

**PROPOSED THEMES FOR DIPLOMA THESIS**

**in the academic year 2022/2023**

**for the specialization Transport Systems Engineering and Management**

No.	Theme	Supervisor	Division
1.	Shaping the communication network of public transport in a selected urban agglomeration	Dr hab. inż. Mariusz Izdebski, prof. uczelni	Division of Transportation Systems Engineering and Logistics
2.	The organisation of a public transport system for a selected urban agglomeration	Dr hab. inż. Mariusz Izdebski, prof. uczelni	Division of Transportation Systems Engineering and Logistics
3.	The location of the shopping center in the selected urban area	Dr hab. inż. Mariusz Izdebski, prof. uczelni	Division of Transportation Systems Engineering and Logistics
4.	The location of the hospital building in the selected urban area	Dr hab. inż. Mariusz Izdebski, prof. uczelni	Division of Transportation Systems Engineering and Logistics
5.	Comparison of Industry 4.0 solutions applied in selected transport branch	Dr hab. inż. Mariusz Kostrzewski, prof. uczelni	Division for Construction and Operation of Transport Means
6.	Analysis of solutions for transport poverty in a selected region	Dr hab. inż. Mariusz Kostrzewski, prof. uczelni	Division for Construction and Operation of Transport Means
7.	Questionnaire survey's development for occurring knowledge on transport poverty in the domestic transport system	Dr hab. inż. Mariusz Kostrzewski, prof. uczelni	Division for Construction and Operation of Transport Means
8.	Impact of COVID-19 on railway transport services in a selected region	Dr hab. inż. Mariusz Kostrzewski, prof. uczelni	Division for Construction and Operation of Transport Means
9.	Impact of COVID-19 on road transport services in a selected city	Dr hab. inż. Mariusz Kostrzewski, prof. uczelni	Division for Construction and Operation of Transport Means
10.	Practices for reducing soot and other substances from road traffic – road transport condition assessment	Dr hab. inż. Mariusz Kostrzewski, prof. uczelni	Division for Construction and Operation of Transport Means
11.	Application of Failure Mode and Effects Analysis in the assessment a selected transport facility	Dr hab. inż. Mariusz Kostrzewski, prof. uczelni	Division for Construction and Operation of Transport Means
12.	Analysis of relations between freight transport and transport infrastructure in selected countries	Dr hab. inż. Mariusz Kostrzewski, prof. uczelni	Division for Construction and Operation of Transport Means
13.	Simulation model for domestic transport in <the country name> - evaluation of road capacity in a given traffic relation	Dr hab. inż. Mariusz Kostrzewski, prof. uczelni	Division for Construction and Operation of Transport Means
14.	Digital shadow model for domestic transport in <the country name> - evaluation of road capacity in a given traffic relation	Dr hab. inż. Mariusz Kostrzewski, prof. uczelni	Division for Construction and Operation of Transport Means
15.	The concept of improving public transport using a rail transport system for selected city	Dr hab. inż. Jacek Kukulski, prof. uczelni	Division of Traffic Control and Transport Infrastructure

16.	Management of ICT laboratory computer network	Dr inż. Marek Stawowy	Division of Air Transport Engineering and Teleinformatics
17.	The project of road Kitengela - Ongata Rongai	Dr inż. Piotr Woźnica	Division of Traffic Control and Transport Infrastructure
18.	The project of bypass of <the city name>	Dr inż. Piotr Woźnica	Division of Traffic Control and Transport Infrastructure
19.	Analysis of pollutant emission from automotive internal combustion engines by the use of vehicle driving tests	Dr hab. inż. Andrzej Wolff	Division for Construction and Operation of Transport Means
20.	Worldwide trends in pollutant emission legislation and test methods concerning automotive internal combustion engines	Dr hab. inż. Andrzej Wolff	Division for Construction and Operation of Transport Means
21.	The comparative of information quality estimation methods in ICT transport systems	Dr inż. Marek Stawowy	Division of Air Transport Engineering and Teleinformatics
22.	Assessment of the implementation of solutions limiting the negative impact of transport on the environment on the example of a selected country	Dr inż. Anna Kwasiborska	Division of Air Transport Engineering and Teleinformatics
23.	Evaluation of the implementation of the safety management system in the air transport of the selected country	Dr inż. Anna Kwasiborska	Division of Air Transport Engineering and Teleinformatics
24.	The development of concept and objectives for a sustainable transport system of an example country	Dr inż. Anna Kwasiborska	Division of Air Transport Engineering and Teleinformatics
25.	Evaluation of the implementation of transport policy in a selected country	Dr inż. Anna Kwasiborska	Division of Air Transport Engineering and Teleinformatics
26.	Impact of non-driving activities (destructors) on driver alertness	Prof. dr hab. inż. Iwona Grabarek	Division of Information and Mechatronic Systems in Transport
27.	Influence of the warning signals modality on the driver's efficiency	Prof. dr hab. inż. Iwona Grabarek	Division of Information and Mechatronic Systems in Transport
28.	Implementation of the battery modelling algorithm in Python with the use of databases	Dr inż. Marcin Koniak	Division of Information and Mechatronic Systems in Transport
29.	Design and implementation of an Android application collecting basic traffic data	Dr inż. Marcin Koniak	Division of Information and Mechatronic Systems in Transport
30.	Analysis of traffic safety risks in the context of personal transportation devices.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
31.	Development of a road infrastructure management application.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
32.	Point infrastructure security improvement project.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
33.	Traffic safety improvement project at intersection without traffic lights.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
34.	Project to improve traffic safety at rail-road crossing.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport

35.	Lightning project for a selected railroad crossing.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
36.	Road users behaviour analysis in the video images taken on a particular pedestrian crossing, which also consists of bicycle crossing controlled by traffic lights.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
37.	Examination and analysis of the condition of selected sections of bicycle roads lighting.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
38.	Impact of lighting on pedestrian safety at pedestrian crossings in Warsaw.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
39.	Lightning design for a selected public transport stop.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
40.	Lighting of underground parking lots and parking spaces.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
41.	Project of Lighting system for selected street in Warsaw.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
42.	Design and construction of a measuring system to record the illuminance acting on the driver.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
43.	Lighting design of selected tram stop.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
44.	Safety assessment of the selected pedestrian crossing located nearby school based on the analysis of the video.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
45.	Research of selected optical and light elements for lighting of a single-track vehicle - a bicycle.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
46.	Lighting designed for a chosen pedestrian and bicycle crossing.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
47.	Lighting designed of chosen bus stop in Warsaw.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
48.	The Lighting project of the selected section of the bicycle path.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
49.	Lighting design for a road tunnel.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport
50.	Project of road lighting control system.	Dr inż. Piotr Jaskowski	Division of Information and Mechatronic Systems in Transport

*Vice-Dean for Academic Affairs*  
*Professor Ewa Kardas-Cinal, PhD, DSc*