Nuclear Energy Engineering Master Programme at KTH
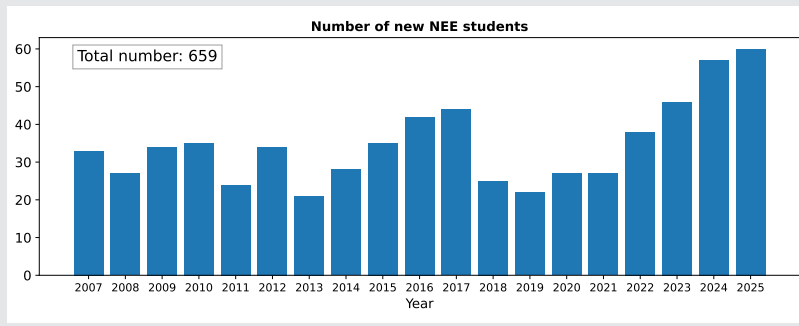
Jan Dufek

2025

KTH Royal Institute of Technology

Number of students
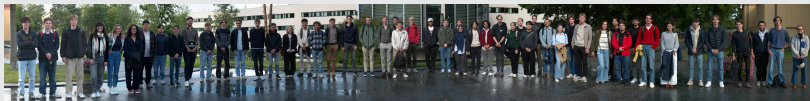
We have 60 new students registered in 2025!

- Nuclear Energy Engineering Master's Programme (TNEEM): 22
- European Master's in Nuclear Energy (EMINE): 10
- Double-degree EU students (DD): 15
- Double-degree TSINGHUA students: 0
- ERASMUS students: 13

Number of students registered in different years
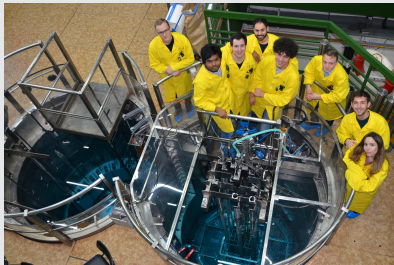

Number of new NEE students

Total number: 659

Students enrolled in 2025

Students enrolled in 2024

Compulsory courses, Year 1

Course name	Course code	ECTS
Nuclear Reactor Physics	SH2600	9
Nuclear Reactor Technology	SH2702	8
Thermal Hydraulics in Nuclear Energy Engineering	SH2701	6
Radiation Protection, Dosimetry and Detectors	SH2603	6
Nuclear Power Safety	SH2773	6

SH2600 includes training on VR-1 reactor in Prague

Elective courses

Course name	Course code	ECTS
Monte Carlo Methods and Simulations in Nuclear Tech.	SH2704	6
Radiation Damage in Materials	SH2605	6
Generation IV Reactors	SH2604	6
Small Reactors	SH2611	6
The Nuclear Fuel Cycle	SH2614	6
Leadership for Safety in Nuclear Power Industry	SH2610	6
Numerical Methods in Nuclear Engineering[1]	SH2774	6
Reactor Simulator (APROS)	SH2705	6
Sustainable Energy Transformation Technologies	SH2705	9
Nuclear Physics	SH2302	8
Chemistry and Physics of Nuclear Fuels	SH2772	8

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[1] Due to retirement of Vasily Arzhanov, the teacher of SH2774 was replaced by Dmitry Grishchenko and Chong Qi.

Students can also register for courses from other programmes

Course	Code	ECTS	Period
Fatigue	SE2137	6	P1
FEM modelling	SE2860	8	P2
Fracture Mechanics	SE2139	6	P3
Machine Learning	DD2421	7.5	P3
Plasma Physics	EF2200	6	P1
Energy and Fusion Research	ED2200	6	P4
Project in Fusion Physics	ED2246	6	P4
Component Design	MF2010	6	P2
Material Mechanics	SE2126	9	P1, P2
Artificial Neural Networks and Deep Architectures	DD2437	7.5	P3
Optimization	SF1811	6	P2
Computational Fluid Dynamics	SG2212	7.5	P3
Methods in High Performance Computing	DD2356	7.5	P4
Applied Nonlinear Optimization	SF2822	7.5	P4