

# NEWSLETTER no. 2



Erasmus+



## CLEAN kWAT Integrating Environmental Considerations into Energy Systems Development

### ERASMUS+ KA2 Cooperation and Innovation for Good Practices

Funded by the Erasmus+ Program of the European Union. However, European Commission and Turkish National Agency cannot be held responsible for any use which may be made of the information contained therein.

This Project has been funded with support  
from the Turkish National Agency  
Project no: 2016-1-TR01-KA202-033958





# Training book

## “Integrating Environmental Considerations into Energy Systems Development”

The Training book is ready and you can download it from

[www.clean-kwat.com](http://www.clean-kwat.com)

The Book is available in:

- English
- Turkish
- Serbian
- Hungarian
- Spanish
- German





## Book content

1. Energy, environment and ecosystem relations
2. Ecological Footprint for energy systems
3. Conventional energy production systems and environmental impacts: Thermal Power Plants
4. Ecological and environmental dimensions of nuclear power plants
5. Solar energy systems and environmental effects
6. Wind energy
7. Wave, tidal and hydrogen energy
8. Geothermal energy
9. Hydropower energy
10. Biomass energy systems





# Training materials

The documentaries based on the Book chapters are great way to start the discussion among students and young engineers



Check all of them on YouTube channel [CLEAN-KWAT](https://www.youtube.com/channel/UC...)

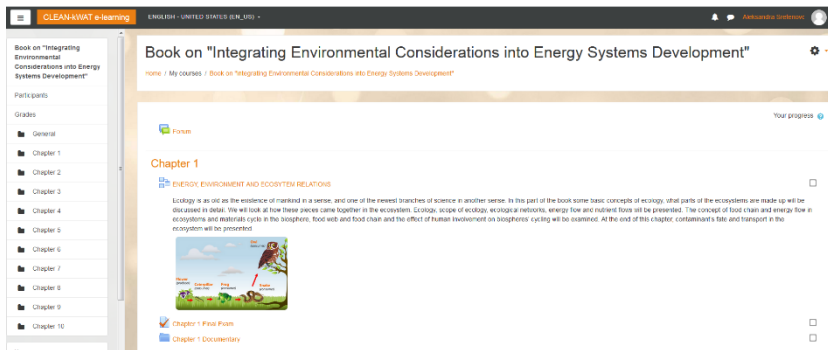




# Training materials

In Moodle e-learning Portal after you log in, it is possible to:

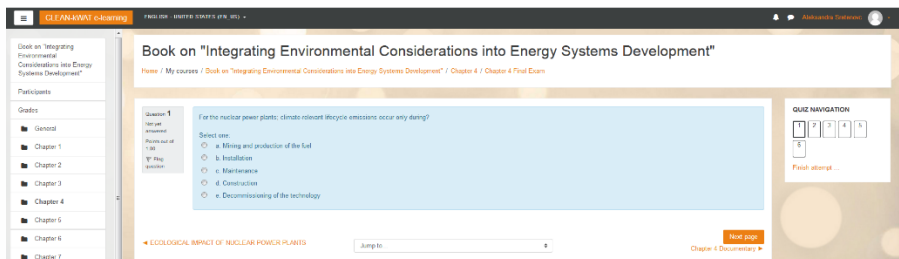
- Attend courses you are interested in



The screenshot shows the Moodle course interface. The course title is "Book on 'Integrating Environmental Considerations into Energy Systems Development'". The course is in English and is for students in the United States. The course structure is as follows:

- Grades: General, Chapter 1, Chapter 2, Chapter 3, Chapter 4, Chapter 5, Chapter 6, Chapter 7, Chapter 8, Chapter 9, Chapter 10
- Forum
- Chapter 1: ENERGY ENVIRONMENT AND ECOSYSTEM RELATIONS
  - Ecology is as old as the existence of mankind in a sense, and one of the newest branches of science in another sense. In this part of the book some basic concepts of ecology, what parts of the ecosystems are made up will be discussed in detail. You will look at how these pieces came together in the ecosystem. Ecology, scope of ecology, ecological networks, energy flow and nutrient flows will be presented. The concept of food chain and energy flow in ecosystems and material cycles in the biosphere, food web and food chain and the effect of human intervention on biosphere's cycling will be examined. At the end of this chapter, contaminants fate and transport in the ecosystem will be presented.
  - Chapter 1 Final Exam
  - Chapter 1 Documentary

- Check your knowledge by taking the quiz available



The screenshot shows a quiz question in the Moodle course interface. The course title is "Book on 'Integrating Environmental Considerations into Energy Systems Development'". The course is in English and is for students in the United States. The quiz question is:

Question 1  
 For the nuclear power plants, climate-relevant lifecycle emissions occur any during?

Select one:

- a. Mining and production of the fuel
- b. Installation
- c. Maintenance
- d. Construction
- e. Decommissioning of the technology

The quiz navigation panel shows a progress bar and a "Finish attempt..." button. The course structure is as follows:

- Grades: General, Chapter 1, Chapter 2, Chapter 3, Chapter 4, Chapter 5, Chapter 6, Chapter 7



# Booklet

It is also available in partner languages.

The main features of the Booklet are:

- Discussing education needs for VET professionals in the energy supply sector
- Presenting occupational qualifications learning pathway and acquired competencies
- Providing Learning pathway, LP structure and competences acquired for
  - Industrial and Production Engineer
  - Civil Engineer
  - Mechanical Engineer
  - Environmental Engineer
  - Electrical Engineer





# Multiplier events SERBIA



The first Multiplier Event was held in Belgrade in December 2017 with over 90 participants coming from different Universities and companies from energy sector. The discussion was conducted in direct contact with students and engineers after the project presentation. They are very interested in learning more about clean technologies

# TURKEY - GAZI

Faculty of Engineering in Gazi University organized the event in December 2017 with the aim to introduce what the Project and the outputs. Discussions were held on the products of the projects. Participants were environmental, chemical, meteorology and civil engineers and city planners (for energy and environment friendly cities).





# Multiplier events

## GERMANY



In March 2018, the Renewables Academy organized a workshop at its premises in Schönhauser to disseminate the existing result of the CLEAN-kWAT project and also to have some feedback for the designated target group which are energy engineers.

## SPAIN

AELV organized their Multiplier Event in Cádiz in March 2018. Participants were the representative of the civil engineer in the province and Andalusian area, technicians related to the energy area of the public administration and a teacher of professional training and their students.







# Multiplier events HUNGARY



Energiaklub - held their event in March in Budapest University of Technology with 13 participants: students, professors, experts and PhD students. Participants were very interested in the project, and in addition to their useful feedback, they also inquired about future participation in the project and utilization of the main learning outputs.

# TURKEY ORKON

In January 2018 ORKON organized the introduction of the project and its products. The main aim to allow discussions, consultations and information exchange with the people working in energy and environmental sector. Good exchange of expertise and ideas took place. Participants were civil and chemical engineers, industrial relations specialists, engineering students, master and P.h.D. students, political science and international relations students.





Do not miss the chance to participate!

Follow us on

[www.clean-kwat.com](http://www.clean-kwat.com)

Facebook:

[www.facebook.com/cleankwat](http://www.facebook.com/cleankwat)

LinkedIn:

[www.linkedin.com/company/clean-kwat](http://www.linkedin.com/company/clean-kwat)

YouTube channel: [CLEAN-kwat](https://www.youtube.com/CLEAN-kwat)

This publication was prepared by the financial contribution of the European Union and the Republic of Turkey. Only the consortium led by Giresun University is responsible for the content of this publication and it does not in any way reflect the views or attitudes of the European Union or the Republic of Turkey

