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: **Tadros Mario Magdy Tadros Aziz**		ID: **73360952008**	
Code of the Curriculum: 2NAAG0	Specialisation:	Document ref. number:	
Curriculum: Bachelor of Science Degree Program in Mechanical Engineering	2NAAG0-PE	GEÁT:2023-1:2NAAG0:QW25SR	
Final Project issued by: Department of Fluid Mechanics		Final exam organised by: Department of Hydrodynamic Systems	
Supervisor: Dr. Horváth Csaba (71949162105), associate professor			

Project Description

Title

Application of Acoustically Transparent Duct Technology in a Centrifugal Fan Investigation

Akusztikailag átlátszó cső technológia alkalmazása egy centrifugális ventilátor esettanulmányon

Details

1. Review of the literature regarding centrifugal fan noise sources.

2. Review of the literature regarding beamforming technology.

3. Review of the literature regarding Acoustically Transparent Duct (ATD) Technology.

4. Carry our preliminary tests on a centrifugal fan (can be another radial fan): carry out measurements using beamforming technology, process the data, draw conclusions

Advisor

Advisor's Affiliation:

Dept. Fluid Mechanics, Fac. Mech Eng, Budapest University of Technology and Economics

1111 Budapest, Bertalan Lajos u. 4-6.

Advisor: Tokaji Kristóf, research engineer

Final Exam

1st subject (group)	2nd subject (group)	3rd subject (group)
ZVEGEVGAGFM Fluid Machinery	**ZVEGEÉEBG51** Transfer Processes	**ZVEGEVGBG13** Fluid Flow Technology

Authentication

Handed out: 5 September 2022	Deadline: 9 December 2022	
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.

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Tadros Mario Magdy Tadros Aziz