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: **Kaouari Elchaima**			ID: **73764368855**
Code of the Curriculum: 2NAMW0		Specialisation: 2NAMW0-FM	Document ref. number: GEÁT:2023-2:2NAMW0:H87Y3M
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. Horváth Csaba (71949162105), associate professor			

Project Description	
Title	**Combustion noise investigation** Égési zaj viszgálat
Details	Thesis A: - Review of the literature on combustion noise. - Review of the literature on standing waves. - Review of the literature regarding the applied measurement rig and the measurements which have been carried out on it from an energetic, aerodynamic, as well as acoustic point of view. - Review of the literature regarding broadband and narrowband filtering methods. - Become familiar with the Matlab environment. - Investigation of one combustion noise data set in Matlab (importing the data, analysing the data in multiple ways, filtering the data with multiple filters, evaluating the results). - Summarize the work in the required document format of the MSc Thesis. Thesis B: - Review of the literature regarding the combustion noise of the investigated fuels. - Further development of the developed Matlab codes for the comparison of multiple data sets. - Investigation of combustion noise of multiple fuels, carrying out a comparison of the results. - Summarize the work in the required document format of the MSc Thesis.
Advisor	Advisor's Affiliation: Dept. Fluid Mechanics, 1111 Budapest, Bertalan L. 4-6. Advisor: Kristóf TOKAJI, research engineer

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	**ZVEGEÁTNW10** Advanced Technical Acoustics and Measurement Techniques

Authentication		
Handed out: 27 February 2023		Deadline: 2 June 2023
Compiled by: Dr. Horváth Csaba (71949162105) 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. …….. *Kaouari Elchaima*		