MŰEGYETEM 1782

# ASSIGNMENT

## MSc THESIS (FINAL PROJECT BMEGEÁTMWD2)

| | |
|---|---|
| Title: | **Wind tunnel modelling of ventilation in an urban square** |
| Author's name (code): | **András TOMOR (IDTP8W)** |
| Curriculum: | MSc in Mechanical Engineering Modelling / Fluid Mechanics spec. |
| Curriculum's code: | 2N-MW0-FM |
| Supervisor's name, title: | Márton BALCZÓ, assistant research fellow |
| Affiliation, address: | Department of Fluid Mechanics / BME<br>H-1111 Budapest, Bertalan L. 4-6. |
| Advisor's name, title: | - |
| Affiliation, address: | - |
| Handed out / Deadline: | **8th of September 2014. / 12th of December 2014.** |
| Curriculum subjects (code), credits: | 1. Computational Fluid Dynamics (BMEGEÁTMW02), 5 cr<br>2. Flow Measurements (BMEGEÁTMW03), 5 cr<br>3. Aerodynamics and its appl. for vehicles (BMEGEÁTMW19), 3 cr<br>4. Building Aerodynamics (BMEGEÁTMW08), 3 cr |
| Title of the Major Project (BMEGEÁTMWD1): | Wind tunnel modelling of flow and dispersion around an urban square |
| Description / refinement of the Major Project (BMEGEÁTMWD1): | 1. Vertical profile measurements on the model of József Nádor Square with two component LDV system with North wind direction<br>2. Horizontal plane measurements on the model of József Nádor Square with two component LDV system with North wind direction<br>3. Representation of some wind roses at József Nádor Square<br>4. Flow field measurements with West wind direction |
| Description of the Final Project (BMEGEÁTMWD2): | 1. In-depth analysis of flow field results at northern and western wind directions<br>2. Comparison of measurement data to CFD simulation results<br>3. Preparation of results for journal publication |

Budapest University of Technology and Economics
Faculty of Mechanical Engineering
Department of Fluid Mechanics

Hungary, 1111 Budapest, Bertalan L. u. 4-6.
Telefon: (36-1) 463-4072 Fax: (36-1) 463-3464
http://www.ara.bme.hu

Budapest, 8th of September 2014.

(L.S.) …….. supervisor …….. Dr. János VAD, professor Head of Department

Approved by:
Budapest, 8th of September 2014.

(L.S.) ……. Prof. Tibor CZIGÁNY Dean of Faculty

Received by:
Budapest, 8th of September 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.

……. 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:** | The proposed final grade* of the MSc Thesis: ……..... * Please, select one: excellent (5), good (4), medium (3), acceptable (2), fail (1) |
| **Date**: | Budapest, 12th of December 2014. |
| **Name / Signature**: | ……. supervisor |

| | |
|---|---|
| **Reviewer's proposal for final grade of the MSc Thesis:** | The proposed final grade* of the MSc Thesis: ……..... * Please, select one: excellent (5), good (4), medium (3), acceptable (2), fail (1) |
| **Date**: | |
| **Name / Signature**: | ……. reviewer |



Budapest University of Technology and Economics
Faculty of Mechanical Engineering
Department of Fluid Mechanics

Hungary, 1111 Budapest, Bertalan L. u. 4-6.
Telefon: (36-1) 463-4072 Fax: (36-1) 463-3464
http://www.ara.bme.hu