Machine learning in Pharmaceutical Engineering

Description

In the pharmaceutical industry, accurate process models are crucial for advanced control, process development, and ensuring essential quality aspects. However, modeling pharmaceutical reactor systems is often challenging, which is why the industry is focusing on applying diverse concepts of machine learning.

Therefore, the **goal of this bachelor project is to test and implement various machine learning concepts to enhance the automation of chemical processes** further. These concepts **can be tested on a real laboratory setup or real experimental data**. Implementations are possible using MATLAB/Simulink, Python, or similar software.

Objectives

*   **Literature review** on concepts of Machine Learning and usages in Pharmaceutical Engineering
*   Comparison, selection, and **implementation of ML concepts**
*   **Implementation and verification** of the concepts on **a real laboratory setup** and/or **real experimental data**

Start: today
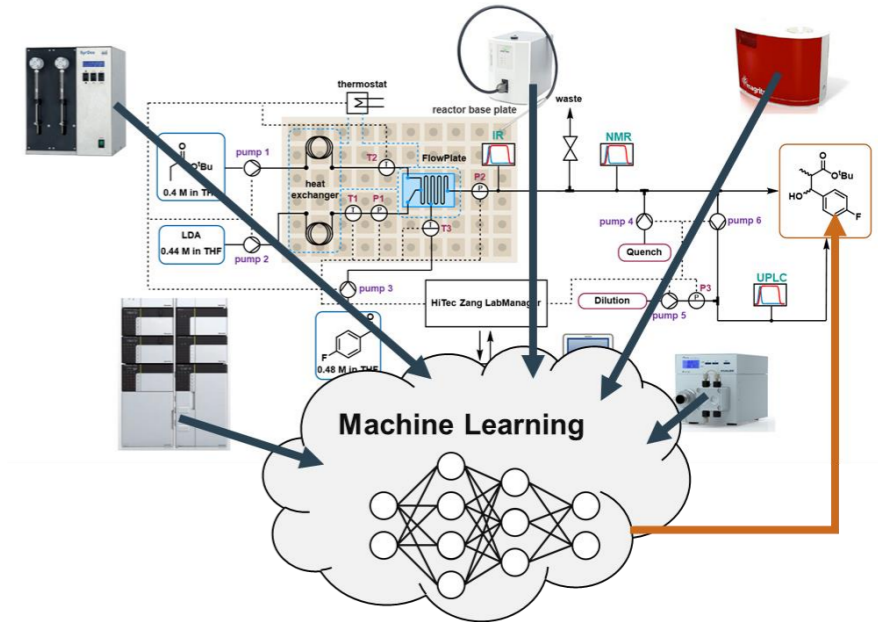
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