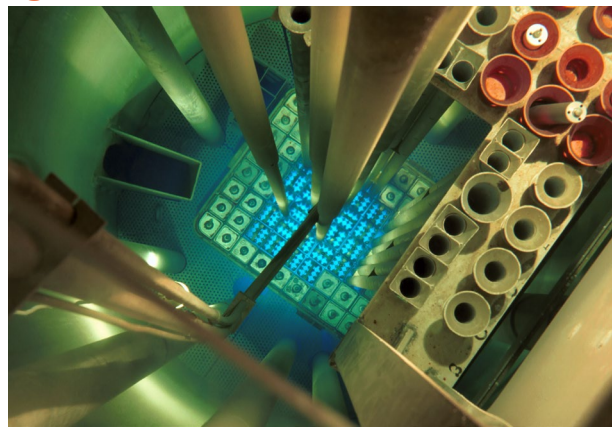


Hands-on exercises on the BME Training Reactor I-II.

Budapest, 23 – 26 Jan and 29 Jan – 1 Feb 2024

The Budapest University of Technology and Economics (BME) Training Reactor is a 100 kW maximum power, pool type, light water moderated **research reactor** used regularly **for education and training**. A set of measurements is offered in the framework of the GRE@T-PIONEER project to **complement** the topics of the six courses delivered by the project and allow the **application** of the acquired knowledge **in practice**. Besides **learning and experiencing** fundamental principles of reactor physics, the aim is to **compare measurements and simulations** and **demonstrate** the importance of modelling details and achievable accuracy.



BME Training Reactor

After the course, you will be able to:

- **Understand** the principles of **experimental reactor physics**, nuclear measurements, and **radiation protection**.
- **Understand** the behaviour of **nuclear reactors** and their **operation**.
- **Evaluate** measurement data and **compare** with modelling results.

Course format:

The **pedagogical format** of the course is based on a **hybrid flipped classroom**. In this format, you need to complete some **preparatory work** (representing about 40 hours of work) before attending the **hands-on exercises**, which are organised in **two parts**. Application is possible for both or either part.

- **Part I** lasts from 23 – 26 January and concerns measurements related to the **first three GRE@T-PIONEER courses** (nuclear data, fuel cell and assembly level calculations, and core calculations for core design).
- **Part II** lasts from 29 January – 1 February and concerns measurements related to the **second three GRE@T-PIONEER courses** (core calculations for transients, reactor transients and safety, radiation protection and shielding).

The **measurement sessions**, which occur every morning (ca. 08:30-12:30, CET), are offered **only to onsite participants**. However, a **separate online session** is offered for online participants in the morning to perform **hands-on exercises** related to the measurements. The online participants can join the **measurement data evaluation sessions** in the afternoon (ca. 13:30-17:30, CET), which will be **in a hybrid format**.

Course format

	On-site	On-line
Morning	Laboratory exercise in the BME Training Reactor	Hands-on modelling and simulation exercise
Lunchbreak		
Afternoon	Hybrid session for measurement data evaluation	

Online participation is only open to applicants who have **completed** any previous **GRE@T-PIONEER courses**. **Onsite** participation is open to **all**.

Upon successful completion of the course, a **certificate** will be issued. It will briefly describe the course **contents**, the number of **hours** the different course elements represent and the number of equivalent **ECTS credits** (European Credit Transfer and Accumulation System). **Different** certificates will be issued for **onsite and online** participants, stating they have completed either an **experimental reactor physics course** or an online course for **modelling and evaluating reactor physics experiments**.

The course is **free of charge**. Nevertheless, on-site participants must cover their **travel and accommodation costs** themselves.

Register till 12 November 2023:

great-pioneer.eu/register