**Politecnico di Milano**

**Automation and Control Engineering**

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**AES Project 2021-2022**

**Summary**

1. **Assignment 1 – Introduction and creation of PI/PID controllers with tracking functionality**
2. **Assignment 2 – Tests on the model and Tuning of PI/PID controllers**
3. **Assignment 3 – Day and Night control**
4. **Assignment 4 – Optimization of the model**
5. **General conclusions**

**Assignment 1 – Introduction and creation of PI/PID controllers with tracking functionality**

Immagine che contiene testo, cielo, esterni, luce

Descrizione generata automaticamente

This is the starting scheme of the project:

First of all we can see that there is an heat pump that works on water to heat up the rooms….

…the model presents itself as a MIMO system, as we have a temperature measurement and two control variables ( the Heater and the valve) , but in reality we can introduce a daisy chain to split