No: PT H 004700

Certificate Number: BME-0002/2017
Institution Identification Number: FI23344
HUQF Level: Level 6
EQF Level: Level 6

MŰEGYETEM 1782

DEGREE CERTIFICATE

It is hereby certified that

Balázs Kiss

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

Budapest University of Technology and Economics

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

Mechanical Engineer.

The duration of the programme of study was 7 semesters.

Overall classification of the qualification: excellent

Budapest, 16 January 2017

BUDAPESTI MŰSZAKI ÉS GAZDASÁGTUDOMÁNYI EGYETEM
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DIPLOMA SUPPLEMENT

Number of diploma: BME-0002/2017

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 avaiable)
77785922983

1.5. Registration number
T044877/FI23344/2N-AG0-2013

2. INFORMATION ON THE QUALIFICATION

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

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

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
Hungarian

3. INFORMATION ON THE LEVEL OF THE QUALIFICATION

3.1. Level of qualification, EQF level
Bachelor (first cycle)
Level 6

3.2. Official length of program
7 semesters

3.3. Access requirements
Secondary school leaving certificate (after 12 years of study), entrance procedure

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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 engineers

4.1.3. Required number of credit points

210

4.1.4. System of knowledge assessment

Examinations, 2 comprehensive examinations, BSc thesis and its defending at public final examination

4.1.5. Required professional practice, credit value

6-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
Physical Education 2/A	BMEGT70BS2A	W: 0/2/0	Signature	0	Signed	2014/15/1
Measurement Technology	BMEGEMIAMG1	W: 2/0/1	Mid-term mark	3	Excellent	2014/15/1
Environmental Management Systems	BMEGT42A003	W: 3/0/0	Mid-term mark	3	Excellent	2014/15/1
German for Beginners 1.	BMEGT611011	W: 0/4/0	Mid-term mark	0	Good	2014/15/1
Analysis of Technical and Economical Data	BMEGEVGAG14	W: 2/1/0	Mid-term mark	3	Excellent	2014/15/1
Mathematics A3 for Mechanical Engineers	BMETE90AX10	W: 2/2/0	Mid-term mark	4	Excellent	2014/15/1
CAD modeling	BMEGEGEAGCM	W: 0/0/2	Mid-term mark	3	Good	2014/15/1
Physics A3	BMETE15AX03	W: 2/0/0	Exam	2	Excellent	2014/15/1
Machine Elements 1.	BMEGEGEAGG1	W: 2/1/1	Exam	5	Excellent	2014/15/1
Dynamics	BMEGEMMAGM3	W: 2/2/0	Exam	5	Excellent	2014/15/1
Materials Engineering	BMEGEMTAGK2	W: 3/0/1	Exam	4	Excellent	2014/15/1
Comprehensive Examination in Mathematics A3	BMETE90AX23	S:	Comprehensive exam	0	Excellent	2014/15/1
Software Engineering	BMEGERIA32P	W: 0/2/0	Mid-term mark	2	Excellent	2013/14/2
Fundamentals of CAD	BMEGEGEA3CD	W: 1/0/2	Mid-term mark	4	Excellent	2013/14/2
Ergonomics	BMEGT52A001	W: 2/0/0	Mid-term mark	2	Satisfactory	2013/14/2
Fundamentals of Machine Design	BMEGEGEAGM1	W: 2/2/0	Mid-term mark	4	Good	2013/14/2
Physics A2	BMETE15AX02	W: 2/0/0	Exam	2	Excellent	2013/14/2
Mathematics A2a - Vector Functions	BMETE90AX02	W: 4/2/0	Exam	6	Good	2013/14/2
Strength of Materials	BMEGEMMAGM2	W: 2/2/0	Exam	5	Satisfactory	2013/14/2
Materials Science and Testing	BMEGEMTAGK1	W: 4/0/1	Exam	6	Excellent	2013/14/2

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Subject	Subject code	Lessons	Requirement	Credit	Grade	Term
Advenced Thermodynamics	BMEGEENAGAT	W: 2/2/0	Mid-term mark	4	Excellent	2015/16/2
Advenced Strength of Materials	BMEGEMMAG42	W: 2/1/1	Mid-term mark	5	Excellent	2015/16/2
MATLAB Programming	BMETE119779	W: 0/0/2	Mid-term mark	3	Excellent	2015/16/2
Software Tools in Mechatronics	BMEGEMIA4MS	W: 0/2/0	Mid-term mark	2	Excellent	2015/16/2
Heat Engines	BMEGEENAEGK	W: 2/1/1	Exam	4	Excellent	2015/16/2
Fluid Machinery	BMEGEVGAG02	W: 2/1/1	Exam	4	Excellent	2015/16/2
Dynamics of Machines	BMEGEMMAG41	W: 2/1/1	Exam	5	Excellent	2015/16/2
Computational Fluid Dynamics	BMEGEÁTAG03	W: 2/1/1	Exam	4	Excellent	2015/16/2
Introductory Mathematics	BMETE90AX40	W: 0/2/0	Mid-term mark	2	Excellent	2013/14/1
Physical Education 1/A	BMEGT70BS1A	W: 0/2/0	Signature	0	Signed	2013/14/1
Technical Chemistry	BMEVEKTAGE1	W: 2/0/1	Mid-term mark	3	Excellent	2013/14/1
Information Systems	BMEGERIA31I	W: 2/0/2	Mid-term mark	4	Good	2013/14/1
Statics	BMEGEMMAGM1	W: 1/1/0	Mid-term mark	3	Excellent	2013/14/1
Conflict Prevention-Management-Mediation-Negotiation	BMEGT439348	W: 2/0/0	Mid-term mark	2	Excellent	2013/14/1
Introduction to Mechanical Engineering	BMEGEVGAG01	W: 2/1/1	Exam	4	Excellent	2013/14/1
Micro- and Macroeconomics	BMEGT30A001	W: 4/0/0	Exam	4	Excellent	2013/14/1
Descriptive Geometry	BMETE90AX06	W: 1/2/0	Exam	3	Satisfactory	2013/14/1
Mathematics A1a - Calculus	BMETE90AX00	W: 4/2/0	Exam	6	Excellent	2013/14/1
Summer Internship	BMEGEMMA4SZ	S:	Signature	0	Signed	2016/17/1
BSc Final Project	BMEGEMMA4SD	W: 0/10/0	Mid-term mark	15	Excellent	2016/17/1
Fundamentals of Thermomechanics	BMEGEMMAM31	W: 1/0/1	Mid-term mark	3	Excellent	2016/17/1
Simulation of Electrical Systems	BMEGEMIAG04	W: 2/1/0	Mid-term mark	3	Satisfactory	2016/17/1
Fundamentals of Mechanisms	BMEGEMMAG44	W: 2/0/0	Mid-term mark	3	Excellent	2016/17/1
Technical Acoustics and Noise Control	BMEGEÁTAG05	W: 2/0/1	Mid-term mark	3	Excellent	2016/17/1
Differential Equations and Bifurcations 1	BMETE937308	W: 2/0/0	Exam	3	Excellent	2016/17/1
Industrial Safety	BMEGEMTA411	S:	Signature	0	Signed	2015/16/1
Management and Business Economics	BMEGT20A001	W: 4/0/0	Mid-term mark	4	Excellent	2015/16/1
Fundamentals of Elasticity	BMEGEMMAG43	W: 2/1/0	Mid-term mark	3	Good	2015/16/1
Fundamentals of FEM	BMEGEMMAGM5	W: 1/1/1	Mid-term mark	3	Excellent	2015/16/1
Differencial Geometry and its Numeric Methods	BMETE94AX00	W: 2/1/0	Mid-term mark	3	Good	2015/16/1
Novel methods of technical drawing	BMEGEGEACAD	W: 0/0/2	Mid-term mark	3	Excellent	2015/16/1
Business Law	BMEGT55A001	W: 2/0/0	Mid-term mark	2	Good	2015/16/1
Differential Equations and their Numerical Methods for Engineers	BMETE93AX11	W: 2/1/0	Exam	4	Excellent	2015/16/1
Electromechanics	BMEVIAUA008	W: 2/1/1	Exam	4	Excellent	2015/16/1
Heat Transfer	BMEGEENAEHK	W: 2/2/0	Exam	4	Excellent	2015/16/1
Machine Construction I	BMEGEGEAGS1	W: 2/1/0	Exam	4	Good	2015/16/1
Control Engineering	BMEGEMIAGE1	W: 2/2/0	Exam	4	Excellent	2015/16/1

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Subject	Subject code	Lessons	Requirement	Credit	Grade	Term
Engineering Thermodynamics	BMEGEENAETD	W: 2/1/0	Mid-term mark	3	Excellent	2014/15/2
Vibrations	BMEGEMMAGM4	W: 2/1/0	Mid-term mark	3	Excellent	2014/15/2
Fluid Mechanics	BMEGEÁTAG11	W: 3/1/1	Mid-term mark	5	Excellent	2014/15/2
Basics of Electrical Engineering	BMEVIAUA007	W: 2/0/1	Mid-term mark	3	Excellent	2014/15/2
Polymer Materials Science and Engineering	BMEGEPTAG0P	W: 3/0/2	Exam	6	Excellent	2014/15/2
Machine elements 2.	BMEGEGEAGG2	W: 3/1/1	Exam	6	Excellent	2014/15/2
Manufacturing	BMEGEGTAG01	W: 2/0/3	Exam	5	Good	2014/15/2
Welding	BMEGEMTAGM2	W: 2/0/2	Exam	4	Good	2014/15/2
Comprehensive Exam of Mechanics	BMEGEMMAGM0	S:	Comprehensive exam	0	Good	2014/15/2

*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: 228

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

Number of credits: 0

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

Marks 1 to 5 for subjects ending with mid-semester mark or exam mark, accomplishment requires at least a pass (2) grade. Accomplishment of subjects with a signature requires the attainment of the signature.

4.4. Overall classification of the qualification

excellent (4,82)

5. INFORMATION ON THE ENTITLEMENT OF THE QUALIFICATION

5.1. Access to further study

To pursue MSc studies, to participate in specialized postgraduate studies

5.2. Professional status (if applicable)

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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 2016/17 at the Department of Mechatronics, Optics and Information Engineering.

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

20. 01. 2017

7.2. Name and signature

Dr. Mihály Szabó

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7.3. Capacity

Director of Central Academic Office

7.4. Official stamp or seal

8. INFORMATION ON THE HUNGARIAN HIGHER EDUCATION SYSTEM

(modified in May 2015)

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.

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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
From 1 September 2013 higher-level vocational training has been replaced by vocational higher education programmes. This type of training no longer forms part of the National Register of Vocational Qualifications.

The diploma obtained after the 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 120 to 150 credits; generally the length of the programme is 4-5 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
Based on a Master degree the doktori képzés (Doctoral course) requires the completion of at least 180 credits. The length of the programme is 36 months. Following the Doctoral course, or within the framework of the Doctoral course through a separate degree obtaining procedure, the scientific degree "Doctor of Philosophy" (abbreviation: PhD), or in the field of art "Doctor of Liberal Arts" (abbreviation: DLA) may be obtained. The maximum length 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/NARIC[1], Ministry of Human Resources[2], Educational Authority[3], Hungarian Accreditation Committee[4], Educatio[5].

[1] Web site: www.naric.hu
[2] Web site: www.kormany.hu/hu/emberi-eroforrasok-miniszteriuma
[3] Web site: www.oktatas.hu
[4] Web site: www.mab.hu
[5] Web site: www.felvi.hu

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