

Europass Curriculum Vitae



PERSONAL INFORMATION

First name / Surname	Gábor GÁRDONYI
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Nationality	Hungarian
Date of birth	18. May 1989.

Education and training

Present education	PhD. student - Mechatronics
Beginning of the education	February 2013.
Expected end of the education	2016.
Principal subjects/occupational skills covered	Research project: Real-time determination of the operating state and fault detection of thermal power machineries with vibration diagnostic methods Subjects: Thermal power machinery diagnostics, Mechatronics, Measurement theory and technique, Technical diagnostics, Acoustics, Research methodology
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 Grade of the degree being: Excellent with highest honours
Principal subjects/occupational skills covered	Natural science curriculum Mathematics, Mechanics, Electronics Vocational curriculum Control engineering, Mechatronics Specialized curriculum Internal combustion engines, Vehicle electronics, Mechatronic 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	Mechatronics Engineer (BSc), Specialized in Design of Mechatronic Devices
Principal subjects/occupational skills covered	Natural science curriculum Mathematics, Mechanics, Material science, Physics Vocational curriculum Mechanical engineering block, Computer engineering block, Electrical engineering block, Measure technics block, Mechatronics engineering block Specialized curriculum Finite element modelling, Precision mechanics, Motion control, Servo pneumatics
Name and type of organisation providing education and training	Budapest University of Technology and Economics, 1111 Budapest, Hungary
Dates	September 1999. – June 2007.
Title of qualification awarded	High-school graduation
Principal subjects/occupational skills covered	Facultative Mathematics, Physics
Name and type of organisation providing education and training	Evangelistic Grammar School, 1052 Budapest, Hungary

Work experience

Dates	2010. –
Occupation or position held	Development engineer, Researcher
Main activities and responsibilities	Designing measurement system for life span research of vehicle electronics. Designing observer system for transportation processes, which can detect, save and register occurred events. Qualification of electromotive drivetrains via vibration diagnostics based malfunction detection. System developing for acoustic emission measurements and AE signal analysis for determining material behaviours. Development of other data acquisition and control systems for various devices.
Name and address of employer	Hungarian Acoustic and Industrial Diagnostic Laboratory, 2400 Dunaújváros, Hungary
Type of business or sector	Research, Software development, Vibration diagnostics, Acoustic Emission diagnostics
Dates	April 2009. – September 2014.
Occupation or position held	Light technician
Main activities and responsibilities	Design, construction, operation and service of stagecraft.
Name and address of employer	Geoprofil Bt., 5000 Szolnok, Hungary
Type of business or sector	Sound and Light technic, stagecraft
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

Further work experience

Dates	2013-2014
Occupation or position held	Development engineer
Main activities and responsibilities	Developing of a measuring and data acquisition system for monitoring and logging burning pressure in internal combustion engines
Employer	Mol Nyrt.
Type of business or sector	Designing and developing of data acquisition system, coaching
Dates	2013-2014
Occupation or position held	Development engineer
Main activities and responsibilities	Designing complex communication network for various devices used in the project "Utilization of low heat content energy for production of electricity". Synchronisation and realization of parallel communication among the specified devices via several communication protocols.
Employer	BME, EGR
Type of business or sector	Designing and developing of data acquisition system, coaching
Dates	2012-2013
Occupation or position held	Development engineer
Main activities and responsibilities	Designing and developing of validating system for knock sensors. Making hardware configuration concepts. Development of the measuring system. Implementation of a compact, mobile rack, which contains the whole equipment. Making further software modules for validating the individual developed electronics.
Employer	Audi Hungaria Motor Kft.
Type of business or sector	Designing and developing of data acquisition system, coaching
Dates	2012
Occupation or position held	Development engineer
Main activities and responsibilities	Implementation of an on-board observing system for long distance transportation by truck.
Employer	IBIDEN Hungary Ltd.
Type of business or sector	Designing and developing of data acquisition system, coaching
Dates	2011-2012
Occupation or position held	Development engineer
Main activities and responsibilities	Qualifying system development for electromotive drivetrains used in vehicle industry.
Employer	Hammerstein Bt.
Type of business or sector	Designing and developing of data acquisition system, coaching

Personal skills and competences

Mother tongue Hungarian

Other language(s) German Type „C” advanced language exam
English Type „C” intermediate language exam

Self-assessment

	Understanding		Speaking		Writing
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B1	B2
German	B2	B2	B2	B1	B2

Levels: A1/2: Basic user - B1/2: Independent user - C1/2: Proficient user
Common European Framework of Reference for Languages

Social skills and competences

Good communication and collaboration skills.
Ability to work in team.
Helpfulness.
Team spirit.
Patience and solidarity with others.

Organisational skills and competences

Proper implementation of projects traceability and documentation.
Organizing work schedule.
Easily get in touch with others.
Contacting with companies.

Technical skills and competences

Advanced programming and functional knowledge of NI-DAQ, cDAQ, cRIO, FPGA, PXI/PXIe
Knowledge of Festo pneumatic control systems
Advanced programming and functional knowledge of Avolites and SGM controllers
Advanced knowledge about DMX-512 controlled devices
Programming and setting knowledge of Festo and LG PLCs
Basic knowledge of Microchip microcontrollers

Computer skills and competences

NI LabVIEW™ advanced programming knowledge
Certified LabVIEW Developer (CLD) Certificate
NI LabVIEW™ Core 3 training certification
NI LabVIEW™ DAQ training certification
NI LabVIEW™ Real-Time 1 training certification

Knowledge of Autodesk™ AutoCAD
Knowledge of AutoDesk™ Inventor
Knowledge of ANSYS™
Knowledge of Wolfram™ Mathematica
Knowledge of Microsoft Office™ (Word, Excel, PowerPoint, Visio)

Further basic knowledge of C++, MATLAB, EWB, NI MultiSim, Festo FluidSIM, FST, Siker, Oslo, WinPisa, MPLAB, GMWIN, Assembler

Driving licence

B category
Marine

Additional information

- 2014 Investment in validated 3 dimensional vibration diagnostic system (NI cDAQ-9174, NI 9234, PCB M356A33, PCB 034G10 cable for M356A33, PCB M080A30 magnet for M356A33, NI USB-6501) for progression of the PhD research.
- 2013 XXXI. OTDK: „Vibration diagnostic qualification system for electromotive drivetrain”
- 2012 Diploma thesis in MSc: “Design and implementation of analysing and qualifying systems for knock sensors”. The system was developed for the Audi Hungária Motor Kft. and implemented successfully. My job was making hardware configuration concepts and the development of the measurement software. The implementation of a compact, mobile rack, which contains the whole equipment, was also my part of the project. For validation of the individual developed electronics it became necessary making further software modules.
- TDK: “Vibration diagnostic qualification system for electromotive drivetrain”
- 2010 Diploma thesis in BSc: “Designing measurement system for life span research of vehicle electronics” The system was implemented successfully. The on-board data acquisition device measured the vibration of specific points of a bus in different traffic and environmental situations. The self-developed software can process, analyse the signal. The final goal of the project was to reproduce the acceleration signals for the VR-TIRA Shaker in the Bosch Laboratory in Dunaújváros.

Publications

- 2014 Gárdonyi Gábor, Dr Samu Krisztián
"Szinkronizált multi-ablakos megjelenítés jelfeldolgozó és diagnosztikai algoritmusokkal"
(Synchronized multi-window display software for signal processing and diagnostics)
Proceedings of ARES'14: Workshop on Application of Robotics for Enhanced Security. Place and date of Conference: Budapest, Hungary, 2014.06.13-2014.06.14. Budapest: Budapest University of Technology and Economics, 2014. pp. 54-65.
(ISBN:978-963-313-128-2)
Book chapter/Conference issue/Scientific
- G. Gárdonyi, G. Manhertz, G. Pór
"Managing measured vibration data for malfunction detection of an assembled mechanical coupling"
INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY 75:(5) pp. 693-703. (2014)
Journal article/Technical article/Scientific
- G. Gardonyi, G. Manhertz, G. Csicsó, G. Por
"Real-Time Acoustic Emission Event Detection With Data Evaluation For Supporting Material Research"
In: DGZfP (szerk.)
31th Conference of the European Working Group on Acoustic Emission. Place and date of Conference: Dresden, Germany, 2014.09.03-2014.09.05. Berlin: DGZfp, 2014. pp. 1-6.
(ISBN:978-3-940283-63-4)
Book chapter/Conference issue/Scientific
- G. Por, P. Bereczki, G. Csicsó, Zs. Danka, G. Gardonyi, G. Manhertz
"Acoustic Events Detected During Tensile Testing Of Twip Steels"
11th European Conference on Non-Destructive Testing
Book chapter/Conference issue/Scientific
- Gárdonyi Gábor
"Általános célú rezgésmérő és elemző szoftver belső struktúrája"
(The internal structure of a universal vibration measuring and postprocessing softwares)
National Instruments Developer Day 2014
Presentation/Conference issue
- 2013 Gárdonyi Gábor, Manhertz Gábor
"Rezgésdiagnosztikai algoritmusok elektromos hajtásrendszer vizsgálatához"
(Vibration diagnostic algorithms for analysing electromotive drivetrains)
In: Keresztes Gábor (szerk.)
XVI. Spring Wind Conference. 659 p.
Place and date of Conference: Sopron, Hungary, 2013.05.31-2013.06.02. Budapest: DOSZ, 2013. pp. 169-177.
1-2. vol.
(ISBN:978-963-89560-2-6)