

Internship and Thesis Projects at Tractebel

Application of Discrete Event Simulation tool on Dismantling Processes of Nuclear Power Plants

Nuclear – Discrete Event Simulation – Decommissioning Processes

Business line: Nuclear - Department of Radioactivity Management

Type: Internship

Site: Brussels Engie Tower, home, university

Who is Tractebel?

Tractebel, part of the Engie group, has over 150 years of experience and is one of the world's largest engineering company. Tractebel offers its customers multidisciplinary solutions in the fields of energy, nuclear, hydraulic and infrastructure. Our teams are involved in all phases of a project, from feasibility studies to implementation.

What will you be working on?

Dismantling of Nuclear Power Plants is a long process over time. It requires consequent organization and follow-up of overall activities in terms of flows of waste and materials, of planning and of interfaces between activities. Discrete Event Simulation (DES) provides insights (amount and location) on the flows of and processes undergone by the waste and materials and supports the creation of planning and making decisions.

In the frame of your internship, you will be on charge of

1. Understanding and describing the application of DES tool, its advantages and drawbacks.
2. Understanding and describing different flows of waste and materials and processes during the dismantling activities within the Nuclear Power Plants.
3. Creating and/or evaluating with support of DES tool a planning by using a sequence of tasks and additional constraints as an input, based on simplified test case.

After the establishment of the DES test case, it will be possible to give a view on the status of the waste and materials at any given point in time, to give an estimate of waste and materials fluxes on specific locations or to identify potential gaps in the foreseen interfaces with other activities. The results from DES test case could also be challenged by some sensitivity analysis.

What profile are we looking for?

- You speak fluently Dutch or French and English
- You study Engineering
- You are curious and have an initiative mindset
- You have a good capacity for synthesis

What do we offer?

- An interesting internship in a large nuclear engineering company
- An environment that allows you to strengthen your technical skills
- The opportunity to receive professional guidance by experts in different fields of engineering
- Involvement in the dismantling project which is one of the biggest projects foreseen in Belgium

How to apply?

Do you think that Tractebel is the perfect fit for your internship?

Send us an e-mail to ZEYNAB.UMIDOVA@TRACTEBEL.ENGIE.COM with your CV and a few lines of motivation.

We hope to you soon!