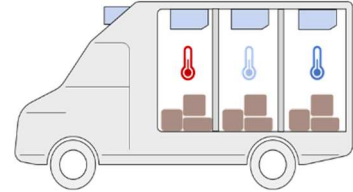


DIPLOMA THESIS

Construction, modeling, and control of a prototype multi-chamber cooling system

Refrigerated vehicles with multiple temperature zones are crucial for transporting different perishable goods, each requiring specific temperature conditions to maintain quality and safety. They enhance logistical efficiency and minimize loss of goods during transport.



With our project partner, pbx, we aim to develop a novel refrigeration system for vehicles with multiple temperature zones. We aim to build a prototype to evaluate its performance and capabilities. Additionally, we plan to test various control schemes for accurate temperature tracking within each chamber with minimal energy consumption.

Feel free to contact us if you are interested in this topic!

Tasks:

- Assist in the construction and setup of a prototype cooling system
- Controller development and implementation on a microcontroller
- Experimental evaluation of the cooling system and the control scheme

Prerequisites:

- Solid background in control theory
- Programming experience
- Ability to work independently and a high level of self-motivation to tackle new problems

Language:

English or German

Contact:

Dipl.-Ing. Maximilian Lösch

Phone: +43 1 58801 325 543

Email: maximilian.loesch@tuwien.ac.at

Institute of Mechanics and Mechatronics
Division of Control and Process Automation
Technische Universität Wien
Getreidemarkt 9 BA / 6th floor, E325-04
1060 Vienna

Ao.Univ.Prof. Dr. Martin Kozek

Phone: +43 1 58801 325 512

Email: martin.kozek@tuwien.ac.at

Institute of Mechanics and Mechatronics
Division of Control and Process Automation
Technische Universität Wien
Getreidemarkt 9 BA / 6th floor, E325-04
1060 Vienna