



FINAL PROJECT ASSIGNMENT

CLASSIFIED

Identification	Name: Maktabifard Ali		ID: 73482492159	
	Code of the Curriculum: 2NAMW0		Specialisation:	Document ref. number:
	Curriculum: Master Program in Mechanical Engineering Modelling		2NAMW0-FM	GEÁT:2021-T:2NAMW0:D4ROU9
	Final Project issued by: Department of Fluid Mechanics		Final exam organised by: Department of Fluid Mechanics	
	Supervisor: Bendegúz Dezső Bak (79513977519), senior lecturer			

Project Description	Title	Postprocessing automation of pump impeller CFD simulation results Szivattyú járókerék CFD szimulációs eredményeihez kapcsolódó utófeldolgozás automatizálása
	Details	Tasks of part A: 1. Carry out literature survey on the field of pump impeller flow analysis and study CFDpost help with special focus on turbomachinery postprocessing. 2. Prepare a simple 3D pump blade model to carry out a simulation which provides test input data for CFDpost. 3. Prepare CFDpost macro/scripting to automate the result extraction from input simulation data. Results must include figures, tabular data files etc. 4. Test the CFDpost postprocessing macro on simulation data provided by the industrial partner. Tasks of part B: 1. Prepare the ACT CFDpost script to handle models with different zone topology. 2. Improve the ACT CFDpost script to make it more flexible to end user preferences. 3. Test the improved ACT CFDpost script on simulation data provided by the industrial partner. Summarize the work in the required document format of the MSc Thesis.
	Advisor	Advisor's Affiliation: FlowServe Hungary Services Kft. 4034 Debrecen, Vágóhíd utca 2. Advisor: Martijn SCHOOT, simulation engineer

Final Exam	1 st subject (group)	2 nd subject (group)	3 rd subject (group)	4 th subject (group)
	ZVEGEÁTNW02 Computational Fluid Dynamics	ZVEGEÁTNW03 Fluid Mechanics Measurements	ZVEGEÁTNW08 Building and Environmental Aerodynamics	ZVEGEÁTNW19 Vehicle Aerodynamics

Authentication	Handed out: 8 February 2021		Deadline: 14 May 2021	
	Compiled by: Bendegúz Dezső Bak (79513977519) Supervisor		Verified by: <i>Dr. János Vad</i> (signed) Head of Department	Approved by: <i>Dr. Péter Bihari</i> (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. <i>Maktabifard Ali</i>			