

## ASSIGNMENT

### MSc FINAL PROJECT (BMEGEÁTMWD2)

Title:	<b>Investigation of the turbulent flow around a RAF6-E airfoil with measurement, visualization and simulation</b>
Author's name (code):	<b>Dávid VIRÁG (B6W1A5)</b>
Curriculum :	MSc in Mechanical Engineering Modelling / Fluid Mechanics
Supervisor's name, title:	László NAGY, assistant lecturer
Affiliation, address:	Department of Fluid Mechanics / BME H-1111 Budapest, Bertalan L. 4-6.
Advisor's name, title:	-
Affiliation, address:	-
Handed out / Deadline:	<b>3<sup>rd</sup> of September 2012. / 7<sup>th</sup> of December 2012.</b>
Curriculum subjects (code):	1. Computational Fluid Dynamics (BMEGEÁTMW02) 2. Flow Measurements (BMEGEÁTMW03) 3. Building Aerodynamics (BMEGEÁTMW08) 4. Aerodynamics and its Application for Vehicles (BMEGEÁTMW09)
Title of the Major Project (BMEGEÁTMWD1):	Post-processing Fluent simulation and measurement results in case of a RAF6-E airfoil
Description / refinement of the Major Project (BMEGEÁTMWD1):	1. Draw conclusions from a BSc and MSc thesis discussing the same topic in measurement techniques, in the theme of RAF6 airfoil.  2. Prepare pressure measurements on the airfoil surfaces in the NPL wind tunnel.  3. Use visualization techniques to show vortices along and behind the airfoil in the NPL wind tunnel.  4. Post-process and compare Fluent simulation results with the measurement.  5. Summarize the project results.
Description of the Final Project (BMEGEÁTMWD2):	1. Investigate the possibilities in the Department using of high-speed the camera in NPL wind tunnel for airfoil.  2. Post-process and compare Fluent simulations.  3. Draw conclusions from the given results.  4. Summarize the Final Project.



Budapest, 3<sup>rd</sup> of September 2012.

(L.S.)

.....  
supervisor

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Dr. János VAD, associate professor  
Head of Department

Approved by:  
Budapest, 3<sup>rd</sup> of September 2012.

(L.S.)

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Prof. Tibor CZIGÁNY  
Dean of Faculty

Received by:  
Budapest, 3<sup>rd</sup> of September 2012.

The undersigned declares that all prerequisite subjects of the Final Project have been fully accomplished. Otherwise, the present assignment for the Final Project is to be considered invalid.

.....  
student

<b>Supervisor's declaration of acceptance:</b>	The submitted Thesis fulfils all requirements of the Department of Fluid Mechanics, Budapest University of Technology and Economics. The Thesis is accepted for review process and public defence.
<b>Supervisor's proposal for final grade of the thesis:</b>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> The proposed final grade* of the MSc Thesis:  ..... </div> <p>* Please, select one: excellent (5), good (4), medium (3), acceptable (2), fail (1)</p>
<b>Date:</b>	Budapest, 7 <sup>th</sup> of December, 2012.
<b>Name / Signature:</b>	..... supervisor

<b>Reviewer's proposal for final grade of the thesis:</b>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 0 auto;"> The proposed final grade* of the MSc Thesis:  ..... </div> <p>* Please, select one: excellent (5), good (4), medium (3), acceptable (2), fail (1)</p>
<b>Date:</b>	
<b>Name / Signature:</b>	..... reviewer

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