
ASSIGNMENT

MSc THESIS (FINAL PROJECT BMEGEÁTMWD2)

Title:	Large-Eddy simulation of 3D flow about airfoil using OpenFOAM with mesh independence study
Author's name (code):	Balázs HERNÁDI (Q6W5KL)
Curriculum:	MSc in Mechanical Engineering Modelling / Fluid Mechanics
Curriculum's code:	2N-MW0-FM
Supervisor's name, title:	László NAGY, assistant research fellow
Affiliation, address:	Department of Fluid Mechanics / BME H-1111 Budapest, Bertalan L. 4-6., AE Bld
Advisor's name, title:	-
Affiliation, address:	-
Handed out / Deadline:	10th of February 2014. / 16th of May 2014.
Curriculum subjects (code), credits:	1. Computational Fluid Dynamics (BMEGEÁTMW02), cr 5 2. Flow Measurements (BMEGEÁTMW03), cr 5 3. Building Aerodynamics (BMEGEÁTMW08) cr 3 4. Aerodynamics and its Appl. for Vehicles (BMEGEÁTMW09) cr 3
Title of the Major Project (BMEGEÁTMWD1):	Large-Eddy Simulation of airfoil flow using OpenFOAM.
Description / refinement of the Major Project (BMEGEÁTMWD1):	1. Draw conclusions from a BSc and the MSc thesis discussing the same topic. 2. Investigate the appropriate numerical setting further in 3D. 3. Compare the difference scheme in OpenFOAM. 4. Prepare LES (3D) in OpenFOAM.
Description of the Final Project (BMEGEÁTMWD2):	1. Further investigation of the numerical schemes on the 3D mesh. 2. Mesh independence study regarding to the 3D mesh. 3. Summarizing the obtained results and drawing conclusions.



Budapest, 10th of February 2014.

(L.S.)

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supervisor

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Dr. János VAD, associate professor
Head of Department

Approved by:
Budapest, 10th of February 2014.

(L.S.)

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Prof. Tibor CZIGÁNY
Dean of Faculty

Received by:
Budapest, 10th of February 2014.

The undersigned declares that all prerequisite subjects of the Final Project have been fully accomplished. Otherwise, the present assignment for the MSc Thesis and the subject's registration for BMEGEÁTMWD2 are considered to be invalid.

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student

Supervisor's declaration of acceptance:	The submitted MSc Thesis fulfils all requirements of the Department of Fluid Mechanics, Budapest University of Technology and Economics. The MSc Thesis is accepted for review process and public defence.
Supervisor's proposal for final grade of the MSc Thesis:	<div style="border: 1px solid black; padding: 5px; text-align: center;"> The proposed final grade* of the MSc Thesis: </div> <p>* Please, select one: excellent (5), good (4), medium (3), acceptable (2), fail (1)</p>
Date:	Budapest, 16th of May 2014.
Name / Signature: supervisor

Reviewer's proposal for final grade of the MSc Thesis:	<div style="border: 1px solid black; padding: 5px; text-align: center;"> The proposed final grade* of the MSc Thesis: </div> <p>* Please, select one: excellent (5), good (4), medium (3), acceptable (2), fail (1)</p>
Date:	
Name / Signature: reviewer

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