

PROGRAM FEATURES

- >>> Gain proficiency and become an expert in solar energy engineering
- >>> Study part time and raise your skills on the job
- >>> Use E-learning tools to study from anywhere in the world
- >>> Graduate with an academic certificate or a Master of Science degree
- >>> Certificates and degrees awarded by University of Freiburg in scientific cooperation with Fraunhofer ISE
- >>> Study with leading experts in industry and research and development
- >>> Increase your assets for leading positions in R&D, sales or engineering management
- >>> Qualify for postgraduate studies towards a PhD in solar energy engineering
- >>> Take a career shift and move into the solar energy sector



YOUR CONTACT PERSONS

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Are you interested in further part-time degree programs? Please contact the Fraunhofer Academy.

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Continuing education

SOLAR ENERGY ENGINEERING

LEARN FROM WORLD'S LEADING EXPERTS IN SOLAR ENERGY

We would like to invite you to join the worldwide growing solar community and become a part of our successful and renowned society of solar scientist and engineers. We offer continuing education courses and a Master of Science degree program through which you will gain scientific and technical knowledge in solar energy. You will study part time with our renowned experts in solar energy through e-learning and online courses as well as hands-on workshops in the facilities of the Fraunhofer Institute for Solar Energy Systems ISE.

Our program provides not only in-depth knowledge and a suitable and flexible learning environment for working professionals but also enjoyable events and networking meetings with R&D and industry experts. Because of our motivated and knowledgeable lectures, I am convinced that you will enhance your knowledge in solar energy and become an expert yourself.

Yours sincerely

Stefan Glunz

Prof. Dr. Stefan Glunz

Program Director Master of Science Solar Energy Engineering



Partner University





OVERVIEW

The continuing education program in solar energy engineering provides profound insights into the physics, technology and system design of solar cells, photovoltaic systems and solar thermal devices. It enables students to develop, design and optimize devices and systems with respect to efficiency, cost and lifetime. Excellent researchers from the Fraunhofer Institute for Solar Energy Systems ISE and the Albert-Ludwigs-University of Freiburg provide courses based on the latest scientific and technological knowledge.

Study part time – from all over the world

You will spend most of your time studying online – from any place in the world. Downloadable scripts and e-lectures provide the freedom to use available time slots on business trips and train rides for your education and career building.

Hands-on experience at Fraunhofer ISE's labs

The highlight of the program is a voluntarily campus phase offered at the end of each semester or certificate course. You will get the chance to meet teachers and fellow students personally and experience hands-on training in Fraunhofer ISE's labs. Invited speakers from science and industry will bring you deeper into the photovoltaics community – a community that is growing in number and importance.

CERTIFICATES

Certificate courses

- Solar cells and photovoltaic systems
- Photovoltaics and the renewable electricity grid
- Crystalline silicon photovoltaics (lab workshop included)
- Material and solar cell characterization and modelling (lab workshop incl.)
- Non-conventional cell concepts and advanced processing

Target group: Engineers, working professionals, decision makers in the field of photovoltaics

Degree: Certificate of the Albert-Ludwigs-University of Freiburg in collaboration with Fraunhofer Institute for Solar Energy Systems ISE

Admission criteria:

- Bachelor's degree in math, science engineering or any related field
- Familiar with photovoltaics or semiconductor physics and devices

Duration: 6 months part time

Course fee: €2500 (discounts for students upon request)

Application deadline:

April or October every year depending on the course

For more information: www.study-solar.com/certificates

MASTER OF SCIENCE DEGREE

The Master of Science provides in-depth knowledge in all aspects of solar energy engineering. The program splits in preparation modules, research projects, mandatory modules as well as elective modules where a specialization in a specific field possible.

Preparation Modules

The Global Energy Needs in a Nutshell	5 ECTS
Fundamentals of Math & Physics	10 ECTS
Fundamentals of Semiconductors	12 ECTS
Electrical Engineering and Power Electronics	3 ECTS
Research Projects	30 ECTS

Mandatory Modules

Solar Cells & Photovoltaic Systems	10 ECTS
Solar Thermal Systems	10 ECTS
Crystalline Silicon Photovoltaics	10 ECTS
Master Thesis	15 ECTS

Topics for Elective Modules

Characterization & Modelling, Photovoltaic Systems & Grids, Solar Cell Technologies

Target group: The Master of Science in Solar Energy Engineering is

designed for professionals in

- Research & Development
- PV Equipment Production & Automation
- Technical & Business Consulting

Degree: Master of Science degree of the Albert-Ludwigs-University of Freiburg in collaboration with Fraunhofer Institute for Solar Energy Systems ISE

Admission Criteria

- An academic degree in a scientific or technical field
- One year of professional experience

Duration

- 3 years part time if you have a bachelor's degree
- 2 years part time if you have a master's degree

Course fee: €12,500 – €22,500 (depending on your previous degree)

Application Deadline: 1st September every year. Courses start in October.

Apply now: www.study-solar.com/master

Accreditation: The program's accreditation is granted by the agency ACQUIN.