

ASSIGNMENT

MSc MAJOR PROJECT (BMEGEÁTMWD1)

Title: **Wing Optimization for Motorsport Applications**

Author's name (code): **Csaba KLAJBÁR (FOFZH9)**

Curriculum: **MSc in Mechanical Engineering Modelling / Fluid Mechanics**

Curriculum's code: **2N-MW0-FM**

Supervisor's name, title: **Dr. Gergely KRISTÓF, associate professor**

Affiliation, address: **Department of Fluid Mechanics / BME Building AE
H-1111 Budapest, Bertalan Lajos street 4-6.**

Advisor's name, title: **-**

Affiliation, address: **-**

Description / tasks of the project:

1. To do literature survey about racing vehicle rear spoilers, as well as about CFD based shape optimization methods;
2. To compare the optimization methods which are accessible in ANSYS simulation system;
3. To describe the Mesh Morpher method in details and demonstrate its operation on a simple 2D case;
4. To optimize the numerical mesh and investigate mesh independency of the results;
5. To specify cost function and to carry out Goal Driven Optimization of a 2D spoiler profile in ANSYS / Workbench ;
6. To prepare written report about the methods and the results of the analysis.

Handed out / Deadline: **10th of February 2014. / 16th of May 2014.**

Budapest, 10th of February 2014.

(L.S.)

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supervisor

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Dr. János VAD, associate professor
Head of Department

Received by:
Budapest, 10th of February 2014.

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



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, 16th of May 2014.
Name / Signature:	<p>.....</p> <p>supervisor</p>

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