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: **Ahmad Saif**			ID: **73763235326**
Code of the Curriculum: 2NAMW0		Specialisation: 2NAMW0-FM	Document ref. number: GEÁT:2023-2:2NAMW0:PCGT74
Curriculum: Master Program in Mechanical Engineering Modelling			
Final Project issued by: Department of Fluid Mechanics		Final exam organised by: Department of Fluid Mechanics	
Supervisor: Dr. Balogh Miklós (71427777405), assistant professor			

Project Description	
Title	**Verification and Validation of a Turbulence Closure Model Developed in OpenFOAM for Wind Engineering Purposes Considering Atmospheric Stratification** Verification and Validation of a Turbulence Closure Model Developed in OpenFOAM for Wind Engineering Purposes Considering Atmospheric Stratification
Details	1. Literature review on atmospheric turbulence modelling 2. Familiarization with atmospheric turbulence models available in OpenFOAM 3. Selecting/Collecting data for verification and validation (Wind profile data from LIDAR and Ultra-Sonic anaemometers) 4. Preparing data for model validation 5. Create and run the selected validation cases 6. Summarise the work in the required document format of the MSc Thesis
Advisor	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	**ZVEGEÁTNW08** Building and Environmental Aerodynamics	**ZVEGEÁTNW11** Open Source Computational Fluid Dynamics

Authentication			
Handed out: 27 February 2023		Deadline: 2 June 2023	
Compiled by: Dr. Balogh Miklós (71427777405) 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. …….. *Ahmad Saif*