



**Curriculum vitae  
Europass**



**PERSONAL INFORMATION**

Name / Surnames **Oniga István László**

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Date of birth 20.04.1960

**Current job**

Associate professor, Department of Department of IT Systems and Networks, Faculty of Informatics, University of Debrecen, Hungary

Main activities and responsibilities

- Teaching activities:
  - BSc.: Digital design, Logic design with programmable devices
  - MSc.: Logic design using HDL, Reconfigurable embedded systems, Hardware-software co-design
  - PhD school: Reconfigurable embedded systems based cyber-physical systems
- Research: Implementation of artificial neural networks in field-programmable gate arrays; Embedded systems design and applications; e-Health and ambient assisted living systems; Assistive robots; Digital neural network based smart devices.
- PhD supervisor.

**WORK EXPERIENCE**

Faculty of Engineering, Technical University of Cluj-Napoca, North University Center of Baia Mare

**Dates** Professor (2016-) Associate professor (2006-2016), Lecturer (1996-2006), Teaching assistant (1992-1996)

Main activities and responsibilities

- Research and teaching activities (Lectures, seminars and labs). Course leader for the following disciplines: Digital design, Digital systems, Embedded systems, Computer Aided Design, Microcontrollers, Microprocessors systems, Intelligent Embedded Systems (MSc.).
- Responsible of the Applied electronics major

**Dates** 2013-present

Occupation or position held Director of "Intelligent embedded systems" research center

**Dates** 2007-2011

Occupation or position held Electronics and Computer engineering Department Head

Name and address of employer North University Center of Baia Mare, Str. Dr. V. Babeş 62/A

Type of business or sector Higher education

**Dates** 2000-2002

Occupation or position held Technical manager

Main activities and responsibilities Team management. Project manager for 12 projects and team member.

Name and address of employer SC Electronics Engineering SA, Baia Mare

Type of business or sector Research and design of ASIC and FPGA circuits

**Dates** 1990-1992

Main activities and responsibilities Electronic engineer

Name and address of employer	Intreprinderea de Prospecțiuni și Explorări Geologice Maramureș, Baia Mare				
<b>Dates</b>	<b>1985-1990</b>				
Main activities and responsibilities	Electronic engineer				
Name and address of employer	Intreprinderea de Prospecțiuni Geologice și Geofizice București, Secția teritorială Geofizică de sondă Baia Mare				
Type of business or sector	Research and development				
<b>Education and training</b>					
<b>Dates</b>	<b>1998-2005</b>				
Title of qualification awarded	Ph.D. Domain: Electronic engineering and telecommunications				
Name and type of organization providing education and training	"Politehnica" University of Timișoara				
<b>Dates</b>	<b>1980-1985</b>				
Title of qualification awarded	Engineer				
Domain	Electronic engineering and telecommunications				
Name and type of organization providing education and training	Institute "Traian Vuia" of Timișoara				
<b>Personal skills and competences</b>					
Mother tongue(s)	Hungarian. Romanian.				
Other language(s)					
Self-assessment	<b>Understanding</b>		<b>Speaking</b>		<b>Writing</b>
<i>European level (*)</i>	Listening	Reading	Spoken interaction	Spoken production	
<b>English</b>	C1	C1	C1	C1	B2
<b>French</b>	B2	B2	B1	B1	B1
	(*) <i>Common European Framework of Reference (CEF) level</i>				
Organizational skills and competences	Project management experience. Management of the Electronic and Computer engineering Department 2007-2011, coordination of the Applied electronics major starting with 2000. Management of the Intelligent Embedded Systems research center. Management of organizing committee of 6 international conferences and workshops in 4 in Baia Mare and 2 in Debrecen, Hungary. Managing director for "Carpathian Journal of Electronic and Computer Engineering", journal indexed in several international databases.				
Technical skills and competences	<ul style="list-style-type: none"> <li>- Computer aided design (Multisim, OrCAD/ Capture, PSPICE, Layout)</li> <li>- Reconfigurable design (Xilinx ISE, System generator, ChipScope, Modelsim)</li> <li>- Artificial neural networks implementation using reconfigurable circuits FPGA (Matlab, Simulink, Labview)</li> <li>- Adaptive embedded systems (Xilinx EDK, Altera Nios II Embedded Design Suite)</li> </ul>				
Publications	<ul style="list-style-type: none"> <li>- Author and coauthor of 5 books/book chapters;</li> <li>- Author and coauthor of more than 150 scientific papers indexed: <ul style="list-style-type: none"> <li>• ISI Web of Science 60</li> <li>• SCOPUS 70</li> </ul> </li> </ul>				
Research projects	<ul style="list-style-type: none"> <li>- Manager/responsible 7 national and international projects awarded by competition and 12 research grants with companies.</li> <li>- Member of the research team in 6 national research projects and 3 international projects.</li> </ul>				
Bibliometric data	<p>Google Academic: Citations 1385, H index = 19  ISI Web of Science: h-index 11, Citation 469  Scopus: h-index 13, Citations 669</p>				

Additional information	
Editor in chief of scientific journals	Carpathian Journal of Electronic and Computer Engineering 2008 – present, (ISSN 1844 – 9689)
Member of editorial board	International Review of Applied Sciences and Engineering (ISSN 2062-0810), Hungary Acta Technica Napocensis Electronica-Telecomunicatii (ISSN 1221-6542)
Membership	- IEEE - Institute of Electrical and Electronics Engineers – Industrial Electronic Society - XUP - Xilinx University Program
Awards and distinctions	<ul style="list-style-type: none"> <li>• AGEPI medal of Moldavian National Agency for Intellectual Property for “Group of inventions presented at International trade for inventions and practical ideas, INVEST-INVENT SIR 21”.</li> </ul>
	<ul style="list-style-type: none"> <li>• Best Adviser in the eleventh Edition of the Diligent Design Contest, EU Region, Cluj-Napoca Romania</li> <li>• Best paper Award, Internet of Things for the Global Community, IoTGC 2017, Madeira, Portugal</li> </ul>
Organizing of conferences and workshops	<ul style="list-style-type: none"> <li>• Embedded Systems Design and Applications, Baia Mare, ESDA 2007, 2008, 2009, 2010</li> <li>• Embedded Systems and Wireless Sensors Networks Design and Applications, Debrecen, 2011, 2012</li> </ul>
Member of scientific or steering committees at international scientific events	<ul style="list-style-type: none"> <li>• CITDS 2020, 2022, 2024 IEEE 3rd Conference on Information Technology and Data Science, Debrecen, Autonomous vehicles and embedded systems session - organizer</li> <li>• 17th International Carpathian Control Conference - ICCC'2016, High Tatras, Tatranská Lomnica, Slovak Republic, May 29 - June 1, 2016</li> <li>• Embedded World Conference, Nuremberg, Germany, 2014, 2015, 2016</li> <li>• 16th International Carpathian Control Conference – ICCC 2015, Szilvásvárad, Hungary May 27-30, 2015</li> <li>• 15th International Carpathian Control Conference – ICCC 2014, Velke Karlovice, Czech Republic</li> <li>• International Conference on Hybrid Artificial Intelligence Systems – Special session: Metaheuristics for Combinatorial Optimization and Modelling Complex Systems, Salamanca, Spain 2013</li> <li>• International Symposium for Design and Technology of Electronic Packages SIITME 2007-2014</li> <li>• International Carpathian Control Conference, Kraków-Rytró, Polonia, 2012.</li> <li>• International Symposium for Design and Technology of Electronic Packages SIITME 2007-present</li> <li>• International conference: Building Services, Mechanical and Building Industry Days. Applied informatics. Debrecen, Hungary 2009, 2010, 2011.</li> <li>• International Carpathian Control Conference ICCC'2010, Eger, Hungary.</li> <li>• International Symposium on Applied Informatics and Related Areas 2010 Székesfehérvár, Hungary</li> <li>• Regional Conference on Embedded and Ambient Systems - RCEAS 2007 Budapesta, Hungary</li> </ul>
Chairman of session at national or international conferences	<ul style="list-style-type: none"> <li>• Chairman of Embedded Hardware I at: Regional Conference on Embedded and Ambient Systems - Budapesta 22-24 november - RCEAS 2007</li> <li>• Chairman of: Student Forum 2 at: The 11th International Conference on Optimization of Electrical and Electronic Equipment OPTIM 2008</li> </ul>
Seminars, workshops summer schools participation	<ul style="list-style-type: none"> <li>• Xilinx University Professor Workshop, DSP Primer, Debrecen, Hungary, 2011</li> <li>• Xilinx University Professor Workshop – Partial reconfiguration, Montpellier, France, 2011</li> <li>• Altera Workshop, Debrecen, Hungary, 2009</li> <li>• Xilinx University Professor Workshop – Embedded Design Kit (EDK), Cluj-Napoca 2008</li> <li>• 3rd GOSPEL School - 30 September 2007 - 5 October 2007, Crete</li> <li>• Automated Test Summit '07 - National Instruments Europe, Debrecen, Hungary, 2007.</li> <li>• Xilinx University Professor Workshop, DSP, 2004, Budapesta, Hungary.</li> </ul>
International nobilities	<ul style="list-style-type: none"> <li>• Beijing University of Post and Telecommunication, Chinaapri-may 2015 (4 weeks)</li> <li>• Saxion University Enschede si Saxion University Deventer 21-28.06.2010</li> <li>• University of Cambridge Nanoscience Centre - 16.05.2008</li> <li>• University of Oxford, Begbroke Science Park - 17-19.05.2008</li> <li>• Imperial College/London Centre for Nanotechnology (LCN) - 16.05.2008</li> <li>• University of Sheffield, Kroto Research Institute and Centre for Nanoscience - 17.05.2008</li> <li>• Centre Tecnologic de Telecomunicacions de Catalunya, Barcelona, 2008</li> <li>• SapienzaUniversity Roma, 2007</li> <li>• Ecole Supérieure d'Ingénieurs en Informatique de Luminy, Université de la Méditerranée, AIX-Marseille II 1999 – 8 weeks</li> <li>• Institute Universitaire de Tehnologie de Bethune, 1997 – 8 weeks</li> </ul>
Member of the steering committee student contests and scientific events	<ul style="list-style-type: none"> <li>• NORDEtech contest 2011, 2009, 2008 , Baia Mare, Romania</li> <li>• International PLC programming contest, Debrecen Budapesta</li> <li>• Interconnecting techniques in electronics, Pitești, Romania, 2008</li> </ul>

Projects	<ul style="list-style-type: none"> <li>• "Mentor" in the Mentoring program, POSDRU/87/1.3/S/60891, "Lifelong learning and training for higher education teachers in the technical sciences and engineering fields – DidaTec"</li> <li>• Short time "Lifelong learning and training for higher education teachers in the technical sciences and engineering fields – DidaTec" POSDRU/87/1.3/S/60891</li> <li>• Expert collaborator in the project "Doctorate in Schools of Excellence - Quality evaluation in universities and increasing the visibility of the scientific publishing" POSDRU/5/1.5/S/2</li> </ul>
Research grants	<ul style="list-style-type: none"> <li>• "National and international partnership development in the field of Embedded Systems, with the aim of organizing scientific meetings and drafting projects cooperatively in the EU framework program - PASED" (CEEX-M3 PASED – contract no.: 253/01.08.2006). Duration: 2007-2010. <i>Role: director</i>. Financing institution: Romanian Ministry of Education and Research..</li> <li>• "Human activity recognition system using artificial neural networks" - Joint research project with Beijing University of Posts and Telecommunications, School of Science. Duration 25.05.2015 - 19.06.2015. Chinese partner: Prof. Yongjiang GUO, Ph.D. Financing institution: Balassi Institute, Campus Hungary Higher Education Staff Short Term Mobility, B2/4R/16048; 2015.</li> <li>• "Future Internet Research, Services and Technology; Subproject: Internet of Things". TÁMOP-4.2.2.C-11/1/KONV-2012-0001 Hungary. Duration 2012-2014. Financing institutions: Hungarian National Development Agency. Grant awarded: 5.121.700 €. Project supported by the European Union, co-financed by the European Social Fund. Beneficiary: University of Debrecen. Research team leader: "ICT tools for smart homes and assisted living for elders".</li> <li>• Smart functions of packages containing nano-structured materials in food preservation – SMARTPAC, ERA-NET-MicroNanoTechnologies (MNT-ERANET) Romania - 7-065/26.09.2012, Duration 2012-2015.</li> <li>• Development of a biophysical system based on zeolites microorganisms - vegetal species for the ecoremediation of tailings in the gold mining industry – ZEMIP Bilateral cooperation Romania – South Africa, 82/19.08.2008, Duration: 2009 – 2011.</li> <li>• Development of national and international partnerships, in the field of Embedded Systems, with the purpose of organizing scientific events and preparing common projects in the EU FP7, CEEX - M3 PASED - 253/01.08.2006 CNCSIS (Romania), Duration: 2006-2008.</li> <li>• Monitoring the action of the soil's microbiot for considering its use in the ecological rehabilitation of the decantation ponds. CEEX - M3 AMSREI nr.: 1822/18.09.2007 (Romania), Duration: 2007-2010.</li> <li>• Microcontroller coe (S*****), Soft processor core. Contract with S.C. Electronics Engineering S.A. Baia Mare 2002</li> <li>• Power optimizer of FPGA implemented designs, Method, Modell, Software. Contract with S.C. Electronics Engineering S.A. Baia Mare 2001</li> </ul>