

## **Applied Modeling in Pharmaceutical Engineering**

## **Description**

IIRT

In the pharmaceutical industry, accurate process models are essential for advanced control, process development, and maintaining high-quality standards. However, modeling pharmaceutical flow reactor systems poses significant challenges. The industry is therefore increasingly focusing on various tools and methodologies for effective modeling.

The objective of this Bachelor project is to evaluate different modeling approaches to enhance the automation and optimization of chemical processes. These modeling techniques will be tested using real experimental data and cutting-edge industrial software solutions.

## **Objectives**

- Conduct a literature review on modeling concepts utilized in Pharmaceutical Engineering
- **Compare, select, implement,** and test different modeling approaches
- Validate and compare the modeling approaches using real laboratory setups and/or actual experimental data

Start: today



## 🖄 Contact

Sebastian Knoll - sebastian.knoll@tugraz.at Martin Horn - martin.horn@tugraz.at



