

Europass Curriculum Vitae



Personal information

First name(s) / Surname(s) **Gábor MANHERTZ**
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Nationality Hungarian
Date of birth 3. October 1988.

Education and training

Present education PhD. student
Beginning of the education February 2013 –2016
Principal subjects/occupational skills covered **Research proejct**
(Determination of the operating status and fault detection of thermal power machineries with vibration diagnostic methods)
Subjects
(Thermal power machinery diagnostics, Mechatronics, Measurement theory and technique, Technical diagnostics, System theory, Research methodology)
In addition, major participation in the educational activites of the Faculty
(holding seminars, lectures, developing and creating curricula and study materials in Hungarian and in English)
Name and type of organisation providing education and training Budapest University of Technology and Economics, Géza Pattantyús-Ábrahám Doctoral School of Mechanical Engineering, 1111 Budapest, Hungary
Dates February 2011. – January 2013.
Title of qualification awarded Certified mechatronics engineer (MSc), specialized in vehicle mechatronics
Principal subjects/occupational skills covered **Natural science curriculum**
(Mathematics, Mechanics, Electronics)
Vocational curriculum
(Control engineering, Mechatronics)
Specialized curriculum
(Combustion engines, Vehicle electronics, Mechatronical devices of vehicles)
Name and type of organisation providing education and training Budapest University of Technology and Economics, 1111 Budapest, Hungary

Dates	September 2007. – January 2011.
Title of qualification awarded	BSc in Mechatronics Engineer, Specialized in design of mechatronical devices
Principal subjects/occupational skills covered	<p>Natural science curriculum (Mathematics, Mechanics, Material science, Physics)</p> <p>Vocational curriculum (Mechanical engineering block, Computer engineering block, Electrical engineering block, Measure technics block, Mechatronical engineering block)</p> <p>Specialized curriculum (Finite element modeling, Precision mechanics, Motion control, Servopneumatics)</p>
Name and type of organisation providing education and training	Budapest University of Technology and Economics, 1111 Budapest, Hungary
Dates	September 2001. – June 2007.
Title of qualification awarded	High-school graduation
Principal subjects/occupational skills covered	<p>General (Mathematics, Physics, German, French, Literature and grammar, Biology, Chemistry)</p> <p>Facultative (Mathematics, Physics, German)</p>
Name and type of organisation providing education and training	Calvinistic Lyceum, 2100 Gödöllő, Hungary
Work experience	
Dates	February 2016. -
Occupation or position held	Assistant Lecturer
Main activities and responsibilities	<p>Educational and research tasks about the followings: Vibration diagnostics, internal-combustion engines, measurement technique, LabVIEW based software development, measurement and data acquisition</p> <p>Conducting and participating in industrial projects related to system design and development for data acquisition, signal processing and testing.</p> <p>Management of industrial contacts.</p>
Name and address of employer	Budapest University of Technology and Economics, Department of Mechatronics, Optics and Mechanical Engineering Informatics, 1111 Budapest
Type of business or sector	Education, research, curricula and study material development
Dates	July 2015. – August 2015.
Occupation or position held	PhD Student Researcher
Main activities and responsibilities	Creating and developing the curricula of subjects Control Theory, Control Engineering and Digital Control in Hungarian and translating it to English
Name and address of employer	Budapest University of Technology and Economics, 1111 Budapest
Type of business or sector	Curricula and study material development
Dates	August 2013. – February 2015.
Occupation or position held	Researcher
Main activities and responsibilities	<p>System developing for acoustic emission measurements and AE signal analysis for determining material behaviors.</p> <p>Writing complete software and hardware documentation with user manual.</p>
Name and address of employer	Hungarian Acoustic and Industrial Diagnostic Laboratory, 2400 Dunaújváros, Hungary, College of Dunaújváros
Type of business or sector	Software development, AE diagnostics

Dates	April 2013. – August 2013.
Occupation or position held	PhD Student researcher
Main activities and responsibilities	Within the TÁMOP 4.2.2 / B-10 / 1-2010-0009 project literature search in the "Automation of diagnostic procedures and therapeutic recommendations on the basis of X-ray" topic. Furthermore,, a presentation of a summary about the manual X-ray diagnostic methods, and software frameworks which can make possible the automation of this methods. This task is connected to the "Eto-robotics" topic.
Name and address of employer	Budapest University of Technology and Economics, 1111 Budapest
Type of business or sector	Literature search, analysis of software frameworks, creation of summarized documentation
Dates	August 2010. - January 2013.
Occupation or position held	Trainee
Main activities and responsibilities	Operation and maintenance of TVMs (Ticket Vending Machines), integration of the transport informatics technologies, preparation of OBU (On-board Unit) to deploy on buses, data processing and transferring from different sensors (camera, GPS tracking, fuel level gauge). Using 3D CAD software (Solidworks) to create and develop modules in order to improve the operation of TVMs.
Name and address of employer	Systrans Rendszerintegrátor Kft., 1117 Budapest, Hungary
Type of business or sector	Operation, maintenance, system integration, system engineering
Dates	June 2010. – August 2010.
Occupation or position held	Trainee
Main activities and responsibilities	Maintenance of the manufacturing and additional technical equipment
Name and address of employer	Siemens Transzformátor Kft., 1214 Budapest, Hungary
Type of business or sector	Maintenance
Other work experience	
Dates	January 2016
Occupation or position held	Commission contract
Main activities and responsibilities	Driver development in NI LabVIEW and NI TestStand for End of Line testing of automotive device. Integrating the drivers into the testing and measurement system.
Type of business or sector	Software development for testing technology
Dates	October 2015. – November 2015.
Occupation or position held	Commission contract
Main activities and responsibilities	Measurement software, driver and test sequence development in NI LabVIEW and NI TestStand for functional test of automotive devices.
Type of business or sector	Software development for testing technology
Dates	March 2015. – August 2015.
Occupation or position held	Commission contract
Main activities and responsibilities	Software framework and measurement hardware development in order to communicate with an asynchronous motor controlled by a frequency converter to perform screw tightening and loosening tasks, implementation of measurement and data acquisition. Writing complete software documentation.
Name and address of employer	Ecotech Nonprofit Zrt, 2400 Dunaújváros
Type of business or sector	Software and measurement system development

Dates July 2014. – August 2015.
 Occupation or position held Commission contract
 Main activities and responsibilities Implementation of a complete monitoring system (SW) for a passive house with energetic calculations, the management and the installation of the measurement hardware.
 Creation of documentation for system design and implementation steps, writing complete software, algorithm and hardware documentation with user manual.
 Name and address of employer Edutus College, 2800 Tatabánya
 Type of business or sector Software and measurement system development

Dates October 2011. – June 2012.
 Occupation or position held Commission contract
 Main activities and responsibilities Software and measurement system development in order to the qualification of an electromotive drivetrain with the analysis of the vibration components. The test run resulted nearly 95% correct qualifications.
 Writing complete software and hardware documentation with user manual in Hungarian and in English
 Name and address of employer Hungarian Acoustic and Industrial Diagnostic Laboratory, 2400 Dunaújváros, Hungary, College of Dunaújváros
 Type of business or sector Software development

Personal skills and competences

Mother tongue(s) **Hungarian**

Other language(s) **English Type “C” intermediate language exam
 German Type “C” intermediate language exam**

Self-assessment
 European level (*)

English

German

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
B2	Independent user	B2	Independent user	B2	Independent user	B2	Independent user	C1	Master user
B2	Independent user	B2	Independent user	B1	Independent user	B1	Independent user	B2	Independent user

(*) [Common European Framework of Reference for Languages](#)

Social skills and competences Good communication and collaboration skills, gained from the continuous group work.
 Team spirit.
 Knowledge transfer (Teachnig and holding seminars, contact classes in technical higher education)

Organisational skills and competences Proper implementation of traceability, documentation of projects in which I participated.
 Organizing work schedule.
 Project coordination
 Creating project documentation
 Contacting with partner companies.

Technical skills and competences Programming and operating knowledge of NI-PXI/PXIe systems
 Programming and operating knowledge of NI-DAQ data acquisition cards
 Programming and configuring of Festo and LG PLCs
 Knowledge of Festo pneumatic control systems
 Programming knowledge of Microchip microcontrollers
 Basic servicing and operating knowledge of Höft&Wessel Almex Station and Protokon MS15 TVMs
 Creating university curricula and study materials with technical vocabulary in Hungarian and in English

Computer skills and competences	<p>Certified LabVIEW Architect (CLA) Certificate NI LabVIEW™ high-level programming knowledge NI LabVIEW™ Core 3 certificate NI LabVIEW™ DAQ certificate NI LabVIEW™ Real-Time 1 certificate Festo™ E311 certificate Autodesk™ AutoCAD knowledge Solidworks™ 3D CAD software mid-level knowledge ANSYS™ basic knowledge MATLAB™ basic programming knowledge C++ basic programming knowledge Wolfram™ Mathematica knowledge Assembler basic programming knowledge Microsoft Office™ (Word™, Excel™, PowerPoint™, Visio™, Project™) advanced level knowledge</p>
Driving licence	B category
Additional information University experiences (2007-2012)	<p>Theory and simulation research of the discrete systems at BTU, Department of Mechatronics, Optics and Mechanical Engineering Informatics</p> <p>TDK 2010: an essay entitled „Development of the simulation tools of mechatronical systems”, within I extended the simulation tools of mechatronical systems with LabVIEW software package. I received a certificate of merit.</p> <p>Diplomathesis in BSc (2010) entitled „Investment of the TVM machines with associate sensors”, within I built a circuit, which operated with sensor and a microcontroller. This microcontroller processed the sensor signals, and gave a control signal as output.</p> <p>TDK 2012: an essay entitled “G. Gárdonyi, G. Manhertz: Vibration diagnostical qualification system for electromotive drivetrain”, which presented the implementation process of an analyzer and a qualifier software in LabVIEW. The program contained the data management and the qualification process of the devices, and the implementation of the diagnostic algorithms as well. The paper won the second prize at the TDK and got the rights to participate on the OTDK 2013.</p> <p>Diplomathesis in MSc (2012) entitled: „Temperature sensor analyzer and qualifier interface”. I developed a qualification software for temperature sensors used in vehicles. The software can manage the specifications of the sensors, and the qualification process as well.</p> <p>31st OTDK 2013: “G. Gárdonyi, G. Manhertz: Vibration diagnostical qualification system for electromotive drivetrain” - Certificate of Appreciation for the presented paper</p>