

Faculty of Mechanical Engineerin

Department of Fluid Mechanics http://www.ara.bme.hu/

FINAL PROJECT ASSIGNMENT

Publicly Available

_	Name	:: Remenyik Balázs	ID: 79859473227					
Identification	Code of the Curriculum: 2N-MW0		Specialisation:		Document ref. number:			
	Curriculum: Gépészeti modellezés mesterképzési szak		2N-MW0		GEÁT:2022-2:2N-MW0:AYFQ51			
	Final Project issued by:		Final exam organised by:					
		Department of Fluid Mechanics	Department of Fluid Mechanics					
	Supervisor: Dr. Balogh Miklós (71427777405), assistant professor							
otion	Title	Analysis of an opening DRS in open-source software environment						
	T	Nyíló DRS vizsgálata nyílt forráskódú szoftverkörnyezetben						
		1. Literature survey on dynamic mesh in CFD and in OpenFOAM						
	Details	2. Familiarization with OpenFOAM						
		3. Creating or converting meshes for opening DRS						
crif		4. Simulations with dynamic meshes using dynamic mesh						
Jes		5. Simulations with dynamic meshes using overset mesh						
Project Description		6. Evaluation and comparison of the results (comparison with former CFD results)						
		7. Optionally: 3D DES simulations and 2D comparisons considering new F1 rules in 2022 and different						
		configurations						
		8. Summarizing the results in the thesis according to the formal requirements						
	r i	Advisor's Affiliation:						
	Advi- sor	Advisor:						
	,							

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

	Handed out: 14 February 2022		Deadline: 20 May 2022		
Authentication	Compiled by:		ed by:	Approved by:	
	Dr. Balogh Miklós (71427777405)		r. János Vad (signed)	Dr. Gábor Györke (signed)	
	Supervisor		lead of Department	Vice-Dean	
	The undersigned declares that all prerequisites of th have been fully accomplished. Otherwise, the present the Final Project is to be considered invalid. 	,			