



CONSTRUCTION DEBRIS CHALLENGE

Description of the innovative teaching practice

The Construction Debris Challenge is a competition between teams of students, who will work on creating solutions for the given projects. Pair of two teams will work on solving the same problem, given by one construction company. It is expected to have 3-5 pairs of teams and 3-5 companies. Each team will have mentorship from academic staff and professionals from industry. At the finalization of the course a scheduled demo conference will take place, where participants present their work. The rest of the groups have to introduce questions and discussion on the presented topic.

The objective of the innovative practice:

- Visit a job-site to observe the dynamics of debris generation over many phases of construction
- Explore the availability of different strategies to tackle construction debris (recycling methods, sustainable production)
- Learn about green building materials and products

Topics that will be covered in this practice:

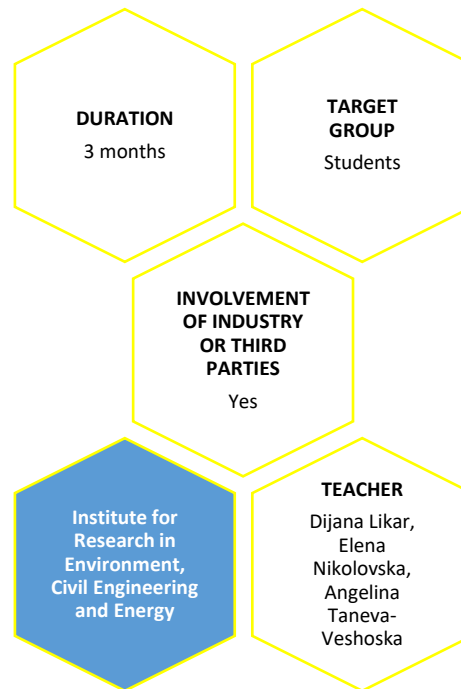
- The role of engineers in construction waste management
- Investigate construction debris production - Types and quantities of waste materials produced
- Cost savings accrued by recycling rather than disposing of waste in landfills
- Positive influence on the environmental impact of construction

Skills to be acquired/ improved:

- **Hard skills – Conceptual/thinking skills:** direct impact on Critical and Analytical thinking, indirect impact on Planning and organising
- **Soft skills – People related skills:** direct impact on Collaboration and Communication
- **Soft skills – Personal skills:** direct impact on Social responsibility
- **Business skills:** direct impact on Strive for quality and Care for sustainable development

Methods and techniques

- Format – Student competition utilising project-based learning
- Techniques completed with individual work: discovery, self-assessment quiz
- Techniques completed in teams: brainstorming, discussion forum, challenging assumptions
- Available resources via e-learning platform: articles, video materials, presentations, forum



Methods for assessment and evaluation of the practice

Methods for assessment

- Team presentations
- Quality of proposed project

Methods for evaluation

- Evaluation lists and feedback from students
- Testimonials and photos from students during implementation phase
- Feedback from involved professionals from industry