Budapest University of Technology and Economics
Faculty of Mechanical Engineering
Department of Fluid Mechanics
http://www.ara.bme.hu/

FINAL PROJECT ASSIGNMENT

Publicly Available

Identification	Name: **Sa Do Amaral Pedro**		ID: **73611949580**
	Code of the Curriculum: 2NAMW0	Specialisation: 2NAMW0-FM	Document ref. number: GEÁT:2022-2:2NAMW0:C908KR
	Curriculum: Master Program in Mechanical Engineering Modelling		
	Final Project issued by: Department of Fluid Mechanics	Final exam organised by: Department of Fluid Mechanics	
	Supervisor: Lukács Eszter (72013534433), assistant research fellow		

Project Description	Title	**Numerical analysis of the aerodynamic characteristics of a Formula Student vehicle during cornering conditions** Formula Student versenyautó aerodinamikai jellemzőinek numerikus vizsgálata kanyarban
	Details	1. Literature survey, surveying and analysing relevant resources of technical literature, with special attention to the cornering performance of the vehicles. Short summary of the existing input data from earlier simulations/measurements by the FRT. 2. Preparation of different geometry variants in terms of ride height; yaw and roll angles, mesh generation, mesh independence study (if feasible). 3. CFD calculations for the different car positioning and car speed. 4. Determining the influence of the positioning in the aero balance based on the results of the CFD simulations. 5. Test course validation of the CFD results. 6. Summarize the work in the required document format of the MSc Thesis
	Advi-sor	Advisor's Affiliation: -- Advisor: --

Final Exam	1st subject (group)	2nd subject (group)	3rd subject (group)	4th subject (group)
	ZVEGEÁTNW02 Computational Fluid Dynamics	**ZVEGEÁTNW03** Fluid Mechanics Measurements	**ZVEGEÁTNW19** Vehicle Aerodynamics	**ZVEGEÁTNW11** Open Source Computational Fluid Dynamics

Authentication	Handed out: 14 February 2022		Deadline: 20 May 2022
	Compiled by: Lukács Eszter (72013534433) Supervisor	Verified by: *Dr. János Vad* (signed) Head of Department	Approved by: *Dr. Gábor Györke* (signed) Vice-Dean
	The undersigned declares that all prerequisites of the Final Project have been fully accomplished. Otherwise, the present assignment for the Final Project is to be considered invalid. …….. *Sa Do Amaral Pedro*		