

## Admission Criteria

### Academic Requirements

- Requirements include a Bachelor's degree in energy engineering, mechanical engineering, industrial engineering, electrical engineering, civil engineering, or equivalent with at least 210 ECTS credits or equivalent degree requirements (a minimum of seven semesters at a German university with a workload of 25-30 hours per ECTS or an equivalent foreign university degree).
- For applicants who have a Bachelor's degree with less than 210 credits (but with a minimum of 180 ECTS), an approval of 30 ECTS based on the qualified working experience is possible if the examination board agrees. The extent and nature of the working experience must comply with the rules for a second practical semester at Bavarian applied universities (§13 RaPO) and must be documented with a certificate of employment.
- Specific experience in energy related topics is also required and checked in an aptitude test based on documents provided by the applicant. There is NO interview. Energy experience can be gained by way of professional jobs, suitable internships, a Bachelor's thesis, and other project work.

### Language Requirements

As this is a study course completely taught in English, proof of sufficient English language skills is necessary, either documented by a TOEFL-test score of 543 or above (pbt) or an IELTS score of 6 or above or an equivalent certificate. No test but proof is required for native speakers or graduates of an English taught Bachelor program.

## Quick Information and Contact

### Technische Hochschule Ingolstadt (THI)

About 5,400 people studying at THI will be able to apply scientific methods in their future career due to a practice-oriented approach. Excellent framework conditions create perfect conditions for a short duration of study and a high rate of success.

Currently, more than 550 foreign students from 70 countries are completing their studies with us. Individual services, a familiar campus atmosphere and numerous students from abroad await you.

### Standard Period of Study

3 semesters - Start on 1st of October

### Application Period

2nd May - 15th July 2017

### Financing

- no tuition fees
- 42 EUR student's union fee per semester
- Living expenses: 700 - 900 EUR per month

Please check out our homepage for further information:  
[www.thi.de/go/m-mre-e](http://www.thi.de/go/m-mre-e)

If you have any questions regarding the course, please do not hesitate to contact us.

### Contact



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## Renewable Energy Systems

### Master of Science M.Sc.



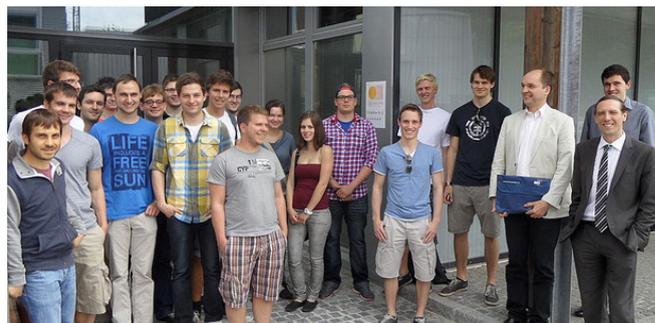
## Shaping the Energy Supply of Tomorrow

One of the major challenges of our times is to ensure an environmentally friendly, sustainable and secure energy supply. That is why the energy sector undergoes a tremendous change. Investments are moving from unsustainable to renewable energies. But as renewable energies are more volatile, the interaction between energy systems becomes more complex.

### Objective

The master program Renewable Energy Systems (RES) aims at giving a deep and detailed theoretical, technical and practical understanding of energy systems. Knowledge about various renewable energy technologies, like wind, solar, geothermal or biomass is integrated in the program, but the main focus is not on single technologies but on the interrelation between these technologies and the demand side structure.

Graduates will be perfectly prepared to take on leading positions in the energy sector.



Excursions perfectly combine theory and practice. Students benefit from the THI company network with over 200 partners.

## Course Contents

### Modules

- Building Energy Systems
- Industrial Energy Systems
- Urban Energy Systems
- Off Grid Energy Systems
- Numerical Methods and Computation Simulation
- Energy Policies and Economics
- System Analysis and Control
- Introductory Laboratory Course
- Energy Management and Energy Efficiency
- German lectures for international students

### Study Plan

3. Semester				
Master's thesis				
2. Semester				
Energy Policies and Economics	Numerical Methods and Computation Simulation	Energy System 2	Energy System 3	
1. Semester				
Introductory Laboratory Course	System Analysis and Control	Scientific Research Seminar	Elective course	Energy System 1

### Energy System Modules

Students must choose three out of four energy system modules, where they will be confronted with the practical task to design energy systems in a project-oriented approach. Students are supported by a team of specialists, who will teach the relevant aspects of the components. Students compare, select and determine components according to the defined requirements of the systems, to learn which constraints and requirements are important for planning, financing and operating energy systems.

## Job Profiles

Graduates of the master program will be qualified for expert and leadership tasks in the following fields:

- Planning
- Government / administration
- Utilities
- Project Development
- Research
- Production

For the future careers of the students the following industry branches are convenient:

- Energy engineering
- Building services / HVAC
- Environmental engineering

## Energy Research at the THI

The university's Institute of New Energy Systems (InES) conducts research in the areas of bio-energy, energy systems, geo-energy and solar energy. RES Students not only profit from the strong cooperation with InES itself but also from InES' company network in the RE sector.

Location of InES' partner companies in the region in the field of component and system manufacturing, energy supply, planning and R&D.

