

PERSONAL INFORMATION

Marius CARP


 TRANSILVANIA University of Brasov

 

 marius.carp@unitbv.ro

WORK
EXPERIENCE

Today – 2013

Lecturer

- Transilvania University, Braşov, Romania, 29 Eroilor str., 500036
- In charge of seminars on Electronic Systems Technology, Simulation Techniques, OS;
- Higher education in the electronic and telecommunications engineering

2013 – 2008

Teaching assistant

- Transilvania University, Braşov, Romania, 29 Eroilor str., 500036
- In charge of seminars on Electronic Systems Technology, Simulation Techniques;
- University teaching

2002 – 1999

Network Administrator

- Transilvania University, Braşov, Romania, 29 Eroilor str., 500036
- Maintained the network infrastructure, performed system administration, and controlled the overall users and network security of the university
- Network services

EDUCATION
AND
TRAINING

2008 – 2011

PhD - Field of study: Electronic Engineering and Telecommunications

- University Transilvania Brasov - Faculty of Electrical Engineering and Computer Science Brasov (Romania)
- Dissertation topic: "Energetical management system and management methods for self drive structures functionalities", advisor: Professor PhD. Gheorghe TOACŞE

2003 – 2005

MS degree in Electronic Design Automation Techniques

- University TRANSILVANIA Brasov - Faculty of Electrical Engineering and Computer Science Brasov (Romania)
- JTAG implementation on Xilinx XC4003A PC84-6

1998 – 2003

Bachelor Since degree in Electronics and Computers

- Transilvania University of Brasov, Faculty of Electrical Engineering
- Hardware & Software developing, ASIC

PERSONAL
SKILLS

- Good knowledge in CUDA Programming language (NVIDIA CUDA SDK).
- CAD/CAM/CAE(Autodesk, AutoCAD, Cadelec)
- Microsoft Office(MS Excel, MS Word, MS Visio, MS PowerPoint)
- Web Application (HTML, Macromedia Dreamweaver, Adobe Flex)
- Database design/administration(MS SQL Server, MySQL, FoxPro)
- Operating Systems(Microsoft OS: Windows 3.1 to Windows 8)
- Programming(Assembler x86, C, C++, Pascal, Visual Basic 6.0, .net)
- Good knowledge in C programming language and Microsoft Embedded C Programming Enviroment.
- Good knowledge in hardware design and MENTOR & CADANCE software package.
- Good knowledge about hardware and embedded design (experience in working with Microchip, Atmel, Philips, BroadCom microcontrollers and digital circuits), hardware design for Xilinx CPLD/ FPGA.
- Experience in designing embedded systems
- Basic knowledge about PLC programming in STEP 7 MicroWin (LAD, STL, FBD) for SIMATIC S7-200, STEP 7 (LAD, STL, FBD) for SIMATIC S7-300/400.
- Basic knowledge about programming SIMATIC HMI Devices in WinCC.
- Experience in computer hardware

Mother tongue(s) ROMANIAN

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C1	C2	B2	B2
	Replace with name of language certificate. Enter level if known.				
Franch	C1	C1	B2	B1	B1
	Replace with name of language certificate. Enter level if known.				

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

Digital competence

SELF-ASSESSMENT

Information processing	Communication	Content creation	Safety	Problem solving
PU	PU	PU	PU	PU

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

Social skills and competences

- Team Work: I have been involved in various types of team tasks
- I like things to be well done
- Dinamic, sociable, calm, communicative, responsible, perseverant and realistic.
- Ability to learn easy and fast.
- Good team and time management.
- Experience in team leadership.
- Quick learner, adaptable, team worker.

Driving licence Category B Vehicle

ADDITIONAL INFORMATION

Publications

- [1] – Book - "Simulation Techniques - Applications in Electrical Engineering and Electronics", G. PANA, M.C. CARP, Published by Transilvania University Press, Brasov, Romania - 2011, ISBN 978-973-598-991-0.
- [2] – Book - "Energy and Information", P.N. BORZA, M. SANDULEAC, A.M. MUSAT, M. CARP, Publication: Engineering the Future, Interdisciplinary Chapter, Publisher: SCIYO, November 2010, ISBN 978-953-307-210-4
- [1] - Al. GROSU, **M. CARP**, *SPECMAN-E testbench*, Bulletin of the Transilvania University of Braşov • Vol. 11 (60) No. 1 - **2018**, Series I: Engineering Sciences, pg. 17 – 22
- [2] - Sz. SIMON-BOGYO, **M. CARP**, *Real-time simulation software for analog waveshaping circuits*, Bulletin of the Transilvania University of Braşov • Vol. 10 (59) No. 2 – **2017** Series I: Engineering Sciences, pg. 203 - 210
- [3] - F. IONITA, **M. CARP**, *SPECMAN-UVM based testbench*, Bulletin of the Transilvania University of Braşov • Vol. 10 (59) No. 2 - **2017**, Series I: Engineering Sciences, pg. 175 – 180
- [4] - Lucian Calmac, Rodica Niculescu, Elisabeta Badila, Emma Weiss, Daniela Penes, Diana Zamfir, Lucian Itu, Laszlo Lazar, **Marius Carp**, Alexandru Itu, Constantin Suciu, Tiziano Passerini, Puneet Sharma, Bogdan Georgescu and Dorin Comaniciu, *A data-driven approach combining image-based anatomical features and resting state measurements for the functional assessment of coronary artery disease*, Journal of the American College of Cardiology, Volume 68, Issue 18 Supplement, November **2016**, DOI: 10.1016/j.jacc.2016.09.664
- [5] - F. DUMITRACHE, **M.C. CARP**, G. PANA, *E-bike electronic control unit*, **2016** IEEE 22nd International Symposium for Design and Technology in Electronic Packaging (SIITME 2016)
- [6] - Lucian Calmac, Rodica Niculescu, Elisabeta Badila, Emma Weiss, Diana Zamfir, Lucian Itu, Laszlo Lazar, **Marius Carp**, Alexandru Itu, Constantin Suciu, Tiziano Passerini, Puneet Sharma, Bogdan Georgescu and Dorin Comaniciu, *Image-Based Computation of Instantaneous Wave-free Ratio from Routine Coronary Angiography: Evaluation of a Hybrid Decision Making Strategy with FFR*, Journal of the American College of Cardiology Volume 66, Issue 15 Supplement, October **2015**, DOI: 10.1016/j.jacc.2015.08.087
- [7] - Lucian Calmac, Rodica Niculescu, Elisabeta Badila, Emma Weiss, Diana Zamfir, Lucian Itu, Laszlo Lazar, **Marius Carp**, Alexandru Itu, Constantin Suciu, Tiziano Passerini, Puneet Sharma, Bogdan Georgescu and Dorin Comaniciu, *Image-Based Computation of Instantaneous Wave-free Ratio from Routine Coronary Angiography - Initial Validation by Invasively Measured Coronary Pressures*, Volume 66, Issue 15 Supplement, October **2015** DOI: 10.1016/j.jacc.2015.08.087

Projects

2016 – 2018 PNCDI CERN-RO: ATLAS experiment from LHC I ATLAS, 2016 coordinated by Mihai IVANOVICI

2013 – 2014 „HEART - High PERFORMANCE Computing of PersonAlized CaRdio Component Models”, project coordinated by: Bogdan GEORGESCU and Sharma PUNEET, from SIEMENS SCR, Princeton, New Jersey, USA.

Goal: Develop a workflow-based tool for a combined anatomical and functional assessment of coronary artery stenosis from angiography data acquired from multiple views (2D fluoroscopy). In this project I implemented/adapted: i) load and visualize multiple 2D angio datasets; ii) independent playback controls for each of the datasets; iii) synchronized image slices for performing manual temporal correspondence between sequences; iv) defined the inflow and outflow regions.

Tools/Languages: C/C++, MVS2008, Qt (COMOD environment)

2010 – 2012, „Computed Fluid Dynamics” project coordinated by: Sharma PUNEET and Viorel MIHALEF, from SIEMENS SCR, Princeton, New Jersey, USA.

Goal: Design and implementation an improved system for real-time 3D fluid simulation (blood flow simulation in human heart) using massively parallel GPGPU computing. In this project I implemented and improved marching squares and marching cubes methods using GPGPU (speedup ~60 GPU/CPU).

Tools/Languages: C/C++, OpenGL, CUDA

2008 – 2009, *** Project BIOMED TEL D11-057, PNII4, 2007 Patient remote monitoring of biophysical and biochemical signals

Goal: Implemented biomed acquisition system using AVR32 AT32UC3A microcontroller for: ECG, pulse oximeter, temperature, blood pressure, blood glucose concentration.

Tools/Languages: C/C++, AVR32 STUDIO, OrCAD Cadance

2008 – 2009, *** Project “TRANS-SUPERCAP”, PNII-P4, 2007, 21-018/14.09.2007, Energy management system designed for LDH1250HP Locomotive.

Goal: Management of starting process, management of electrical parameters on locomotives, management of batteries and charging process, management of transitory and hazardous situations on locomotive

Tools/Languages: C, AVR8 STUDIO, IccAVR, VB6.0, OrCAD Cadance

2005 – 2006, XCNC - eXtreme Computer Numerical Control - upgrading the industrial machines equipped with punched cards

Goal: Design and implementation an embedded system, based on a microcontroller ATmega128 in order to implement the specific handshake control and data transferring operations between industrial equipment and XCNC.

Tools/Languages: ASM / C, AVR8 STUDIO, IccAVR, VB6.0, OrCAD Cadance

Date:

Lecturer PhD Eng.
Marius CARP

30/01/2024