

Module Group	Module Title	Stud.IP Nr.	ECTS Points	Type	Contact Hours/Week	Lecturer
AI Applications	Network Science	5942	5	Lecture	2V+1UE	Prof. Michael Granitzer
AI Applications	Foundation of Energy Systems	5721	6	Lecture	2V+2UE	Prof. Hermann de Meer
AI Applications	Energy Informatics I	5727	6	Lecture	2V+2UE	Prof. Hermann de Meer
AI Applications	Computational Statistics - Regression in R	35621	3	Lecture	2V	Dr. Joachim Schnurbus
AI Applications	Computational Statistics - Statistical Learning	35622	3	Lecture	2V	Dr. Joachim Schnurbus
AI Applications	Text Mining	5980	7	Lecture	3V+2UE	N.N.
AI Applications	Cognitive Sensorics	NEW	5	Lecture	2V+1UE	N.N.
AI Applications	Sustainable Computing	NEW	5	Lecture	2V+1UE	N.N.
AI Applications	Multilingual Language Processing	NEW	5	Lecture	2V	N.N.
AI Applications	Financial Data Analysis	NEW	5	TBD	TBD	N.N.
AI Applications	AI-Based Information Systems	NEW	5	TBD	TBD	N.N.
AI Applications	Advanced Topics in Management Science	NEW	5	Practical	4P	Prof. Alena Otto
AI Applications	Advanced Topics in Management Science: Planning of Complex Interacting Systems	39734	5	Lecture	2V+2UE	Prof. Alena Otto
AI Applications	Multimedia Databases	5771	7	Lecture	3V+2UE	Prof. Harald Kosch
AI Applications	Topics in Applied Econometrics	35777	5	Lecture	2V+2UE	Prof. Harry Haupt
AI Applications	Network Science	5942	5	Lecture	2V+1UE	Prof. Michael Granitzer
AI Methods	Theory of Randomised Search Heuristics	NEW	5	Lecture	2V+1UE	Prof. Dirk Sudholt
AI Methods	Optimisation Methods	NEW	9	Lecture	4V+2UE	N.N.
AI Methods	Applied Mathematical Logic	NEW	5	Lecture	2V+1UE	N.N.
AI Methods	Knowledge Representation and Knowledge Engineering	NEW	5	Lecture	2V+1UE	N.N.
AI Methods	Mathematical Foundations of AI	NEW	5	Lecture	2V+1UE	N.N.
AI Methods	Image Processing	5452	9	Lecture	4V+2UE	Prof. Brigitte Forster-Heinlein
AI Methods	Introduction to Deep Learning	NEW	6	Lecture	2V+2UE	Prof. Florian Lemmerich
AI Methods	Learning Theory	5734	9	Lecture	4V+2UE	Prof. Tomas Sauer
AI Methods	Responsible Machine Learning	NEW	6	Lecture	2V+2UE	Prof. Florian Lemmerich
AI Methods	Advanced Topics in Data Science	5945	5	Lecture	2V+1UE	Prof. Michael Granitzer
AI Methods	Machine Learning Lab	NEW	6	Exercise	4UE	Prof. Michael Granitzer
AI Methods	Data Science Lab	5944	6	Exercise	4UE	Prof. Michael Granitzer
AI Systems Engineering	AI Engineering	NEW	5	Lecture	2V+1UE	N.N.
AI Systems Engineering	Data Engineering	NEW	5	Lecture	2V+1UE	N.N.
AI Systems Engineering	Reliable and Secure IT Systems	NEW	5	Lecture	2V+1UE	N.N.
AI Systems Engineering	Requirements Engineering	NEW	5	Lecture	2V+1UE	N.N.
AI Systems Engineering	Secure Intelligent Systems	NEW	5	Lecture	2V+1UE	Prof. Elif Bilge Kavun
AI Systems Engineering	Explainability in AI	NEW	5	TBD	TBD	N.N.
AI Systems Engineering	Search-Based Software Engineering	5845	5	Lecture	2V+1UE	Prof. Gordon Fraser
AI Systems Engineering	Advanced IT Security	5820	6	Lecture	3V+1UE	Prof. Joachim Posegga
AI Systems Engineering	Programming Applications for Mobile Interaction	5807	5	Lecture	3V+2UE	Prof. Matthias Kranz
AI Systems Engineering	Scaling Database Systems	5970	6	Lecture	2V+2UE	Prof. Stefanie Scherzinger
Algorithmic Engineering and Mathematical Modelling	Discrete Mathematics	NEW	5	Lecture	2V+1UE	N.N.
Algorithmic Engineering and Mathematical Modelling	Functional Analysis	NEW	5	Lecture	2V+1UE	N.N.
Algorithmic Engineering and Mathematical Modelling	Stochastic Simulation	5812	7	Lecture	3V+1UE	Prof. Daniel Rudolf, Prof. Thomas Müller-Gronbach
Algorithmic Engineering and Mathematical Modelling	Statistical Data Science	NEW	9	Lecture	4V+2UE	Prof. Daniel Rudolf
Algorithmic Engineering and Mathematical Modelling	Monte Carlo Methods	NEW	9	Lecture	4V+2UE	Prof. Daniel Rudolf, Prof. Thomas Müller-Gronbach
Algorithmic Engineering and Mathematical Modelling	Mathematical Logic	NEW	5	Lecture	2V+1UE	N.N.
Algorithmic Engineering and Mathematical Modelling	Randomised Algorithms	5952	7	Lecture	3V+2UE	Prof. Dirk Sudholt
Algorithmic Engineering and Mathematical Modelling	Parameterized Algorithms	5713	5	Lecture	2V+1UE	Prof. Ignaz Rutter
Algorithmic Engineering and Mathematical Modelling	Partial Differential Equations	5960	7	Lecture	3V+2UE	Prof. Fabian Wirth
Algorithmic Engineering and Mathematical Modelling	Computational Logic	5670	7	Lecture	3V+2UE	Prof. Martin Kreuzer

Module Group	Module Title	Stud.IP Nr.	ECTS Points	Type	Contact Hours/Week	Lecturer
Cross-Cutting Concerns	IT Security Law	5874	5	Lecture	2V	Dr. Korbinian Hartl
Cross-Cutting Concerns	AI: Regulation and Legal Liability	NEW	5	Lecture	2V	N.N.
Cross-Cutting Concerns	Ethical Fundamentals for AI	NEW	5	Lecture	2V	N.N.
Cross-Cutting Concerns	Advanced Strategic Sensitivity and Digitalization	38608	7	Seminar	4S	Prof. Andreas König
Cross-Cutting Concerns	Fundamentals of Digitalization and Digital Trends	38609	5	Lecture	2V	Prof. Andreas König
Cross-Cutting Concerns	Case Studies Seminar - Strategic Management and Digitalization	38610	7	Seminar	2S	Prof. Andreas König
Cross-Cutting Concerns	Entrepreneurial Thinking and Communication	38568	7	Seminar	2S	Prof. Andreas König
Cross-Cutting Concerns	Organizational and Competitive Strategy	32820	5	Lecture	2V+2UE	Prof. Carolin Häussler
Cross-Cutting Concerns	Strategy for High-Tech Startups	32900	5	Lecture	2V+2UE	Prof. Carolin Häussler
Cross-Cutting Concerns	Data Protection Law	25940	5	Lecture	2V	Prof. Moritz Hennemann
Cross-Cutting Concerns	Societal Impacts of Digitalization	NEW	5	Lecture	2V	Prof. Hannah Schmid-Petri, Prof. Ralf Hohlfeld
Research Seminars	AI Engineering Seminar	NEW	5	Seminar	2S	All Professorships
Compulsory Modules	Introduction to AI Engineering	NEW	5	Lecture	2V+1UE	Prof. Florian Lemmerich
Compulsory Modules	Research Seminar I	NEW	5	Seminar	2S	All Professorships
Compulsory Modules	Research Seminar II	NEW	5	Seminar	2S	All Professorships
Compulsory Modules	Master's Thesis and Presentation	N/A	30	N/A	N/A	All Professorships