

PROPOSALS FOR TOPICS OF DIPLOMA THESES for graduate students of the Civil Engineering Structures course

Unit:

Institute of Building Engineering

Division of Concrete Structures

NOTE: In the Division of Concrete Structures, there is a possibility to arrange a topic of the thesis with a supervisor, taking into account the specified interests of a diploma student.

Supervisor	Thesis topic	Thesis scope	Speciality
dr inż. Michał Głowacki dr inż. Piotr Knyziak dr hab.inż. Robert Kowalski, prof.PW dr inż. Marta Lutomirska dr inż. Marcin Niedośpiał dr hab.inż. Elżbieta Szmigiera, prof.PW dr inż. Marek Urbański dr inż. Maria Włodarczyk	The project of selected structural elements of a multi-family residential building. Design of selected reinforced concrete elements in a parking garage / commercial building with a beam-and-slab structure. A five-storey reinforced concrete office building design. Design of a reinforced concrete frame structure of car showroom. Design of an overground reinforced concrete sludge tank with 5 chambers. Design of a reinforced concrete structure for a residential and commercial building with an underground parking lot. Reinforced concrete, compressed clinker tank with a diameter of 40 m and height of 40 m. Project of natural draft cooling tower 190 meters height. Design of reinforced concrete structure of a multi-storey car park. Design of a reinforced concrete structure of the multifamily building on the basis of multi-dimensional model in the Revit program. The design of chosen structural elements of a metro station. Load-carrying capacity analysis of pre-tensioned prestressed concrete tower according to PN-B and PN-EN standards.	The topic and detailed scope of diploma should be agreed with the diploma supervisor.	CES
dr inż. Marta Lutomirska	Comparative study on design of selected reinforced concrete structural elements using Eurocodes and ACI Design Code. Reliability study on selected reinforced concrete structural elements designed to ACI Design Code. Strengthening of reinforced concrete structural elements with FRP wraps.	The topic and detailed scope of diploma should be agreed with the diploma supervisor.	CES

dr inż. Rafał Ostromęcki	Design of the shell covered building (ie. concert hall) Design of the shell covered industrial bay Design of the silo for coal/wheat/cement/gravel storage Design of the battery of silos Design of the water tower structure Design of the multichamber tank structure of rectangular projection Design of the multichamber bunker-silo structure for coal/gravel storage Design of the hoist tower structure Design of the ski jump structure Design of the industrial house located in the area of mining damages Design of the multiduct industrial chimney	Subjects refer to the shell structure objects, municipal/ industrial/storage buildings. The detailed work scope to be agreed with the supervisor	CES
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