

ASSIGNMENT

MSc MAJOR PROJECT (BMEGEÁTMWD1)

Title: **CFD modelling of moving ground effect in the NPL wind tunnel**

Author's name (code): **Balázs SZABÓ (ABC123)**
Curriculum: **MSc in Mechanical Engineering Modelling / Fluid Mechanics**
Curriculum's code: **2N-MW0-FM**

Supervisor's name, title: **Dr. Jenő Miklós SUDA assistant professor**
Affiliation: **Department of Fluid Mechanics / BME
H-1111 Budapest, Bertalan L. z. 4-6.**

Advisor's name, title: **Tamás BENEDEK, PhD student**
Affiliation: **Department of Fluid Mechanics / BME
H-1111 Budapest, Bertalan L. z. 4-6.**

Description / tasks of the project: **1. Review of the relevant literature of the vehicle aerodynamics CFD studies with moving ground simulation.**
2. Develop the 3D geometrical model for CFD (ANSYS-Fluent) of the test section in the NPL type wind tunnel.
3. Review and evaluate the possibilities of extension of the 3D model with the moving ground effect.
4. Develop various 3D models that are capable for CFD study of the boundary layer control.
5. Summarise your results in a project report and presentation.

Handed out / Deadline: **11th of February 2013. / 17th of May 2013.**
Budapest, 11th of February 2013.

(L.S.)

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supervisor

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Dr. János VAD, associate professor
Head of Department

Received by:
Budapest, 11th of February 2013.

The undersigned declares that all prerequisite subjects of the Major Project have been fully accomplished. Otherwise, the present assignment for the Major Project and the subject's registration of BMEGEÁTMWD1 are considered to be invalid.

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student



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| Supervisor's declaration of acceptance: | The submitted Project Report fulfils all requirements of the Department of Fluid Mechanics, Budapest University of Technology and Economics. |
| Supervisor's proposal for final grade of the thesis: | <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"><p>The proposed final grade* of the Project Report:</p><p>.....</p></div> <p>* Please, select one: excellent (5), good (4), medium (3), acceptable (2), fail (1)</p> |
| Date: | Budapest, 17 th of May, 2013. |
| Name / Signature: | supervisor |

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