

INTRODUCTION OF THE FIRST YEAR Ph.D. STUDENT DAVID CHALUPA

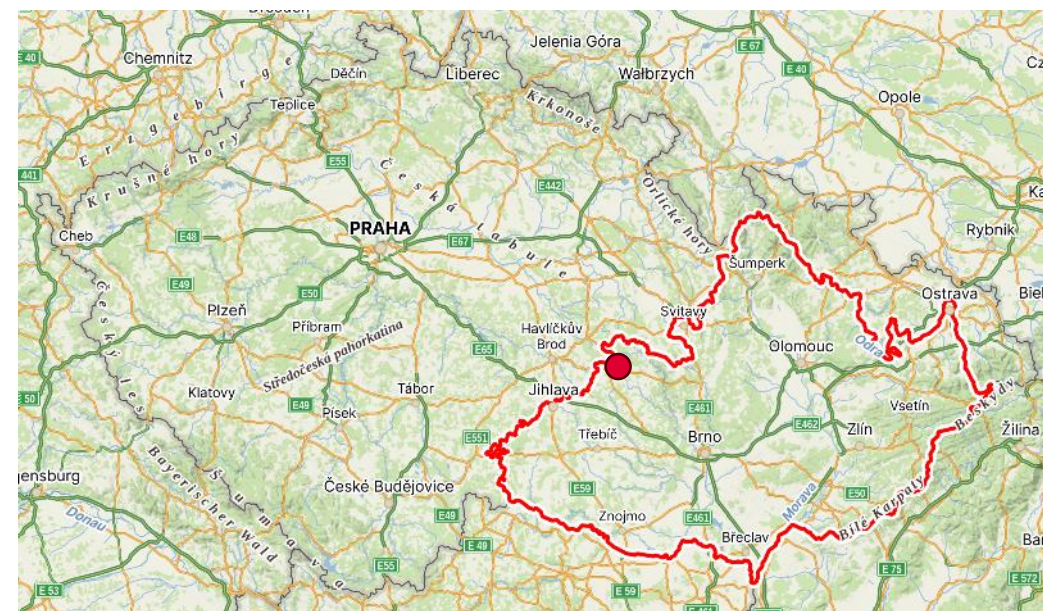
Institute of Machine and Industrial Design
Faculty of Mechanical Engineering
Brno University of Technology

Brno 7.10.2026



MY STORY

HOMETOWN: KŘÍDLA



MY STORY

THE LANDSCAPE AROUND KŘÍDLA



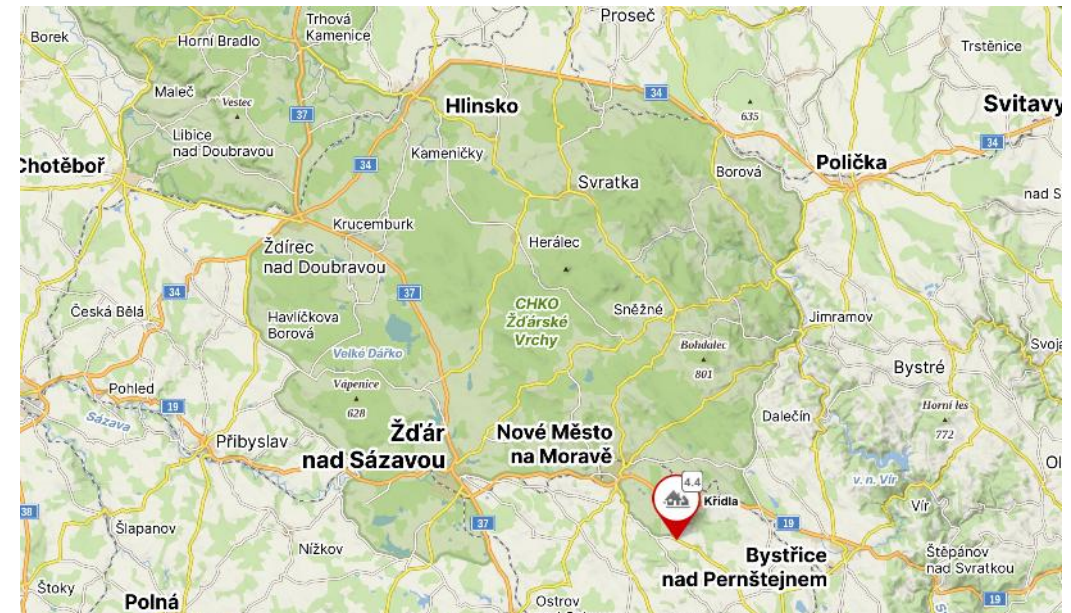
ŽĎÁRSKÉ VRCHY



ZELENÁ HORA



VYSOČINA ARENA – NOVÉ MĚSTO NA MORAVĚ



MY STORY

LEGO, BICYCLES AND THE URGE TO BUILD



SCHOOL-LEAVING PROJECT (2020)

DESIGN AND MANUFACTURE OF A CARBON FIBRE BICYCLE HELMET SHELL

Secondary Technical School, Žďár nad Sázavou

Field of study: Mechanical Engineering

Supervisor: Ing. Petr Zahrádka



First hands-on experience with 3D
printing functional parts



WORK EXPERIENCE (2020 - 2024)

ICE Industrial Services a.s.

- Junior Mechanical Design Engineer
- Assembly Technician
- Sales Support Assistant



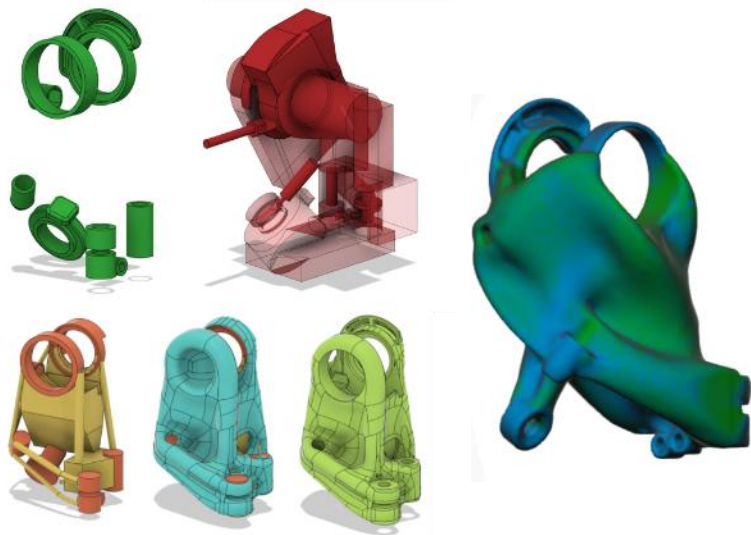
BACHELORS THESIS (2024)

DESIGN OF DIRECT MOUNT B-KNUCKLE FOR BICYCLE DERAILLEUR

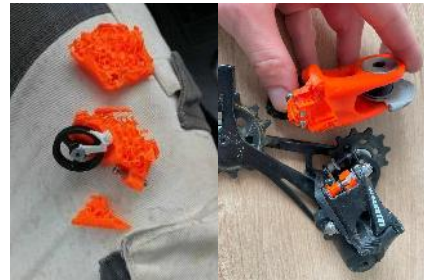
Program: Fundamentals of Mechanical Engineering

Institute: Institute of Machine and Industrial Design

Supervisor: Ing. David Košťál, Ph.D.



Generative design study
Autodesk Fusion



MASTERS THESIS (2026)

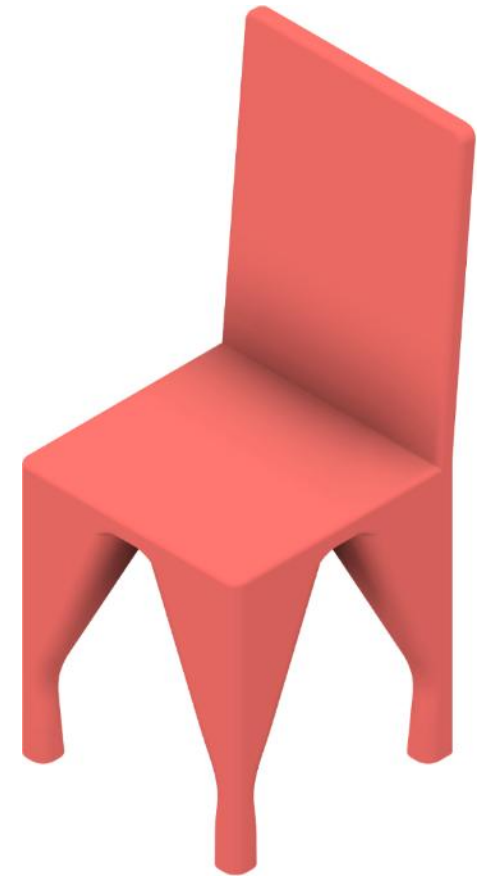
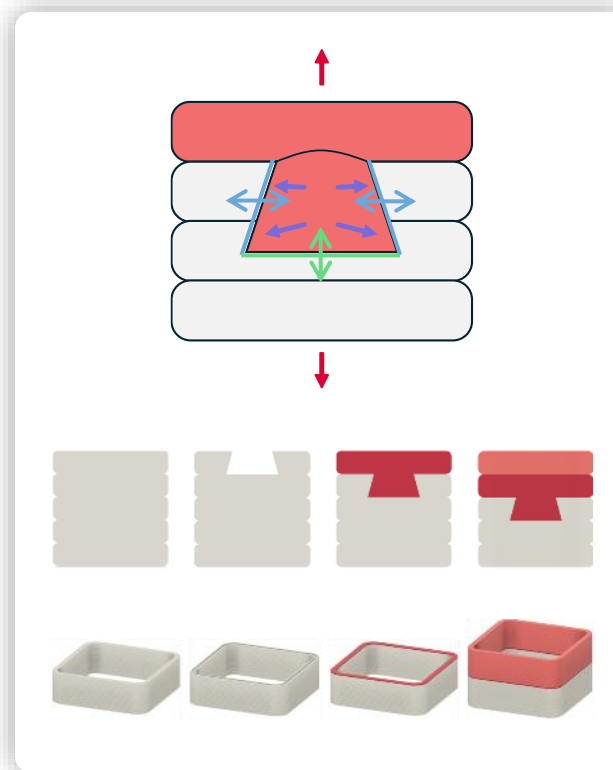
THE INFLUENCE OF SEGMENT STRATEGIES ON THE MECHANICAL PROPERTIES OF LARGE-FORMAT PARTS

Program: Mechanical Engineering Design

Institute: Institute of Machine and Industrial Design

Supervisor: Ing. David Škaroupka, Ph.D.

Hybrid technology



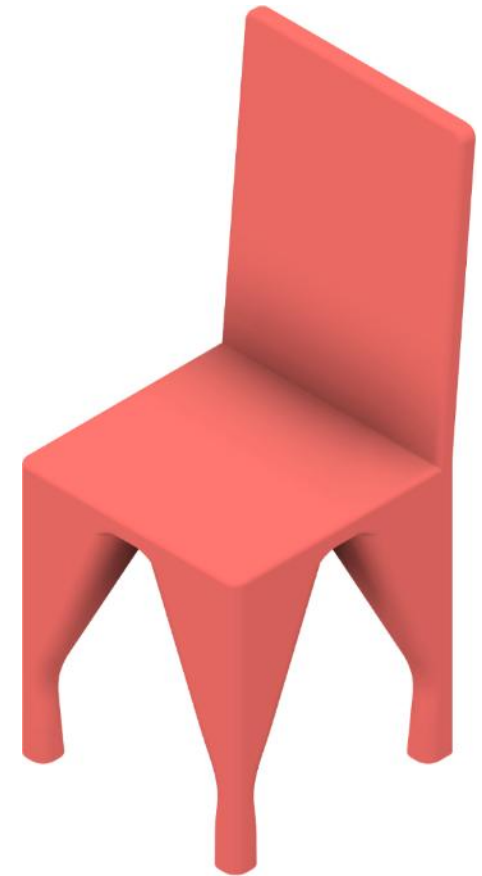
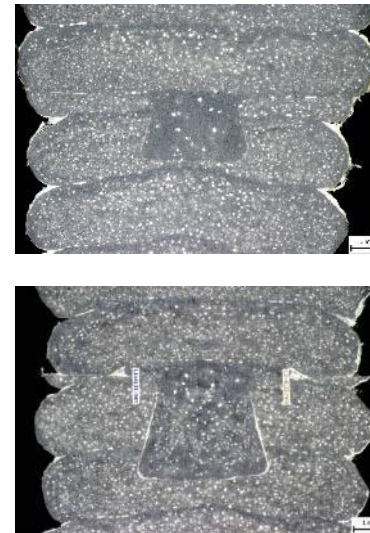
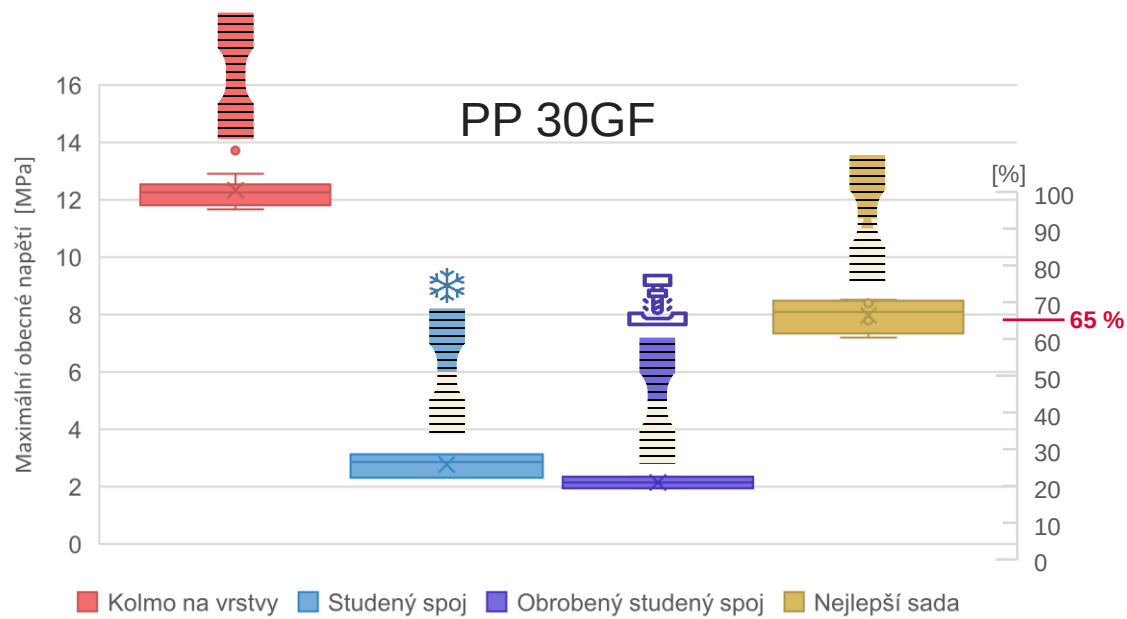
MASTERS THESIS (2026)

THE INFLUENCE OF SEGMENT STRATEGIES ON THE MECHANICAL PROPERTIES OF LARGE-FORMAT PARTS

Program: Mechanical Engineering Design

Institute: Institute of Machine and Industrial Design

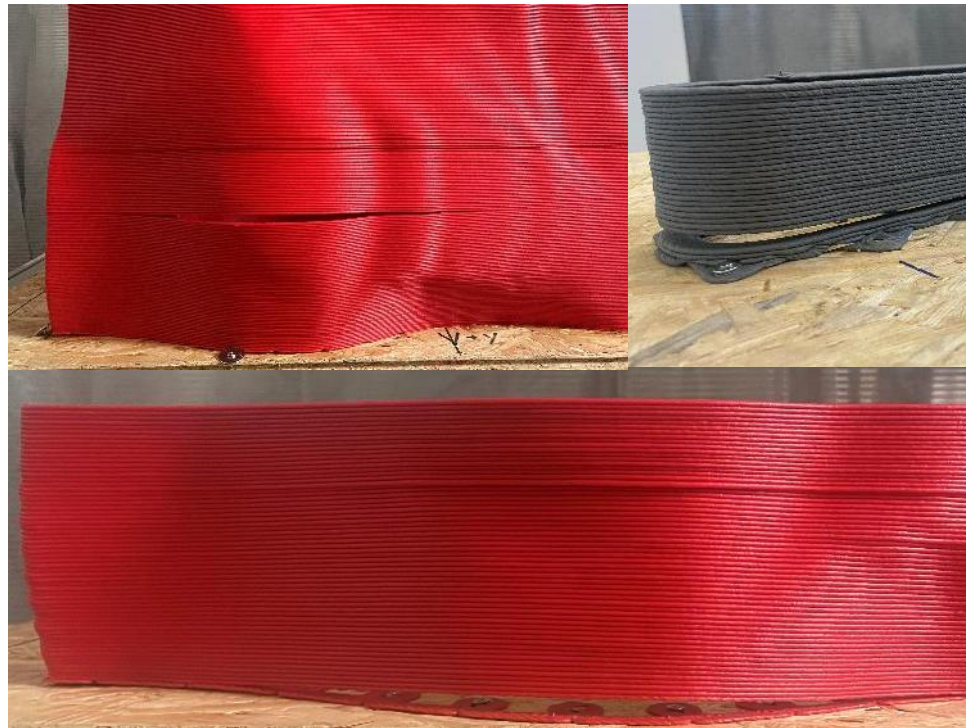
Supervisor: Ing. David Škaroupka, Ph.D.



DISSERTATION TOPIC

FUNCTIONALLY AND TECHNOLOGICALLY INFORMED STRATEGIES FOR LARGE-SCALE ADDITIVE MANUFACTURING

Supervisor: Ing. David Škaroupka, Ph.D.



WORK EXPERIENCE (2025 - 2026)

HIKADE TECHNOLOGIES s.r.o

- Project CryoLyze
- Cryovacuum test chamber



Stratospheric
gimball



Lyophilized drug
product



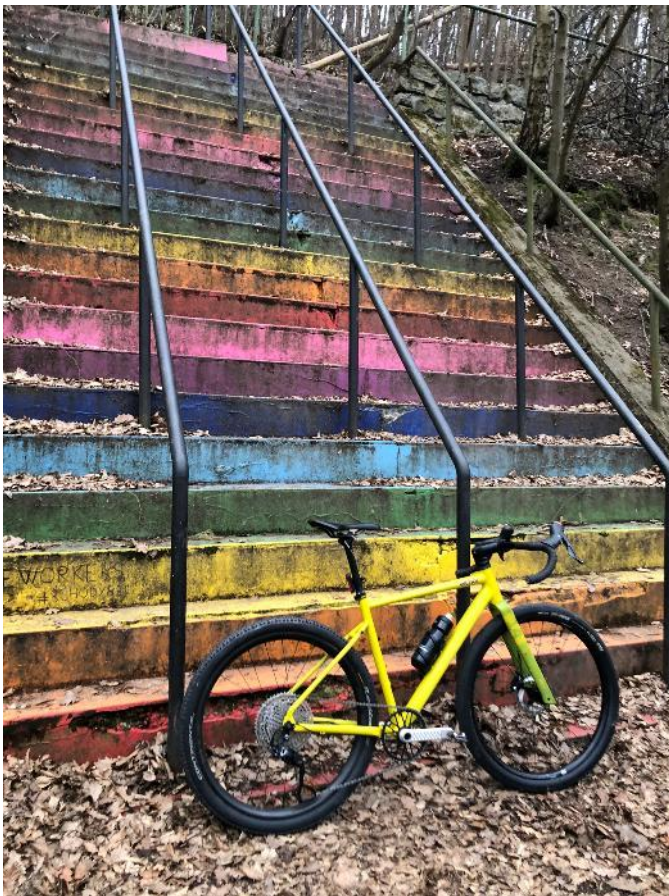
OUTSIDE THE LAB

BICYCLES - MTB



OUTSIDE THE LAB

BICYCLES - GRAVEL



OUTSIDE THE LAB

BICYCLES – GRAVEL



OUTSIDE THE LAB

BICYCLES – SINGLESPEED



OUTSIDE THE LAB

BICYCLES – CITY/90s MTB



OUTSIDE THE LAB

SCOUTING



NORNO – WINTER CAMPING



ROMANIA



OUTSIDE THE LAB

TRAVELLING



KOSOVO

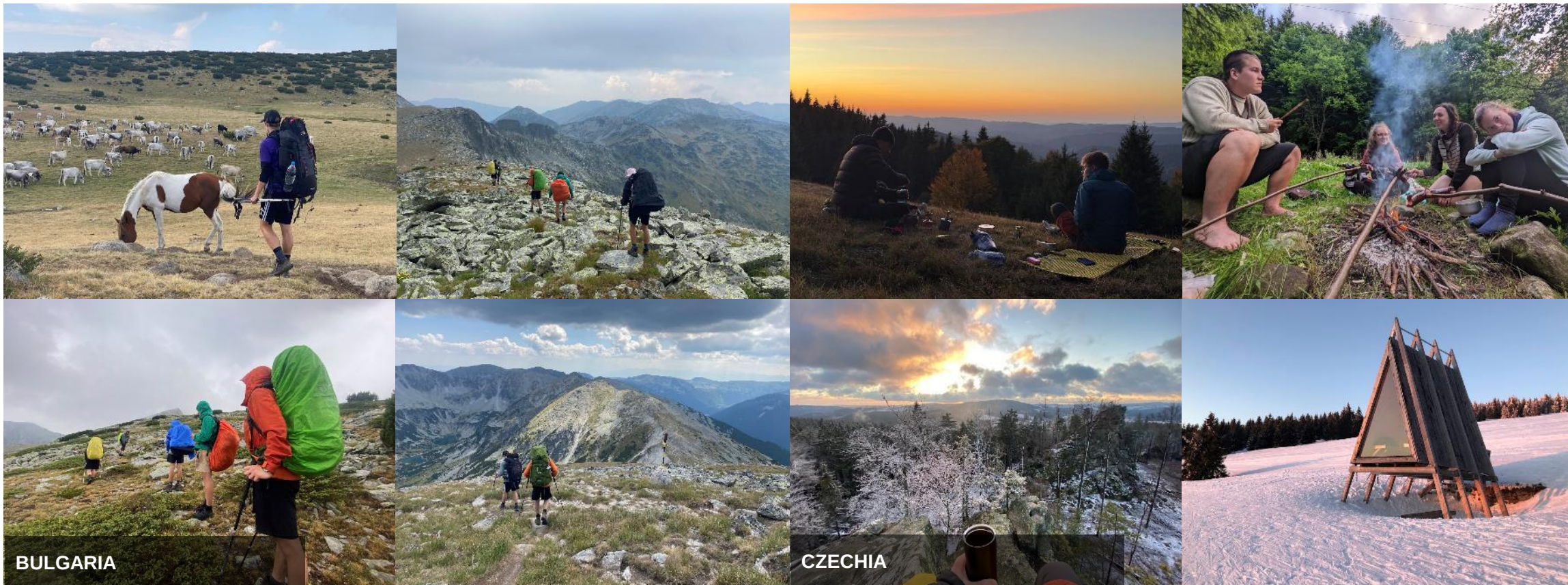


BOSNIA AND HERZEGOVINA



OUTSIDE THE LAB

HIKING



THANK YOU FOR LISTENING

Ing. David Chalupa

239481@vutbr.cz



ÚSTAV
KONSTRUOVÁNÍ



www.ustavkonstruovani.cz