



# KIC InnoEnergy Master School

## MSc CLEAN FOSSIL AND ALTERNATIVE FUELS ENERGY

**MSc Clean Fossil and Alternative Fuels Energy gives engineering students cutting-edge knowledge plus the ability to develop entrepreneurial skills and innovative thinking in the fossil-based power industry and chemical fuels and/or renewable resources fields – all in an international environment with close industrial connections.**

**This unique blend, together with our passion for constant educational development, will help you not only in the early stages of your chosen career, but also throughout your whole professional life.**

### PROGRAMME DESCRIPTION

MSc Clean Fossil and Alternative Fuels Energy fosters thinking about global responsibilities and sustainable development for all. It primarily focuses on technologies that lead to the efficient thermal and chemical conversion of coal with reduced pollutant emissions to air, water and land at all levels and stages of the operation, as well as the application of biomass or unconventional hydrocarbons e.g. shale gas. In addition, strong emphasis is placed on understanding, applying and integrating chemical fuels and renewables to create high-efficiency eco-friendly and sustainable power systems.

At the end of the programme, you will have acquired a systematic, in-depth

understanding of the principles and practices of all stages of power systems operation and implementation from technical, economical and judicial points of view.

MSc Clean Fossil and Alternative Fuels Energy is a joint masters programme run by three European universities involved in the framework of KIC InnoEnergy that is funded by the European Institute of Innovation Technology (EIT):

- AGH University of Science and Technology (AGH UST), Kraków, Poland
- Silesian University of Technology (SUT), Gliwice, Poland
- Instituto Superior Tecnico (IST), Lisbon, Portugal

### PROGRAMME CONTENT

Programme content has been carefully chosen to fulfil both scientific and practical objectives. As a two-year, double-degree masters programme, it features a mandatory mobility scheme that requires you to study at two different locations.

Your first year of study, provided by AGH or SUT, has a strong focus on both fundamental and applied courses. Its multi-disciplinary nature initially offers you the possibility to study either energy engineering (SUT) or chemical technology (AGH). Your second

programme year, provided by IST, is more detailed. It gives you the chance to gain in-depth knowledge in either of the following specialized areas:

- Chemical fuels as part of the energy mix (IST)
- Renewable energy as part of the energy mix (IST)

As a student of MSc Clean Fossil and Alternative Fuels Energy, you not only receive an advanced education in all engineering aspects of the topic, but also benefit from solid business skills training in innovation and entrepreneurship. You can also expect the involvement of and close collaboration with the programme's industrial partners. With their active support, you take part in:

- Mandatory industrial training, typically two months duration
- Mandatory entrepreneurship training
- Special activities with leading industrial and business specialists (study visits, special lectures, consultations, etc.)

### THESIS PROJECT

The final Thesis project corresponds to five months of full-time study. Projects are relevant to clean coal technologies, biomass technologies and/or renewables or chemical fuels concepts and should display a clear

orientation towards innovative solutions relevant to the area of study interest.

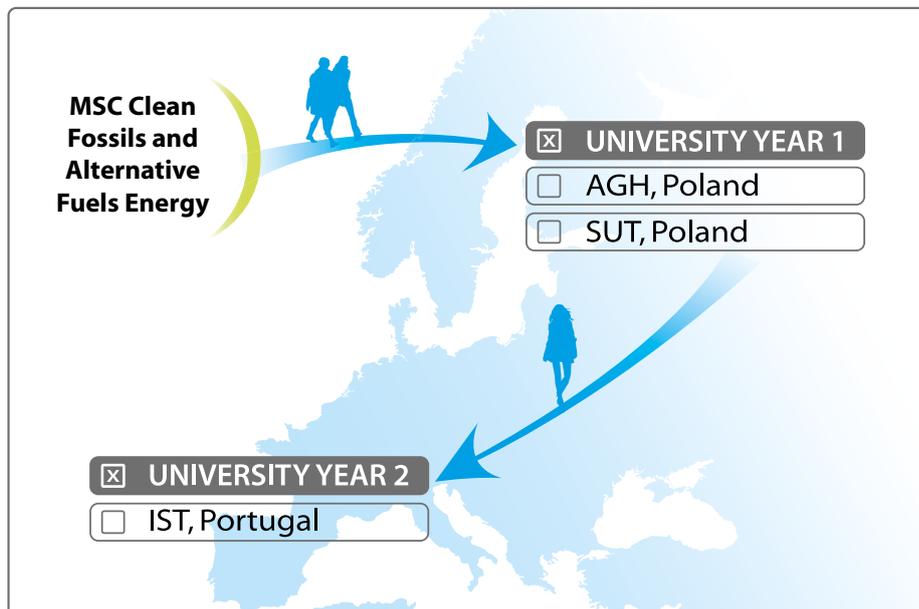
### CAREER OPPORTUNITIES

As an MSc Clean Fossil and Alternative Fuels Energy graduate, you will enjoy an in-depth understanding of the principles and practices of all implementation and operational stages of technologies based on coal, biomass and their energy mix with chemical fuels and renewables. You will thus be well prepared for a career in energy production and environmental protection, either in industry or in R&D. Moreover, the programme's comprehensive innovation and business modules will help you easily find your bearings in today's business environment.

Should you choose further research and a doctorate degree, your prospects in the international job market will be greatly enhanced by the programme's built-in mobility

and tight cooperation with energy and environmental company partners. Mandatory internship in industry, as well as the strong participation of non-academic/industrial

specialists in course planning, giving lectures or opening doors for study visits, contributes crucial added-value to your CV.



### APPLICATION PERIODS

Application Round 0  
November 22nd – December 31st, 2013  
Application Round 1  
January 2nd - February 28th, 2014  
Application Round 2  
March 1 - April 30, 2014

### REQUIREMENTS

MSc Clean Fossil and Alternative Fuels master programme is for outstanding students with an above-average Bachelor's degree in Mechanical Engineering, Electrical Engineering or Chemical Engineering. Admission of students with a different background in a related field may be possible after careful assessment. To qualify for MSc Clean Fossil and Alternative Fuels, applicants need to fulfil the admission requirements related to previous studies.

### ENGLISH PROFICIENCY

All applicants must provide proof of their English language proficiency, which is most commonly established through an internationally recognised test such as TOEFL, IELTS or University of Cambridge/ University of Oxford Certificates

Detailed information on the application procedure and requirements can be found on our website:  
[www.kic-innoenergy.com/application](http://www.kic-innoenergy.com/application)

### CONDITIONAL ACCEPTANCE

Students in their final year of undergraduate education may also apply and if qualified, receive a conditional offer. If you have not completed your studies, please include a written statement from the degree administration office (or equivalent department), confirming that you are enrolled on the final year of your education and giving your expected completion date. If you receive a conditional offer, you should present your degree certificate to the KIC InnoEnergy Admissions Office before your admission in a specific programme can be formalized. The KIC InnoEnergy Admission Office will forward this to your programme, and appointed Year 1 university, such that your admission can be completed.

### PARTICIPATION FEES AND SCHOLARSHIPS

See info on website.

### ACCREDITATION

Having successfully completed the programme (120 ECTS), you will be awarded the Master of Science (M.Sc.) as a double-degree of the two universities you have attended.

### CONTACT

For any questions or concerns related to the KIC InnoEnergy MSc programme Clean Fossil and Alternative Fuels Energy and the admission process, please contact us at: [cleancoal@kic-innoenergy.com](mailto:cleancoal@kic-innoenergy.com)

For more information:  
[kic-innoenergy.com/cleanfossil](http://kic-innoenergy.com/cleanfossil)

