



LITHUANIAN
ENERGY
INSTITUTE

PhD STUDIES

2021 – 2022

PHD STUDIES AT LITHUANIAN ENERGY INSTITUTE

LEI in cooperation with Lithuanian universities implements joint doctoral studies in the following science fields:

TECHNOLOGICAL SCIENCES

ENERGETICS AND POWER ENGINEERING – in cooperation with Kaunas University of Technology;

ENVIRONMENTAL ENGINEERING – in cooperation with Kaunas University of Technology and Vytautas Magnus University;

SOCIAL SCIENCES

ECONOMICS – in cooperation with Kaunas University of Technology and Klaipėda University.

A PHD PROGRAMME CORRESPONDS TO 4 YEARS STUDIES (FULL-TIME) AND CONSISTS OF:

- Independent research under supervision;
- Courses for PhD students (approx. 4 modules, 30 ECTS credits);
- Writing and publishing at least 2 scientific articles;
- Participating in at least 2 international conferences;
- The completion of a PhD thesis.

DOCTORAL RESEARCH TOPICS LEI PHD STUDIES INTAKE 2021 (1)

Energetics and Power Engineering (T 006)

- Numerical investigation of granulated biofuel dynamics and combustion processes by Discrete Elements Method
- Theoretical and numerical investigation of biomass pyrolysis in hot liquid medium
- Investigation of heat and mass processes by Discrete Elements (Molecular Dynamics) methods
- Numerical investigation of time dependent fluid flows in elastic channels
- Application of thermochemical processes for processing waste biomass and waste into valuable energy products and chemicals
- An experimental investigation of the physicochemical properties influence of the coating to evaluate the impact on the formation of vapor film
- Investigation on plasma assisted combustion of different gas mixtures for combustion efficiency
- Investigation of the heat and mass transfer processes in the condensing economisers of the biofuel boiler plants
- Investigation of non-equilibrium gliding arc plasma application for methanation process

DOCTORAL RESEARCH TOPICS

LEI PHD STUDIES INTAKE 2021 (2)

Energetics and Power Engineering (T 006)

- Influence of thermodynamically unstable structures on the reliability of steels in power plants under long-term thermal exposure
- Investigation of the process inside the nuclear fuel during wet and dry storage
- Studies of turbulence excitation in nonstationary flow
- Numerical investigation of premixed flame-turbulence interaction
- Modification of energy plant seeds by low temperature plasma for growth and energy properties improvement

Environmental Engineering (T 004)

- Material changes and resource recovery feasibilities in the landfills
- Evaluation of ecological flow in the context of anthropogenic activity and climate change

Economics (S 004)

- Research on the impact of changes in the European Union's energy policy on public welfare

Who can apply for PhD studies?

Individuals with Master's qualification degree or having graduated from one-level higher education system.

A **doctoral degree** is awarded by Kaunas university of Technology to a person who has successfully completed doctoral studies and defended a doctoral dissertation.

IMPORTANT DATES

February

Announcement of PhD research topics
Online at www.lei.lt.

March – June

Submission of applications.

End of June

Participation in motivational interview.

July – August

Signing of a Study agreement.

September

Beginning of studies.

September – November

Additional admission (-s) is (are) organised for the remaining state-funded placements.

ADMISSION PROCEDURE

1. Submit required documents:

- Application for admission;
- Copy of ID card or passport ID page;
- Curriculum Vitae;
- Master's diploma or equivalent higher education degree and diploma supplement (translated into English or Lithuanian and certified by notarization)*;
- References by two academic referees or researchers in the field;
- List of publications and their copies or a research proposal on the selected PhD topic;
- One photo (3 cm x 4 cm);
- Certificate of English proficiency: IELTS ≥ 6.5 , TOEFL ≥ 90 , ECFR $\geq C1$, or equivalent;
- Other relevant documents.

* – If your education documents are issued in the country other than Lithuania, the document certifying your diplomas' evaluation is obligatory (see <http://www.skvc.lt/en/>).

2. Participate in motivational interviews on-site or online;

3. Sign a study agreement.

FINANCING

The PhD studies can be financed by the budget of the Republic of Lithuania or a PhD student's personal finances.

Scholarships:

Doctoral students admitted to state-funded positions receive monthly scholarships: during the 1st year – 760 Euro/month, during the 2nd-4th years – 880 Euro/month.

Immigration Regulations:

Visit the website of the Migration Department for requirements at www.migracija.lt.



CYSENI

SINCE 2003 LEI ORGANISES AN ANNUAL CONFERENCE OF YOUNG SCIENTISTS ON ENERGY AND NATURAL SCIENCES ISSUES (CYSENI).

The main goal of the Conference is to discuss issues and perspectives of Natural Sciences and Energy Sector worldwide; as well as to allow young scientists to develop their skills and networking.

PhD students, postdocs, master students and all other young scientists doing research on energy issues are welcome to the Conference as speakers and participants.

PARTICIPATION IN THE CONFERENCE IS FREE.

MORE INFORMATION AT WWW.CYSENI.COM.

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Full information can be
found at our website's

WWW.LEI.LT

"PhD studies" section.