

# INTRODUCTION OF THE FIRST YEAR

## Ph.D. STUDENT

**Petr Jeleček, Ing.**

Institute of Machine and Industrial Design  
Faculty of Mechanical Engineering  
Brno University of Technology

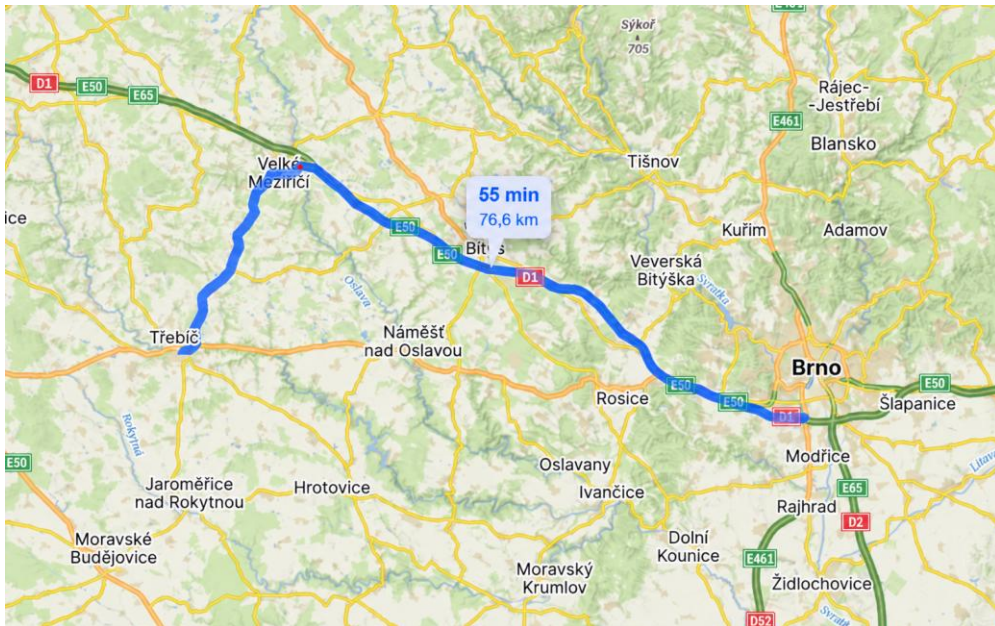
7.10.2026



# MEET MY HOMETOWN

## TŘEBÍČ

- Vysočina region
- Moravian roots



Google's version of Třebíč – Basilica of St. Procopius

# MEET MY HOMETOWN

## TŘEBÍČ

- Has much more to offer, such as:



Třebíč Chateau, right next to the Basilica



Historic Jewish District, right below it



Three Hoods festival

- What you may know:



# MEET MY HOMETOWN

## TŘEBÍČ

- The rest of the city

### Charles Square

- 3rd largest in the Czech Republic



### Clock tower

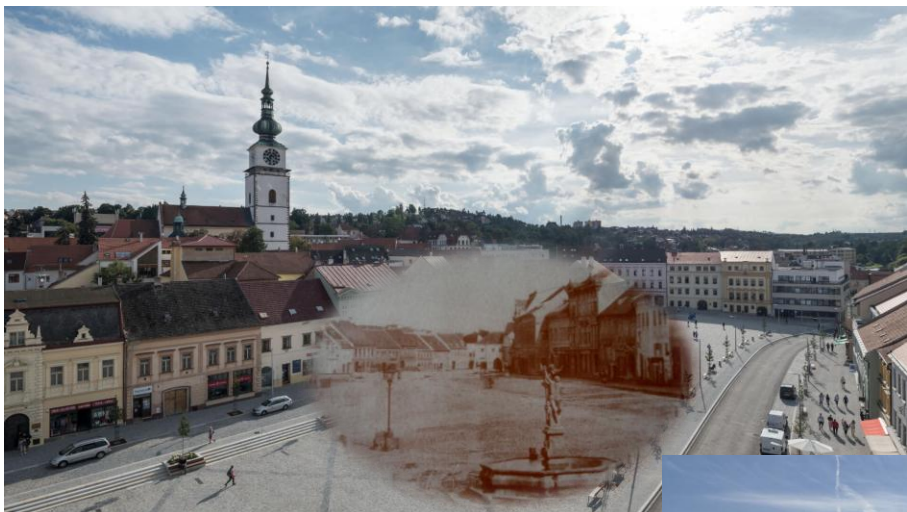
- 2nd largest dial in the EU



# MEET MY HOMETOWN

## TŘEBÍČ

- Newest additions



Charles Square



now features public showers (had 3,5mil. CZK budget)

Lots of Christmas lights during the holidays (around 3mil. CZK budget)

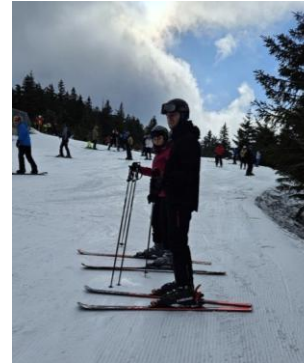


# HOBBIES

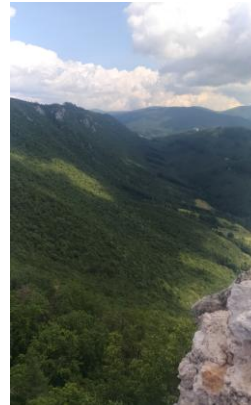


## Karate

- Practicing
- Coaching
- Referee



## Alpine skiing

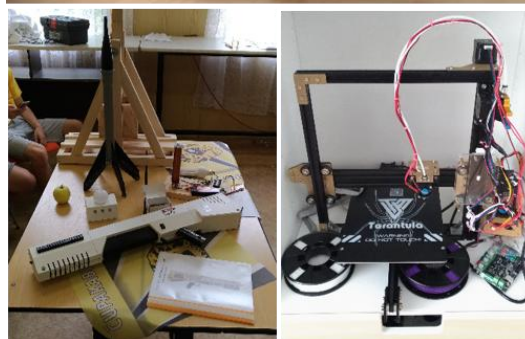


## Semi-voluntary hiking

# EDUCATION

Roots at  **SPŠT**

Střední průmyslová škola Třebíč

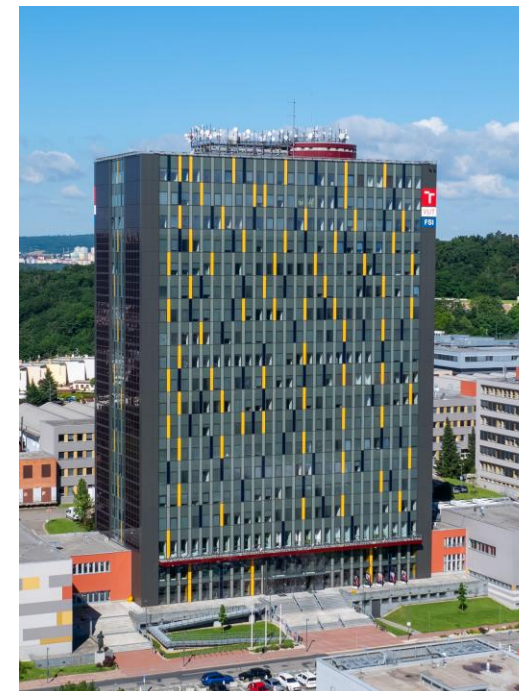


- Fan of project-based studies ever since



**BUT FME**

2020 – present



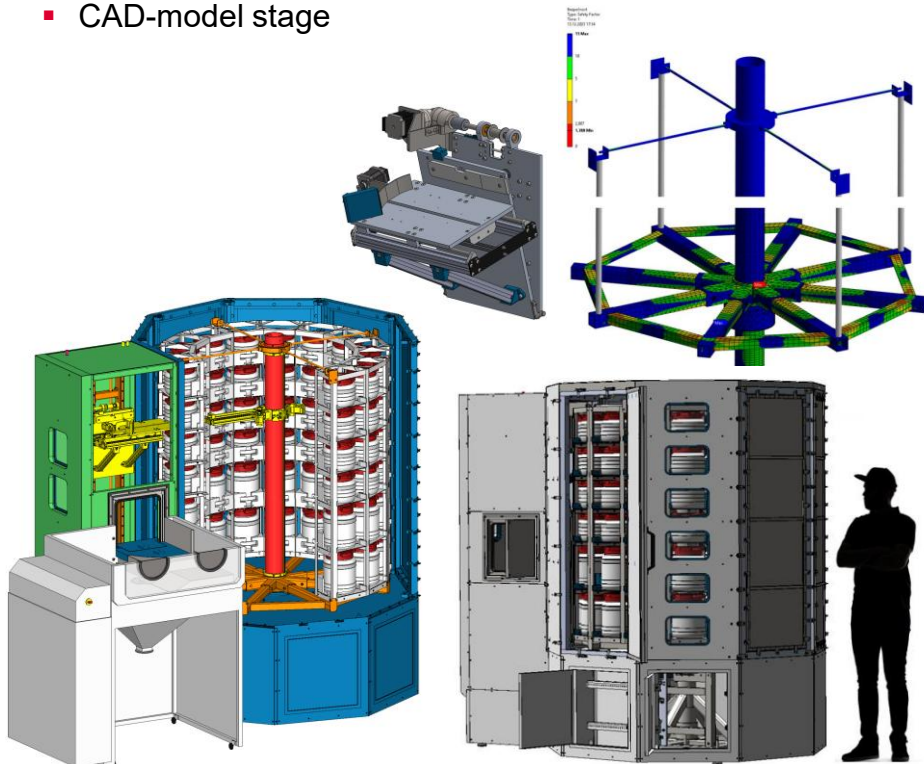
# PREVIOUS STUDY

## Bachelor's thesis

### Design of chamber for storing metal powders

Supervised by: Doc. Ing. Daniel Koutný, Ph.D.

- Application of learned approaches
- In-depth supplier communication
- CAD-model stage

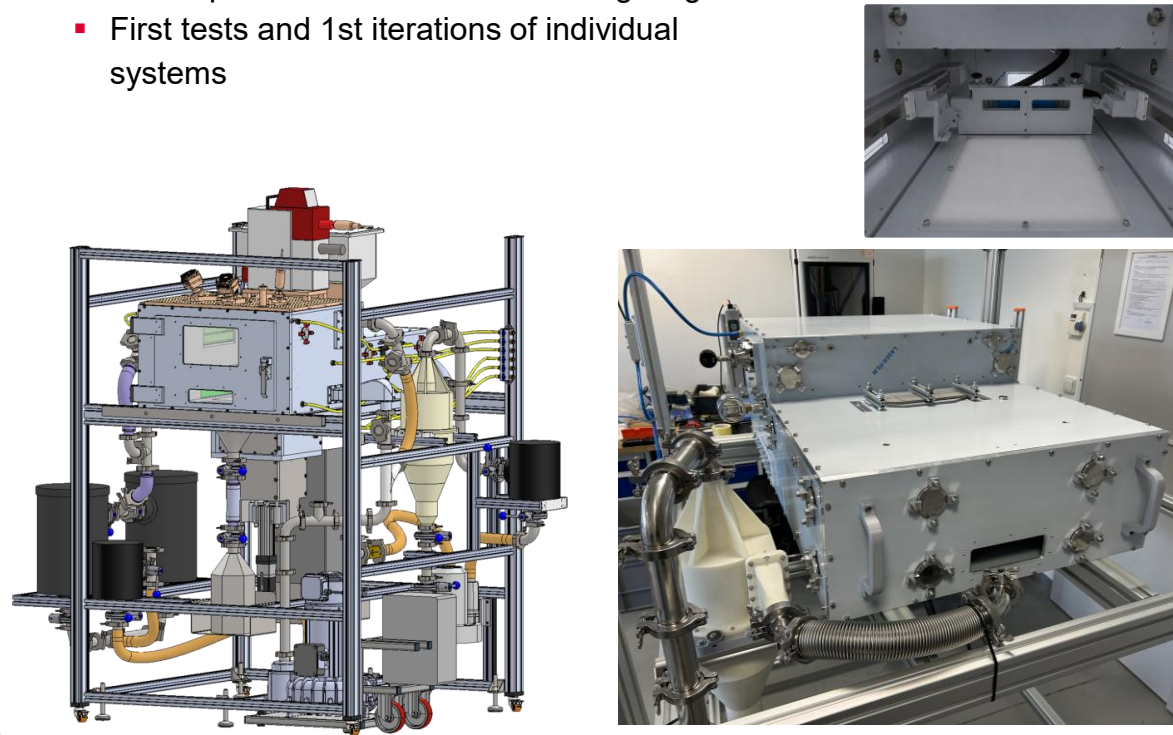


## Master's thesis

### Design of experimental chamber for multi-material AM

Supervised by: Doc. Ing. Daniel Koutný, Ph.D.

- Adapted platform for testing holohedral MM AM
- Development reached manufacturing stage
- First tests and 1st iterations of individual systems



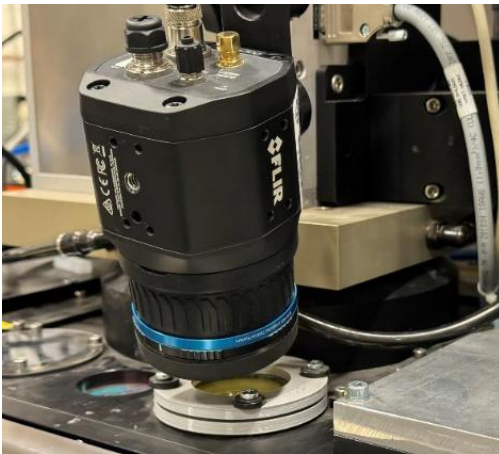
# DISSERTATION

## Online monitoring of the LPBF process

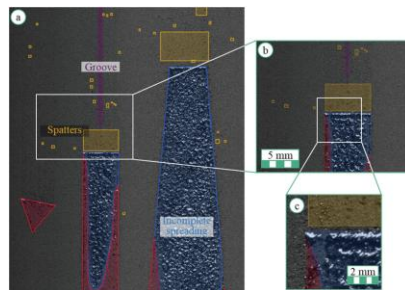
Supervisor: Doc. Ing. Daniel Koutný, Ph.D.

Supervisor specialist: Ing. Aneta Zatočilová, Ph.D.

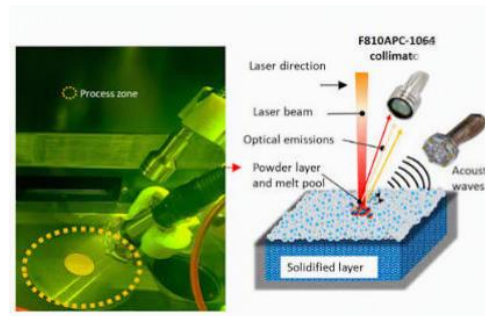
- Affiliated with the **RIAT** department
- Continued development of Master's thesis
- Focus on identifying an optimal in-situ monitoring strategy
- Process dynamics and material interfaces observation



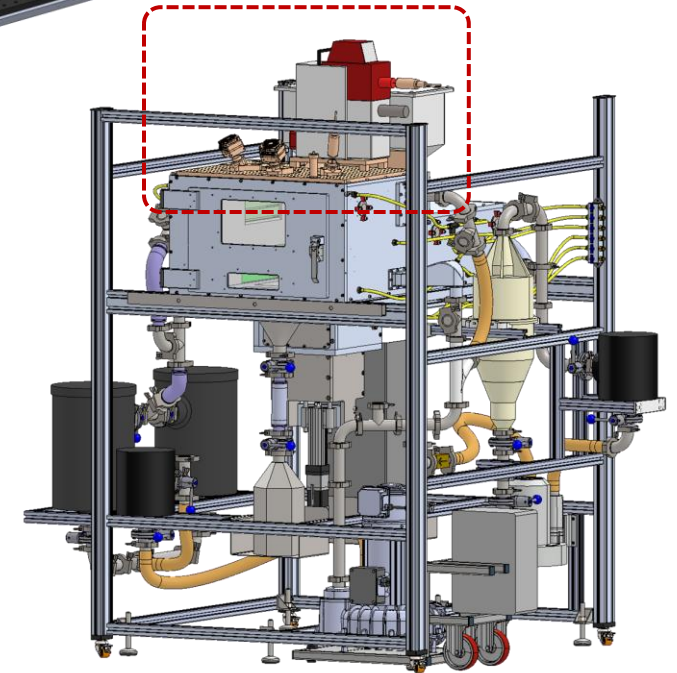
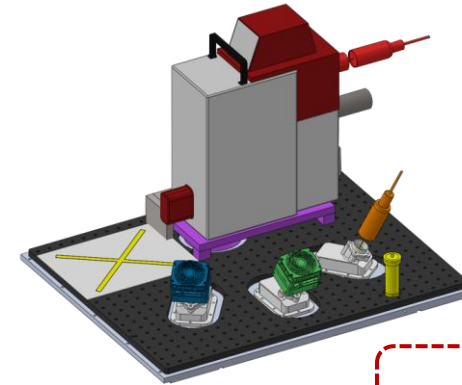
(HINNEBUSCH, 2024)



(FISCHER, 2022)



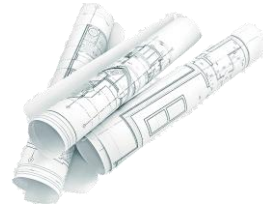
(PANDIYAN, 2024)



# ACADEMIC ACTIVITIES

## TEACHING ACTIVITIES

- **1K** – Fundamentals of Engineering Design
- **ZKR** – Research and Development Project (Consult.)



## LEARNING ACTIVITIES

- **9VVP** – Principles of Research and Development
- **9VPR** – Research Project and its Management
- **9AJ** – Academic English for Doctoral Studies
- **9PLE** – Design of Experiment

# THANK YOU FOR YOUR ATTENTION

**Petr Jeleček, Ing.**

[228928@vutbr.cz](mailto:228928@vutbr.cz)



ÚSTAV  
KONSTRUOVÁNÍ