

Competition for developing an idea on a topic related to nuclear energy "HACKATOM HUNGARY"

CONCEPT

Introduction

Innovations and new technologies are entering and helping to develop areas such as ecology and energy. Innovations are crucial to increase their safety and security, especially in the field of nuclear technology.

At the same time, nuclear energy is the only one that can provide an accessible, permanent and environmentally friendly source of energy needed for the development and already widespread use of new technologies.

The interaction and mutual positive dependence between nuclear energy and new technologies will be discussed during the student nuclear hackathon "HACKATOM HUNGARY".

The initiative will draw the attention of young people with an interest in physics, mathematics and energy to this important aspect for the development of energy and professions in it. It will provoke interest in energy as a professional field of development.

Description

The event is going to be a hackathon contest - a competition for a technological idea to deal with a specific task or challenge submitted by the organizers. It will be a team competition in which individual knowledge and skills are important, but even more important is teamwork. In this aspect, such form of events is extremely suitable for educational purposes and educational institutions.

Duration of the HACKATOM HUNGARY – 24 hours:

Day 1:

1. Online lectures by professors from Russian Universities on a topic related to nuclear energy. Russian Universities: MEPhI (Moscow), MPEI (Moscow), Peter the Great Saint-Petersburg Polytechnic University (St. Petersburg), Tomsk Polytechnical University (Tomsk), Ural Federal University (Ekaterinburg).
2. Description of a specific challenge or case;
3. Setting the task for the teams;
4. Team working time: solving the task.

Day 2:

1. Continuation of the work of the teams and preparation of the presentation of the decision;
2. At the end of the day - presentation of the decisions of each team;
3. Jury meeting. (Free time for students);
4. Jury decision and announcement of the winning team.

The topics of the competition are:

Task №1 Data Analysis for Results of Ultrasonic Testing of Welded Joints at a Nuclear Power Plant (Carry out the analysis and determine the parameters of the control system, areas of defects etc.);

Task №2 Prediction of electric power consumption by a nuclear power plant (Development of the algorithm for the energy consumption forecast).

Jury:

We suggest that the jury be composed of:

- MEPhI (Moscow)
- MPEI (Moscow)
- Peter the Great Saint-Petersburg Polytechnic University (St. Petersburg)
- Tomsk Polytechnical University (Tomsk)
- Ural Federal University (Ekaterinburg)
- University of Debrecen
- Dunaujvaros University

Scope of the initiative

Students from: Budapest University of Technology, University of Debrecen, Dunaujváros and Miskolc

NOTE:

The participants will get: certificate of participant and special prize from the partner of the Hackatom - Rosatom

Rules of Hackatom

- The competition is held entirely online;
- Teams consisting of two to five participants take part in the competition;
- The teams can include students from different specialties, as long as they are from the same university;
- Each team chooses how to work - online or offline. When choosing to work offline, the team chooses the place and is fully responsible for compliance with epidemiological requirements;
- The teams are formed in advance and are registered in the respective department - partner of the competition;
- Each team chooses the form that will follow for the task;
- There are no restrictions on what technologies will be used;
- For each team there will be one responsible from the organizers, who will assist in any problems, as well as indicate how much time he has;
- Any number of participants in the team can participate in the presentation of the project;
- Each team has 30 minutes to present its project;
- The official language is English.