Budapest University of Technology and Economics
Faculty of Mechanical Engineering
Department of Fluid Mechanics
http://www.ara.bme.hu/

FINAL PROJECT ASSIGNMENT

CLASSIFIED

Identification			
Name: **Széles Marcell**			ID: **73747556806**
Code of the Curriculum: 2N-MW0		Specialisation: 2N-MW0-FM	Document ref. number: GEÁT:2021-T:2N-MW0:P2WL2C
Curriculum: Master Program in Mechanical Engineering Modelling			
Final Project issued by: Department of Fluid Mechanics		Final exam organised by: Department of Fluid Mechanics	
Supervisor: Dr. Balázs Istók (72856166168), senior lecturer			

Project Description	
Title	**Investigation of a compact reversed osmosis system** Kompakt fordított ozmózis rendszer vizsgálata
Details	1. Analyse and calculate the working conditions (forces acting, pressure, osmotic pressure, etc.) based on the previously gathered measurement results. 2. Build the dynamic model of the reversed osmosis system in Amesim environment. 3. Investigate the operation of the reversed osmosis filter. 4. Validate the previously gathered data with the help of the dynamic model. 5. Make the model scalable to any industrial sizes. 6. Document and evaluate the work in an MSc thesis format.
Advisor	Advisor's Affiliation: FlowServe Hungary Services Kft. 1097 Budapest, Gubacsi út 6B. Advisor: Dr. Gergely Kristóf, principal engineer

Final Exam			
1st subject (group)	2nd subject (group)	3rd subject (group)	4th subject (group)
ZVEGEÁTNW02 Computational Fluid Dynamics	**ZVEGEÁTNW03** Fluid Mechanics Measurements	**ZVEGEÁTNW08** Building and Environmental Aerodynamics	**ZVEGEÁTNW19** Vehicle Aerodynamics

Authentication		
Handed out: 8 February 2021		Deadline: 14 May 2021
Compiled by: Dr. Balázs Istók (72856166168) Supervisor	Verified by: *Dr. János Vad* (signed) Head of Department	Approved by: *Dr. Péter Bihari* (signed) Vice-Dean
The undersigned declares that all prerequisites of the Final Project have been fully accomplished. Otherwise, the present assignment for the Final Project is to be considered invalid. …….. *Széles Marcell*		