WP3 – Development of techniques for the implementation of the remote teaching and training process with the use of support tools

IO.6 – Development of methodology for conducting practical classes

This task will be carried out within the package WP3 (Development of techniques for the implementation of the remote teaching and training process with the use of support tools). As part of this task, a methodology for conducting practical classes in remote and hybrid modes (assuming mixing distance learning with the traditional form of lecture theatre classes) will be developed. The scope of these practicals will include issues related to calculations allowing for the selection of parameters of road safety equipment, risk analysis and assessment and technical condition assessment, etc. In the traditional mode of teaching, the teacher presents a computational method and if necessary, a calculation tool to perform the necessary calculations. In the next step, students independently solve tasks and in case of technical and substantive problems, use teacher support. The developed teaching methodology will indicate possible didactic scenarios for conducting practical classes in remote mode, including solutions that allow for the presentation of calculations in real-time with the opportunity of sharing the screen and writing and drawing together. Applications supporting automated text preparation and the display of advanced mathematical formulas, such as LaTeX software, will be discussed. Methods of remote collaboration, synchronous and asynchronous communication and support and evaluation related to the methods developed in IO.9 will also be presented.

Target groups:
Research and teaching staff from institutions involved in the project and ultimately other European institutions.

Innovative elements:
The development of a methodology for conducting practical classes with the use of modern distance learning tools and techniques.

Expected impact:
The developed methodology will enable the effective conducting of practical classes remotely both with and without the requirement of social distancing related to the epidemic threat. It can be applied in the teaching and training process throughout Europe.

Transferability potential:
The prepared methodology in the form of instructions and a developed handbook will be available on an online platform, for the use of academic teachers throughout Europe.

The division of work:
The work will be divided among all consortium participants and will include:

- defining didactic scenarios,
- identifying problems occurring during distance learning,
- developing solutions,
- preparation of publications summarising the completed work.

The tasks leading to the production of the intellectual output:

The leading institution (UZ) will be responsible for supervising the development of the methodology. Consortium participants (apart from AAU) will cooperate in the development of these materials, supporting each other with their knowledge and experience.

Applied methodology:

Within this task a methodology will be gathered and developed for conducting remote practical classes along with a presentation of detailed didactic scenarios and instructions on the use of support tools, techniques and applications.