	10	1
[IN4174] Advanced Practical Course - Visual Navigation  	-	10	1
[IN4341] Praktikum - 4D Sparse Capturing of Moving Zebrafish using Light Field Microscopy  	-	10	1
[IN4087] Advanced Practical Course Advanced Project Management  	-	10	1
[IN4320] Practicum: Advanced Python Programming  	-	10	1
[IN4378] Praktikum: Advanced Systems Programming  	-	10	1
[IN212813] Praktikum: Advanced Systems Programming in C/Rust  	-	10	1
[IN4172] Practical Course Advanced Techniques in Binary Exploitation  	-	10	1
[IN4336] Praktikum: Advanced Testing of Deep Learning Models - Towards Robust AI  	-	10	1
[IN4388] Praktikum: Advances in Testing Automated Driving Systems  	-	10	1
[IN4206] Advanced Practical Course Agile Project Management  	-	10	1
[IN4032] Advanced Practical Course Algorithms in Programming Contests  	-	10	1
[IN4205] Advanced Practical Course Algorithms for Programming Contests  	-	10	1
[IN4173] Practical Course Anomaly Detection Challenge  	-	10	1
[IN4073] Advanced Practical Course - Augmented Reality Applications  	-	10	1
[IN4131] Advanced Practical Course Operating Systems - Google Android  	-	10	1
[IN4156] Advanced Practical Course Operating Systems  	-	10	1
[IN4183] Advanced Practical Course BioInnovation - From an unmet clinical need to a promising concept (IN2106)  	-	10	1
[IN4212] Advanced Practical Course Blockchain Technology for Public Sector Innovation  	-	10	1
[IN4207] Advanced Practical Course Cloud Computing  	-	10	1
[IN4163] Advanced Practical Course Cloud Data Bases  	-	10	1
[IN4360] Praktikum: Cloud Software Engineering  	-	10	1
[IN212815] Praktikum: Cloud Systems Engineering  	-	10	1
[IN4018] Practical Course Compiler Construction  	-	10	1
[IN4340] Praktikum: Computer Systems Lab  	-	10	1
[IN4379] Praktikum: Container Security  	-	10	1
[IN4226] Advanced Practical Course Creating the Autonomous Crane of the Future  	-	10	1

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[IN4285] Praktikum: Data Analytics for Cyber-Physical Systems: Automatic Failure Diagnosis  	-	10	1
[IN4066] Advanced Practical Course Data Mining  	-	10	1
[IN4006] Advanced Practical Course Database Systems  	-	10	1
[IN4155] Advanced Practical Course Deep Learning for the Real World  	-	10	1
[IN4204] Practical Course - Hands-on Deep Learning for Computer Vision and Biomedicine  	-	10	1
[IN4282] Practical Course: Deep Learning in Visual Computing  	-	10	1
[IN212808] Advanced Practical Course Design Thinking for Business Innovation 1  	-	10	1
[IN4220] Advanced Practical Course Deterministic Networking Lab  	-	10	1
[IN4389] Praktikum: Development and Testing of Microservice Systems  	-	10	1
[IN4176] Practical Course Distributed Data Mining  	-	10	1
[IN4339] Praktikum: Distributed Systems Management  	-	10	1
[IN4275] Praktikum: Ethical Software and Systems Engineering  	-	10	1
[IN4294] Practical Course: Experimental Evaluation of modern Computing Systems and Accelerators  	-	10	1
[IN4201] Advanced Practical Course Evolutionary Generation of Test Scenarios for Autonomous Driving  	-	10	1
[IN4390] Praktikum: Experimental Evaluation and Characterization of Quantum Computing Systems  	-	10	1
[IN4238] Praktikum: Exploring the Relationship between Design Metrics and Software Diagnosability using Machine Learning  	-	10	1
[IN4242] Practical Course: Advanced Topics in Computer Architecture and Parallel Systems  	-	10	1
[IN4214] Advanced Practical Course From Sensors to Driving Functions - Develop Your Own Car  	-	10	1
[IN4102] Advanced Practical Course GPU Programming in Computer Vision  	-	10	1
[IN4120] Advanced Practical Course Hacking - Binary-Exploitation  	-	10	1
[IN4255] Praktikum: Hacking Automotive Networks  	-	10	1
[IN4154] Practical Course HW/SW co-design with a LEGO car  	-	10	1
[IN4146] Practical Course Implementation of Database Systems  	-	10	1
[IN4225] Advanced Practical Course Integrating a Cloud Solution - OEM  	-	10	1
[IN4239] Practical course IoT - Construction of a sensor network  	-	10	1
[IN4224] Advanced Practical Course IoT (Internet of Things)  	-	10	1
[IN4008] Advanced Practical Course IT-Security - Honeynet  	-	10	1
[IN4227] Advanced Practical Course Machine Learning for Software Testing  	-	10	1
[IN4142] Advanced Practical Course Machine Learning in Medical Imaging  	-	10	1
[IN4210] Advanced Practical Course Motion Planning and Control for Robotic Manipulators  	-	10	1

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[IN4221] Advanced Practical Course Motion Planning for Autonomous Vehicles  	-	10	1
[IN4222] Advanced Practical Course Multi-Camera Computer Vision and Algorithms  	-	10	1
[IN4048] Advanced Practical Course - Efficient Programming of Multicore Systems and Supercomputers  	-	10	1
[IN4215] Advanced Practical Course Networked Multimedia Systems  	-	10	1
[IN4313] Praktikum on 3D Computer Vision  	-	10	1
[IN4311] Praktikum: Operating Systems Management  	-	10	1
[IN4209] Advanced Practical Course Perception and Learning for Robotics and Augmented Reality  	-	10	1
[IN4216] Advanced Practical Course Physical Models for Computed Tomography  	-	10	1
[IN4136] Advanced Practical Course Project Management and Software Development for Medical Applications  	-	10	1
[EI78030_IN] Praktikum Robot Modelling and Identification  	-	10	1
[IN4188] Advanced Practical Course Roboy Student Team  	-	10	1
[IN4352] Praktikum: Robust DevOps: Exploring Stability Factors for UI Tests  	-	10	1
[IN4113] Advanced Practical Course Root-Kit Programming  	-	10	1
[IN4208] Advanced Practical Course Safe Human-Robot Co-Existence  	-	10	1
[IN4391] Praktikum: Scenario-Based Testing of Cyber-Physical Systems  	-	10	1
[IN4085] Advanced Practical Course Scientific Computing  	-	10	1
[IN4230] Advanced Practical Course Scientific Computing - High-Performance Computing  	-	10	1
[IN4228] Advanced Practical Course Search-Based Test Scenario Generation for Autonomous Driving  	-	10	1
[IN4202] Advanced Practical Course Secure Coding  	-	10	1
[IN4211] Advanced Practical Course Sensor Model-Based Autonomous Driving  	-	10	1
[IN4362] Practical Course: Serious Games in Extended Reality  	-	10	1
[IN4223] Advanced Practical Course Simulation and Visualization of Mobile Robotic Intralogistic Problems  	-	10	1
[IN4257] Smart Self-Adaptive Cyber-Physical Systems - A road towards Autonomous Systems  	-	10	1
[IN4213] Advanced Practical Course Software Integrity Protection  	-	10	1
[IN4035] Advanced Practical Course Specification and Verification  	-	10	1
[IN4203] Advanced Practical Course Summer Class Do-It-Yourself Networking  	-	10	1
[IN4312] Praktikum: Swiss-knife for Computer Systems  	-	10	1
[IN4135] Advanced Practical Course System Administration  	-	10	1
[IN4321] Praktikum: Systems Management and Engineering  	-	10	1
[IN4380] Praktikum: Testing Microservice Systems  	-	10	1
[IN4276] Practical Course - Virtual Reality  	-	10	1
[IN4161] Advanced Practical Course Web Application Security  	-	10	1

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[IN4337] Praktikum: Web-Visualisierung von Netzwerkgraphen  	-	10	1
[IN212805] Practical Course White-collar hacking contest  	-	10	1
[IN4013] Advanced Practical Course XML-Technologies  	-	10	1
[CIT431IN00] Quantum Computing Software Lab  	-	10	1
[CIT431_IN] Remote Machine Intelligence Lab  	-	10	1
[IN4256] Systems Programming in C++  	-	10	1
Advanced Practical Course - Blockchain technology for public sector innovation (IN2106, IN4212)  	-		1
Advanced Practical Course - From Sensors to driving functions - develop your own car (IN0012, IN2106, IN4214)  	-		1
Advanced Practical Course - Applied AI (IN2106, IN4399)  	-		1
Advanced Practical Course - Data-based Testing of Process-Centric Information Systems IN2106, IN4392)  	-		1
Advanced Practical Course - Data-based Testing of Process-Centric Information Systems (IN2106, IN4392)  	-		1
Advanced Practical Course - Enterprise Cloud Platform Operations - On the Example of SAP (IN2106, IN2128, IN212809)  	-		1
Advanced Practical Course - Message Correlation and Inter-Instance/Process Communication in Process Aware Information Systems (IN2106, IN2130)  	-		1
Advanced Practical Course - Retrieval Augmented Generation: Enhancing LLMs with internal knowledge (IN2106, IN4364)  	-		1
Advanced Practical Course - Run-Time Data Visualization for Business Processes (IN2106, IN2128)  	-		1
Advanced Practical Course - Solving Information Systems Problems Through Data Science Methods (IN2106, IN2130)  	-		1
Advanced Practical Course - There and Back Again - Foundations and Applications of Process (Re-)Discovery with Petri Nets and Process Trees (IN2106, IN2128)  	-		1
Advanced Practical Course Deep Learning for Audio, Speech, and Language (IN2106, IN40017)  	-		1
Advanced Practical Course Machine Learning for Health (IN2106, IN40018)  	-		1
Applied Deep Learning in Medicine (IN2106, IN4314)  	-		1
Development of LLM-driven GUI Agents (IN2106, IN40003)  	-		1
Dodo Alive! - Resurrecting the Dodo with Robotics and AI: Simulation & Control  	-		1
Practical Course: Big Data Analytics - Development of Innovative Applications at the Example of SAP HANA (IN2128, IN2106, IN212802)  	-		1
Computer Lab Internet-Based Information Systems (IN2131, IN2106)  	-		1
Practical Course Software Engineering for Business Information Systems - Web Applications (IN2106, IN2129)  	-		1
Practical Course Enterprise Software (IN2128, IN2106, IN212803)  	-		1
Advanced Practical Lab Course for Enterprise Software - Enterprise Services - Software Development on the Example of SAP ABAP (IN2128, IN2106, IN212801)  	-		1

Node filter-Name	rec. sem.	Credits	WF
From Sub-Systems to Systems of Systems – Developing Autonomous Driving Functions (IN0012, IN2106, IN4310)  	-	1	
GPU-Pro (Computer Games Laboratory (IN7106) / Informatics Master Practical (IN2106, IN4393))  	-	1	
Intelligent Machine Design Lab: Advanced System Design  	-	1	
IN2106 Cybathlon Challenge: Mechanism Design & Control  	-	1	
IN2106 Cybathlon Challenge: Task Control & User Experiments  	-	1	
IN2106 Dodo Alive! - Resurrecting the Dodo with Robotics and AI: HW/SW Components Development  	-	1	
IN2106 Dodo Alive! - Resurrecting the Dodo with Robotics and AI: Mechanism Design & Control  	-	1	
IN2106 Intelligent Machine Design Lab: Basic System Design  	-	1	
IN2106 Intelligent Machine Programming Lab  	-	1	
IN2106 Praktikum Robot Modelling and Identification  	-	1	
IN2106 Quantum Computing Software Lab  	-	1	
IN2106 Remote Machine Intelligence Lab  	-	1	
Machine learning for clinical decision support in radiology (IN0012, IN2106, IN4284)  	-	1	
Master - Praktikum - Deep Learning for Spatial AI (IN2016, IN40005)  	-	1	
Master - Praktikum - 3D Shape Analysis and Virtual Humans Applications (IN2106, IN40006)  	-	1	
Master Lab Course – Ethical AI: Problems and Applications (IN2106, IN4297)  	-	1	
Master Lab Course - Explainable AI for Machine Learning (IN2106, IN4286)  	-	1	
Master Practical Course - Legal Data Analysis Lab (IN2106, IN4316)  	-	1	
Master Practical Course: Computer Network Simulation (IN2106, IN4324)  	-	1	
Master Practical Course: Edge Computing and the Internet of Things (IN2106, IN4261)  	-	1	
Master Practical Course: Internet Measurements and Reproducibility Lab (IN2106, IN4262)  	-	1	
Master Practicum: Ethically Implementing and Practicing Inverse Transparency – A new form of data privacy (IN2106, IN4277)  	-	1	
Master Praktikum: Advanced Testing of Deep Learning Models: Towards Robust AI (IN2106, IN4369)  	-	1	
Master Praktikum - Hacking Greybox Fuzzers to Spot Software Vulnerabilities (IN2106, IN4232)  	-	1	
Advanced Practical Course - Software Integrity Protection (IN2106, IN4213)  	-	1	
Master Praktikum: Agile Entwicklung eines Lernassistenten auf Basis von generativer KI (IN2106, IN2128, IN4368)  	-	1	
Master Praktikum: Approaching Information System Challenges with Natural Language Processing (IN2106, IN2130)  	-	1	
Master Praktikum: Automatic Diagnosis of Drone Crashes (IN2106, IN4250)  	-	1	

Node filter-Name	rec. sem.	Credits	WF
Master Practical: Accelerating Convolutional Neural Networks using Programmable Logic (IN2106, IN4345)  	-	1	
Master Praktikum: Integrating a cloud solution based on a corporate security and storage infrastructure of an automotive OEM (IN2106, IN4225)  	-	1	
Master Praktikum: Mikroservice Integrity Protection (IN2106, IN4233)  	-	1	
Praktikum: 3D Scanning & Spatial Learning (IN2106, IN4263)  	-	1	
Masterpraktikum - Development of a Modular Construction Robots (IN2106, IN40007)  	-	1	
Master Lab Course - Advanced Roboy Student Team (IN2106, IN4218)  	-	1	
Master-Praktikum - Advanced Topics in 3D Computer Vision (IN2106, IN4023)  	-	1	
Master-Praktikum - Applied Foundation Models in Computer Vision (IN2106, IN4370)  	-	1	
Master Lab Course - Applications in Natural Language Processing (NLP)  	-	1	
Advanced Practical Course - Application Challenges for Machine Learning on the Example of IBM Power AI (IN2128, IN2106, IN212810)  	-	1	
Masterpraktikum - Applications for analysis of integrated circuit layout images (IN2106, IN0012, IN4298)  	-	1	
Masterpraktikum - Aufbau eines Service Roboters unter ROS Umgebung (IN2106, IN4264)  	-	1	
Master Practical Course - Augmented Reality Applications (IN2106, IN4073)  	-	1	
Advanced Practical Course - Automotive Software Entwicklung (IN2106, IN4124)  	-	1	
Masterpraktikum - Autonomous Aerial Robotics Challenge (IN2106, IN4398)  	-	1	
Masterpraktikum - Autonomous driving for mobile service robots (IN2106, IN4299)  	-	1	
Masterpraktikum - Autonomous Mobile Robots for Unstructured Environments (IN2106, IN4383)  	-	1	
Advanced Practical Course - Operating Systems - Google Android Practical Course (IN2106, IN4131)  	-	1	
Master-Praktikum - Beyond Deep Learning: Uncertainty Aware Models (IN2106, IN4278)  	-	1	
Master Practical Course - Biolnnovation: from unmet clinical needs to solution concepts (IN2106, IN8021)  	-	1	
Model Development in Biomechanics (IN4247)  	-	1	
Master Labcourse - Build Your Own Demonstration Platform for Autonomous Cars (IN2106, IN4241)  	-	1	
Masterpraktikum - Building an Autonomous Truck (IN2106, IN40008)  	-	1	
Masterpraktikum - Building Autonomous Agents and Bots: Applications on the Web and Beyond (IN2106, IN40009)  	-	1	
Advanced Practical Course – Building Digital Workflows with the Enterprise Platform ServiceNow (IN2106, IN4283)  	-	1	
Advanced Practical Course - Business Intelligence (IN2128, IN2106, IN212804)  	-	1	
Masterpraktikum - Cloud-Based Machine Learning in Robotics (IN2106, IN0012, IN4287)  	-	1	

Node filter-Name	rec. sem.	Credits	WF
Master Labcourse - Cognitive Robotics Implementation Challenge (IN2106, IN4243)  	-	1	
Master Labcourse - Cognitive Robotics Implementation Challenge (IN2106, IN4244)  	-	1	
Master-Praktikum - Computational Surgineering (IN2106, IN4325)  	-	1	
Practical course: Correspondence and Matching Problems in Computer Vision (IN2106, IN4288)  	-	1	
Practical Course - Deep Computer Vision (IN2106, IN4248)  	-	1	
Advanced Practical Course - Deep learning for the real world (IN2106, IN4155)  	-	1	
Masterpraktikum - Deep Learning in Robotics (IN2106, IN4354)  	-	1	
Master Practical Course - Design of an automated bicycle (IN2106, IN4197)  	-	1	
Advanced Practical Course - Design Thinking for Business Innovation (IN2106, IN4200)  	-	1	
Advanced Practical Course Deterministic Networking Lab (IN2106, IN4220)  	-	1	
Masterpraktikum - Developing a Resource Planning Platform for Autonomous Vehicles (IN2106, IN0012, IN4289)  	-	1	
Masterpraktikum - Development of Biologically-inspired Methods for Autonomous Driving (IN2106, IN0012, IN4300)  	-	1	
Master Practical Course - Digital Product Innovation and Development (IN2106, IN4381)  	-	1	
Advanced Practical Course Distributed Data Mining (IN2106, IN4066)  	-	1	
Master Practical Course - Distributed Data Mining Lab Course (IN2106, IN4176)  	-	1	
Masterpraktikum – Embedded Web-Radio Development in C on ARM (IN2106, IN4265)  	-	1	
Advanced Practical Course - Enterprise Services: Software Development on the Example of SAP ABAP (IN2128, IN2106, IN212801)  	-	1	
Master-Praktikum - Advanced Medical Augmented Reality (IN2106, IN4372)  	-	1	
Masterpraktikum - Formal Methods for AI-Enabled Cyber-Physical Systems (IN2106, IN4385)  	-	1	
Master-Praktikum - Advanced Praktikum for Deep Learning for Video Analysis (IN2106, IN4266)  	-	1	
Advanced Practical Course - Future Business Labs (IN2106, IN2128, IN212807)  	-	1	
Master-Praktikum - Geometric Scene Understanding (IN2106, IN4346)  	-	1	
Advanced Practical Course - GPU Programming in Computer Vision (IN2106, IN4102)  	-	1	
Masterpraktikum - Hyperautomation: Computer Science for the Startup Singularity (IN2106, IN0012, IN4326) 	-	1	
Master Lab Course - Implementation of IEEE 1588 protocol (PTP Slaves) on embedded devices (IN2106, IN4245)	-	1	
Masterpraktikum - Intelligent Mobile Robots with ROS (IN2106, IN4290)	-	1	
Advanced Practical Course - IoT Services: Anwendungsentwicklung am Beispiel von SAP Leonardo (IN2128, IN2106)	-	1	

Node filter-Name	rec. sem.	Credits	WF
Master Practical Course IT-Sicherheit - Honeynet (IN2106, IN0012, IN4008)  	-		1
Masterpraktikum - Machine Learning for Smart Grids (IN2106, IN4342)  	-		1
Advanced Practical Course - Machine Learning for Information Systems Students (IN2106, IN2128)  	-		1
Master-Praktikum - Machine Learning in Crowd Modeling & Simulation (IN2106, IN4267)  	-		1
Master Practical Course - Machine Learning in Medical Imaging (IN2106, IN4142)  	-		1
Master Lab Course - Efficient Programming of Multicore Systems and Supercomputers (IN2106, IN4048)  	-		1
Master practical course - Micromouse: Designing an Educational Racing-Robot from Scratch (IN2106, IN4235)  	-		1
Masterpraktikum - Modular Robotics (IN0012, IN2106, IN4291)  	-		1
Advanced Practical Course- Motion planning for autonomous vehicles (IN2106, IN4221)  	-		1
Advanced Practical Course - Multi-Camera Computer Vision and Algorithms (IN2106, IN4222)  	-		1
Advanced Practical Course - Perception and Learning for Robotics and Augmented Reality (IN2106, IN4209)  	-		1
Masterpraktikum - Planning Robust Behavior for Autonomous Driving (IN2106, IN4251)  	-		1
Master-Praktikum - Mobile Robotics Practicals (IN2106, IN4306)  	-		1
Advanced Practical Course - Control of modular robots (IN2106, IN4217)  	-		1
Masterpraktikum - Reinforcement Learning and Benchmarking for Modular Robots (IN2106,IN0012, IN4355)  	-		1
Masterpraktikum - Reinforcement Learning for Robotics (IN2106, IN4307)  	-		1
Masterpraktikum - Robotic manipulation via Reinforcement Learning (IN2106, IN4373)  	-		1
Masterpraktikum - Robotics Intelligence Lab Course (IN2106, IN4327)  	-		1
Advanced Practical Course - Safe Human-Robot Co-Existence (IN2106, IN4208)  	-		1
Masterpraktikum - Safe Reinforcement Learning for Modular Robots (IN2106, IN4386)  	-		1
Master-Praktikum - Shape Reconstruction and Matching in Computer Vision (IN2106, IN4347)  	-		1
Masterpraktikum - Simulation and Visualization of mobile robotic intralogistic problems (IN2106, IN4223)  	-		1
Masterpraktikum - Simulation-Based Autonomous Driving in Crowded City (IN2106, IN4348)  	-		1
Masterpraktikum - Simulation-Based Machine Learning in Robotics (IN0012, IN2106, IN4328)  	-		1
Masterpraktikum - Software Engineering in Robotics (IN2106, IN4252)  	-		1
Practical Course - Specification und Verification (IN2106, IN4035)  	-		1

Node filter-Name	rec. sem.	Credits	WF
Advanced Practical Course - Supportive Process Automation and Worker Assistance (IN2128, IN2106)  	-	1	
Advanced Practical Course - Sustainable Process Automation: Humans, Software and the Mediator Pattern (IN2128, IN2106, IN4303)  	-	1	
Masterpraktikum - Tools and Model-Driven Approach for Robotics Perception (IN2106, IN4268)  	-	1	
Master-Praktikum - Tracking and Detection in Computer Vision (IN2106, IN4295)  	-	1	
Masterpraktikum - Vehicle E/E Architecture Synthesis (IN2106, IN4329)  	-	1	
Masterpraktikum - Verification, Controller Synthesis, and Design of Cyber-Physical Systems (IN2106, IN4269)  	-	1	
Masterpraktikum - Verification, Controller Synthesis, and Design of Cyber-Physical Systems (IN2106, IN4279)  	-	1	
Masterpraktikum - Vision-Based Navigation and Learning for Autonomous Vehicles (IN2106, IN4270)  	-	1	
Masterpraktikum - Visual Servoing for a Multi-DoFs Robot (IN2106, IN4271)  	-	1	
Masterpraktikum - 3D Laser Scanning and Calibration with Robot Arms (IN2106, IN4253)  	-	1	
Masterpraktikum: Applied Locomotion and Full-Body Control on Elastic Quadrupeds (IN2106, IN4330)  	-	1	
Master Practical Course: Artificial limbs - Design and control (IN2106, IN4331)  	-	1	
Master Practical Course: Edge Computing (IN2106, IN4272)  	-	1	
Advanced Practical Course IoT (Internet of Things) (IN2106, IN4224)  	-	1	
Master Practical Course: Knowledge-based Training Planning Solving (IN2106, IN4302)  	-	1	
Masterpraktikum: Learning Robotic Skills from Demonstration (IN2106, IN4387)  	-	1	
Master-Praktikum: MediInnovate Graduate Programme (IN2106, IN8021, IN4183) 	-	1	
Advanced Practical Course Networked Multimedia Systems (IN2106, IN4215)  	-	1	
Master-Praktikum: Resilient Cognitive Systems (IN2106, IN4356)  	-	1	
Advanced Practical Course : Scientific Computing: CFD (IN2106, IN2186, IN2182, IN4085)  	-	1	
Master-Praktikum: User-centered Design of Applications on Public Displays (IN2106, IN4254)  	-	1	
Advanced Practical Course Vision-based Navigation (IN2106)  	-	1	
Practical Course - Vision-based Navigation (IN2106, IN4174)  	-	1	
Master-Praktikum - Learning for self-driving cars and intelligent systems (IN2106, IN4273)  	-	1	
M.Sc. Praktikum: Modern Wave Propagation - Discontinuous Galerkin & Julia (IN2106, IN4280)  	-	1	
Practical Course - Analysis of new phenomena in machine/deep learning (IN2106, IN4317)  	-	1	
Practical Course - Deep Learning for Human Modelling (IN0012, IN2106, IN40010)  	-	1	

Node filter-Name	rec. sem.	Credits	WF
Practical Course - Human-Centered Computing: applications in natural language processing, network science, machine learning, and AI (IN0012, IN2106, IN4906_8)  	-	1	
Practical Course - JavaScript Technology (IN0012, IN2106, IN2175, IN2128)  	-	1	
Practical Course - Profiling & Tuning Large Functional Programs (IN2106, IN0012, IN4332)  	-	1	
Practical course - Program optimization with LLVM (IN0012, IN2106, IN4236)  	-	1	
Practical Course - Recent Advances in Model Checking (IN0012, IN2106, IN4318)  	-	1	
Practical Course - Server-Side Swift (IN0012, IN2106, IN212811)  	-	1	
Practical Course - Technical Project Leadership (IN0012, IN2106, IN4357)  	-	1	
Practical Course: Data Structure Engineering (IN0012, IN2106, IN4358)  	-	1	
Practical Course: Deep Learning for 3D Perception (IN2106, IN4319)  	-	1	
Practical Course: Hands-on Recommender Systems (IN0012, IN2106, IN4344)  	-	1	
Practical Course: High-Performance Query Processing (IN0012, IN2106, IN4359)  	-	1	
Practical Course: Open Source Lab (IN0012, IN2106, IN4308)  	-	1	
Practical Course Projects in Recommender Systems (IN0012, IN2106, IN40011)  	-	1	
Praktikum - A Hands-on Introduction to Deep Reinforcement Learning (IN2106, IN0012, IN4374)  	-	1	
Praktikum - Advanced Algorithms in Competitive Programming Problems (IN0012, IN2106, IN4375)  	-	1	
Praktikum - Advanced Reconstruction Methods in X-ray CT using Stochastic Gradient Methods (IN0012, IN2106, IN4363)  	-	1	
Practical Course - Agile Project Management (IN0012, IN2106, IN2175, IN4087)  	-	1	
Practical Course - Agile Project Management (IN0012, IN2106, IN2175, IN4206)  	-	1	
Practical Course - Algorithms for Programming Contests (IN0012, IN2106, IN4205)  	-	1	
Selected Topics in Android Security (IN2106, IN0012, IN4189)  	-	1	
Practical Course - Applied Optimization Methods for Inverse Problems (IN0012, IN2106, IN4349)  	-	1	
Praktikum - Autonomous Driving (IN2106, IN0012, IN4376)  	-	1	
Practical course - Building a modular robot (IN0012, IN2106, IN4231)  	-	1	
Practical Course - Operating Systems - Google Android Practical Course (IN0012, IN2106, IN4004)  	-	1	
Practical Course - Operating Systems - Linux and L4-Microkernel (IN0012, IN2106, IN4156)  	-	1	
Practical Course - Operating Systems - L4-Microkernels (IN0012, IN2106, IN4258)  	-	1	
Practical Course - Operating Systems - seL4 & TRENTOS (IN0012, IN2106, IN4296)  	-	1	
Praktikum - Motion Prediction of Traffic Participants (IN0012, IN2106, IN4219)  	-	1	

Node filter-Name	rec. sem.	Credits	WF
Practical Course - Building Smart Services for a Tourism Platform (IN0012, IN2106, IN4274)  	-	1	
Praktikum - Cognitive Robotics (IN2106, IN0012, IN4350)  	-	1	
Praktikum - Dataset Generation for Human Robot Interaction (IN2106, IN0012, IN40012)  	-	1	
Practical Course - Database Systems (IN0012, IN2106, IN4006)  	-	1	
Practical Course - Deep Learning from Scratch in C++ (IN2106, IN0012, IN4259)  	-	1	
Practical Course - Hands-on Deep Learning for Computer Vision (IN2106, IN4204)  	-	1	
Praktikum - Development of Biologically-inspired and Conventional AI Methods for Autonomous Robots (IN2106, IN0012, IN4309)  	-	1	
Practical Course - Creation of Deep Learning Methods (IN0012, IN2106, IN4292)  	-	1	
Praktikum - Execution Platform Development (IN0012, IN2106, IN4377)  	-	1	
From Sensors to Driving Functions - develop your own car (IN0012, IN2106, IN4237)  	-	1	
Fusion of Quantum Computing and Compiler Design (IN0012, IN2106, IN4333)  	-	1	
Practical Course - Business Process Simulation and Optimization (IN0012, IN2106, IN2130)  	-	1	
Practical Course - Hacking - Binary-Exploitation (IN2106, IN0012, IN4120)  	-	1	
Lab course - HW/SW co-design with a LEGO car (IN2106, IN0012, IN4154)  	-	1	
Praktikum - Image Processing and Visualization using C++ (IN0012, IN2106, IN4186)  	-	1	
Praktikum - Imaging Data Quality Assurance through Continuous Integration Services (IN2106, IN4243)  	-	1	
Praktikum - Imaging Data Quality Assurance through Continuous Integration Services (IN2106, IN4952)  	-	1	
Practical course - Implementation of Process Mining Algorithms: Transformative Business Knowledge (IN0012, IN2106, IN2128, IN4304)  	-	1	
Practical Course - Implementation of Database Systems (IN0012, IN2106, IN4146)  	-	1	
Practical Course - Interactive Learning (IN0012, IN2106, IN2175, IN4234)  	-	1	
Practical Course - Internet Lab - llabX (IN0012, IN2106, IN4240)  	-	1	
Practical Course - Internet Lab - llab 1 (IN0012, IN2106, IN4060, IN8016)  	-	1	
Practical Course - Internet Lab ilab2 (IN0012, N2106, IN8903, IN4097)  	-	1	
Praktikum - Introduction to Model-based System Engineering – Develop Your Own Car (IN0012, IN2106, IN4334)  	-	1	
Practical Course - iPraktikum, iOS Praktikum (IN0012, IN2106, IN2175, IN2128, IN4049)  	-	1	
Praktikum - IT Service Automation (IN0012, IN2106, IN4147)  	-	1	
Praktikum - Large Scale Software Architectures: Analysis, Design, and Implementation (IN0012, IN2106, IN4361)  	-	1	

Node filter-Name	rec. sem.	Credits	WF
Practical Course - Large-Scale Machine Learning (IN2106, IN4192)  	-	1	
Praktikum - Low-Level Software Security (IN0012, IN2106, IN4335)  	-	1	
Advanced Practical Course - Motion Planning and Control for Robotic Manipulators (IN0012, IN2106, IN4210)  	-	1	
Practical Course - Contributing to an Open-Source Project (IN0012, IN2106, IN4293)  	-	1	
Advanced Practical Course - Physical Models for Computed Tomography (IN0012, IN2106, IN4216)  	-	1	
Advanced Practical Course - Project Management and Software Development for Medical Applications (IN2106, IN4136)  	-	1	
Praktikum - Proof Assistants in Practice (IN0012, IN2106, IN4382)  	-	1	
Praktikum - Reinforcement and Feature Learning for Robotic Manipulators (IN2106, IN0012, IN4351)  	-	1	
Advanced Practical Course - Roboy Student Team (IN2106, IN4188)  	-	1	
Practical Course - Root-Kit programming (IN0012, IN2106, IN4113)  	-	1	
Practical Course - Scientific Computing - High-Performance Computing (IN2106, IN4230, IN2397)  	-	1	
Advanced Practical Course - Sensor Model-Based Autonomous Driving (IN0012, IN2106, IN4211)  	-	1	
Praktikum - Software for Visual Arts or Music (IN0012, IN2106, IN40013)  	-	1	
Practical Course - Static Analysis: Automated Bug Hunting and Beyond (IN0012, IN2106, IN4301)  	-	1	
Practical Course - Static Analysis: Do Not Stop at the Octagon (IN0012, IN2106, IN40014)  	-	1	
Practical Course - Static Analysis: Strengthen Equalities by Relaxing Polyhedra (IN0012, IN2106, IN40015)  	-	1	
Practical course - Static Analysis: Strong Results with Weak Relations (IN0012, IN2106, IN40016)  	-	1	
Praktikum - Trusted Execution Environments and Software Security (IN2106, IN0012, IN4260)  	-	1	
Practical Course - Web Application Security (IN0012, IN2106, IN4161)  	-	1	
Praktikum - 4D Sparse Capturing of Moving Zebrafish using Light Field Microscopy (IN2106, IN4341)  	-	1	
Practicum: Advanced Python Programming (IN0012, IN2106, IN4320)  	-	1	
Praktikum: Advanced Systems Programming in C/Rust (IN0012, IN2106, IN2128)  	-	1	
Praktikum: Advanced Systems Programming (IN0012, IN2106, IN4378)  	-	1	
Practical Course Advanced Techniques in Binary Exploitation (IN2106, IN0012, IN4172)  	-	1	
Praktikum: Advanced Testing of Deep Learning Models - Towards Robust AI (IN0012, IN2106, IN4336)  	-	1	
Praktikum: Advances in Testing Automated Driving Systems (IN2106, IN4388)  	-	1	
Practical Course: Cloud Data Bases (IN0012, IN2106, IN4163)  	-	1	

Node filter-Name	rec. sem.	Credits	WF
Praktikum: Cloud Software Engineering (IN0012, IN2106, IN4360)  	-		1
Praktikum: Cloud Systems Engineering (IN0012, IN2106, IN2128)  	-		1
Practical Course Compiler Construction - CUP & Eclipse (IN0012, IN2106, IN4018)  	-		1
Praktikum: Computer Systems Lab (IN0012, IN2106, IN2128, IN4340)  	-		1
Praktikum: Container Security (IN0012, IN2106, IN4379)  	-		1
Advanced Practical Course: Creating the autonomous crane of the future (IN0012; IN2106, IN4226)  	-		1
Praktikum: Data Analytics for Cyber-Physical Systems: Automatic Failure Diagnosis (IN0012, IN2106, IN4285)  	-		1
Practical Course: Deep Learning in Visual Computing (IN2106, IN4282)  	-		1
Praktikum: Development and Testing of Microservice Systems (IN2106, IN4389)  	-		1
Praktikum: Distributed Systems Management (IN2106, IN4339)  	-		1
Practical Course: Energy Informatics (IN0012, IN2106, IN4185)  	-		1
Praktikum: Ethical Software and Systems Engineering (IN2106, IN0012, IN4275)  	-		1
Practical Course: Experimental Evaluation of modern Computing Systems and Accelerators (IN0012, IN2106, IN4294)  	-		1
Praktikum: Experimental Evaluation and Characterization of Quantum Computing Systems (IN0012, IN2106, IN4390)  	-		1
Praktikum: Exploring the Relationship between Design Metrics and Software Diagnosability using Machine Learning (IN2106, IN0012, IN4238)  	-		1
Practical Course: Advanced Topics in Computer Architecture and Parallel Systems (IN0012, IN2106, IN4242)  	-		1
Praktikum: Hacking Automotive Networks (IN0012, IN2106, IN4255)  	-		1
Practical course IoT - Construction of a sensor network (IN0012, IN2106, IN4239)  	-		1
Advanced Practical Course Machine Learning for Software Testing (IN0012; IN2106, IN4227)  	-		1
Praktikum on 3D Computer Vision (IN2106, IN4313)  	-		1
Praktikum: Operating Systems Management (IN0012, IN2106, IN4311)  	-		1
Praktikum: Robust DevOps: Exploring Stability Factors for UI Tests (IN0012, IN2106, IN4352)  	-		1
Praktikum: Scenario-Based Testing of Cyber-Physical Systems (IN0012, IN2106, IN4391)  	-		1
Advanced Practical Course Search-Based Test Scenario Generation for Autonomous Driving (IN0012; IN2106, IN4228)  	-		1
Practical Course: Serious Games in Extended Reality (IN0012, IN2106, IN4362)  	-		1
Smart Self-Adaptive Cyber-Physical Systems - A road towards Autonomous Systems (IN0012, IN2106, IN4257)  	-		1
Praktikum: Swiss-knife for Computer Systems (IN0012, IN2106, IN4312)  	-		1
Practical Course - Practical System Administration (IN0012, IN2106, IN4135)  	-		1
Praktikum: Systems Management and Engineering (IN0012, IN2106, IN4321)  	-		1

Node filter-Name	rec. sem.	Credits	WF
Praktikum: Testing Microservice Systems (IN2106, IN0012, IN4380)  	-		1
Practical Course - Virtual Reality (IN2106, IN4276)  	-		1
Praktikum: Web-Visualisierung von Netzwerkgraphen (IN0012, IN2106, IN4337)  	-		1
Practical Course (Project: System Development) - XML Technology (IN0012, IN2106, IN4013)  	-		1
Systems Programming in C++ (IN0012, IN2106, IN4256)  	-		1
Advanced Seminar Course   	5	1	
[IN2107] Advanced Seminar Course    	5	1	
[IN4909] Advanced Seminar Blockchain Technologies  	-	5	1
[IN4435] Advanced Seminar Large-Scale Graph Processing and Graph Partitioning  	-	5	1
[IN4427] Advanced Seminar Music Matching & Scalable Machine Learning  	-	5	1
[IN45062] Advanced Seminar: Topics in Natural Language Processing of Legal Text  	-	5	1
[IN4906_2] Applied Deep Learning for NLP  	-	5	1
[IN45064] aster Seminar: 3D Vision and Learning for Robotic Perception and Decision-Making  	-	5	1
[IN4950] Bachelor-/Master-Seminar – Applied Deep Learning for NLP  	-	5	1
[IN4424] Bachelor/Master-Seminar - Behavioral Insights in the Age of Big Data  	-	5	1
[IN4931] Bachelor/Master-Seminar - Deep Learning and Security  	-	5	1
[IN4968] Bachelor/Master-Seminar - Fairness in Machine Learning  	-	5	1
[IN4498] Bachelor/Master-Seminar - Making People Understand Facial Recognition Technologies: Building an AI Application as Didactic Tool  	-	5	1
[IN4990] Bachelor/Master-Seminar - Privacy-preserving Machine Learning  	-	5	1
[IN4989] Bachelor/Master-Seminar - Special Topics in Cyber Trust  	-	5	1
[IN4477] Bachelor/Master-Seminar - The EU's AI Act Proposal: From framework to concrete application  	-	5	1
[IN4932] Bachelor/Master-Seminar - Usable Security and Privacy  	-	5	1
[IN4600] Blockseminar - Innovative Internet-Technologien und Mobilkommunikation  	-	5	1
[SOT82509] CDR: Digital Future Challenge – Responsible AI  	-	5	1
[IN45044] Cloud Data Systems  	-	5	1
[IN4828] Advanced Seminar Course - Crowdsourcing and Gamification with Applications to Computer Vision  	-	5	1
[IN2183] CSE Hauptseminar ab WS17/18  	-	5	1
[IN45040] Data Analytics in Applications  	-	5	1
[IN4500] Deep Medical Anomaly Segmentation  	-	5	1
[IN4441] Formal Verification of Neural Networks  	-	5	1
[MW2400] Advanced Seminar for Safe Cyber-Physical Systems  	-	5	1
[IN45021] Foundations and Applications of Graph Neural Networks  	-	5	1

Node filter-Name	rec. sem.	Credits	WF
[IN45021] Foundations and Applications of Graph Neural Networks  	-	5	1
[IN45044] Hardware-Conscious Data Processing  	-	5	1
[EI71088] IN2107 Variational Inference in Robotics  	-	5	1
[SOT82508] Legal Tech Hackathon  	-	5	1
[IN4479] Linear Operators for Machine Learning  	-	5	1
[IN45001] Machine Learning for Connectomics - How to reconstruct the Circuits of the Brain  	-	5	1
[IN45084] Master - Seminar - Modern Methods for 3D Reconstruction and Representation  	-	5	1
[IN45084] Master - Seminar - Neue Entwicklungen in der 3D-Rekonstruktion und 3D-Datenrepräsentation  	-	5	1
[IN45085] Master - Seminar - Selected Topics in Deep Learning -- Equivariance, Dynamics  	-	5	1
[IN45085] Master - Seminar - Selected Topics in Deep Learning -- Equivariance, Dynamics  	-	5	1
[IN45045] Master - Seminar HuMANS: 3D Human Motion Analysis  	-	5	1
[IN4428] Master Seminar - E4N: Ethics in Natural Language Processing  	-	5	1
[IN45086] Master Seminar - Hot Topics in Applied AI, Business Process Management, and Blockchain  	-	5	1
[IN45086] Master Seminar - Hot Topics in Applied AI, Business Process Management, and Blockchain  	-	5	1
[IN4499] Master Seminar - Neural Radiance Fields  	-	5	1
[IN4499] Master Seminar - Neural Radiance Fields and 3D Gaussian Splatting  	-	5	1
[IN4992] Master Seminar: Automated Programming  	-	5	1
[IN4993] Master Seminar: Context Dynamicity in Engineering Self-adaptive Systems  	-	5	1
[IN4480] Master Seminar: Data Management in the Cloud  	-	5	1
[IN4944] Master Seminar: Ethical Software and Systems Engineering  	-	5	1
[IN4481] Master Seminar: Federated Learning for Industrial Processes  	-	5	1
[IN45087] Master Seminar: Generalization across domains: Test-time adaptation for Medical Imaging  	-	5	1
[IN45087] Master Seminar: Generalization across domains: Test-time adaptation for Medical Imaging  	-	5	1
[IN4912] Master Seminar: Knowledge Reuse: From Threat to Causal Models and Back!  	-	5	1
[IN45002] Master Seminar: Language Design – Internals of Kotlin  	-	5	1
[IN45088] Master Seminar: Perception for Intelligent Systems  	-	5	1
[IN45088] Master Seminar: Perception for Intelligent Systems  	-	5	1
[IN4708] Advanced Seminar Course Reverse Code Engineering  	-	5	1
[IN45089] Master Seminar: Self-supervised Learning in Medical Imaging: Theory and Applications  	-	5	1

Node filter-Name	rec. sem.	Credits	WF
[IN45089] Master Seminar: Self-supervised Learning in Medical Imaging: Theory and Applications  	-	5	1
[IN4429] Master Seminar: 3D Machine Learning  	-	5	1
[IN4429] Master Seminar: 3D Machine Learning  	-	5	1
[IN4911] Master Seminar 3D Vision  	-	5	1
[IN4911] Master Seminar 3D Vision  	-	5	1
[IN45064] Master Seminar: 3D Vision and Learning for Robotic Perception and Decision-Making  	-	5	1
[IN45064] Master Seminar: 3D Vision and Learning for Robotic Perception and Decision-Making	-	5	1
[IN45064] Master Seminar: 3D Vision and Learning for Robotic Perception and Decision-Making  	-	5	1
[IN2107] Advanced Seminar Course  	-	5	1
[IN45022] Master-Seminar - Analysing the brain - applications of deep learning in neuroscience  	-	5	1
[IN4718] Masterseminar - Human-Robot Interaction  	-	5	1
[IN4482] Master-Seminar - 3D Shape Generation and Analysis  	-	5	1
[IN4442] Master-Seminar – Advanced Complexity Theory  	-	5	1
[IN45090] Masterseminar - Advanced Foundation and Perception Models in Autonomous Driving  	-	5	1
[IN45090] Masterseminar - Advanced Foundation and Perception Models in Autonomous Driving  	-	5	1
[IN4953] Masterseminar - Advanced Methods for Emotion Recognition in Highly Automated Driving  	-	5	1
[IN4443] Master-Seminar – Advanced Techniques in NLP / Advanced NLP  	-	5	1
[IN45003] Master-Seminar - Advanced Topics in Graph Learning  	-	5	1
[IN4459] Master-Seminar - Advanced Topics on 3D Reconstruction  	-	5	1
[IN4954] Master-Seminar - Recent trends in Automated Machine Learning (AutoML)  	-	5	1
[IN4973] Master-Seminar - An Overview of Methods for Accurate Geometry Reconstruction  	-	5	1
[IN45091] Master-Seminar - Applications of QC in IT Security  	-	5	1
[IN45091] Master-Seminar - Applications of QC in IT Security  	-	5	1
[IN45004] Master Seminar Course - Selected topics in technical computer science  	-	5	1
[IN4460] MSc Seminar - Emerging Topics in IT-Security  	-	5	1
[IN4408] Master-Seminar - Beyond Deep Learning: Selected Topics on Novel Challenges  	-	5	1
[IN4483] Master-Seminar - Causality and Machine Learning  	-	5	1
[IN45092] Master-Seminar - Collaborative Robotics and Assistive Technology for Advanced Human-Robot Interaction  	-	5	1

Node filter-Name	rec. sem.	Credits	WF
[IN45092] Master-Seminar - Collaborative Robotics and Assistive Technology for Advanced Human-Robot Interaction  	-	5	1
[IN45004] Masterseminar - Compute and Connect: Selected Topics in Computation and Communication  	-	5	1
[IN4970] Master-Seminar - Computer Vision for Augmented Reality  	-	5	1
[IN4514] Current Topics in Medical Machine Learning and Computational Pathology 	-	5	1
[IN4425] Master-Seminar - Data Assimilation  	-	5	1
[IN4456] Master-Seminar - Deep Learning for Inverse Problems  	-	5	1
[IN4860] Master-Seminar - Deep Learning for Medical Applications  	-	5	1
[IN4484] Master-Seminar - Deep Learning for Satellite Imagery  	-	5	1
[IN45046] Advanced Seminar Course - Deep Learning with Symmetries  	-	5	1
[IN4461] Master-Seminar - Deep-learning-based 3D scene representation and understanding for mobile robots  	-	5	1
[IN45005] Master-Seminar - Diffusion Models for Image Generation  	-	5	1
[IN45041] Master-Seminar - Digital Health Service Systems  	-	5	1
[IN45041] Master-Seminar - Digital Health Service Systems  	-	5	1
[IN4426] Master-Seminar - Digital Transformation & Data Ecosystems  	-	5	1
[IN4831] Master-Seminar - Digital Transformation & Data Ecosystems  	-	5	1
[IN4426] Advanced Seminar - Digital Transformation & Sustainability  	-	5	1
[IN4972] Digital transformation of public administration - opportunities for citizens, companies, administration and politics through modern information technology  	-	5	1
[IN4972] Master-Seminar - Digitale Transformation der Verwaltung - Chancen für Bürger, Unternehmen, Verwaltung und Politik durch moderne Informationstechnik 	-	5	1
[IN4444] Masterseminar - E/E Architecture Configuration in Autonomous Driving  	-	5	1
[IN4994] Seminar course - Emerging topics in advanced computing  	-	5	1
[IN4421] Masterseminar - Emerging Topics in Machine Learning and AI  	-	5	1
[IN4955] Masterseminar - Emotional Awareness in Autonomous Driving  	-	5	1
[IN45023] Master-Seminar - Neural Network Design Patterns in Computer Vision  	-	5	1
[IN45023] Master-Seminar - Entwurfsmuster künstlicher, neuronaler Netze im Maschinellen Sehen  	-	5	1
[IN4410] Master-Seminar - Federated Learning in Healthcare  	-	5	1
[IN45024] Master-Seminar - Foundational Models for 2D and 3D Computer Vision 	-	5	1
[IN45006] Master-Seminar - From neuroscience to neurotechnology - brain connectivity, motor control, Brain-Computer Interfaces, haptics, and embodiment  	-	5	1
[IN45065] Masterseminar - Generative Artificial Intelligence in Model-based Engineering  	-	5	1
[IN45065] Masterseminar - Generative Artificial Intelligence in Model-based Engineering  	-	5	1

Node filter-Name	rec. sem.	Credits	WF
[IN4914] Seminar Course - IoT Security in Automotive and Industry 4.0  	-	5	1
[IN45093] Master-Seminar - Machine Learning and Dynamical Systems  	-	5	1
[IN45093] Master-Seminar - Machine Learning and Dynamical Systems  	-	5	1
[IN4485] Master-Seminar - Machine Learning in Neuroimaging  	-	5	1
[IN4929] Masterseminar - Machine Learning in Robot Assisted Therapy	-	5	1
[IN4929] Masterseminar - Machine Learning in Robot Assisted Therapy  	-	5	1
[IN4956] Advanced Seminar - Management of Business Strategies  	-	5	1
[IN4462] Master-Seminar - Medical Image Registration  	-	5	1
[IN4486] Master-Seminar - Modern Computer Vision Methods  	-	5	1
[IN4974] Masterseminar - Multimodal Temporal Data Processing in Autonomous Driving  	-	5	1
[IN4463] Master-Seminar - Multi-Modal Perception for Mobile Robotics  	-	5	1
[IN4937] Masterseminar - Online Learning in Autonomous Driving  	-	5	1
[IN4957] Master-Seminar - Optimization and Generalization in Deep Learning  	-	5	1
[IN4975] Advanced Seminar - Process Mining  	-	5	1
[CIT432005] Master-Seminar - Quantum Information Processing Devices  	-	5	1
[CIT4320003] Master-Seminar - Quantum Networks  	-	5	1
[IN4976] Masterseminar - Realization of AI Applications in Autonomous Cars  	-	5	1
[IN4759] Master-Seminar - Recent Advances in Model Checking  	-	5	1
[IN4445] Master-Seminar - Recent Advances in Perception for Mobile Robotics  	-	5	1
[IN45066] Master-Seminar - Recent advances in 4D Computer Vision  	-	5	1
[IN45066] Master-Seminar - Recent advances in 4D Computer Vision  	-	5	1
[IN4778] Master-Seminar - Recent Highlights in Computer Graphics & Visualization  	-	5	1
[IN4778] Seminar Course - Recent Highlights in Visual Data Analytics  	-	5	1
[IN4464] Master-Seminar - Rehabilitation Robotics  	-	5	1
[IN4464] Master-Seminar - Rehabilitation Robotics  	-	5	1
[IN4930] Masterseminar - Reinforcement Learning in Autonomous Driving  	-	5	1
[IN45025] Masterseminar - Representation of Tasks, Actions, and Skills in Robotics  	-	5	1
[IN4411] Masterseminar - Resource Planning in Autonomous Driving  	-	5	1
[IN45008] Master-Seminar - Robot Perception & Intelligence  	-	5	1
[IN4938] Masterseminar - Roboy Agile Coach Seminar  	-	5	1
[IN4958] Masterseminar - Roboy Agile Coach Seminar  	-	5	1
[IN4439] Advanced Seminar - Scientific Methods in Information Systems  	-	5	1
[IN45026] Master-Seminar - Segmenting everything, everywhere, all at once - Blockseminar zu aktuellen Trends in Image und Video Segmentierung  	-	5	1
[IN4476] Master-Seminar - Selected Chapters: Artificial Intelligence in Medicine  	-	5	1
[IN45027] Master-Seminar – Static Analysis - Mastering Concurrency  	-	5	1

Node filter-Name	rec. sem.	Credits	WF
[IN4977] Master-Seminar - The Evolution of Motion Estimation and Real-time 3D Reconstruction  	-	5	1
[IN4409] Master-Seminar - Theoretical advances in deep learning  	-	5	1
[IN45067] Master-Seminar - Transferlernen und Lebenslanges Lernen im Maschinellen Sehen  	-	5	1
[IN4961] Masterseminar - Trends in Software and Systems Architecture  	-	5	1
[IN45094] Masterseminar - Trends on Autonomous Agents: Advances in Architecture and Practice  	-	5	1
[IN45094] Masterseminar - Trends on Autonomous Agents: Advances in Architecture and Practice  	-	5	1
[IN4978] Master-Seminar - Trusted Execution Environments  	-	5	1
[IN4457] Master-Seminar - Trustworthy AI in Healthcare  	-	5	1
[IN4446] Masterseminar - Understanding the Human Body Using Deep Learning-Based Approaches  	-	5	1
[IN45047] Master-Seminar - Vision-Language models: A Revolution in Deep Learning?  	-	5	1
[IN4959] Masterseminar - Visual Feature Learning in Autonomous Driving  	-	5	1
[IN45068] Master-Seminar - Visuell basierte 3D/4D-Rekonstruktion  	-	5	1
[IN45095] Master-Seminar - Wearable Robotics for Motion Assistance and Augmentation  	-	5	1
[IN45095] Master-Seminar - Wearable Robotics for Motion Assistance and Augmentation  	-	5	1
[IN4447] Master-Seminar - 3D Generative Models  	-	5	1
[IN4448] Masterseminar - 3D Perception for Autonomous Driving  	-	5	1
[IN45056] Master-Seminar: Advanced Topics in Vision and Language Models (VLMs)  	-	5	1
[IN45056] Master-Seminar: Advanced Topics in Vision and Language Models (VLMs)  	-	5	1
[IN45069] Master-Seminar: AI for Vision-Language Models in Medical Imaging  	-	5	1
[IN45069] Master-Seminar: AI for Vision-Language Models in Medical Imaging  	-	5	1
[IN4487] Master-Seminar: Business Process Management, DevOps, und Blockchain  	-	5	1
[IN4960] Master-Seminar: Cloud-Computing  	-	5	1
[IN4465] Master-Seminar: Comparison of Word Embedding Approaches for Natural Language Processing  	-	5	1
[IN4945] Master-Seminar Current Topics in Recommender Systems  	-	5	1
[IN45096] Master-Seminar: Deep Learning for Inverse Problems in Medical Imaging  	-	5	1
[IN45096] Master-Seminar: Deep Learning for Inverse Problems in Medical Imaging  	-	5	1
[IN4488] Master-Seminar: Digital platform as driver of the digitisation in administration  	-	5	1

Node filter-Name	rec. sem.	Credits	WF
[IN45070] Master-Seminar: From Self-supervised Learning to Foundation Models in Medical Imaging  	-	5	1
[IN4946] Master-Seminar Future Internet Protocols: Design Principles and Deployment  	-	5	1
[IN45118] Masterseminar: Gamified Information Systems  	-	5	1
[IN45097] Master-Seminar: Implicit Neural Representation and Neural Fields  	-	5	1
[IN45097] Master-Seminar: Implicit Neural Representation and Neural Fields  	-	5	1
[IN4979] Master-Seminar Intelligent User Interfaces  	-	5	1
[IN4889] Master-Seminar Internet Measurements  	-	5	1
[IN4962] Master-Seminar Internet of People: Connectivity, Mobility and Privacy  	-	5	1
[IN45009] Master-Seminar: Interpretable AI in Medical Imaging  	-	5	1
[IN45028] Master-Seminar: Learning of and on manifolds in medical imaging  	-	5	1
[IN45098] Master-Seminar: Performance Modeling for Parallel Applications and Emerging Architectures  	-	5	1
[IN45098] Master-Seminar: Leistungsmodellierung für parallele Anwendungen und moderne Architekturen  	-	5	1
[IN45072] Master-Seminar: Multi-modal AI for Medicine  	-	5	1
[IN45048] Master-Seminar: Trustworthy AI for Medicine  	-	5	1
[IN45048] Master-Seminar: Trustworthy AI for Medicine  	-	5	1
[IN45010] Master-Seminar: Unsupervised Anomaly Detection in Medical Imaging  	-	5	1
[IN4915] Seminar Course Virtualized Systems  	-	5	1
[IN4449] Master-Seminar: Wireless Internet Communication  	-	5	1
[IN4466] Master-Seminar 3D Shape Matching and Application in Computer Vision  	-	5	1
[IN4768] Mini Projects in Strategic IT Management  	-	5	1
[IN45078] Modal and Intuitionistic Logic  	-	5	1
[IN45011] Modern Storage Technologies and Systems  	-	5	1
[IN45074] MSc Seminar - Recent advances in Differentiable Rendering  	-	5	1
[IN218305] M.Sc. Seminar: Modern Trends in High Performance Computing  	-	5	1
[IN4816] Natural Language Processing - Methods and Applications  	-	5	1
[EI71098] Optimal control and Reinforcement Learning for Robotics  	-	5	1
[IN4906_5] Paths to Artificial General Intelligence  	-	5	1
[IN4906_3] Practical Seminar Legal Tech Special  		5	1
[IN4906_4] Practical Workshop Data Protection for StartUps  	-	5	1
[PH8128] Quantum Entrepreneurship Laboratory  	-	5	1
[IN4906_6] Responsible Computing  	-	5	1
[EI77004] Robotics and AI Seminar: Seminal Papers  	-	5	1
[IN4841] Advanced Seminar Course - Image-based Biomedical Modeling  	-	5	1
[IN4980] Seminar - Common Security Flaws  	-	5	1

Node filter-Name	rec. sem.	Credits	WF
[IN4894] Advanced Seminar Course- Advanced Roboy Student Team	-	5	1
[IN4942] Seminar Course - Algebraic Methods and Algorithms in Cryptology	-	5	1
[IN4947] Seminar - Algorithms for Cut Problems in Graphs and Hypergraphs	-	5	1
[IN4981] Seminar - Query Optimization	-	5	1
[IN4438] Seminar - Animationen für XML-Technologien	-	5	1
[IN45012] Seminar - Applications of Quantum Computing in IT Security	-	5	1
[IN4916] Seminar Course - Applied Cryptography	-	5	1
[IN4691] Advanced Seminar Course - Applied Machine Learning	-	5	1
[IN4412] Seminar - Audio Adversarial Examples	-	5	1
[IN4995] Seminar - Augmented Reality Technologies	-	5	1
[IN4808] Seminar - Selected Topics in Efficient Algorithms	-	5	1
[IN4407] Seminar - Automated Reasoning	-	5	1
[IN4996] Seminar - Bio-inspired Data Processing and Learning With Neural Networks	-	5	1
[IN4963] Seminar - Building Smart Services in Multi Cloud Environments - Backbones of Digital Ecosystems	-	5	1
[IN4450] Seminar - Common Flaws in Protocolsecurity	-	5	1
[IN45099] Seminar - Common Methods of Trust Establishment	-	5	1
[IN45099] Seminar - Common Methods of Trust Establishment	-	5	1
[IN45029] Seminar - Computational Methods for Image Reconstruction	-	5	1
[IN45013] Seminar - Computational Methods for X-ray Computed Tomography	-	5	1
[IN45082] Seminar - Computer Vision in the Operating Room	-	5	1
[IN45100] Seminar - Concepts of Security and Authenticity	-	5	1
[IN45100] Seminar - Concepts of Security and Authenticity	-	5	1
[IN45030] Seminar - Concepts of Trust Establishment	-	5	1
[IN4964] Seminar - Connected Mobility	-	5	1
[IN45049] Seminar - Cyber-Physical Systems Security	-	5	1
[IN45049] Seminar - Cyber-Physical Systems Security	-	5	1
[IN45050] Seminar - Cyber-Resilient Systems	-	5	1
[IN4982] Seminar - Data Privacy Technologies	-	5	1
[IN45101] Seminar - Decision Making Algorithms	-	5	1
[IN45101] Seminar - Decision Making Algorithms	-	5	1
[IN45051] Seminar - Deep Learning for the Natural Sciences	-	5	1
[IN4858] Seminar - Deep Learning in Computer Graphics	-	5	1
[IN4939] Seminar - Deep Learning in Physics	-	5	1
[IN4939] Seminar - Deep Learning in Physics	-	5	1
[IN4831] Advanced Seminar Course - Digital Transformation	-	5	1
[IN4705] Seminar - Economics and Computation	-	5	1

Node filter-Name	rec. sem.	Credits	WF
[IN4845] Advanced Seminar Course - Decision Procedures  	-	5	1
[IN45102] Seminar - Exploited - Investigating Security Fails  	-	5	1
[IN45102] Seminar - Exploited - Investigating Security Fails  	-	5	1
[IN45103] Seminar - Exploring Game Engines: A Technical and Scientific Analysis  	-	5	1
[IN45103] Seminar - Exploring Game Engines: A Technical and Scientific Analysis  	-	5	1
[IN4489] Seminar - Formal Methods in IT Security  	-	5	1
[IN4908] Seminar - Functional Data Structures and Algorithms  	-	5	1
[IN4430] Seminar - Functional Pearls  	-	5	1
[IN45059] Seminar - Geospatial Data Science  	-	5	1
[IN4431] Seminar - Graph Deep Learning for Medical Applications  	-	5	1
[IN4948] Seminar - Graph Sparsification  	-	5	1
[IN4928] Seminar course - GUI Technologies for Web Applications  	-	5	1
[IN4451] Seminar - Hardware Security Extensions  	-	5	1
[IN4490] Seminar - History of Programming Languages and Paradigms  	-	5	1
[IN4835] Advanced Seminar Course - Hochleistungsrechner: Aktuelle Trends und Entwicklungen  	-	5	1
[IN4840] Advanced Seminar Course - Human Brain Project  	-	5	1
[IN4839] Advanced Seminar Course - Human-centered Security  	-	5	1
[IN4432] Seminar - (In)Security of Online Voting  	-	5	1
[IN4893] Seminar Course - Interactive Learning  	-	5	1
[IN4965] Seminar - Interactive Learning  	-	5	1
[IN4413] Seminar - Interdisciplinary Perspectives on Information Security  	-	5	1
[IN45081] Seminar - Interdisciplinary Research Seminar on Generative AI in Sub-Saharan Africa  	-	5	1
[IN4467] Seminar - Introduction to Methods in HCI  	-	5	1
[IN45104] Seminar - Keeping out Cheats, Viruses and other unwanted programs on Xbox, Switch, iOS, Windows, Linux & co  	-	5	1
[IN4491] Seminar - Cryptography vs. Quantum Computing - Analysis of threats to current cryptography and possible post-quantum-based measures  	-	5	1
[IN4854] Advanced Seminar Course - Large-Scale Malware Analysis  	-	5	1
[IN4917] Seminar Course - Linux Kernel Security Mechanisms for Process Separation and Isolation  	-	5	1
[IN45052] Seminar - Locomotion control of Legged Robots  	-	5	1
[IN4918] Seminar - Lost in Translation: The Challenges of Research Transfer into Clinical Practice  	-	5	1
[IN45031] Seminar - Machine Learning for Sequential Decision Making  	-	5	1
[IN4492] Seminar - Mini Conference on Inverse Problems in Imaging  	-	5	1

Node filter-Name	rec. sem.	Credits	WF
[IN4433] Seminar - Mixed Reality Tele-Presence: Technology and Applications in the Medical Domain  	-	5	1
[IN4919] Seminar Course - Mobile Application Security  	-	5	1
[IN4971] Seminar Course - Modern Database Systems  	-	5	1
[IN45105] Seminar - Modern Query Engines  	-	5	1
[IN4493] Seminar - Networks in the Sky  	-	5	1
[IN45053] Seminar - Neurotechnology and Human-Robot Interfacing  	-	5	1
[IN4920] Seminar Course - Next Generation Secure Computer Architectures  	-	5	1
[IN4452] Seminar - Offensive and Defensive Measurements in Wireless Security  	-	5	1
[IN4997] Seminar - OT Security  	-	5	1
[IN45054] Seminar - Participatory AI and the EU's AI Act  	-	5	1
[IN4812] Seminar Course Theoretical Gems of Informatics  	-	5	1
[IN4921] Seminar course - AI Planning  	-	5	1
[IN45106] Seminar - Privacy Matters - Ensuring Confidentiality  	-	5	1
[IN4922] Seminar - Programm Synthesis  	-	5	1
[IN4434] Seminar - Quantum computing - Practical and theoretical analysis of selected algorithms  	-	5	1
[IN45007] Seminar – Recent Advances in the Verification of Neural Networks  	-	5	1
[IN4826] Advanced Seminar Course - Recent Trends in 3D Computer Vision  	-	5	1
[IN4926] Seminar - Rechnertechnik in der Raumfahrt  	-	5	1
[IN4941] Seminar - Reviews on Interventional Medical Imaging  	-	5	1
[IN4998] Seminar - Securing the Linux Kernel - Features and Attack Vectors  	-	5	1
[IN4892] Advanced Seminar Course - Security and Privacy Economics  	-	5	1
[IN4400] Seminar - Security and Verification  	-	5	1
[IN4414] Seminar - Security Concepts of Selected OS-Kernels  	-	5	1
[IN45032] Seminar - Selected Topics of Protocol Security  	-	5	1
[IN4494] Seminar - Selected Topics of Secure Operating Systems  	-	5	1
[IN4401] Seminar - Sensor Systems in Robotics  	-	5	1
[IN4848] Advanced Seminar Course - Shape Analysis and Applications in Computer Vision  	-	5	1
[IN4803] Seminar Course Software Quality  	-	5	1
[IN4402] Seminar - Software Security Analysis  	-	5	1
[IN4415] Seminar - Software Security Analysis  	-	5	1
[IN45107] Seminar - Software-Supply Chain Security  	-	5	1
[IN4949] Seminar - Spektrale Graphentheorie und ihre Anwendungen  	-	5	1
[IN4416] Seminar - Systems Hardening  	-	5	1
[IN4923] Seminar - Trends in Information Systems: Agility, DevOps and Software Ecosystems  	-	5	1

Node filter-Name	rec. sem.	Credits	WF
[IN45033] Seminar - Trends in Information Systems: Digital Transformation in the Age of the Cloud  	-	5	1
[IN4943] Seminar - Trusted Execution Environments and Software Security  	-	5	1
[IN45055] Seminar - Unsecuring Embedded Systems  	-	5	1
[IN45034] Seminar - Verifiable Computation  	-	5	1
[IN45058] Seminar - What can we learn with Graph Representation Learning?  	-	5	1
[IN4740] Seminar - Wissenschaftliche Beiträge von und soziale Bedingungen für Frauen in der Informatik  	-	5	1
[IN45035] Seminar: Accelerated Computing Systems  	-	5	1
[IN4564] Advanced Seminar Course Accenture Campus Challenge  	-	5	1
[IN4886] Advanced Seminar Course Accountability: a Cross-Disciplinary View  	-	5	1
[IN4849] Advanced Seminar Course Advanced Computer Architecture  	-	5	1
[IN4554] Advanced Seminar Course Advanced Project Management  	-	5	1
[IN45018] Seminar: Advances in Testing Data-Intensive Software Applications  	-	5	1
[IN4742] Advanced Seminar Course Adversarial and Secure Machine Learning  	-	5	1
[IN4857] Advanced Seminar Course Agile Project Management  	-	5	1
[IN4758] Advanced Seminar Course Agile Workflow Management and Execution  	-	5	1
[IN45108] Seminar: AI Testing Landscape: Ensuring Robustness through Advanced Testing Methods  	-	5	1
[IN4423] Seminar: AI-based Problem Solving  	-	5	1
[IN4882] Advanced Seminar Course Algebraic Methods and Algorithms in Cryptology  	-	5	1
[IN4403] Seminar: Applications of Machine and Deep Learning in Mobile Networking  	-	5	1
[IN4764] Seminar Course Approximation Algorithms  	-	5	1
[IN4808] Seminar Course Selected Topics in Efficient Algorithms  	-	5	1
[IN4799] Seminar Course Selected Topics: Operating Systems and Distributed Systems  	-	5	1
[IN4859] Advanced Seminar Course Automated Problem Solving in Artificial Intelligence  	-	5	1
[IN4898] Advanced Seminar Course Automated Programming  	-	5	1
[IN4986] Seminar Course - Blockchain  	-	5	1
[IN4878] Advanced Seminar Course Brain Tumor Treatment - Ethical Standards, Medical challenges, Technological Future  	-	5	1
[IN4924] Seminar: C++: discovering and teaching modern C++17 programming  	-	5	1
[IN4873] Advanced Seminar Course C++ Tomorrow  	-	5	1
[IN45036] Seminar Causal Reasoning  	-	5	1
[IN45037] Seminar: Cloud Database Systems  	-	5	1
[IN4883] Advanced Seminar Course Code Reuse Attacks and Defenses Against Them  	-	5	1

Node filter-Name	rec. sem.	Credits	WF
[IN4590] Advanced Seminar Course Code Generation Techniques and Innovative Programming Models	-	5	1
[IN4762] Seminar Course Common Security Flaws	-	5	1
[IN218304] CSE Seminar Course Computational Aspects of Machine Learning	-	5	1
[IN4988] Seminar: Computational Imaging	-	5	1
[IN4875] Seminar Computational Social Science	-	5	1
[IN4879] Advanced Seminar Course Computer Graphics for Augmented Reality	-	5	1
[IN4951] Seminar: Computer Vision and Deep Learning for Autonomous Driving	-	5	1
[IN4880] Advanced Seminar Course (Computer) Vision in Animal Behaviour Studies	-	5	1
[IN4899] Advanced Seminar Course Context Prediction in Autonomous Driving	-	5	1
[IN4817] Seminar Course Control Flow Integrity Based Security	-	5	1
[IN4936] Seminar Course - Wearables for Patients	-	5	1
[IN4906] Advanced Seminar Course Critical Data Studies	-	5	1
[IN4872] Advanced Seminar Course Current Topics in Data Mining - Robust Data Mining Techniques	-	5	1
[IN4515] Seminar Course Current Trends in Deep Learning	-	5	1
[IN4813] Seminar Course Cyber-Physical Systems	-	5	1
[IN4896] Advanced Seminar Course Data Analytics for Cybercrime and Undesirable Online Behaviors	-	5	1
[IN4895] Advanced Seminar Course Data and Advanced Analytics Infrastructure and Applications	-	5	1
[IN4877] Advanced Seminar Course Data Mining	-	5	1
[IN4863] Advanced Seminar Course Data Science and Ethics	-	5	1
[IN4907] Advanced Seminar Course Deep Generative Models	-	5	1
[IN4860] Advanced Seminar Course Deep Learning for Medical Applications	-	5	1
[IN4800] Seminar Course Design Science Research in Information Systems	-	5	1
[IN4891] Advanced Seminar Course Design Thinking for Business Innovation 2	-	5	1
[IN4468] Seminar: Dynamic and Causal Models for Integrated Socio-Technical Systems	-	5	1
[IN4768] Seminar Course EAM Mini Projects	-	5	1
[IN4705] Advanced Seminar Course - Economics and Computation	-	5	1
[IN4900] Advanced Seminar Course Edge Computing and Communication	-	5	1
[IN4874] Advanced Seminar Course Efficient Inference and Large-Scale Machine Learning	-	5	1
[IN4876] Advanced Seminar Course eGovernment	-	5	1
[EI77001] Seminar Embedded Systems and Internet of Things	-	5	1
[IN4788] Seminar Course Energy-efficient Algorithms	-	5	1
[IN4725] Advanced Seminar Course Energy Informatics	-	5	1

Node filter-Name	rec. sem.	Credits	WF
[IN4984] Seminar: Ethics for Nerds  	-	5	1
[IN4469] Seminar: Ethik in der Softwareentwicklung  	-	5	1
[IN4966] Seminar: Ethik und Digitalisierung  	-	5	1
[IN45061] Seminar: Extended Reality for AI: Crafting Context-Aware Environments  	-	5	1
[IN218301] Seminar Course Fictitious Domain and Immersed Boundary Methods  	-	5	1
[IN4885] Seminar Course Formal Proof in Mathematics and Computer Science  	-	5	1
[IN4871] Advanced Seminar Course Foundations of Computer Vision  	-	5	1
[IN4600] Advanced Seminar Course Future Internet  	-	5	1
[IN4901] Advanced Seminar Course Future Internet Protocols: Design Principles and Deployment  	-	5	1
[IN2183] Advanced Seminar Course Future Trends in Computing  	-	5	1
[IN4867] Advanced Seminar Course Fuzz Testing for Vulnerability Detection  	-	5	1
[IN4902] Advanced Seminar Course Gamification  	-	5	1
[IN4602] Advanced Seminar Course - History of Computer Architecture  	-	5	1
[IN4638] Advanced Seminar Course - Global Software Engineering  	-	5	1
[IN218306] Seminar High Dimensional Methods in Scientific Computing  	-	5	1
[IN4417] Seminar Hot Topics in Edge Computing  	-	5	1
[IN4684] Advanced Seminar Course How to make a PIXAR Movie  	-	5	1
[IN45014] Seminar Human-Centered Recommender Systems  	-	5	1
[IN4436] Seminar Human-Centric Networks  	-	5	1
[IN4861] Advanced Seminar Course Image-based Tool Tracking for Biopsy  	-	5	1
[IN4775] Seminar Course Techniques for implementing main memory database systems  	-	5	1
[IN218308] Seminar in Methods for Molecular Dynamics  	-	5	1
[IN4651] Advanced Seminar Course Information Management  	-	5	1
[IN4595] Advanced Seminar Course Innovative Internet Technologies and Mobile Communication  	-	5	1
[IN4888] Advanced Seminar Course Interactive Recommender Systems  	-	5	1
[IN4495] Seminar Internet Computing  	-	5	1
[IN4869] Advanced Seminar Course Internet for All  	-	5	1
[IN4404] Seminar: Internet for All  	-	5	1
[IN4889] Advanced Seminar Course Internet Measurements  	-	5	1
[IN4724] Advanced Seminar Course Internet-Scale Distributed Systems  	-	5	1
[IN4887] Advanced Seminar Course Intrusion Detection and Forensic Analysis  	-	5	1
[IN4884] Advanced Seminar CourseIntrusion Detection System  	-	5	1
[IN4985] Seminar: Inverse Transparency – A new form of data privacy  	-	5	1
[IN4925] Seminar: Java 9 modularity  	-	5	1

Node filter-Name	rec. sem.	Credits	WF
[IN4790] Advanced Seminar Course JavaScript Technology  	-	5	1
[IN4470] Seminar Learning in Games  	-	5	1
[IN4858] Advanced Seminar Course Machine Learning in Graphics  	-	5	1
[IN4453] Seminar: Microservices and Serverless Architectures  	-	5	1
[IN4454] Seminar: Modern Data Center Systems  	-	5	1
[IN4471] Seminar: Next Generation AI Hardware  	-	5	1
[IN218302] Seminar Course Next Generation High Performance Computing  	-	5	1
[IN4405] Seminar: NLP for Software Engineering  	-	5	1
[IN4862] Seminar Non-engineering Aspects of Medical Robotics  	-	5	1
[IN45112] Seminar on Automata Theory  	-	5	1
[IN45113] Seminar on Decision-Making Under Uncertainty  	-	5	1
[IN45038] Seminar on Development and Integration of Hardware Accelerators  	-	5	1
[IN45019] Seminar on Formal Verification meets Machine Learning  	-	5	1
[IN45114] Seminar on Hardware Accelerators for AI  	-	5	1
[IN45015] Seminar on Integration of Quantum Computing Accelerators with HPC Systems  	-	5	1
[IN4866] Advanced Seminar Course on Markets, Algorithms, Incentives and Networks  	-	5	1
[IN45073] Seminar on Model Checking Stochastic Games (IN0014, IN2107, IN45073)  	-	5	1
[EI77007] Seminar on Robotics Science and Systems Intelligence  	-	5	1
[IN4418] Seminar: Opening the Black Box, Trends in explainable AI  	-	5	1
[IN4496] Seminar: Operating Systems and Virtualization  	-	5	1
[IN4472] Seminar: (Performance) Portable Programming of HPC Applications  	-	5	1
[IN45115] Seminar: Proof Assistants  	-	5	1
[IN45039] Seminar: Quantum Computing at Compile Time  	-	5	1
[IN45016] Seminar: Quantum Software Systems  	-	5	1
[IN4419] Seminar: Recent advances in Computer Systems  	-	5	1
[IN45060] Seminar: Recent Advances in Human-Computer Interaction  	-	5	1
[IN45042] Seminar: Recent Advances in Privacy  	-	5	1
[IN4780] Seminar Course Recent Advances in the Analysis of 3D Shapes  	-	5	1
[IN4847] Advanced Seminar Course - Selected Aspects of Parallel Computing  	-	5	1
[IN4420] Seminar: Reconfigurable Architectures: FPGA Concepts and Trends  	-	5	1
[IN4865] Advanced Seminar Course Robot-assisted Surgery in Clinics  	-	5	1
[IN4890] Advanced Seminar Course Roboy  	-	5	1
[IN4437] Seminar: Rust  	-	5	1
[IN4870] Advanced Seminar Course Safety Assurance of Innovative Control Systems  	-	5	1

Node filter-Name	rec. sem.	Credits	WF
[IN4473] Seminar: Scheduling – Modern Problems in a Seemingly Solved Discipline  	-	5	1
[IN4497] Seminar: Secure and Reliable Systems  	-	5	1
[IN4572] Advanced Seminar Course Software Quality  	-	5	1
[IN4967] Seminar: String Matching  	-	5	1
[IN4864] Advanced Seminar Course Synergien zwischen Rechtstheorie und Software Engineering  	-	5	1
[IN4741] Advanced Seminar Course Teaching iOS  	-	5	1
[IN4897] Advanced Seminar Course Technical Analysis of existing Blockchain  	-	5	1
[IN4751] Seminar Course Methods and Techniques of Software Performance Management  	-	5	1
[IN4816] Seminar Course Text Mining and Artificial Intelligence for the Future of Law  	-	5	1
[IN45117] Seminar: Topics in Safety and Reliability of Cognitive Systems  	-	5	1
[IN218307] Seminar: Topics of Quantum Computing  	-	5	1
[IN45057] Seminar: Transfer Learning and Domain Adaptation in Medical Imaging  	-	5	1
[IN4786] Seminar Course Transformationmanagement in IT  	-	5	1
[IN4868] Advanced Seminar Course Verification and Validation in Cyber Physical Systems  	-	5	1
[IN45017] Seminar: Viel mehr als Scrum: Was ist Agilität?  	-	5	1
[IN4609] Advanced Seminar Course - Virtualization Techniques  	-	5	1
[IN4905] Seminar Course Wearables for Animals  	-	5	1
[IN4474] The Tyranny of Types: Curse or Blessing?  	-	5	1
[IN4933] The Value of Privacy - Bachelor/Master-Seminar  	-	5	1
[IN4934] Transparency of algorithmic systems Bachelor/Master-Seminar  	-	5	1
[IN4475] Trends in GovTech - Digital transformation, civic engagement, and platform ecosystems  	-	5	1
[IN4935] Trust in automated decision-making Bachelor/Master-Seminar  	-	5	1
Advanced Seminar - eGovernment (IN2107, IN4876)  	-	1	
Advanced Seminar Blockchain Technologies (IN2107, IN4909)  	-	1	
Advanced Seminar Large-Scale Graph Processing and Graph Partitioning (IN2107, IN4435)  	-	1	
Advanced Seminar Music Matching & Scalable Machine Learning (IN2107, IN4427)  	-	1	
Advanced Seminar: Topics in Natural Language Processing of Legal Text (IN2107, IN45062)  	-	1	
Advanced Seminar Topics in Natural Language Processing of Legal Text (IN2107, IN45062)	-	1	
Bachelor-/Master-Seminar – Applied Deep Learning for NLP (IN0014, IN2107, IN4906_2)  	-	1	

Node filter-Name	rec. sem.	Credits	WF
Bachelor/Master-Seminar - Behavioral Insights in the Age of Big Data (IN0014, IN2107, IN4424)  	-	1	
Bachelor/Master-Seminar - Deep Learning and Security (IN0014, IN2107, IN4931)  	-	1	
Bachelor/Master-Seminar - Fairness in Machine Learning (IN0014, IN2107, IN4968)  	-	1	
Bachelor/Master-Seminar - Making People Understand Facial Recognition Technologies: Building an AI Application as Didactic Tool (IN0014, IN2107, IN2396, IN4498)  	-	1	
Bachelor/Master-Seminar - Privacy-preserving Machine Learning (IN0014, IN2107, IN4990)  	-	1	
Advanced Seminar Course - Security and Privacy Economics (IN0014, IN2107, IN4892)  	-	1	
Bachelor/Master-Seminar - Special Topics in Cyber Trust (IN0014, IN2107, IN4989)  	-	1	
Bachelor/Master-Seminar - The EU's AI Act Proposal: From framework to concrete application (IN0014, IN2107, IN2396, IN4477)  	-	1	
Bachelor/Master-Seminar - Usable Security and Privacy (IN0014, IN2107, IN4932)  	-	1	
Blockseminar - Innovative Internet-Technologien und Mobilkommunikation (IN0014, IN2107, IN4600)  	-	1	
(IN0014, IN2107, SOT82509) CDR: Digital Future Challenge – Responsible AI  	-	1	
Cloud Data Systems (IN0014, IN2107, IN45044)  	-	1	
Data Analytics and Intelligent Systems in Energy Informatics (IN4725)  	-	1	
Data Analytics in Applications (IN0014, IN2107, IN45040)  	-	1	
Deep Medical Anomaly Segmentation (IN0014, IN2107, IN4500)  	-	1	
Formal Verification of Neural Networks (IN0014, IN2107, IN4441)  	-	1	
Advanced seminar for safe cyber-physical systems (MW2400, IN2107)  	-	1	
Foundations and Applications of Graph Neural Networks (IN2107, IN45021)  	-	1	
Foundations and Applications of Graph Neural Networks (IN2107, IN45021)  	-	1	
Hardware-Conscious Data Processing (IN0014, IN2107, IN45044)  	-	1	
(IN0014, IN2107, SOT82508) Legal Tech Hackathon  	-	1	
IN2107 EI77007 Seminar on Robotics Science and Systems Intelligence  	-	1	
IN2107 Optimal control and Reinforcement Learning for Robotics  	-	1	
IN2107 Variational Inference in Robotics  	-	1	
Linear Operators for Machine Learning (IN2107, IN0014, IN2183, MA6014, IN4479)  	-	1	
Machine Learning for Connectomics - How to reconstruct the Circuits of the Brain (IN2107, IN45001)  	-	1	
Master - Seminar - Neue Entwicklungen in der 3D-Rekonstruktion und 3D-Datenrepräsentation (IN2107, IN45021)  	-	1	
Master - Seminar - Modern Methods for 3D Reconstruction and Representation (IN2107, IN45084)  	-	1	

Node filter-Name	rec. sem.	Credits	WF
Master - Seminar - Selected Topics in Deep Learning -- Equivariance, Dynamics (IN2107, IN45085)  	-	1	
Master - Seminar - Selected Topics in Deep Learning -- Equivariance, Dynamics (IN2107, IN45085)  	-	1	
Master - Seminar HuMANS: 3D Human Motion Analysis (IN2107, IN45045)  	-	1	
Master Seminar - E4N: Ethics in Natural Language Processing (IN2107, IN4428)  	-	1	
Master Seminar - Hot Topics in Applied AI, Business Process Management, and Blockchain (IN2107, IN2396, IN45086)  	-	1	
Master Seminar - Hot Topics in Applied AI, Business Process Management, and Blockchain (IN2107, IN2396, IN45086)  	-	1	
Master Seminar - Neural Radiance Fields and 3D Gaussian Splatting (IN2107, IN4499)  	-	1	
Master Seminar - Neural Radiance Fields (IN2107, IN4499)  	-	1	
Master Seminar: Accountability: a cross-disciplinary view (IN2107, IN4886)  	-	1	
Master Seminar: Automated Programming (IN2107, IN4992)  	-	1	
Master Seminar: Context Dynamicity in Engineering Self-adaptive Systems (IN2107, IN4993)  	-	1	
Master Seminar: Data Management in the Cloud (IN2107, IN4480)  	-	1	
Master Seminar: Ethical Software and Systems Engineering (IN2107, IN4944)  	-	1	
Master Seminar: Federated Learning for Industrial Processes (IN2107, IN4481)  	-	1	
Master Seminar: Generalization across domains: Test-time adaptation for Medical Imaging (IN2107, IN45087)  	-	1	
Master Seminar: Generalization across domains: Test-time adaptation for Medical Imaging (IN2107, IN45087)  	-	1	
Master Seminar: Image-based Biomedical Modeling (IN2107, IN4841)  	-	1	
Master Seminar: Intrusion Detection and Forensic Analysis (IN2107, IN4887)  	-	1	
Master Seminar: Knowledge Reuse: From Threat to Causal Models and Back! (IN2107, IN4912)  	-	1	
Master Seminar: Language Design – Internals of Kotlin (IN2107, IN45002)  	-	1	
Master Seminar: Perception for Intelligent Systems (IN2107, IN45088)  	-	1	
Master Seminar: Perception for Intelligent Systems (IN2107, IN45088)  	-	1	
Master Seminar: Self-supervised Learning in Medical Imaging: Theory and Applications (IN2107, IN45089)  	-	1	
Master Seminar: Self-supervised Learning in Medical Imaging: Theory and Applications (IN2107, IN45089)  	-	1	
Master Seminar: 3D Machine Learning (IN2107, IN4429)  	-	1	
Master Seminar: 3D Machine Learning (IN2107, IN4429)  	-	1	
Master Seminar: 3D Vision and Learning for Robotic Perception and Decision-Making IN2107, IN45064)  	-	1	
Master Seminar: 3D Vision and Learning for Robotic Perception and Decision-Making (IN2107, IN45064)  	-	1	

Node filter-Name	rec. sem.	Credits	WF
Master Seminar: 3D Vision and Learning for Robotic Perception and Decision-Making (IN2107, IN45064)  	-	1	
Master Seminar: 3D Vision and Learning for Robotic Perception and Decision-Making (IN2107, IN45064)  	-	1	
Master Seminar: 3D Vision and Learning for Robotic Perception and Decision-Making (IN2107, IN45065)	-	1	
Master Seminar 3D Vision (IN2107, IN4911)  	-	1	
Master Seminar 3D Vision (IN2107, IN4911)  	-	1	
Master-Seminar - Analysing the brain - applications of deep learning in neuroscience (IN2107, IN45022)  	-	1	
Masterseminar - Human-Robot Interaction (IN2107, IN4718)  	-	1	
Master-Seminar - 3D Shape Generation and Analysis (IN2107, IN4482)  	-	1	
Master-Seminar – Advanced Complexity Theory (IN2107, IN4442)  	-	1	
Master Seminar Course - Advanced Computer Architecture (IN2107, IN4849)  	-	1	
Masterseminar - Advanced Foundation and Perception Models in Autonomous Driving (IN2107, IN45090)  	-	1	
Masterseminar - Advanced Foundation and Perception Models in Autonomous Driving (IN2107, IN450990)  	-	1	
Masterseminar - Advanced Methods for Emotion Recognition in Highly Automated Driving (IN2107, IN4953)  	-	1	
Masterseminar - Advanced Roboy Student Team (IN2107, IN4894)  	-	1	
Master-Seminar – Advanced Techniques in NLP / Advanced NLP (IN2107, IN4443)  	-	1	
Master-Seminar - Advanced Topics in Graph Learning (IN2107, IN45003)  	-	1	
Master-Seminar - Advanced Topics on 3D Reconstruction (IN2107, IN4459)  	-	1	
Master-Seminar - Recent trends in Automated Machine Learning (AutoML) (IN2107, IN4954)  	-	1	
Master-Seminar - An Overview of Methods for Accurate Geometry Reconstruction (IN2107, IN4973)  	-	1	
Master-Seminar - Applications of QC in IT Security (IN2107, IN45091)  	-	1	
Master-Seminar - Applications of QC in IT Security (IN2107, IN45091)  	-	1	
Master Seminar Course - Selected topics in technical computer science (IN2107, IN45004)  	-	1	
MSc Seminar - Emerging Topics in IT-Security (IN2107, IN4460)  	-	1	
Master-Seminar - Beyond Deep Learning: Selected Topics on Novel Challenges (IN2107, IN4408)  	-	1	
Master-Seminar - Brain Tumor Treatment - Ethical Standards, Medical challenges, Technological Future (IN2107, IN4878)  	-	1	
Master-Seminar - Causality and Machine Learning (IN2107, IN4483)  	-	1	
Master Seminar Course - Generation of Code and Innovative Programming Models (IN2107, IN4590)  	-	1	

Node filter-Name	rec. sem.	Credits	WF
Master-Seminar - Collaborative Robotics and Assistive Technology for Advanced Human-Robot Interaction (IN2107, IN45092)  	-	1	
Master-Seminar - Collaborative Robotics and Assistive Technology for Advanced Human-Robot Interaction (IN2107, IN45092)  	-	1	
Masterseminar - Compute and Connect: Selected Topics in Computation and Communication (IN2107, IN45004)  	-	1	
Master-Seminar - Computer Graphics for Augmented Reality (IN2107, IN4879)  	-	1	
Master-Seminar - Computer Vision for Augmented Reality (IN2107, IN4970)  	-	1	
Master-Seminar - (Computer) Vision in Animal Behaviour Studies (IN2107, IN4880)  	-	1	
Seminar - Context Prediction in Autonomous Driving (IN2107, IN4899)  	-	1	
Current Topics in Medical Machine Learning and Computational Pathology (IN2107, IN4514)  	-	1	
Master-Seminar - Data Assimilation (IN2107, IN4425)  	-	1	
Master-Seminar - Deep Learning for Inverse Problems (IN2107, IN4456)  	-	1	
Advanced Seminar Course- Deep Learning for Medical Applications (IN2107, IN4860)  	-	1	
Master-Seminar - Deep Learning for Medical Applications (IN2107, IN4860)  	-	1	
Master-Seminar - Deep Learning for Satellite Imagery (IN2107, IN4484)  	-	1	
Advanced Seminar Course - Deep Learning with Symmetries (IN2107, IN45046)  	-	1	
Master-Seminar - Deep-learning-based 3D scene representation and understanding for mobile robots (IN2107, IN4461)  	-	1	
Advanced Seminar - Design Thinking for Business Innovation 2 (IN2106, IN4891)  	-	1	
Master-Seminar - Diffusion Models for Image Generation (IN2107, IN45005)  	-	1	
Master-Seminar - Digital Health Service Systems (IN2107, IN45041)  	-	1	
Master-Seminar - Digital Health Service Systems (IN2107, IN45041)  	-	1	
Master-Seminar - Digital Transformation & Data Ecosystems (IN2107, IN4426)  	-	1	
Master-Seminar - Digital Transformation & Data Ecosystems (IN2107, IN4831)  	-	1	
Advanced Seminar - Digital Transformation & Sustainability (IN2107, IN4426)  	-	1	
Advanced Seminar - Digital Transformation (IN2107, IN4831)  	-	1	
Master-Seminar - Digitale Transformation der Verwaltung - Chancen für Bürger, Unternehmen, Verwaltung und Politik durch moderne Informationstechnik (IN2107, IN4972)  	-	1	
Digital transformation of public administration - opportunities for citizens, companies, administration and politics through modern information technology (IN2107, IN4972)  	-	1	
Seminar Course - EAM Mini Projects (IN2107, IN4768)  	-	1	
Masterseminar - E/E Architecture Configuration in Autonomous Driving (IN2107, IN4444)  	-	1	
Seminar course - Emerging topics in advanced computing (IN2107, IN4994)  	-	1	
Masterseminar - Emerging Topics in Machine Learning and AI (IN2107, IN4421)  	-	1	

Node filter-Name	rec. sem.	Credits	WF
Masterseminar - Emotional Awareness in Autonomous Driving (IN2107, IN4955)  	-		1
Master-Seminar - Neural Network Design Patterns in Computer Vision (IN2107, IN45023)  	-		1
Master-Seminar - Entwurfsmuster künstlicher, neuronaler Netze im Maschinellem Sehen (IN2107, IN45023)  	-		1
Master-Seminar - Entwurfsmuster künstlicher, neuronaler Netze im Maschinellem Sehen (IN2107, IN45065)	-		1
Master-Seminar - Federated Learning in Healthcare (IN2107, IN4410)  	-		1
Master-Seminar - Foundational Models for 2D and 3D Computer Vision (IN2107, IN45024)  	-		1
Master-Seminar - From neuroscience to neurotechnology - brain connectivity, motor control, Brain-Computer Interfaces, haptics, and embodiment (IN2107, IN45006)  	-		1
Masterseminar - Generative Artificial Intelligence in Model-based Engineering (IN2107, IN45065)  	-		1
Masterseminar - Generative Artificial Intelligence in Model-based Engineering (IN2107, IN45065)  	-		1
Master Seminar - High Performance Computing: Current Trends and Developments (IN2107, IN4835)  	-		1
Seminar Course - IoT Security in Automotive and Industry 4.0 (IN2107, IN4914)  	-		1
Master-Seminar - Machine Learning and Dynamical Systems (IN2107, IN45093)  	-		1
Master-Seminar - Machine Learning and Dynamical Systems (IN2107, IN45093)  	-		1
Master-Seminar - Machine Learning in Neuroimaging (IN2107, IN4485)  	-		1
Masterseminar - Machine Learning in Robot Assisted Therapy (IN2107, IN4929)  	-		1
Advanced Seminar - Management of Business Strategies (IN2107, IN4956)  	-		1
Master-Seminar - Medical Image Registration (IN2107, IN4462)  	-		1
Master-Seminar - Modern Computer Vision Methods (IN2107, IN4486)  	-		1
Masterseminar - Multimodal Temporal Data Processing in Autonomous Driving (IN2107, IN4974)  	-		1
Master-Seminar - Multi-Modal Perception for Mobile Robotics (IN2107, IN4463)  	-		1
Masterseminar - Online Learning in Autonomous Driving (IN2107, IN4937)  	-		1
Master-Seminar - Optimization and Generalization in Deep Learning (IN2107, IN4957)  	-		1
Advanced Seminar - Process Mining (IN2107, IN4975)  	-		1
Master-Seminar - Quantum Information Processing Devices (CIT432005, IN2107)  	-		1
Master-Seminar - Quantum Networks (CIT4320003, IN2107)  	-		1
Masterseminar - Realization of AI Applications in Autonomous Cars (IN2107, IN4976)	-		1
Master-Seminar - Recent Advances in Model Checking (IN2107, IN4759)	-		1
Master-Seminar - Recent Advances in Perception for Mobile Robotics (IN2107, IN4445)	-		1

Node filter-Name	rec. sem.	Credits	WF
Master Seminar Course - Recent Advances in the Analysis of 3D Shapes (IN2107) 	-	1	
Master-Seminar - Recent advances in 4D Computer Vision (IN2107, IN45066) 	-	1	
Master-Seminar - Recent advances in 4D Computer Vision (IN2107, IN45066) 	-	1	
Master-Seminar - Recent Highlights in Computer Graphics & Visualization (IN2107, IN4778) 	-	1	
Seminar Course - Recent Highlights in Visual Data Analytics (IN2107, IN4778) 	-	1	
Master-Seminar - Rehabilitation Robotics (IN2107, IN4464) 	-	1	
Master-Seminar - Rehabilitation Robotics (IN2107, IN4464) 	-	1	
Masterseminar - Reinforcement Learning in Autonomous Driving (IN2107, IN4930) 	-	1	
Masterseminar - Representation of Tasks, Actions, and Skills in Robotics (IN2107, IN45025) 	-	1	
Masterseminar - Resource Planning in Autonomous Driving (IN2107, IN4411) 	-	1	
Master-Seminar - Robot Perception & Intelligence (IN2107, IN45008) 	-	1	
Masterseminar - Roboy Agile Coach Seminar (IN2107, IN4938) 	-	1	
Masterseminar - Roboy Agile Coach Seminar (IN2107, IN4958) 	-	1	
Advanced Seminar - Scientific Methods in Information Systems (IN2107, IN4439) 	-	1	
Master-Seminar - Segmenting everything, everywhere, all at once - Blockseminar zu aktuellen Trends in Image und Video Segmentierung (IN2107, IN45026) 	-	1	
Master-Seminar - Selected Chapters: Artificial Intelligence in Medicine (IN2107, IN4476) 	-	1	
Master-Seminar – Static Analysis - Mastering Concurrency (IN2107, IN45027) 	-	1	
Master-Seminar - The Evolution of Motion Estimation and Real-time 3D Reconstruction (IN2107, IN4977) 	-	1	
Master-Seminar – Theoretical advances in deep learning (IN2107, IN4409) 	-	1	
Master-Seminar - Transferlernen und Lebenslanges Lernen im Maschinellen Sehen (IN2107, IN45067) 	-	1	
Masterseminar - Trends in Software and Systems Architecture (IN2107, IN4961) 	-	1	
Masterseminar - Trends on Autonomous Agents: Advances in Architecture and Practice (IN2107, IN45094) 	-	1	
Masterseminar - Trends on Autonomous Agents: Advances in Architecture and Practice (IN2107, IN45094) 	-	1	
Master-Seminar - Trusted Execution Environments (IN2107, IN4978) 	-	1	
Master-Seminar - Trustworthy AI in Healthcare (IN2107, IN4457) 	-	1	
Masterseminar - Understanding the Human Body Using Deep Learning-Based Approaches (IN2107, IN4446) 	-	1	
Master-Seminar - Vision-Language models: A Revolution in Deep Learning? (IN2107, IN45047) 	-	1	
Masterseminar - Visual Feature Learning in Autonomous Driving (IN2107, IN4959) 	-	1	

Node filter-Name	rec. sem.	Credits	WF
Master-Seminar - Visuell basierte 3D/4D-Rekonstruktion (IN2107, IN45068)  	-		1
Master-Seminar - Wearable Robotics for Motion Assistance and Augmentation (IN2107, IN45095)  	-		1
Master-Seminar - Wearable Robotics for Motion Assistance and Augmentation (IN2107, IN45095)  	-		1
Master-Seminar - 3D Generative Models (IN2107, IN4447)  	-		1
Masterseminar - 3D Perception for Autonomous Driving (IN2107, IN4448)  	-		1
Master-Seminar: Advanced Topics in Vision and Language Models (VLMs) (IN2107, IN45056)  	-		1
Master-Seminar: Advanced Topics in Vision and Language Models (VLMs) (IN2107, IN45056)  	-		1
Master-Seminar: AI for Vision-Language Models in Medical Imaging (IN2107, IN45069)  	-		1
Master-Seminar: AI for Vision-Language Models in Medical Imaging (IN2107, IN45069)  	-		1
Master-Seminar: Business Process Management, DevOps, und Blockchain (IN2107, IN2396, IN4487)  	-		1
Master-Seminar: Cloud-Computing (IN2107, IN4960)  	-		1
Master-Seminar: Comparison of Word Embedding Approaches for Natural Language Processing (IN2107, IN4465)  	-		1
Master-Seminar Current Topics in Recommender Systems (IN2107, IN4945)  	-		1
Master-Seminar: Deep Learning for Inverse Problems in Medical Imaging  	-		1
Master-Seminar: Deep Learning for Inverse Problems in Medical Imaging (IN2107, IN45096)  	-		1
Master-Seminar: Digital platform as driver of the digitisation in administration (IN2107, IN4488)  	-		1
Master-Seminar: From Self-supervised Learning to Foundation Models in Medical Imaging (IN2107, IN45070)  	-		1
Master-Seminar Future Internet Protocols: Design Principles and Deployment (IN2107, IN4946)  	-		1
Masterseminar: Gamified Information Systems (IN2107, IN45118)  	-		1
Master-Seminar: Implicit Neural Representation and Neural Fields (IN2107, IN45097)  	-		1
Master-Seminar: Implicit Neural Representation and Neural Fields (IN2107, IN45097)  	-		1
Master-Seminar Intelligent User Interfaces (IN2107, IN4979)  	-		1
Master-Seminar Interactive Recommender Systems (IN2107, IN4888)  	-		1
Master-Seminar Internet Measurements (IN2107, IN4889)  	-		1
Master-Seminar Internet Measurements (IN2107, IN4889)  	-		1
Master-Seminar Internet of People: Connectivity, Mobility and Privacy (IN2107, IN4962)  	-		1
Master-Seminar: Interpretable AI in Medical Imaging (IN2107, IN45009)  	-		1

Node filter-Name	rec. sem.	Credits	WF
Master-Seminar: Learning of and on manifolds in medical imaging (IN2107, IN45028)  	-	1	
Master-Seminar: Performance Modeling for Parallel Applications and Emerging Architectures (IN2107, IN45098)  	-	1	
Master-Seminar: Leistungsmodellierung für parallele Anwendungen und moderne Architekturen (IN2107, IN45098)  	-	1	
Master-Seminar: Multi-modal AI for Medicine (IN2107, IN45072)  	-	1	
Master Seminar Course - Computer Networks (IN2107, IN4847)  	-	1	
Master-Seminar: Trustworthy AI for Medicine (IN2107, IN45048)  	-	1	
Master-Seminar: Trustworthy AI for Medicine (IN2107, IN45048)  	-	1	
Master-Seminar: Unsupervised Anomaly Detection in Medical Imaging (IN2107, IN45010)  	-	1	
Seminar Course Virtualized Systems (IN2107, IN4915)  	-	1	
Master-Seminar: Wireless Internet Communication (IN2107, IN4449)  	-	1	
Master-Seminar 3D Shape Matching and Application in Computer Vision (IN2107, IN4466)  	-	1	
Mini Projects in Strategic IT Management (IN2107, IN4768)  	-	1	
Modal and Intuitionistic Logic (IN0014, IN2107, IN45078)  	-	1	
Modern Storage Technologies and Systems (IN0014, IN2107, IN45011)  	-	1	
MSc Seminar - Recent advances in Differentiable Rendering (IN2107, IN45074)  	-	1	
M.Sc. Seminar: Future Trends in High Performance Computing (IN218305, IN2107)  	-	1	
M.Sc. Seminar: Modern Trends in High Performance Computing (IN218305, IN2107)  	-	1	
M.Sc. Seminar Partitioned FSI Fluid-Structure Interaction (IN218304, IN2107)  	-	1	
Natural Language Processing - Verfahren und Anwendungen (IN2107, IN4816)  	-	1	
Paths to Artificial General Intelligence (IN2107, IN4906_5)  	-	1	
Praxisseminar Legal Tech Special (IN0014, IN2107, IN4906_3)  	-	1	
Practical Workshop Data Protection for StartUps (IN0014, IN2107, IN4906_4)  	-	1	
Quantum Entrepreneurship Laboratory  	-	1	
Responsible Computing (IN0014, IN2107, IN4906_6)  	-	1	
Robotics and AI Seminar: Seminal Papers (IN2107, EI77004)  	-	1	
Seminar Course - Fundamentals of Wave Simulation - Solving Hyperbolic Systems of PDEs (IN2183, IN2107)  	-	1	
Seminar - Common Security Flaws (IN2107, IN0014, IN4980)  	-	1	
Seminar - Accenture Campus Challenge (IN0014, IN2107, IN4564)  	-	1	
Advanced Seminar Course- Accenture Campus Challenge (IN0014, IN2107, IN8901, IN4564)  	-	1	
Seminar Course - Adversarial and Secure Machine Learning (IN0014, IN2107, IN4742)  	-	1	

Node filter-Name	rec. sem.	Credits	WF
Advanced Seminar Course - Agile Project Management (IN0014, IN2107, IN4554) 	-	1	
Seminar Course - Agile Project Management (IN0014, IN2107, IN4857)  	-	1	
Seminar Course - Algebraic methods and algorithms in cryptology (IN0014, IN2107, IN4882)  	-	1	
Seminar Course - Algebraic Methods and Algorithms in Cryptology (IN0014, IN2107, IN4942)  	-	1	
Seminar - Algorithms for Cut Problems in Graphs and Hypergraphs (IN0014, IN2107, IN4947)  	-	1	
Seminar - Query Optimization (IN0014, IN2107, IN4981)  	-	1	
Seminar - Animationen für XML-Technologien (IN0014, IN2107, IN4438)  	-	1	
Seminar - Applications of Quantum Computing in IT Security (IN0014, IN2107, IN45012)  	-	1	
Seminar Course - Applied Cryptography (IN0014, IN2107, IN4916)  	-	1	
Seminar Course - Applied Machine Learning (IN0014, IN2107, IN4691)  	-	1	
Seminar - Audio Adversarial Examples (IN0014, IN2107, IN4412)  	-	1	
Seminar - Augmented Reality Technologies (IN0014, IN2107, IN4995)  	-	1	
Seminar - Selected Topics in Efficient Algorithms (IN0014, IN2107, IN4808)  	-	1	
Seminar - Selected Topics in Efficient Algorithms (IN0014, IN2107, IN4808)  	-	1	
Seminar - Selected Topics: Operating Systems and Distributed Systems (IN0014, IN2107, IN4799)  	-	1	
Seminar - Automated Reasoning (IN0014, IN2107, IN4407)  	-	1	
Seminar - Bio-inspired Data Processing and Learning With Neural Networks (IN2107, IN4996)  	-	1	
Seminar - Building Smart Services in Multi Cloud Environments - Backbones of Digital Ecosystems (IN0014, IN2107, IN4963)  	-	1	
Seminar Course - C++ Tomorrow (IN0014, IN2107, IN4873)  	-	1	
Seminar Course - Code reuse attacks and defenses against them (IN2107, IN4883)  	-	1	
Seminar - Common Flaws in Protocolsecurity (IN0014, IN2107, IN4450)  	-	1	
Seminar - Common Methods of Trust Establishment (IN0014, IN2107, IN45099)  	-	1	
Seminar - Common Methods of Trust Establishment (IN0014, IN2107, IN45099)  	-	1	
Seminar Course - Common Security Flaws in JavaScript based Applications (IN0014, IN2107, IN4762)  	-	1	
Seminar - Computational Methods for Image Reconstruction (IN0014, IN2107, IN45029)  	-	1	
Seminar - Computational Methods for X-ray Computed Tomography (IN0014, IN2107, IN45013)  	-	1	
Seminar - Computer Vision in the Operating Room (IN2107, IN45082)  	-	1	
Seminar - Concepts of Security and Authenticity (IN0014, IN2107, IN45100)  	-	1	
Seminar - Concepts of Security and Authenticity (IN0014, IN2107, IN45100)  	-	1	

Node filter-Name	rec. sem.	Credits	WF
Seminar - Concepts of Trust Establishment (IN0014, IN2107, IN45030)  	-		1
Seminar - Connected Mobility (IN2107, IN4964)  	-		1
Seminar Course - Control Flow Integrity based Security (IN2107, IN0014, IN4817)  	-		1
Seminar Course - Current Topics in Data Mining (IN0014, IN2107, IN4872)  	-		1
Seminar Course - Current Trends in Deep Learning (IN2107, IN4515)  	-		1
Seminar - Cyber-Physical Systems Security (IN0014, IN2107, IN45049)  	-		1
Seminar - Cyber-Physical Systems Security (IN0014, IN2107, IN45049)  	-		1
Seminar - Cyber-Resilient Systems (IN0014, IN2107, IN45050)  	-		1
Seminar - Data Analytics for Cybercrime and Undesirable Online Behaviors (IN0014, IN2107, IN4896)  	-		1
Seminar - Data and Advanced Analytics Infrastructure and Applications (IN2107, IN4895)  	-		1
Seminar - Data Privacy Technologies (IN2107, IN0014, IN4982)  	-		1
Seminar - Decision Making Algorithms (IN0014, IN2107, IN45101)  	-		1
Seminar - Decision Making Algorithms (IN0014, IN2107, IN45101)  	-		1
Seminar - Deep Learning for the Natural Sciences (IN0014, IN2107, IN45051)  	-		1
Seminar - Deep Learning in Computer Graphics (IN2107, IN0014, IN4858)  	-		1
Seminar - Deep Learning in Physics (IN2107, IN0014, IN4939)  	-		1
Seminar - Deep Learning in Physics (IN2107, IN0014, IN4939)  	-		1
Seminar - Economics and Computation (IN0014, IN2107, IN4705)  	-		1
Advanced Seminar Course- Economics and Computation (IN0014, IN2107, IN4705)  	-		1
Seminar - Economics and Computation (IN0014, IN2107, IN4705)  	-		1
Seminar Course - Efficient Inference and Large-Scale Machine Learning (IN0014, IN2107, IN4874)  	-		1
Seminar - Exploited - Investigating Security Fails (IN0014, IN2107, IN45102)  	-		1
Seminar - Exploited - Investigating Security Fails (IN0014, IN2107, IN45102)  	-		1
Seminar - Exploring Game Engines: A Technical and Scientific Analysis (IN0014, IN2107, IN45103)  	-		1
Seminar - Exploring Game Engines: A Technical and Scientific Analysis (IN0014, IN2107, IN45103)  	-		1
Seminar - Formal Methods in IT Security (IN0014, IN2107, IN4489)  	-		1
Seminar course - Formal Proof in Mathematics and Computer Science (IN2107, IN4885)  	-		1
Seminar - Functional Data Structures and Algorithms (IN0014, IN2107, IN4908)  	-		1
Seminar - Functional Pearls (IN0014, IN2107, IN4430)  	-		1
Seminar Course - Future Internet (IN0014, IN2107, IN4600)  	-		1
Seminar - Geospatial Data Science (IN0014, IN2107, IN45059)  	-		1
Seminar Course - History of Computer Architecture (IN0014, IN2107)  	-		1

Node filter-Name	rec. sem.	Credits	WF
Seminar Course- Globale Softwareentwicklung (IN0014, IN2107, IN4638)  	-		1
Seminar - Graph Deep Learning for Medical Applications (IN0014, IN2107, IN4431)  	-		1
Seminar - Graph Sparsification (IN2107, IN4948)  	-		1
Seminar course - GUI Technologies for Web Applications (IN0014, IN2107, IN4928)  	-		1
Seminar - Hardware Security Extensions (IN2107, IN0014, IN4451)  	-		1
Seminar - History of Programming Languages and Paradigms (IN0014, IN2107, IN4490)  	-		1
Seminar Course - How to make a PIXAR movie (IN0014, IN2107, IN4684)  	-		1
Seminar Course - Human Robot Interaction (IN0014, IN2107, IN4718)  	-		1
Seminar Course - Techniques for implementing main memory database systems (IN0014, IN2107, IN4775)  	-		1
Seminar Course - Innovative Internet Technologies and Mobile Communications (IN0014, IN2107, IN4595)  	-		1
Seminar - (In)Security of Online Voting (IN0014, IN2107, IN4432)  	-		1
Seminar course - Interactive Learning (IN0014, IN2107, IN4893)  	-		1
Seminar - Interactive Learning (IN0014, IN2107, IN4965)  	-		1
Seminar - Interdisciplinary Perspectives on Information Security (IN0014, IN2107, IN4413)  	-		1
Seminar - Interdisciplinary Research Seminar on Generative AI in Sub-Saharan Africa  	-		1
Seminar - Introduction to Methods in HCI (IN0014, IN2107, IN4467)  	-		1
Seminar - Keeping out Cheats, Viruses and other unwanted programs on Xbox, Switch, iOS, Windows, Linux & co (IN0014, IN2107, IN45104)  	-		1
Seminar - Cryptography vs. Quantum Computing - Analysis of threats to current cryptography and possible post-quantum-based measures (IN0014, IN2107, IN4491)  	-		1
Seminar Course - Large-Scale Malware Analysis (IN2107, IN0014, IN4854)  	-		1
Seminar Course - Linux Kernel Security Mechanisms for Process Separation and Isolation (IN0014, IN2107, IN4917)  	-		1
Seminar - Locomotion control of Legged Robots (IN2107, IN45052)  	-		1
Seminar - Lost in Translation: The Challenges of Research Transfer into Clinical Practice (IN2107, IN0014, IN4918)  	-		1
Seminar - Machine Learning for Sequential Decision Making (IN2107, IN45031)  	-		1
Seminar Course - Machine Learning in Graphics (IN2107, IN0014, IN4858)  	-		1
Seminar - Mini Conference on Inverse Problems in Imaging (IN0014, IN2107, IN4492)  	-		1
Seminar - Mixed Reality Tele-Presence: Technology and Applications in the Medical Domain (IN0014, IN2107, IN4433)  	-		1
Seminar Course - Mobile Application Security (IN2107, IN4919)  	-		1
Seminar Course - Modern Database Systems (IN0014, IN2107, IN4971)  	-		1

Node filter-Name	rec. sem.	Credits	WF
Seminar - Modern Query Engines (IN0014, IN2107, IN45105)  	-	1	
Seminar - Networks in the Sky (IN2107, IN4493)  	-	1	
Seminar - Neurotechnology and Human-Robot Interfacing (IN0014, IN2107, IN45053)  	-	1	
Seminar Course - Next Generation Secure Computer Architectures (IN0014, IN2107, IN4920)  	-	1	
Seminar - Offensive and Defensive Measurements in Wireless Security (IN0014, IN2107, IN4452)  	-	1	
Seminar - OT Security (IN0014, IN2107, IN4997)  	-	1	
Seminar - Participatory AI and the EU's AI Act (IN0014, IN2107, IN2396, IN45054)  	-	1	
Seminar course - AI Planning (IN2107, IN4921)  	-	1	
Seminar - Privacy Matters - Ensuring Confidentiality (IN0014, IN2107, IN45106)  	-	1	
Seminar - Programm Synthesis (IN0014, IN2107, IN4922)  	-	1	
Seminar - Quantum computing - Practical and theoretical analysis of selected algorithms (IN0014, IN2107, IN4434)  	-	1	
Seminar – Recent Advances in the Verification of Neural Networks (IN0014, IN2107, IN45007)  	-	1	
Seminar - Recent Trends in 3D Computer Vision & Deep Learning (IN0014, IN2107, IN4826)  	-	1	
Seminar Course- Reverse Code Engineering (IN2107, IN0014, IN4708)  	-	1	
Seminar - Reviews on Interventional Medical Imaging (IN0014, IN2107, IN4941)  	-	1	
Seminar - Securing the Linux Kernel - Features and Attack Vectors (IN0014, IN2107, IN4998)  	-	1	
Seminar - Security and Verification (IN2107, IN0014, IN4400)  	-	1	
Seminar - Security Concepts of Selected OS-Kernels (IN0014, IN2107, IN4414)  	-	1	
Seminar - Selected Topics of Protocol Security (IN0014, IN2107, IN45032)  	-	1	
Seminar - Selected Topics of Secure Operating Systems (IN0014, IN2107, IN4494)  	-	1	
Seminar - Sensor Systems in Robotics (IN2107, IN4401)  	-	1	
Seminar Course - Software Quality (IN0014, IN2107, IN4572)  	-	1	
Seminar - Software Security Analysis (IN0014, IN2107, IN4402)  	-	1	
Seminar - Software Security Analysis (IN0014, IN2107, IN4415)  	-	1	
Seminar - Software-Supply Chain Security (IN0014, IN2107, IN45107)  	-	1	
Seminar - Spektrale Graphentheorie und ihre Anwendungen (IN0014, IN2107, IN4949)  	-	1	
Seminar - Systems Hardening (IN0014, IN2107, IN4416)  	-	1	
Seminar Course - Teaching iOS (IN0014, IN2107, IN4741)  	-	1	
Seminar - Technical Analysis of existing Blockchain Applications (IN2107, IN4897)  	-	1	

Node filter-Name	rec. sem.	Credits	WF
Seminar - Methods and Techniques of Software Performance Management (IN0014, IN2107, IN4751)  	-	1	
Seminar - Trends in Information Systems: Agility, DevOps and Software Ecosystems (IN0014, IN2107, IN4923)  	-	1	
Seminar - Trends in Information Systems: Digital Transformation in the Age of the Cloud (IN0014, IN2107, IN45033)  	-	1	
Seminar - Trusted Execution Environments and Software Security (IN2107, IN0014, IN4943)  	-	1	
Seminar - Unsecuring Embedded Systems (IN0014, IN2107, IN45055)  	-	1	
Seminar - Verifiable Computation (IN0014, IN2107, IN45034)  	-	1	
Seminar Course - Virtualization Techniques (IN0014, IN2107, IN4609)  	-	1	
Seminar - What can we learn with Graph Representation Learning? (IN0014, IN2107, IN45058)  	-	1	
Seminar Course - Wearables for Animals (IN0014, IN2107, IN4905)  	-	1	
Seminar - Wissenschaftliche Beiträge von und soziale Bedingungen für Frauen in der Informatik (IN0014, IN2107, IN4740)  	-	1	
Seminar: Accelerated Computing Systems (IN0014, IN2107, IN45035)  	-	1	
Seminar: Advances in Testing Data-Intensive Software Applications (IN0014, IN2107, IN45018)  	-	1	
Advanced Seminar: Agile Workflow Management and Execution (IN0014, IN2107, IN4758)  	-	1	
Seminar: AI Testing Landscape: Ensuring Robustness through Advanced Testing Methods (IN2107, IN45108)  	-	1	
Seminar: AI-based Problem Solving (IN0014, IN2107, IN4423)  	-	1	
Seminar: Applications of Machine and Deep Learning in Mobile Networking (IN2107, IN4403)  	-	1	
Seminar: Approximation-Algorithms (IN0014, IN2107, IN4764)  	-	1	
Seminar Course  	-	1	
Seminar Course - Blockchain (IN0014, IN2107, IN4986)  	-	1	
Seminar: C++: discovering and teaching modern C++17 programming (IN0014, IN2107, IN4924)  	-	1	
Seminar Causal Reasoning (IN2107, IN0014, IN45036)  	-	1	
Seminar: Cloud Database Systems (IN2107, IN45037)  	-	1	
Seminar Computational Aspects of Machine Learning (IN2107, IN0014, IN2183)  	-	1	
Seminar: Computational Imaging (IN0014, IN2107, IN4988)  	-	1	
Seminar Computational Social Science (IN0014, IN2107, IN4875)  	-	1	
Seminar: Computer Vision and Deep Learning for Autonomous Driving (IN0014, IN2107, IN4951)  	-	1	
Seminar Course - Next Generation High Performance Computing (IN0014, IN2107, IN2183)  	-	1	
Seminar Course - Wearables for Patients (IN0014, IN2107, IN4936)  	-	1	

Node filter-Name	rec. sem.	Credits	WF
Seminar Critical Data Studies (IN0014, IN2107, IN4906)  	-		1
Seminar Course Cyber-Physical Systems (IN0014, IN2107, IN4813)  	-		1
Seminar Data Mining (IN2107, IN4877)  	-		1
Seminar: Deep generative models (IN0014, IN2107, IN4907)  	-		1
Seminar: Dynamic and Causal Models for Integrated Socio-Technical Systems (IN2107, IN4468)  	-		1
Seminar Edge Computing and Communication (IN2107, IN4900)  	-		1
Seminar Embedded Systems and Internet of Things  	-		1
Seminar: Energy-efficient Algorithms (IN0014, IN2107, IN4764)  	-		1
Seminar Course: Energy Informatics (IN0014, IN2107, IN4725)  	-		1
Seminar: Ethics for Nerds (IN0014, IN2107, IN4984)  	-		1
Seminar: Ethik in der Softwareentwicklung (IN2107, IN4469)  	-		1
Seminar: Ethik und Digitalisierung (IN0014, IN2107, IN4966)  	-		1
Seminar: Extended Reality for AI: Crafting Context-Aware Environments (IN0014, IN2107, IN45061)  	-		1
Seminar: Foundations of Computer Vision (IN0014, IN2107, IN4871)  	-		1
Seminar Future Internet Protocols: Design Principles and Deployment (IN2107, IN4901)  	-		1
Advanced Seminar Course Future Trends in Computing (IN2183, IN2107, IN0014)  	-		1
Seminar: Gamification (IN2107, IN4902)  	-		1
Seminar High Dimensional Methods in Scientific Computing (IN2107, IN0014, IN218306)  	-		1
Seminar Hot Topics in Edge Computing (IN2107, IN4417)  	-		1
Seminar Human Brain Project (IN2107, IN4840)  	-		1
Seminar Human-Centered Recommender Systems (IN2107, IN45014)  	-		1
Seminar Human-Centric Networks (IN2107, IN4436)  	-		1
Seminar in Methods for Molecular Dynamics (IN2107, IN218308)  	-		1
Seminar Internet Computing (IN2107, IN4495)  	-		1
Seminar: Internet for All (IN2107, IN4404)  	-		1
Seminar Course: Internet-scale Distributed Systems (IN0014, IN2107, IN4724)  	-		1
Seminar Intrusion Detection System (IN2107, IN0014, IN4884)  	-		1
Seminar: Inverse Transparency – A new form of data privacy (IN0014, IN2107, IN4985)  	-		1
Seminar: Java 9 modularity (IN0014, IN2107, IN4925)  	-		1
Seminar Course - JavaScript Technology (IN0014, IN2107, IN4790)  	-		1
Seminar Learning in Games (IN2107, IN0014, IN2396, IN4470)  	-		1
Seminar Course Synergies between Law Theories and Software Engineering (IN0014, IN2107, IN4864)  	-		1

Node filter-Name	rec. sem.	Credits	WF
Seminar: Microservices and Serverless Architectures (IN0014, IN2107, IN4453)  	-		1
Seminar: Modern Data Center Systems (IN0014, IN2107, IN4454)  	-		1
Advanced Seminar Course Natural Language Processing (IN2107, IN4816)  	-		1
Seminar: Next Generation AI Hardware (IN0014, IN2107, IN4471)  	-		1
Seminar: NLP for Software Engineering (IN0014, IN2107, IN4405)  	-		1
Seminar on Automata Theory (IN0014, IN2107, IN45112)  	-		1
Seminar on Decision-Making Under Uncertainty (IN0014, IN2107, IN45113)  	-		1
Seminar on Development and Integration of Hardware Accelerators (IN2107, IN45038)  	-		1
Seminar on Formal Verification meets Machine Learning (IN0014, IN2107, IN45019)  	-		1
Seminar on Hardware Accelerators for AI (IN0014, IN2107, IN45114)  	-		1
Seminar on Integration of Quantum Computing Accelerators with HPC Systems (IN0014, IN2107, IN45015)  	-		1
Seminar on Markets, Algorithms, Incentives, and Networks (IN0014, IN2107, IN4866)  	-		1
Seminar on Model Checking Stochastic Games (IN0014, IN2107, IN45073)  	-		1
Seminar on Topics in Design Automation (CIT4320000, IN2107)  	-		1
Seminar: Opening the Black Box, Trends in explainable AI (IN2107, IN4418)  	-		1
Seminar: Operating Systems and Virtualization (IN2107, IN4496)  	-		1
Seminar: (Performance) Portable Programming of HPC Applications (IN0014, IN2107, IN4472)  	-		1
Seminar: Proof Assistants (IN0014, IN2107, IN45115)  	-		1
Seminar: Quantum Computing at Compile Time (IN0014, IN2107, IN45039)  	-		1
Seminar: Quantum Software Systems (IN0014, IN2107, IN45016)  	-		1
Seminar: Recent advances in Computer Systems (IN0014, IN2107, IN4419)  	-		1
Seminar: Recent Advances in Human-Computer Interaction (IN0014, IN2107, IN45060)  	-		1
Seminar: Recent Advances in Privacy (IN0014, IN2107, IN45042)  	-		1
Seminar: Reconfigurable Architectures: FPGA Concepts and Trends (IN0014, IN2107, IN4420)  	-		1
Seminar Course - Robot-assisted Surgery in Clinics (IN0014, IN2107, IN4865)  	-		1
Advanced Seminar Course Roboy (IN2107, IN4890)  	-		1
Seminar: Rust (IN0014, IN2107, IN4437)  	-		1
Seminar: Scheduling – Modern Problems in a Seemingly Solved Discipline (IN0014, IN2107, IN4473)  	-		1
Seminar: Secure and Reliable Systems (IN2107, IN4497)  	-		1
Seminar: String Matching (IN0014, IN2107, IN4967)  	-		1
Seminar: Topics in Safety and Reliability of Cognitive Systems (IN0014, IN2107, IN45117)  	-		1

Node filter-Name	rec. sem.	Credits	WF
Seminar: Topics of Quantum Computing (IN2107, IN0014, IN218307)  	-		1
Seminar: Transfer Learning and Domain Adaptation in Medical Imaging (IN0014, IN2107, IN45057)  	-		1
Seminar: Viel mehr als Scrum: Was ist Agilität? (IN0014, IN2107, IN45017)  	-		1
The Tyranny of Types: Curse or Blessing? (IN0014, IN2107, IN4474)  	-		1
The Value of Privacy - Bachelor/Master-Seminar (IN0014, IN2107, IN4933)  	-		1
Transparency of algorithmic systems Bachelor/Master-Seminar (IN0014, IN2107, IN4934)  	-		1
Trends in GovTech - Digital transformation, civic engagement, and platform ecosystems (IN0014, IN2107, IN4475)  	-		1
Trust in automated decision-making Bachelor/Master-Seminar (IN0014, IN2107, IN4935)  	-		1
Interdisciplinary Project   	16	1	
[IN2334] Interdisciplinary Project in an Application Subject   		16	1
[IN2171] Interdisciplinary Project within the minor subject Electrical Engineering  	-	16	1
[IN2173] Interdisciplinary Project within the minor subject Mechanical Engineering  	-	16	1
[IN2170] Interdisciplinary Project within the minor subject Mathematics  	-	16	1
[IN2172] Interdisciplinary Project within the minor subject Medicine  	-	16	1
[IN2174] Interdisciplinary Project within the minor subject Economics  	-	16	1
[IN2213] Interdisciplinary Project within a special minor subject  	-	16	1
[IN2334] Interdisciplinary Project in an Application Subject  	-	16	1
Elective Modules Informatics   	53	1	
Algorithms (ALG)   			1
[IN99540] Accepted Elective Module in Algorithms   			1
[IN99541] Accepted Elective Module in Algorithms   			1
[IN99542] Accepted Elective Module in Algorithms   			1
[IN3410] Selected Topics in Algorithms   		5	1
[IN2360] Advanced Algorithms   		6	1
Theorie   			1
[IN2239] Algorithmic Game Theory   		5	1
[IN995401] Accepted Elective in Algorithms (Theory)   			1
[IN995402] Accepted Elective in Algorithms (Theory)   			1
[IN2211] Auction Theory and Market Design   		5	1
[IN2007] Complexity Theory   		8	1
[IN2229] Computational Social Choice   		6	1
[IN2003] Efficient Algorithms and Data Structures   		8	1
[IN2004] Efficient Algorithms and Data Structures II   		8	1

Node filter-Name	rec. sem.	Credits	WF
[IN2158] Advanced Network and Graph Algorithms		8	1
[IN2360] Advanced Algorithms		6	1
[IN2304] Online and Approximation Algorithms		8	1
[IN0024] Operations Research		6	1
[IN2011] Parallel Algorithms		8	1
[IN2160] Randomized Algorithms		8	1
Computer Graphics and Vision (CGV)			1
Theory			1
[IN995021] Elective Computer Graphics and Vision			1
[IN995022] Elective Computer Graphics and Vision			1
[IN995023] Elective Computer Graphics and Vision			1
[IN995024] Elective Computer Graphics and Vision			1
[IN2389] Advanced Deep Learning for Computer Vision: Dynamic Vision		8	1
[IN2390] Advanced Deep Learning for Computer Vision: Visual Computing		8	1
[IN2238] Analysis of Three-Dimensional Shapes		8	1
[IN2018] Augmented Reality		6	1
[IN3200] Selected Topics in Computer Graphics and Vision		5	1
[IN2124] Basic Mathematical Methods for Imaging and Visualization		5	1
[IN2023] Image Understanding I: Machine Vision Algorithms		3	1
[IN2016] Image Understanding II: Robot Vision		4	1
[IN2375] Computer Vision III: Detection, Segmentation, and Tracking		6	1
[IN0037] Game Physics		6	1
[IN2297] Geometry Processing		6	1
[IN2133] Principles of Computer Vision		4	1
[IN2015] Image Synthesis		5	1
[IN2369] Machine Vision		6	1
[IN2409] Inverse Problems in Medical Imaging		5	1
[IN2330] Convex Optimization for Computer Vision		6	1
[IN2392] Machine Learning for 3D Geometry		6	1
[IN2384] Numerical Algorithms in Computer Vision and Machine Learning		5	1
[IN2329] Probabilistic Graphical Models in Computer Vision		5	1
[IN2355] Robotic 3D Vision		5	1
[IN2210] Tracking and Detection in Computer Vision		7	1
[IN2236] Virtual Physics: Using Modern Modeling Methodologies for Computer Simulation		4	1
[IN2026] Visual Data Analytics		5	1
[IN2354] 3D Scanning & Motion Capture		6	1

Node filter-Name	rec. sem.	Credits	WF
[IN2111] 3D User Interfaces   		6	1
Databases and Information Systems (DBI)   			1
[IN99510] Accepted Elective Module in Databases and Information Systems   			1
[IN99511] Accepted Elective Module in Databases and Information Systems   			1
[IN3100] Selected Topics in Databases and Information Systems   		5	1
[CIT3230002] Cloud Information Systems   		5	1
[IN2386] Cloud-Based Data Processing   		5	1
[CIT3230001] Code Generation for Data Processing   		6	1
[CIT3230004] Data Processing on Modern Hardware   		5	1
[CIT3230003] Data Structure Engineering   		5	1
[IN2118] Database Systems on Modern CPU Architectures   		6	1
[IN2031] Application and Implementation of Database Systems   		6	1
[IN2032] Electronic Publishing / Document Engineering and the World-Wide Web   		5	1
[IN2288] Event Processing   		5	1
[IN2219] Query Optimization   		6	1
Query Optimization  	-	6	1
Query Optimization (IN2219)  	-	1	
[IN2267] Transaction Systems   		6	1
Digital Biology and Digital Medicine (DBM)   			1
[IN995041] Elective 1 Digital Biology and Digital Medicine (DBM)   			1
[IN995042] Elective 2 Digital Biology and Digital Medicine (DBM)   			1
[IN3420] Selected Topics in Digital Biology and Digital Medicine   		5	1
[CIT4230001] Computational Modeling for System Genetics   		6	1
[IN2319] Computational Physiology for Medical Image Computing   		6	1
[IN2286] Image Guided Surgery   		6	1
[IN2021] Computer Aided Medical Procedures   		6	1
[IN2022] Computer Aided Medical Procedures II   		5	1
[IN2292] Introduction to Surgical Robotics   		6	1
[IN2393] Machine Learning for Regulatory Genomics   		6	1
[IN2293] Medical Augmented Reality   		5	1
[IN2322] Protein Prediction I for Computer Scientists   		8	1
[IN2291] Protein Prediction II for Computer Scientists   		8	1
Engineering Software-intensive Systems (SE)   			1
[IN99530] Accepted Elective Module in Engineering Software-intensive Systems   			1

Node filter-Name	rec. sem.	Credits	WF
[IN99531] Accepted Elective in Engineering Software-intensive Systems			1
[IN99532] Accepted Elective Module in Engineering Software-intensive Systems 			1
[IN2309] Advanced Topics of Software Engineering		8	1
[IN3430] Selected Topics in Engineering Software-intensive Systems		5	1
[IN2367] Automated Programming		2	1
[IN2114] Automotive Software - Methods and Technology		5	1
[IN2359] Blockchain-based Systems Engineering		5	1
[CIT4230005] Engineering Resilient Cognitive Systems		3	1
[IN2084] Advanced Topics of Software Testing		5	1
[IN2078] Foundations of Program and System Development		4	1
[IN2385] Safety and Security for Cyber-Physical Systems		3	1
[IN2079] IT-Consulting		3	1
[IN2080] Modelling of Distributed Systems		4	1
[IN2081] Patterns in Software Engineering		5	1
[IN2083] Project Organisation and Management in Software Engineering		6	1
[IN2394] Requirements Engineering		3	1
[IN2087] Software Engineering for Business Applications - Master's Course: Web Application Engineering		8	1
[IN2235] Software Engineering in an Industrial Setting		3	1
[CIT4230000] Strategic IT Management		4	1
Formal Methods and their Applications (FMA)		1	
Theorie		1	
[IN99517] Accepted Elective in Formal Methods and their Applications		1	
[IN99518] Accepted Elective in Formal Methods and their Applications		1	
[IN2041] Automata and Formal Languages		8	1
[IN2042] Automata and Formal Languages II		5	1
[IN2227] Compiler Construction I		5	1
[IN2347] Functional Data Structures		5	1
Lambda Calculus (one out of two)		1	
[IN2049] Logic		8	1
[IN2050] Model Checking		8	1
[IN2045] Network Analysis - Statistical and Formal Models and Methods		5	1
[IN2052] Petri Nets		5	1
[IN2053] Program Optimization		8	1
[IN2340] Quantitative Verification		5	1
[IN2055] Semantics		8	1

Node filter-Name	rec. sem.	Credits	WF
[IN2040] Virtual Machines   		6	1
[IN99540] Accepted Elective Course in Formal Methods and their Applications   		1	
[IN99541] Accepted Elective Course in Formal Methods and their Applications   		1	
[IN99542] Accepted Elective Course in Formal Methods and their Applications   		1	
[CIT3230000] Advanced Concepts of Programming Languages   		6	1
[IN3350] Selected Topics in Formal Methods and their Applications   		5	1
[IN2296] Games on Graphs   		5	1
Machine Learning and Analytics (MLA)   		1	
[IN99555] Accepted Elective in Machine Learning and Analytics   		1	
[IN99556] Accepted Elective in Machine Learning and Analytics   		1	
[IN99557] Accepted Elective in Machine Learning and Data Analytics   		1	
[IN99558] Accepted Elective in Machine Learning and Analytics   		1	
[IN99559] Accepted Elective in Machine Learning and Analytics   		1	
[IN2298] Advanced Deep Learning for Physics   		6	1
[CIT4230003] Advanced Machine Learning: Deep Generative Models   		3	1
[CIT4230002] Advanced Natural Language Processing   		5	1
[IN2403] Artificial Intelligence in Medicine   		5	1
[IN2408] Artificial Intelligence in Medicine II   		5	1
[IN3440] Selected Topics in Machine Learning and Analytics   		5	1
[CIT4230006] Causal Inference in Time Series   		5	1
Data Analytics - 1 out of 4   		1	
[IN2028] Business Analytics and Machine Learning   		5	1
[IN2339] Data Analysis and Visualization in R   		6	1
[IN2030] Data Mining and Knowledge Discovery   		3	1
[IN2346] Introduction to Deep Learning   		6	1
[IN2395] Legal Data Science and Informatics   		6	1
[IN2357] Machine Learning for Computer Vision   		5	1
[IN2323] Machine Learning for Graphs and Sequential Data   		5	1
Machine Learning - 1 out of 2   		1	
[IN2064] Machine Learning   		8	1
[IN2332] Statistical Modeling and Machine Learning   		8	1
[IN2361] Natural Language Processing   		6	1
Theory   		1	

Node filter-Name	rec. sem.	Credits	WF
[IN995076] Accepted Elective in Machine Learning and Data Analytics (Theory)		1	
[IN995077] Accepted Elective in Machine Learning and Data Analytics (Theory)		1	
[IN995078] Accepted Elective in Machine Learning and Data Analytics (Theory)		1	
[IN2410] Causality		8	1
[IN2378] Statistical Foundations of Learning		5	1
[CIT4230004] Statistical Foundations of Learning		8	1
[IN2349] Advanced Deep Learning for Robotics		6	1
Computer Architecture, Computer Networks and Distributed Systems (RRV)		1	
Theory		1	
[IN995601] Accepted Elective in Computer Architecture, Computer Networks and Distributed Systems (Theory)		1	
[IN2315] Network Coding		6	1
[IN99560] Accepted Elective in Computer Architecture, Computer Networks and Distributed Systems		1	
[IN99561] Accepted Elective in Computer Architecture, Computer Networks and Distributed Systems		1	
[IN99562] Accepted Elective in Computer Architecture, Computer Networks and Distributed Systems		1	
[IN99563] Accepted Elective in Computer Architecture, Computer Networks and Distributed Systems		1	
[IN2076] Advanced Computer Architecture		6	1
[IN2097] Advanced Computer Networking		5	1
[IN3450] Selected Topics in Computer Architecture, Computer Networks and Distributed Systems		5	1
[IN2073] Cloud Computing		4	1
[IN2324] Connected Mobility Basics		8	1
[CIT4330013] Design Automation and Simulation for Microfluidic Devices		5	1
[IN2259] Distributed Systems		5	1
[EI70630] HW/SW Codesign		5	1
[IN2075] Microprocessors		5	1
[IN2098] Mobile Distributed Systems		5	1
[IN2099] Network and System Management		4	1
[IN2333] Protocol Design		8	1
[IN2125] Virtualization Techniques		5	1
Robotics (ROB)		1	
[IN99565] Accepted Elective in Robotics		1	

Node filter-Name	rec. sem.	Credits	WF
[IN99566] Accepted Elective in Robotics   			1
[IN99567] Accepted Elective in Robotics   			1
[IN99568] Accepted Elective in Robotics   			1
[IN99569] Accepted Elective in Robotics   			1
[IN995691] Accepted Elective in Robotics   			1
[IN2376] Advanced Robot Control and Learning   		6	1
[IN2352] Applied Biorobotics   		6	1
[IN3460] Selected Topics in Robotics   		5	1
[IN2356] Autonomous Driving   		3	1
[IN2318] Autonomous Navigation for Flying Robots   		2	1
[IN2222] Cognitive Systems   		5	1
[IN2305] Cyber-Physical Systems   		6	1
[IN2060] Real-Time Systems   		6	1
[IN2061] Introduction to Digital Signal Processing   		7	1
[IN2383] Formal Methods for Cyber-Physical Systems   		5	1
[IN2406] Fundamentals of Artificial Intelligence   		6	1
[IN2062] Techniques in Artificial Intelligence   		5	1
[CIT3330000] Introduction to Mobile Robotics   		6	1
[MW2411] Concepts and Software Design for Cyber-Physical Systems   		5	1
[IN2405] Neuroprosthetics: Artificial Limbs   		5	1
[IN2308] Programming and Control for Human-Robot Interaction   		5	1
[IN2138] Robot Motion Planning   		5	1
[IN2067] Robotics   		6	1
[IN2068] Sensor-based Robotic Manipulation and Locomotion   		3	1
[IN2071] Knowledge-based Systems for Industrial Applications   		4	1
Security and Privacy (SP)   			1
Theory   			1
[IN995106] Accepted Elective in Security and Privacy (Theory)   			1
[CIT3330003] Cryptography   		5	1
[IN99570] Accepted Elective in Security and Privacy   			1
[IN99571] Accepted Elective in Security and Privacy   			1
[IN99572] Accepted Elective in Security and Privacy   			1
[IN99573] Accepted Elective in Security and Privacy   			1
[IN99574] Accepted Elective in Security and Privacy   			1
[EI71070] Advanced Cryptographic Implementations   		5	1
[IN3470] Selected Topics in Security and Privacy   		5	1

Node filter-Name	rec. sem.	Credits	WF
[EI70520] Circuit Design for Security   		5	1
[IN2341] Current Trends in IT Security   		5	1
[EI70530] Embedded Systems and Security   		5	1
[IN2407] Hardware Security  		5	1
[EI73451] Information Theoretic Security   		5	1
[CIT4330009] IoT Security  	 	5	1
[CIT3330002] IT Security 2   	 	5	1
[CIT4330001] Machine Learning and IT-Security   		5	1
[IN2101] Network Security  		5	1
[IN2161] Networks for Monetary Transactions   		3	1
[IN2194] Peer-to-Peer-Systems and Security   		6	1
[EI71029] Physical Unclonable Functions  		5	1
[EI71073] Quantum Computers and Quantum Secure Communications   		5	1
[EI75671] Lecture Series System Security  		3	1
[IN2313] Secure Coding  		6	1
[IN2178] Security Engineering  		5	1
[EI71060] Security in Communications and Storage  		5	1
[EI7243] Secure Implementation of Cryptographic Algorithms  		6	1
[IN2362] Language-based Security  		5	1
Scientific Computing and High Performance Computing (HPC)   			1
Theory  			1
[IN2345] Algorithms for Uncertainty Quantification  		5	1
[IN2001] Algorithms for Scientific Computing   		8	1
[IN2002] Algorithms for Scientific Computing II  		4	1
[IN995751] Accepted Elective Scientific Computing and High Performance Computing (Theory)  			1
[IN2381] Introduction to Quantum Computing  		5	1
[IN2400] Advanced Concepts of Quantum Computing  		5	1
[IN2252] High Performance Computing - Algorithms and Applications  	 	4	1
[IN2013] High Performance Computing - Programming Models and Scalability  	 	4	1
Modelling and Simulation  			1
[IN2010] Modelling and Simulation  		8	1
[IN2398] Numerical Algorithms for High Performance Computing  		8	1
[IN2012] Parallel Numerics  	 	5	1
[IN2306] Scientific Computing in Circuit Simulation  		5	1

Node filter-Name	rec. sem.	Credits	WF
[IN2388] Tensor Networks   		5	1
[IN2311] Turbulent Flow Simulation on HPC-Systems   		5	1
[IN99575] Accepted Elective in Scientific Computing and High Performance Computing   			1
[IN99576] Accepted Elective in Scientific Computing and High Performance Computing   			1
[IN3480] Selected Topics in Scientific Computing and High Performance Computing   		5	1
[IN2310] Parallel Program Engineering   		5	1
[IN2147] Parallel Programming   		5	1
[IN2365] Parallel Programming Systems   		3	1
[CIT4330012] Software for Quantum Computing   		5	1
[IN2387] Time Integration and Differential Equations   		5	1
Elective Modules not Assigned to any Area   			1
Additional Practical Course   		10	1
[IN2257] Additional Advanced Practical Course   		10	1
Continuing Master Practical Course   		10	1
[IN2175] Continuing Master Practical Course   		10	1
Forschungsarbeit unter Anleitung   		10	1
[IN2169] Guided Research   		10	1
Further Modules not Assigned to any Area   			1
Theory   			1
[IN9951] Accepted Elective   			1
[IN9952] Accepted Elective   			1
[IN9961] Accepted Elective   			1
[IN9962] Accepted Elective   			1
[IN9953] Accepted Elective   			1
[IN9963] Accepted Elective   			1
[IN2377] Concepts of C++ Programming   		5	1
[IN2093] eLearning - Techniques and Infrastructures   		3	1
[IN2348] Lecture Series: What is digitalization?   		2	1
[IN2241] Social Computing   		5	1
Support Electives   		6	1
Sprachmodule   		6	1
Studiengangsübergreifende Angebote der Carl von Linde-Akademie   			1
Project Weeks   			1
[IN9971] Accepted Support Elective   			1
[IN9972] Accepted Support Elective   			1

Node filter-Name	rec. sem.	Credits	WF
[IN9973] Accepted Support Elective   			1
[ED0038] Technology, Economy, Society   		3	1
[ED0217] Advanced didactical topics for tutors   		4	1
[ED0341] STS 2: Philosophy of Science and Technology   		5	1
[WI000159] Business Plan - Basic Course (Business Idea and Market)   		3	1
[SOT86075] Algorithms & Fundamental Rights		6	1
[POL10500] Comparative Politics - Fundamentals   		6	1
[SOT56401] Applied Philosophy of Quantum Theory   		6	1
[WI001284] Behavioral Economics meets real world challenges: An interdisciplinary project rally   		6	1
[WI100180] Business Plan - Advanced Course (Business Models, Sales and Finance)   		6	1
[SOT82518] The Right of Data Use in Germany and Europe   		6	1
[SOT46401] Data Ethics and Governance   		6	1
[IN9044] Data Privacy   		4	1
[SOT82521] Debate Course with Media Law Content   		6	1
[SOT82506] The Judge and his Hacker   		3	1
[SOT82533] Lawful Hacking   		6	1
[WI001245] Design your life & career: Worauf es in Beruf, Karriere und Leben wirklich ankommt!   	 	6	1
[IN9028] Pedagogical Training in Didactics for Tutors   		4	1
[IN9006] Entrepreneurship for Small Software-oriented Enterprises   		2	1
[POL70070] Ethics of Technology   		6	1
[IN9017] Entrepreneurship   		4	1
[SOT86054] Exploring Unresolved Challenges of Large Language Models   	 	6	1
[SOT62303] History and Remembrance   		3	1
Grundzüge der VWL - 1 aus 2   			1
[IN9003] Informatics and Law   		3	1
[MGT001347] Innovation Facilitator   		6	1
[IN9048] Innovation Generation in the Healthcare Domain   		6	1
[WI000285] Innovative Entrepreneurs - Leadership of High-Tech Companies   		3	1
Interkulturelle Kommunikation - 1 aus 2			1
[SOT87316] Introduction to Business Ethics   		3	1
[IN9046] IT Law in Public Administrations: E-Government Act, IT Security and Procurement   		5	1
[SOT82522] Crises, Catastrophes and Exceptional Situations in Law   		6	1
[CIT6230000] Learning through Teaching: Programming Courses at Schools   	 	3	1
[IN9036] Master Your Thesis!   		4	1

Node filter-Name	rec. sem.	Credits	WF
[SOT82530] Media Law and Social Media		6	1
[IN9038] Medical Technology Entrepreneurship		4	1
[SOT56307] Philosophy of Artificial Intelligence: Key Readings		6	1
[POL00011] Politics for Rocket Scientists: An Introduction to Political Science for Non-Political Scientists		6	1
[SOT82531] Legal Principles of Artificial Intelligence		6	1
[SOT82519] Legal Issues of the Use of Artificial Intelligence		6	1
[CIT3640001] Sanitätsausbildung		3	1
[IN9011] Seminar: Project Management		4	1
[IN9010] Seminar: Science and Ethics		4	1
[IN9007] SET-Tutor		2	1
[IN9009] Leading Yourself and Others		4	1
[SOT46402] Society and Technology		6	1
[MW2223] Soft Skill Trainings in Project Cooperations		2	1
[SOT86083] Start-up Skills - Legal Fundamentals		6	1
[WI001292] Start-ups and unicorns coming up		6	1
[AR30382] Fast Track Design Methods		3	1
[SOT86611] Sustainability Politics and Policy		6	1
[WI001180] Tech Challenge		6	1
[POL60402] Technology and Development		6	1
[WI001293] Theoretical and applied basics of mindfulness practice		3	1
[MW2245] Think. Make. Start.		6	1
[IN9026] Trendseminar CDTM		8	1
[SOT53200] Responsibility in the Engineering Profession		3	1