	Implementation schedule	Physically/ Remotely	Contact hours	Autonomous work for students (max hours)	Learning outcomes
Activity 1	Introduction to thermodynamics, fluids, mechanics and computer programming	Remotely	3	12	Comprehend the fundamental equations for simple geometries calculations and data analysis in MATLAB
Activity 2	CAD methodology and three-dimensional design in SOLIWORKS with examples	Remotely	3	14	Use CAD software for the design of engineering systems for further analysis
Activity 3	CFD methodology and applications in MATLAB and CFD codes	Remotely	3	14	Describe real examples for CFD simulation and data presentation and analysis
Activity 4	Mechanics methodology and applications in transport system safety rails with SOLIDWORKS and ANSYS software. Real transport safety system data presentation and analysis	Remotely	3	14	Summarise equations and modelling of mechanics for analysis of safe transport systems

Activity 5	Individual project outline and modelling stages definition. Selection of related project susbjects and accomplishment tasks. Examples of relevant project data	Remotely	3	14	Enhance design, modelling and research skills, along with technical writing skills for individual project presentation
Activity 6	Presentation preparation and performing	Remotely	3	14	Develop and enhance presentation skills.
Total Hours			**18**	**82**	