MŰEGYETEM 1782

ASSIGNMENT

MSc THESIS (FINAL PROJECT BMEGEÁTMWD2)

Title:	**Experimental investigation of travelling waves in falling liquid films**
Author's name (code):	**Lőrinc NÉMETH (J33NF7)**
Curriculum:	MSc in Mechanical Engineering Modelling / spec. Fluid Mechanics
Curriculum's code:	2N-MW0-FM
Supervisor's name, title:	Dr. János VAD, full professor, Head of Department
Affiliation, address:	Department of Fluid Mechanics / BME
Advisor's name, title:	Miguel Alfonso MENDEZ, PhD candidate
Affiliation, address:	Von Karman Institute for Fluid Dynamics, Environmental and Applied Fluid Dynamics Department Chaussée de Waterloo, 72. B-1640 Rhode-St-Genèse, Belgium
Handed out / Deadline:	**8th of September 2014. / 12th of December 2014.**
Curriculum subjects (code), credits:	1. Computational fluid dynamics (BMEGEÁTMW02), 5 cr 2. Flow measurements (BMEGEÁTMW03), 5 cr 3. Multiphase and reactive flow modelling (BMEGEÁTMW17), 3 cr 4. Unsteady flows in pipe networks (BMEGEVGMW02), 3 cr
Title of the Major Project (BMEGEÁTMWD1):	**Experimental investigation of travelling waves in falling liquid films**
Description / refinement of the Major Project (BMEGEÁTMWD1):	1. Learn the operation of the VKI liquid film facility 2. Training in pressure acquisition, calibration / Acquisition code development 3. Theoretical study / Image processing, liquid films, measurement techniques, camera operation 4. Preparation of light absorption measurement / Uncertainty analysis, parameter sensitivity analysis, calibration 5. Light absorption measurement 6. LeDaR (Level Detection and Recording) measurement.
Description of the Final Project (BMEGEÁTMWD2):	1. Preliminary studies on possibility of developing image processing codes for the acquired images, to evaluate the film thickness-time-space functions for both measurement techniques 2. Preliminary studies on calculating the wave characteristics from the thickness-time-space data 3. Compare and evaluate the results, of both techniques 4. Feasibility study on applying PIV to the liquid film 5. Summarize the work in the required document format

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Budapest, 8th of September 2014.

(L.S.)

…….. supervisor

……. Dr. János VAD, full professor Head of Department

Approved by:
Budapest, 8th of September 2014.

(L.S.)

……. Dr. 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