



FINAL PROJECT ASSIGNMENT

Publicly Available

Identification	Name: Lendvai Bálint		ID: 75555851308	
	Code of the Curriculum: 2N-MW0	Specialisation: 2N-MW0-FM	Document ref. number: GEÁT:2020-1:2N-MW0:KT76UO	
	Curriculum: Gépészeti modellezés mesterképzési szak			
	Final Project issued by: Department of Fluid Mechanics	Final exam organised by: Department of Fluid Mechanics		
Supervisor: Dr. Tamás Benedek (76511246251), assistant professor				

Project Description	Titée	Optimization of the GEKO Turbulence Model's Parameters for the CFD Simulation of Airfoil Cascades A GEKO turbulencia modell paramétereinek optimalása szárnyrácsok CFD szimulációja esetén
	Details	1. Overview of the literature special regards on the CFD simulation of airfoils and airfoil cascades, the GEKO model and the optimization techniques! 2. Perform optimization on the GEKO turbulence model's parameters in case of an isolated airfoil! 3. Based on the the results of the isolated airfoil simulations, perform optimization on the GEKO turbulence model's parameters in case of airfoil cascades! 4. Based on the result of the previous simulations, perform CFD simulation of a real life turbomachine with the best parameter set of the GEKO model! 5. Evaluate the results, and summarize the work in the required document format!
	Advisor	Advisor's Affiliation: -

Final Exam	1 st subject (group)	2 nd subject (group)	3 rd subject (group)	4 th subject (group)
	ZVEGEÁTMW02 Computational Fluid Dynamics	ZVEGEÁTMW03 Flow Measurements	ZVEGEÁTMW08 Building Aerodynamics	ZVEGEÁTMW19 Aerodynamics and Its Application for Vehicles

Authentication	Handed out: 15 September 2020		Deadline: 11 December 2020		
	Compiled by: Dr. Tamás Benedek (76511246251) Supervisor		Verified by: Dr. János Vad (signed) Head of Department		Approved by: Dr. Péter Bihari (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. Lendvai Bálint				