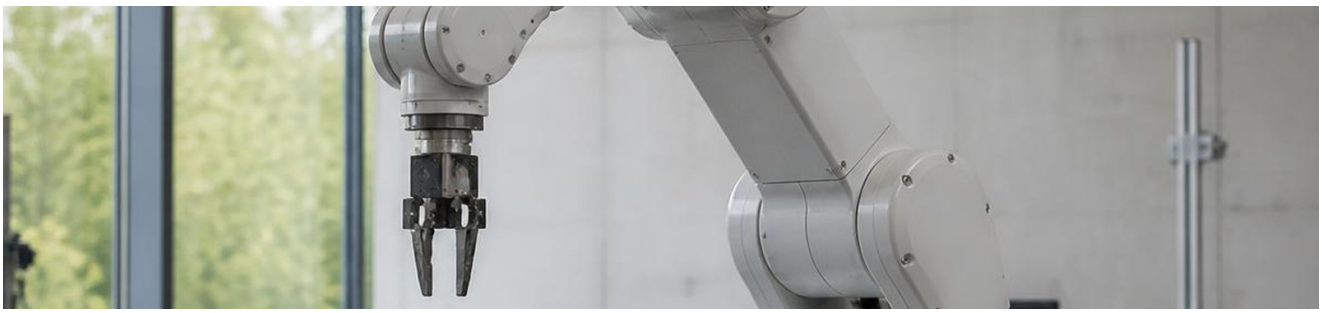
TU EISENFELD
Technische Universität Eisenfeld



Global Track — Robotics and Artificial Intelligence

A dedicated pathway for international applicants: the same engineering depth as the on-campus degree, but fully studiable online — with remote laboratories, two live time windows and accompanying language and credential-recognition support.

Key facts

Award	M.Sc. Robotics & Artificial Intelligence (Global Track) — a general higher education entrance qualification or a recognised equivalent foreign degree
Volume	120 ECTS · 4 semesters
Study mode	Online with optional lab weeks
Language of instruction	English (accompanying German module)
Time zones	Asynchronous + live sessions in two time windows
Tuition	EUR 9,800 total · EUR 2,450 per semester
Intake	1 October 2027
Deadline	15 July 2027

Study plan

1. Semester — Foundations: mathematics, control and learning (30 ECTS)

Code	Module	ECTS	Delivery
RAI-101	**Mathematics for Robotics: Linear Algebra and Optimisation** Transformations, quaternions, convex optimisation, numerical methods.	6	Online
RAI-102	**Robot Mechanics and Kinematics** Forward and inverse kinematics, dynamics, trajectory planning.	6	Online
RAI-103	**Machine Learning I: Models and Evaluation** Supervised learning, regularisation, validation, error analysis.	6	Online
RAI-104	**Control Engineering and Embedded Systems** State space, PID/LQR, real-time behaviour, microcontroller toolchains.	6	Online

Code	Module	ECTS	Delivery
RAI-105	**Remote Laboratory I: ROS 2 and Simulation** ROS 2 nodes, Gazebo/Isaac simulation, remotely operated test benches.	6	Remote lab

2. Semester — Perception, autonomy and responsible AI (30 ECTS)

Code	Module	ECTS	Delivery
RAI-201	**Computer Vision and Sensor Fusion** Calibration, depth estimation, LiDAR-camera fusion, Kalman filtering.	6	Online
RAI-202	**Machine Learning II: Deep Learning and Sequence Models** CNNs, transformers, representation learning, GPU-cluster training.	6	Online
RAI-203	**Autonomous Navigation and SLAM** Localisation, mapping, path planning, behaviour architectures.	6	Online
RAI-204	**AI Ethics, Safety and European Regulation** Risk classes, documentation duties, safety cases, auditability.	6	Online
RAI-205	**Remote Laboratory II: Mobile Robotics** Teleoperated driving platforms, data capture, reproducible experiments.	6	Remote lab

3. Semester — Specialisation and industrial project (30 ECTS)

Code	Module	ECTS	Delivery
RAI-301	**Reinforcement Learning and Robot Learning** Policy optimisation, sim-to-real transfer, imitation learning.	6	Online
RAI-302	**Elective specialisation: industrial automation, medical robotics or vehicle autonomy** One applied field in depth, with its own standards landscape.	6	Online
RAI-303	**MLOps and Systems Engineering for Autonomous Systems** Versioning, edge deployment, monitoring, fault tolerance.	6	Online
RAI-304	**Industry project (supervised capstone, location-independent)** A real problem from a partner organisation or the student's own employer.	9	Online + supervision
RAI-305	**German for engineers (A1–B1, accompanying)** Technical language, applications and workplace culture in German-speaking countries.	3	Online

4. Semester — Master's thesis and research practice (30 ECTS)

Code	Module	ECTS	Delivery
RAI-401	**Research Methods and Scientific Writing** Experimental design, statistics, reproducibility, publication practice.	6	Online
RAI-402	**Master's thesis with colloquium (defendable online)** Independent research, two assessors, public defence.	24	Online + supervision

Total: 120 ECTS

Online study

Asynchronous first

Every lecture is recorded and released with transcripts, captions and problem sets. Live sessions run in two time windows so students across the Americas, Africa and Asia can attend.

Remote laboratories

Practical modules run on simulated environments and remotely operated test benches. Optional on-campus lab weeks are available but are not required to graduate.

Assessment and integrity

Assessment combines project work, code review, oral examinations and proctored online examinations. The binding rules are set out in examination and study regulations of 1 October 2026 (Official Gazette 04/2026).

Support for international students

Each cohort has a named academic adviser, peer groups organised by time zone, and clinics on credential recognition, visas (if on-campus weeks are chosen) and career entry.

Admission

1 — Check eligibility

A first degree (at least 180 ECTS or equivalent) in engineering, computer science, physics or mathematics; programming experience in Python or C++; English evidence as per English C1 (IELTS 7.0 / TOEFL iBT 95) or German C1 (TestDaF 4x4 / DSH-2), depending on the language of instruction.

2 — Submit credentials

Transcripts and degree certificates as certified copies or through a recognised evaluation service. Recognition questions are handled by admissions: recognition under the Lisbon Recognition Convention via the examination board, processed within four weeks.

3 — Motivation and portfolio

A statement of purpose (max. 800 words) plus a technical portfolio: repository, project report or publication.

4 — Online academic interview

A 30-minute conversation with two academics about prior knowledge, project intent and how the studies fit around work or family.

5 — Offer and enrolment

Offer letter, study agreement and access to the digital campus. Fees and dates: EUR 9,800 total · EUR 2,450 per semester, 15 July 2027.