

P81 A101192

Certificate Number: BME-1814/2019
Institution Identification Number: FI23344
HUQF Level: Level 7
EQF Level: Level 7



DEGREE CERTIFICATE

It is hereby certified that

Balázs Kiss

(born Balázs Kiss, on 30 August 1994 in Kecskemét, Hungary) having completed an approved master's degree programme and fulfilled the academic requirements of the

Budapest University of Technology and Economics

was duly admitted to the degree of Master of Science in Mechanical Engineering Modelling and has qualified as a(n)

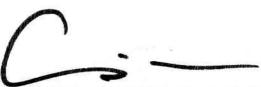
Mechanical Modelling Engineer.

The duration of the programme of study was 4 semesters.

Overall classification of the qualification: excellent with highest honours

Budapest, 24 January 2019





Dean

DIPLOMA SUPPLEMENT



Number of diploma: BME-1814/2019

1. HOLDER OF THE QUALIFICATION

1.1. Family name(s)

Kiss

1.2. Given name(s)

Balázs

1.3. Country and place of birth, Date of birth (day/month/year)

Hungary, Kecskemét, 30.08.1994

1.4. Student identification number or code (if available)

77785922983

1.5. Registration number

T087115/FI23344/2N-MW0-2016

2. INFORMATION ON THE QUALIFICATION

2.1. Name of qualification and (if applicable) inherent title

Mechanical Modelling Engineer

2.2. Main field(s) of study for the qualification

Mechanical Engineering Modelling

2.3. Name, status and identification number of awarding institution

Budapest University of Technology and Economics, FI23344, state university, accredited by the Hungarian Accreditation Committee with its resolution 2014/9/VIII/1.

2.4. Name and status of institution (if different from 2.3) administering studies

2.5. Language(s) of instruction/examination

English

3. INFORMATION ON THE LEVEL OF THE QUALIFICATION

3.1. Level of qualification, EQF level

Master (second cycle), Level 7

3.2. Official length of program

4 semesters

3.3. Access requirements

BSc Diploma and entrance procedure

4. INFORMATION ON THE CONTENTS AND RESULTS GAINED

4.1. PROGRAM REQUIREMENTS

4.1.1. Program requirements act number

Degree 15/2006 (IV.3.) OM from the study and graduation requirements of the Majors in Bachelor's and Master's Programs.

4.1.2. Aim of study

Education of mechanical modelling engineers

4.1.3. Required number of credit points

120

4.1.4. System of knowledge assessment

Examinations, thesis and its defending at a public final examination

4.1.5. Required professional practice, credit value

4-week practice, 0 credit

4.2. PROGRAM DETAILS AND THE INVIDUAL GRADES / MARKS / CREDITS OBTAINED

4.2.1. Knowledge acquired during the program of study (requirement designation, credit points, grades)

Subject	Subject code	Lessons	Requirement	Credit	Grade	Term
Finite Element Analysis	BMEGEMMMW02	W: 2/0/2	Mid-term mark	5	Excellent	2016/17/2
Flow Measurements	BMEGEÁTMW03	W: 2/1/1	Mid-term mark	5	Excellent	2016/17/2
Marketing	BMEGT20MW01	W: 3/0/0	Mid-term mark	5	Excellent	2016/17/2
Advanced Fluid Mechanics	BMEGEÁTMW01	W: 3/0/0	Exam	4	Excellent	2016/17/2
Analytical Mechanics	BMEGEMMMW01	W: 3/0/0	Exam	4	Good	2016/17/2
Advanced Thermodynamics	BMEGEENMWAT	W: 2/1/0	Exam	4	Excellent	2016/17/2
Mathematics M1 - Differential Equations and Numerical Methods	BMETE90MX46	W: 4/2/0	Exam	8	Excellent	2016/17/2
English for Engineers - B2	BMEGT63A051	W: 0/2/0	Mid-term mark	2	Excellent	2017/18/1
Flow Stability	BMEGEVGMW07	W: 2/0/0	Mid-term mark	3	Excellent	2017/18/1
Teamwork Project	BMEGEMMMWP1	W: 0/0/3	Mid-term mark	3	Excellent	2017/18/1
Continuum Mechanics	BMEGEMMMW03	W: 2/1/0	Mid-term mark	5	Excellent	2017/18/1
Aero-Elasticity	BMEGEÁTMW22	W: 2/0/0	Mid-term mark	3	Good	2017/18/1
Computational Fluid Dynamics	BMEGEÁTMW02	W: 2/2/0	Mid-term mark	5	Excellent	2017/18/1
Management	BMEGT20MW02	W: 3/0/0	Mid-term mark	5	Good	2017/18/1
Electronics	BMEVIAUM001	W: 2/0/1	Exam	4	Satisfactory	2017/18/1
Machine Design and Production Technology	BMEGEGEMW01	W: 2/1/0	Exam	4	Good	2017/18/1
Advanced Control and Informatics	BMEGEMIMW01	W: 2/1/0	Exam	4	Excellent	2017/18/1
Laser Physics	BMETE12MX00	W: 3/1/0	Exam	4	Excellent	2017/18/1
Beam Structures	BMEGEMMMW09	W: 1/1/0	Exam	3	Excellent	2017/18/1



Subject	Subject code	Lessons	Requirement	Credit	Grade	Term
Summer Internship	BMEGEMMMWSZ	S:	Signature	0	Signed	2017/18/2
Physical Education MSc	BMEGT701013	W: 0/2/0	Signature	0	Signed	2017/18/2
Elasticity and Plasticity	BMEGEMMMW05	W: 1/1/0	Mid-term mark	3	Excellent	2017/18/2
Final Project A	BMEGEMMMWD A	W: 0/13/0	Mid-term mark	15	Excellent	2017/18/2
Academic English (B2+)	BMEGT63MAPD	W: 0/2/0	Mid-term mark	2	Good	2017/18/2
Nonlinear Vibrations	BMEGEMMMW06	W: 1/1/0	Exam	3	Excellent	2017/18/2
Basics of composites technology	BMEGEPTMG34	W: 2/0/0	Exam	3	Excellent	2017/18/2
Physical Education MSc	BMEGT701014	W: 0/2/0	Signature	0	Signed	2018/19/1
Experimental Methods in Solid Mechanics	BMEGEMMMW10	W: 1/0/1	Mid-term mark	3	Excellent	2018/19/1
English - Preparation for Advanced Level 1.	BMEGT635051	W: 0/4/0	Mid-term mark	0	Excellent	2018/19/1
Analytical Mechanics	BMEGEMMMG18	W: 2/0/0	Mid-term mark	3	Excellent	2018/19/1
Final Project B	BMEGEMMMWD B	W: 0/13/0	Mid-term mark	15	Excellent	2018/19/1
Applied Technical Acoustics and Measurement Techniques	BMEGEÁTMW10	W: 2/0/0	Mid-term mark	3	Excellent	2018/19/1
Modal analysis of mechanical systems	BMEGEMMMGM A	W: 2/0/0	Mid-term mark	3	Excellent	2018/19/1

*Lessons per week (W) / semester (S) *if the number of lessons contains / marks, like in le/p/ly, its meaning is: number of lectures/class practices/laboratories.

Number of credits: 133

4.2.2. Knowledge acquired earlier and during parallel or exchange programmes of study (requirement designation, credit points, grades)

Subject name	Subject code	Recognised	Requirement	Credit	Grade	Date
Novel methods of technical drawing	BMEGEGEACAD	Accreditation within the HEI	Mid-term mark	3	Excellent	12.11.2015
MATLAB Programming	BMETE119779	Accreditation within the HEI	Mid-term mark	3	Excellent	05.23.2016

Number of credits: 6

4.2.3. Recognised knowledge acquired informally or during work and other experience (requirement designation, credit points, grades)

Subject name	Subject code	Recognised	Requirement	Credit	Grade	Date

Number of credits: 0

4.3. Grading scheme and, if available, grade distribution guidance

All grades at least pass (2)

4.4. Overall classification of the qualification

excellent with highest honours (4,91)

5. INFORMATION ON THE ENTITLEMENT OF THE QUALIFICATION

5.1. Access to further study

Access to doctoral (PhD) studies

5.2. Professional status (if applicable)

6 ADDITIONAL INFORMATION

6.1. Information concerning the holder of the diploma

He was appointed a demonstrator (tutor) / teaching assistant in the fall semester of the academic year of 2018/19 at the Department of Applied Mechanics. Kiss Balázs has been awarded by 1st place with the research work entitled by "Evaluation of fracture mechanical tests on composite beams by the J-integral and higher-order theories" at the Student's Scientific Conference organized by the Budapest University of Technology and Economics in 14 November 2018 in session entitled Applied Mechanics II. Section

6.2. Information on the Institution

The predecessor in title of the Budapest University of Technology and Economics (BME) was founded in 1782. It is a state university, presently the largest technical university in Hungary. The faculties: Civil Engineering, Mechanical Engineering, Architecture, Chemical Technology and Biotechnology, Electrical Engineering and Informatics, Transportation Engineering and Vehicle Engineering, Natural Sciences, Economic and Social Sciences. In 2015 at the BME 21 Bachelor's degree program, 60 Master's degree program and 75 postgraduate specialist training course started. Presently, there are about 17000 full-time, (including 1200 foreign) students, 1600 corresponding students, and 1500 students participate in distance learning. There are 460 PhD/DLA students. The university has about 1050 staff members, including 120 full professors. The courses are offered in Hungarian, English, German and French. Home page: www.bme.hu/

6.3. Further information sources

<http://www.gpk.bme.hu>

7. CERTIFICATION OF THE SUPPLEMENT

7.1. Date

04. 02. 2019

7.2. Name and signature

Dr. Mihály Szabó

7.3. Capacity

Director of Central Academic Office

7.4. Official stamp or seal



8. INFORMATION ON THE HUNGARIAN HIGHER EDUCATION SYSTEM

(modified in February 2018)

8.1. Types of Institutions and Institutional Control

The establishment and operation of higher education institutions are regulated by Act No. 204 of 2011 (National Higher Education Act). Operating within the legal framework of the National Higher Education Act, Hungarian higher education



institutions are recognized state (public) or non-state (church or private) institutions. The list of recognized institutions is indicated in Annex 1 of the National Higher Education Act. Higher education studies are offered at two types of higher education institutions, *egyetem* (university) and *főiskola* (college). Universities and colleges may offer courses in all three training cycles. The programmes are identical at both types of institutions.

8.2. Types of Programmes and Degrees Awarded

The consecutive training cycles of higher education leading to a higher education degree are *alapképzés* (Bachelor course), *mesterképzés* (Master course) and *doktori képzés* (Doctoral course). In cases set by government decree or legislation, Master degrees can also be awarded after the completion of integrated, one-tier training.

In addition to the aforementioned, higher education institutions may conduct non-degree vocational higher education programmes and postgraduate specialist trainings and may offer adult education within the framework of lifelong learning as well.

Higher education institutions apply a credit system based on the European Credit Transfer and Accumulation System. Accordingly, one credit stands for an average of 30 hours of student workload.

8.3. Approval/Accreditation of Programmes and Degrees

In the case of each vocational higher education programme, Bachelor and Master course, the programme and outcome requirements are set in legal regulations, i.e. the level of the training, the professional qualification that can be obtained and all the competencies the acquisition of which are the preconditions for obtaining the diploma in the given programme.

Upon request of the higher education institution, the Educational Authority – after having obtained the expert opinion of the Hungarian Accreditation Committee – licenses and registers the launching of all vocational higher education programmes, a Bachelor or Master courses or Doctoral schools. Also, the operating licenses of higher education institutions are revised by the Educational Authority in every 5 years, taking into account the expert opinion of the Hungarian Accreditation Committee. The above mentioned procedures apply for all recognized, state or non-state higher education institutions, except for religious studies, since the Hungarian Accreditation Committee and the Educational Authority have no competence over the quality assurance in this field. In the case of religious studies only the requirements in respect of infrastructure can be examined.

8.4. Organisation of Studies

Students studying in vocational higher education programmes, Bachelor and Master courses, as well as postgraduate specialist trainings complete their studies by passing a final examination. The final examination may consist of the defense of the degree thesis or diploma project, and additional oral, written or practical examinations.

8.4.1. Vocational Higher Education Programmes

The diploma obtained on completion of a vocational higher education programme testifies a vocational higher education qualification, but it is not per se an academic degree. A vocational higher education programme requires the completion of at least 120 credits, and the duration of the programme is a minimum of 4 semesters.

8.4.2. First/Second Cycle Degree Programmes

The first higher education degree is the *alapfokozat* (Bachelor degree) ending in a professional qualification. A Bachelor course requires the completion of 180 to 240 credits. The length of the programme is 6-8 semesters.

The second higher education degree is the *mesterfokozat* (Master degree) ending in a professional qualification. Based on a Bachelor course, Master courses require the completion of 60 to 120 credits. The length of the programme is 2-4 semesters.

8.4.3. Integrated Programmes

The integrated, one-tier programmes, which are based on the secondary school leaving examination (*érettségi vizsga*), lead to *mesterfokozat* (Master degree), have the length of 10-12 semesters and require the completion of 300 to 360 credits. Besides teacher education, religious studies and some programmes of arts, e. g. the following programmes are offered as integrated programmes: veterinary medicine, architecture, dentistry, pharmaceutics, law and medicine.

8.4.4. Specialised Graduate Studies

Higher education institutions may also offer *szakirányú továbbképzés* (postgraduate specialist training) for Bachelor and Master degree holders in this type of a training. Through the completion of 60 to 120 credits a specialised qualification can be obtained. The length of the programme is 2-4 semesters.

8.4.5. Doctoral Programmes

Doctoral courses that began before 1 September 2016 require the completion of at least 180 credits. The duration of the programme is 36 months.

Doctoral courses beginning after 1 September 2016 require the completion of at least 240 credits. The duration of the programme is 8 semesters. During the programme, at the end of the fourth semester a complex examination must be completed. The doctoral thesis must be submitted within three years after the completion of the examination.

Regardless the date of entering a doctoral course, either within the framework of the doctoral course or following it, through a separate degree obtaining procedure, the scientific degree "Doctor of Philosophy" (abbreviated as PhD), or in the field of art "Doctor of Liberal Arts" (abbreviated as DLA) may be obtained. The maximum duration of the degree obtaining procedure is 2 years.

8.5. Grading Scheme

The performance of students is generally assessed following a five-grade scale: excellent (5), good (4), satisfactory (3), pass (2), and fail (1) or a three-grade scale: pass with merit (5), pass (3), and unsatisfactory (1). Nevertheless, higher education institutions may also use other systems for assessment if they are comparable to those mentioned above.

8.6. Access to Higher Education Programmes

The ranking of students applying for higher education programmes is primarily based on their secondary school grades and their *érettségi vizsga* (secondary school leaving examination) results or based solely on the latter. The requirement for admission to vocational higher education programmes, Bachelor and integrated Master courses is the secondary school leaving examination taken – as a rule – after the completion of the 12th grade of a secondary school, certified by the *Érettségi bizonyítvány* (secondary school leaving certificate). The admission to certain programmes may also be based on health or professional requirements or aptitude tests. To Master courses students holding a Bachelor degree can be admitted. To postgraduate specialist trainings students holding a Bachelor or a Master degree may be admitted. To Doctoral courses only applicants holding a Master degree can be admitted. Higher education institutions may set additional requirements for admission to Master, postgraduate specialist and Doctoral courses.

8.7. Additional Sources of Information

Hungarian ENIC/NARIC⁵, Ministry of Human Resources⁶, Educational Authority⁷, Hungarian Accreditation Committee⁸.

⁵ Web site: www.naric.hu

⁶ Web site: www.kormany.hu/hu/emberi-eroforrasok-miniszteriuma

⁷ Web site: www.oktatas.hu, www.felvi.hu

⁸ Web site: www.mab.hu

