
ASSIGNMENT

MSc FINAL PROJECT (BMEGEÁTMWD2)

Title:	Influence of the urban heat island on the flow field around a single building
Author's name (code):	Konrád NÉMETH (MRMJ22)
Curriculum :	MSc in Mechanical Engineering Modelling / Fluid Mechanics
Supervisor's name, title:	Eva BERBEKAR, PhD student
Affiliation, address:	Department of Fluid Mechanics / BME
Advisor's name, title:	Dr. Gergely KRISTÓF, associate professor
Affiliation, address:	Department of Fluid Mechanics / BME
Handed out / Deadline:	3rd of September 2012. / 7th of December 2012.
Curriculum subjects (code):	1. Flow Measurements (BMEGEÁTMW03) 2. Computational Fluid Dynamics (BMEGEÁTMW02) 3. Unsteady Flows in Pipe Networks (BMEGEVGMW02) 4. Building Aerodynamics (BMEGEÁTMW08)
Title of the Major Project (BMEGEÁTMWD1):	Influence of the urban heat island on the flow field around a single building
Description / refinement of the Major Project (BMEGEÁTMWD1):	1. Literature overview of the measurement techniques of an Urban Heat Island (UHI) 2. Collection of the criteria of modelling an UHI and the flow around a building 3. Measurement arrangement plan to model an UHI 4. CFD simulation of different measurement arrangements 5. Documentation of the work carried out and discussion of the results
Description of the Final Project (BMEGEÁTMWD2):	1. Evaluation of existing measurement data 2. Literature review of the methods used for measurement and simulation comparison 3. Plot of the measurement and simulation data, using Tecplot 4. Calculation the error of the measurements 5. Comparison of the measurements and simulation by examining the relevant parameters 6. Evaluation of the quality of the simulation 7. Documentation of the work carried out and discussion of the results



Budapest, 3rd of September 2012.

(L.S.)

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supervisor

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Dr. János VAD, associate professor
Head of Department

Approved by:
Budapest, 3rd of September 2012.

(L.S.)

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Prof. Tibor CZIGÁNY
Dean of Faculty

Received by:
Budapest, 3rd 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.

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student

Supervisor's declaration of acceptance:	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.
Supervisor's proposal for final grade of the thesis:	<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>
Date:	Budapest, 7 th of December, 2012.
Name / Signature: supervisor

Reviewer's proposal for final grade of the thesis:	<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>
Date:	
Name / Signature: reviewer

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