

Digital Energy Solutions¹

Energy. Digital. Future.

The energy sector is undergoing a fundamental transformation: climate change, growing energy demand, renewable energy, and digitalization are reshaping the entire system. Professionals are needed who combine technical expertise, economic insight, and regulatory know-how with digital thinking.

The international joint master's program Digital Energy Solutions (DES) is designed to prepare students for these challenges. The program combines energy engineering, IT, markets, and innovation, providing the skills needed to make the future energy supply secure, sustainable, and efficient, while actively driving the energy transition forward.

Career Profile

Graduates are well prepared to shape the future of energy as Energy Solutions Engineers. They take on key roles with energy providers, grid operators, in industry, consulting, and research – working on everything from smart grids and renewable energy to digital platforms.

The program opens up exciting career paths in leadership, innovation, and cross-functional roles – on both a national and international level.

Organization

The curriculum of the Master's program in Digital Energy Solutions is jointly organized by Johannes Kepler University Linz (JKU) and the University of Applied Sciences Upper Austria (FH Upper Austria), leveraging the complementary strengths of both institutions.

JKU contributes its research-oriented, discipline-specific academic depth, enabling graduates to seamlessly transition into doctoral studies, while University of Applied Sciences Upper Austria provides strong practical orientation, industry cooperation, and applied project work. This combination ensures that students with different educational backgrounds – from research university or university of applied sciences – benefit equally.

The four-semester program integrates technical, economic, legal, and digital competencies in a modular structure with electives, case studies, and a master's thesis. Courses are delivered across campuses in a way that minimizes travel efforts while fostering an interdisciplinary and international learning environment.

Degree

→ Master of Science in Engineering (MSc)

Duration

→ 4 semesters (120 ECTS)

Annual Intake

→ 30

Admission Requirements

→ Completed Bachelor's degree or similar qualification in a relevant subject.
→ sound knowledge of English.

Application

→ online – details & deadlines on fh-ooe.at/application

Admission Procedure

→ Interview, test

Language of Instruction

→ English

Semester Abroad

→ Possible at an international partner university

Tuition Fees

→ EU/EEA citizens: 363.36 EUR per semester (plus Austrian Student Union fee).
→ Citizens from non-EU/EEA countries: 726.72 EUR per semester (plus Austrian Student Union fee).
→ Scholarships available.

→ [instagram.com/SAIL.fhooe](https://www.instagram.com/SAIL.fhooe)

→ [facebook.com/SAIL.fhooe](https://www.facebook.com/SAIL.fhooe)



¹ Subject to approval by AQ Austria and the JKU committees.

Curriculum

Core and elective courses	ECTS / semester	1	2	3	4	Org.*
→ Foundations of Engineering						
Electrical Energy Engineering	3					FH ¹
Statistics for Energy Specialists	3					JKU ²
→ Energy Economics and Regulation						
The EU Energy System: Markets, Policies and Regulation	6					JKU ²
Principles in Energy and Environmental Economics	3					JKU ²
→ Business and Sustainability Management						
Financial and Cost Accounting		3				JKU ²
Financial Management		3				JKU ²
Corporate Sustainability Management				3		JKU ²
Sustainable Finance				3		JKU ²
→ Energy Technology						
Power Generation		6				FH ¹
Power Transmission and Distribution		3				FH ¹
→ Information Technology						
Introduction to Software Development with Python	3					JKU ²
Introduction to Software Development with Python for Applications in Energy	3					JKU ²
Introduction to IT Security	3					JKU ²
Processes and Process Modeling		3				FH ¹
Home and Building Automation				3		FH ¹
Data Space Principles				3		FH ¹
AI in Energy				3		FH ¹
→ Application of Energy Technology						
Energy Services		6				FH ¹
Energy Consumers				3		FH ¹
Energy Solutions in Industry				3		FH ¹
→ Electives³						
Compulsory Elective A	3					FH ¹
Compulsory Elective B	3					JKU ²
Compulsory Elective C		3				FH ¹
Compulsory Elective D		3				JKU ²
Compulsory Elective E				3		FH ¹
Compulsory Elective F				3		JKU ²
→ Scientific Competencies						
Scientific Work			3			FH ¹ /JKU ²
Master's Thesis					23	FH ¹ /JKU ²
Master's Thesis Colloquium and Master's Thesis Seminars					4	FH ¹ /JKU ²
Master's Exam					3	FH ¹ /JKU ²

Students can further shape their individual learning path by choosing from a variety of elective courses. Examples include Energy Meteorology, International Project Management, Information Security Management Principles, Battery Technology, Ethics and Gender Studies, Managerial Economics, Special Topics in Energy, Data Warehousing, Data Mining, Software Systems, Energy Trading Solutions, Hydrogen Technology, and Visualization. These electives allow students to deepen their expertise in areas of personal and professional interest and to specialize according to their career goals.

* Org. = Organization

¹ FH = University of Applied Sciences Upper Austria

² JKU = Johannes Kepler University Linz

³ Offered subject to a sufficient number of participants.

ECTS: European Credit Transfer System
(= credit points for academic achievements). A total of 30 ECTS must be completed each semester, amounting to 120 ECTS overall.

Topics and Focus Areas

Digital Energy Solutions combines energy technology, economics, regulation, and digitalization, offering comprehensive opportunities for individual specialization in the following focus areas: Energy Technology, Energy Economics and Regulation, Business and Sustainability Management, Information Technology, Application of Energy Technology, as well as a wide range of additional topics with the option to specialize further through electives.

Practice and Research in the Program

The curriculum combines the strong practical orientation and industry collaboration of the University of Applied Sciences Upper Austria with the research-driven academic depth of JKU, enabling students to apply theoretical knowledge in real-world projects while engaging with cutting-edge research in energy, digitalization, and sustainability.

International

The Digital Energy Solutions program is taught entirely in English, and its international environment equips students with the language and intercultural skills needed to thrive in the global energy sector. Students may also spend a semester abroad at one of our partner universities, gaining additional international experience and expanding their professional network.

Good to Know

→ Digital Energy Solutions is an international joint degree program offered by the University of Applied Sciences Upper Austria and Johannes Kepler University (JKU) Linz. Students benefit from the strengths of both institutions, modern teaching methods, and an interdisciplinary learning environment. The degree is awarded by JKU, giving the program a strong international profile and opening excellent career opportunities both in Austria and abroad.



The global energy system is undergoing a profound transformation – driven by climate change, digitalization, and the need for sustainable solutions. This program equips students with the interdisciplinary expertise to navigate this transition. They gain a deep understanding of energy technology, markets, and regulation and learn to apply digital tools such as AI and data spaces. They also develop the skills to design innovative, resilient, and future-proof energy solutions. In short, studying this program means becoming part of the generation that will lead the global energy transition.

Prof. Dr. Christoph Schaffer, Head of Studies

Contact

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