

## INFORMAȚII PERSONALE

## CARP Marius



 Universitatea TRANSILVANIA din Brașov

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 marius.carp@unitbv.ro

## EXPERIENȚA PROFESIONALĂ

2013 - până astăzi

### Șef lucr.dr.ing

- Universitatea TRANSILVANIA din Brașov
- Activități didactice și de cercetare științifică
- Inginerie Electrică și Știința Calculatoarelor

2008 - 2013

### Asistent universitar

- Universitatea TRANSILVANIA din Brașov
- Activități didactice și de cercetare științifică
- Inginerie Electrică și Știința Calculatoarelor

1999 - 2002

### Administrator de rețea

- Universitatea TRANSILVANIA din Brașov
- Activități de dezvoltare și întreținere a rețelei de calculatoare
- Inginerie Electrică și Știința Calculatoarelor

## EDUCAȚIE ȘI FORMARE

2008 - 2011

### Doctor în științe inginerești

- Universitatea TRANSILVANIA din Brașov
- specializarea inginerie electronica si telecomunicații, teza de doctorat: "*Sistem de management energetic si metode de gestiune a funcționarii pentru structuri mobile autopurtate*"

2003 - 2005

### Masterat

- Universitatea TRANSILVANIA din Brașov
- Tehnici de proiectare automată în electronica „EDA”, a circuitelor și sistemelor electronice utilizând arhitecturi reprogramabile respectiv reconfigurabile de tipul ASIC, FPGA, CPLD.

1998 – 2003

### Licenta

- Universitatea TRANSILVANIA din Brașov
- Inginerie software și hardware

## COMPETENTE PERSONALE

Limba(i) maternă(e) Română

Alte limbi străine cunoscute

INTELEGERE

VORBIRE

SCRIERE



	Ascultare	Citire	Participare la conversație	Discurs oral	
Engleza	C2	C1	C2	B2	B2
Scrieți denumirea certificatului. Scrieți nivelul, dacă îl cunoașteți.					
Franceza	C1	C1	B2	B1	B1
Scrieți denumirea certificatului. Scrieți nivelul, dacă îl cunoașteți.					

Niveluri: A1/A2: Utilizator elementar - B1/B2: Utilizator independent - C1/C2: Utilizator experimentat  
[Cadru european comun de referință pentru limbi străine](#)

#### Competență digitală

#### AUTOEVALUARE

Procesarea  
informației

Comunicare

Creare de  
conținut

Securitate

Rezolvarea de  
probleme

PU

PU

PU

PU

PU

Niveluri: Utilizator elementar - Utilizator independent - Utilizator experimentat  
[Competențele digitale - Grilă de auto-evaluare](#)

#### Organizare de evenimente științifice

- COST ACTION 542, COST Training School: "High Performance Energy Storage for Mobile and Stationary Applications, Poiana Brașov, România, 20-23 May 2009
- BIOMED TEL National Project, March 2008, Brașov, România
- TRANS-SUPERCAP National Project, October 2008, Brașov, România

#### Permis de conducere

Categoria B

## INFORMATII SUPLIMENTARE

- Publicații**
- [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
- Proiecte**
- 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 regiois.
- 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:

30/01/2024

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Marius CARP