



Faculty of Civil Engineering
Warsaw University of Technology

CIVIL ENGINEERING STRUCTURES (CES)

May 2025



- Design of reinforced concrete, metal, and composite structures:
 - Buildings, industrial structures, special structures
 - Computer Aided Design (CAD Software)
 - Building Information Modelling (software operating in accordance with BIM: Allplan Engineering, ConSteel, Robot S.A., Revit, Dlubal, Idea Statica, SCIA Engineer, Lumion, etc.)
- Construction and prefabrication processes
- Modernisation & repair

**Theoretical and practical knowledge
→ More job opportunities**



CES – PROGRAMS OFFERED

Undergraduate Studies, BSc

- **Sem VII :**
 - Concrete Structures III (60h)
 - Metal Structures III (60h)
 - Building Physics (30h)
 - Architecture and Urban Planning (45h)
 - Computer Methods in Civil Engineering (45h)
 - 3 Elective Courses (90h)
- **Sem VIII :**
 - Student internships
 - Diploma Seminar
 - BSc Thesis

Graduate Studies, MSc – new study program OMNIS2

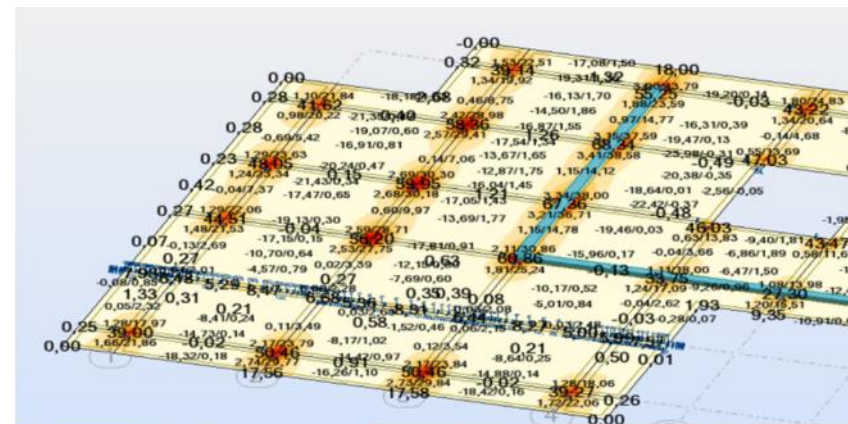
(Coordinator of the OMNIS2 project group for CE I and CE II studies – Prof. Wioleta Barcewicz, PhD, Eng)



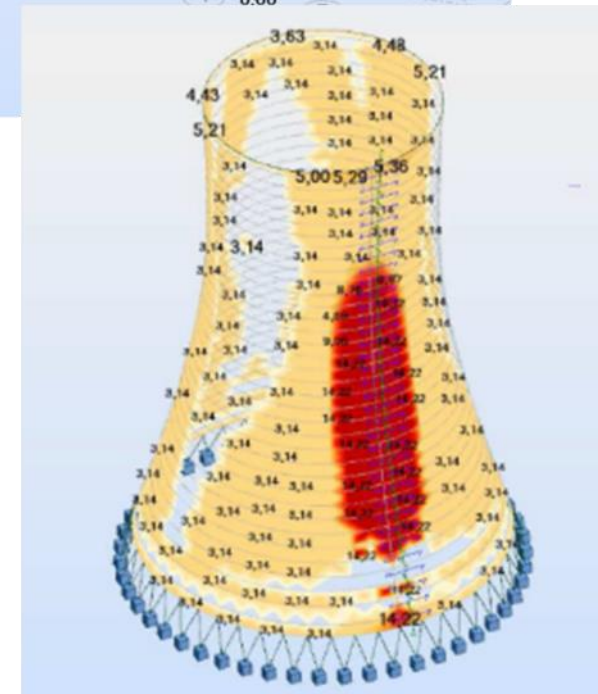


THE SCOPE OF COURSES AND DIPLOMA THESES

- Reinforced Concrete Structures
- Prestressed Concrete Structures
- Composite Structures
- Prefabricated Structures



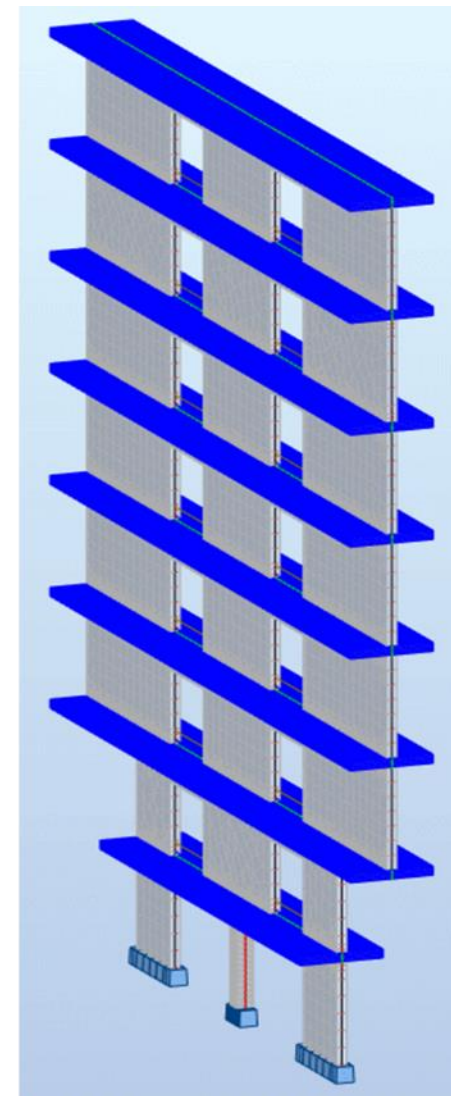
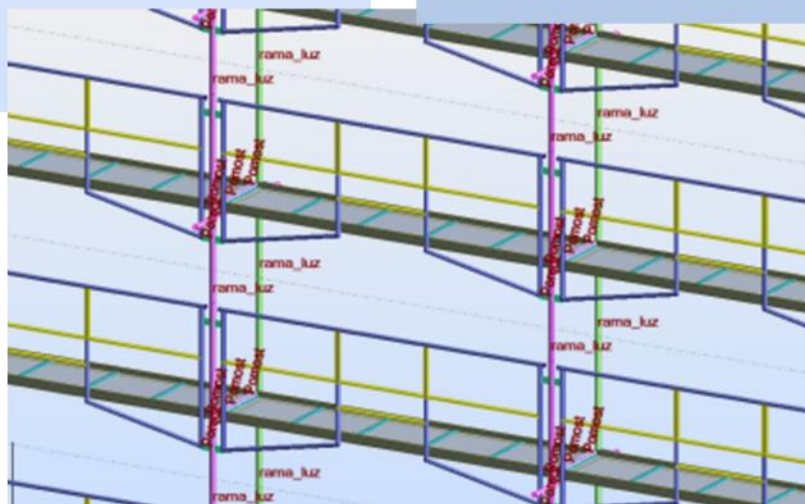
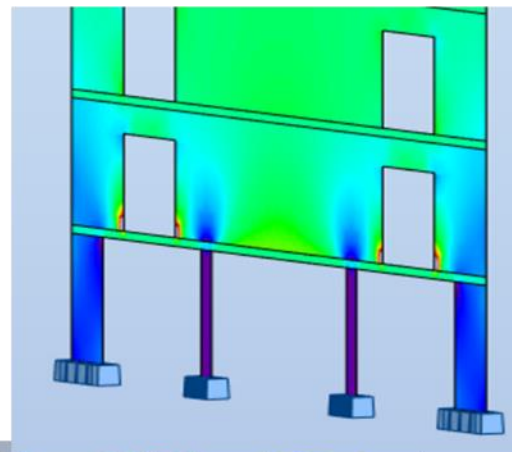
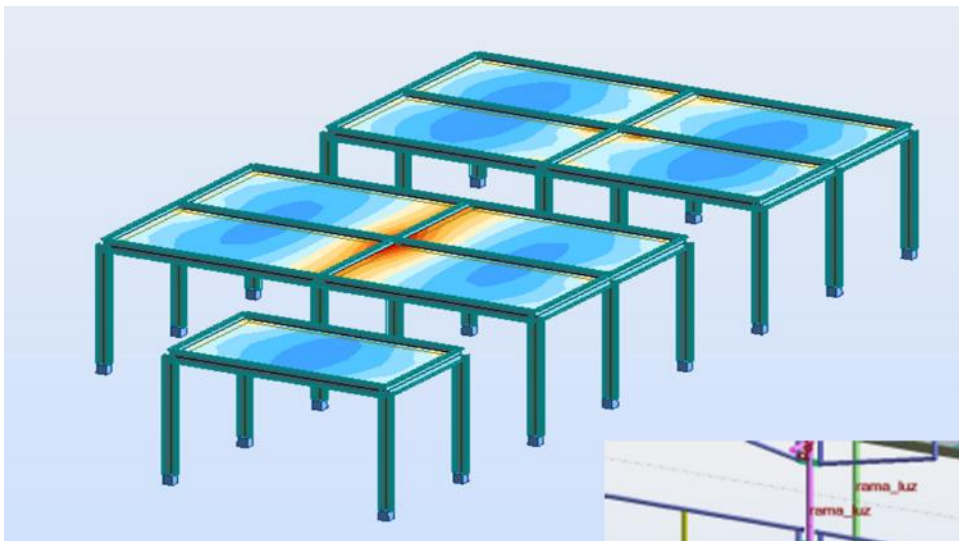
Performed by Magdalena Cegiełko
Supervised by Kostiantyn Protchenko





ELECTIVE COURSES

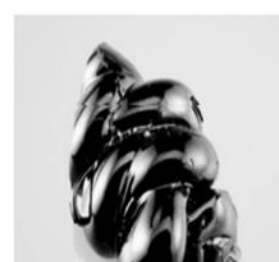
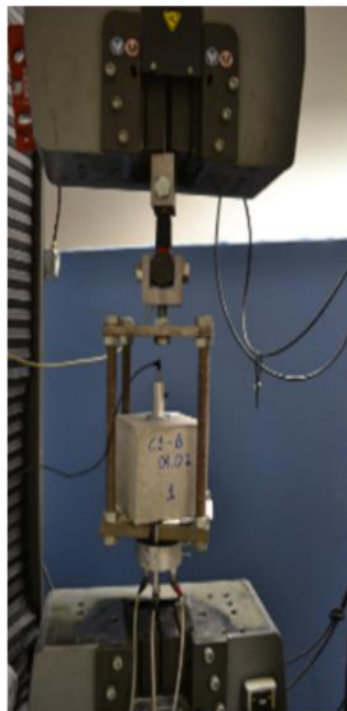
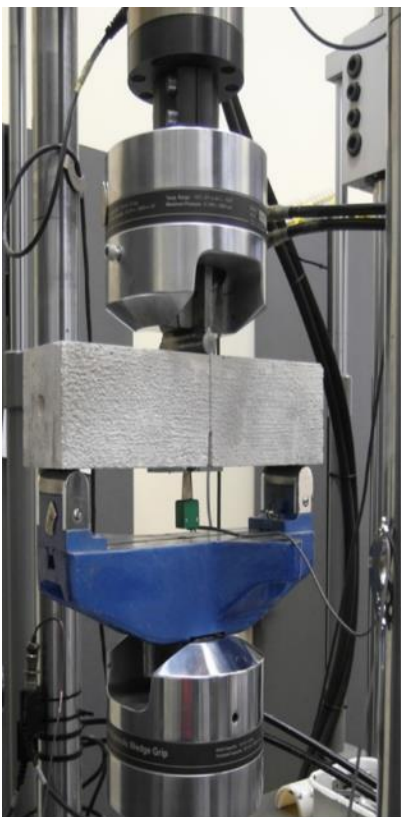
- Computer Systems for Structural Analysis (BSc, sem. VII)





ELECTIVE COURSES

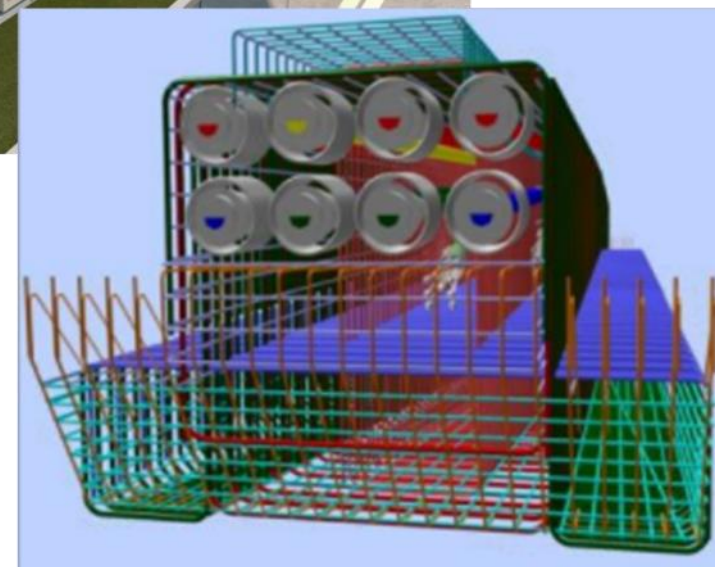
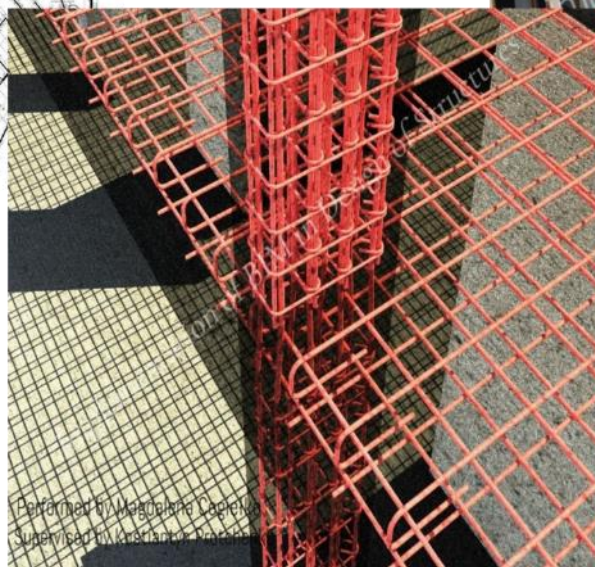
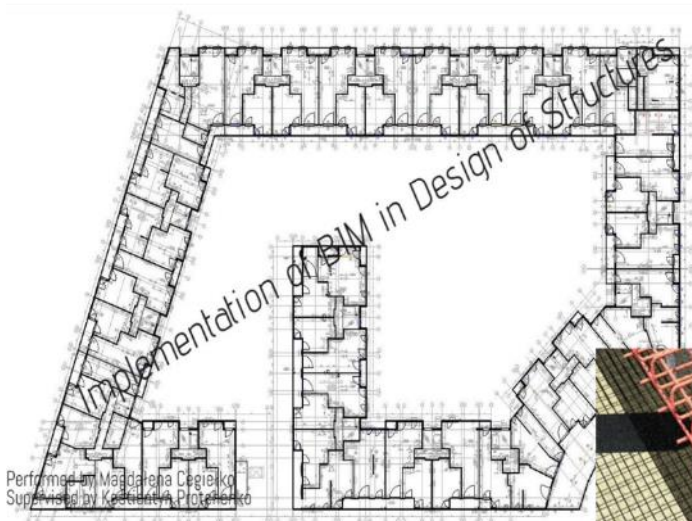
- FRP Composites for RC Structures (BSc, sem. VII)





ELECTIVE COURSES

- Implementation of BIM in Design of Structures (BSc, sem. VII)
- BIM in Digital Construction (MSc)





CONSTRUCTION SITE VISITS





STUDENT RESEARCH GROUPS



Coordinator:
dr inż. Maria Włodarczyk



Coordinators:
prof. dr hab. inż. Andrzej Garbacz
dr inż. Kostiantyn Protchenko



THE SCOPE OF COURSES

- Metal Structures (single-storey buildings, multi-storey buildings) (BSc)



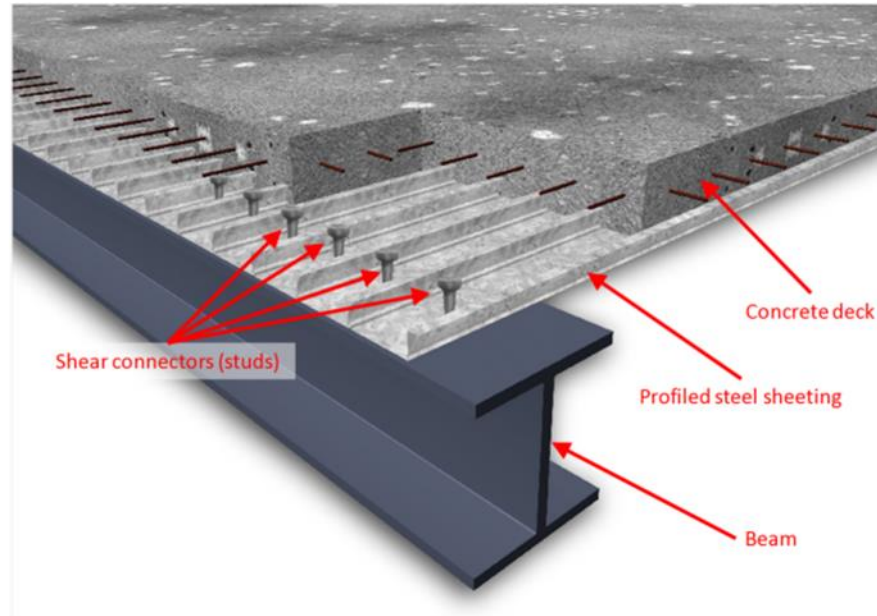
- Special & Industrial Metal Structures (tanks, towers, masts, chimneys) (MSc)





THE SCOPE OF COURSES

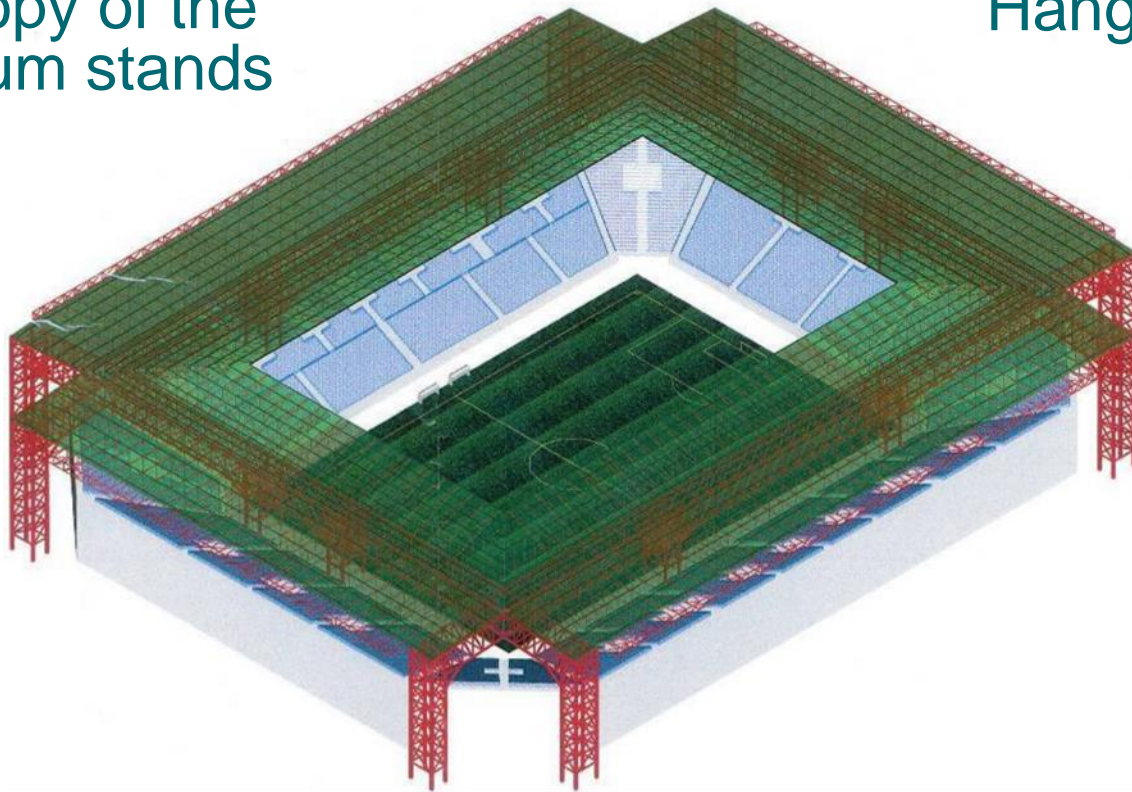
- Composite Steel-Concrete Structures (MSc)



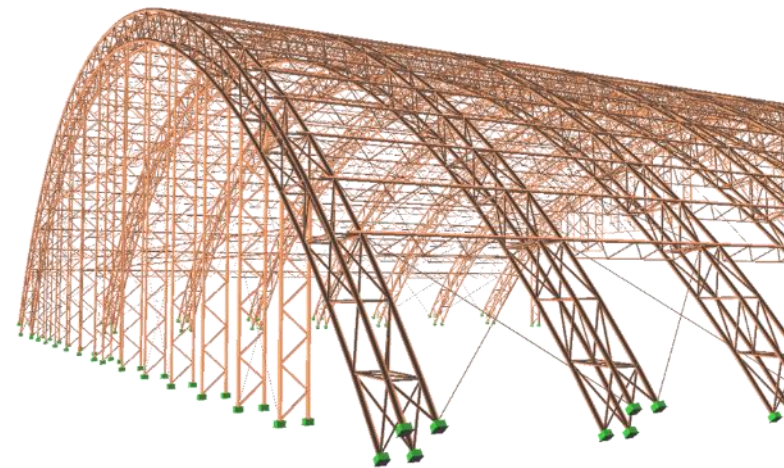


THE SCOPE OF DIPLOMA THESES

Canopy of the
stadium stands



Hangar

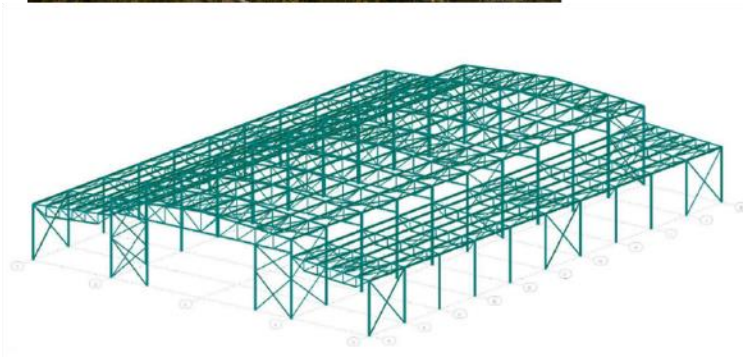
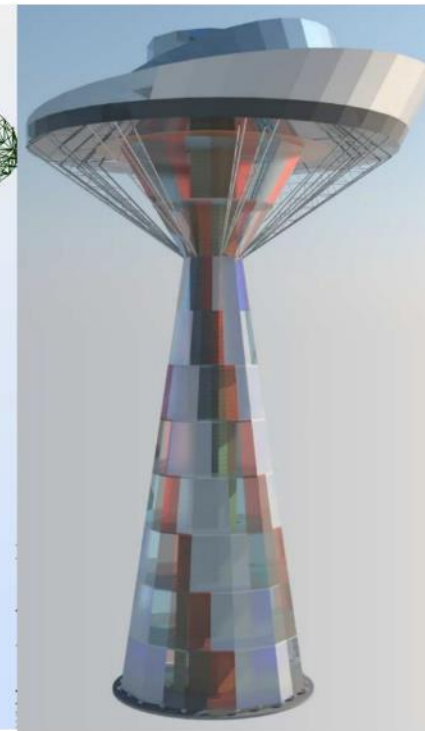
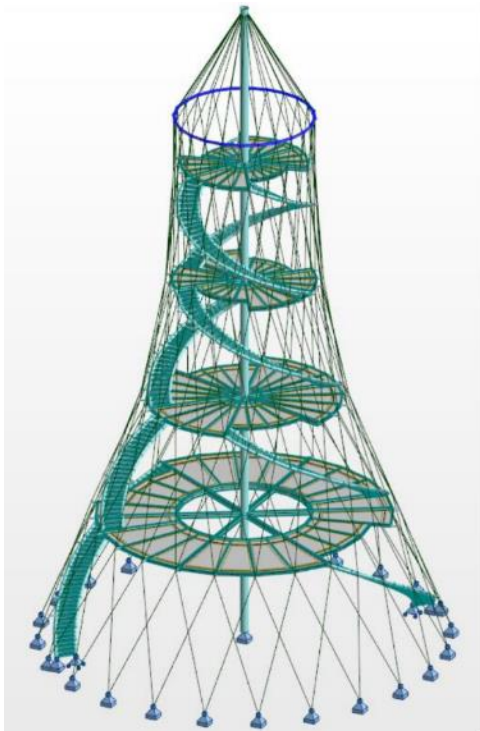


Office building





THE SCOPE OF DIPLOMA THESES





PARTICIPATION IN EVENTS

Technical trips to fabrication shops, galvanizing plants,
and construction site visits



Workshops
for students,
seminars,
and more...

Coordinator:
Prof. Wioleta Barcewicz, PhD, Eng





COOPERATION WITH STUDENT RESEARCH GROUP OF METAL STRUCTURES



Coordinators:
Maciej Cwyl, PhD, Eng
Tadeusz Zwoliński, MSc, Eng





WHY CES?

Broad theoretical and practical knowledge

- reinforced concrete, metal structures, composite structures
- design, construction, modernisation and repair

Interesting BSc and MSc Thesis

- many supervisors and a variety of thesis topics
- creative work and self-development of CES diploma students

Many job opportunities

- design & construction & supervision
- office & construction site
- corporations & small private business
- research & education



Thank you for
your attention.

See you in class!