KATEDRA BUDOWNICTWA ZRÓWNOWAŻONEGO I INSTALACJI BUDOWLANYCH
PROPOZYCJE TEMATÓW PRAC DYPLOMOWYCH MAGISTERSKICH (studia drugiego stopnia)
NA ROK AKADEMICKI 2023/2024
(termin złożenia pracy ……)

(KONTAKT DO SEKRETARIATU KATEDRY: wb.kbziib@pb.edu.pl)

KIERUNEK STUDIÓW: Civil Engineering studia 2 stopnia	
Promotor/e-mail:	**dr inż. Piotr Rynkowski p.rynkowski@pb.edu.pl**
Kierunek – specjalność	
Temat:	Building energy performance with selected heat sources on the example of a single-family house
Zakres pracy:	Literature review on the energy performance of buildings and energy-saving buildings. Performance of the energy performance of a single-family building with various selected heat sources.
Słowa kluczowe:	building energy performance
Promotor/e-mail:	**PhD Eng. Adam Święcicki / a.swiecicki@pb.edu.pl**
Kierunek – specjalność	
Temat:	Analysis of the impact of orientation on the heat demand of an example building (Analiza wpływu orientacji na zapotrzebowanie na ciepło przykładowego budynku)
Zakres pracy:	1. Literature review of the building's heat balance and building energy standards. 2. Description of the methodology for determining the energy performance of the building. 3. Description of the building chosen as the subject of the study. 4. Determination of the energy performance of the analyzed building as a function of its orientation. 5. Analysis of obtained results. 6. Summary of work and presentation of final conclusions.
Słowa kluczowe:	heat demand, solar gains, building heat balance
Promotor/e-mail:	**dr inż. Beata Sadowska / b.sadowska@pb.edu.pl**
Kierunek – specjalność	

Subject of diploma thesis:	The impact of climatic conditions on the energy performance of the building
Scope of thesis:	1. Basic information on the factors affecting the energy performance of the building. 2. Description of the method for determining the energy performance of buildings. 3. Description of the building selected for analysis and a selection of different locations in Poland. 4. Determination of the energy performance of the building in different locations and comparative analysis. 5. Summary of the analysis and conclusions.
Key words:	residential building, energy performance certificate, building location
Promotor/e-mail:	**dr inż. Beata Sadowska / b.sadowska@pb.edu.pl**
Kierunek – specjalność	
Subject of diploma thesis:	Deep thermomodernization of the building with an economic analysis
Scope of thesis:	1. Review of methods of thermomodernization of buildings 2. Description of the building selected for analysis and assessment of the existing state. 3. Selection of methods to reduce energy demand 4. Determination of energy savings and economic analysis 5. Summary of the analysis and conclusions.
Key words:	thermomodernization, energy savings, inwestment costs, economic analysis