

PERSONAL INFORMATION



POSITION

**Laurențiu Mihail IVANOVICI**

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Sex M | Date of birth 26/11/1977 | Nationality romanian

**Vice-dean of Research –  
Faculty of Electrical Engineering and Computer Science**

WORK EXPERIENCE

october 2015 – present

**Director of the research center C13 „Advanced communications and embedded electronic systems" within the CDI Institute of Transilvania University**

october 2012 – present

**Associate Professor**

Department of Electronics and Computers, Faculty of Electrical Engineering and Computer Science, Transilvania University of Braşov, Romania

- Coordinator of the courses of Image Processing and Analysis, Fundamentals of Signal Processing
- Research activities in the processing and analysis of color and multispectral images

Business or sector Public institution

april 2012 – present

**Vice-dean responsible for scientific research**

Faculty of Electrical Engineering and Computer Science, Transilvania University of Braşov

- Coordination of research in the faculty and reporting

Business or sector Public institution

november 2010 – present

**“Machine Intelligence and Vision” laboratory research coordinator**

Department of Electronics and Computers, Faculty of Electrical Engineering and Computer Science, Transilvania University of Braşov

- Scientific research, coordinating research activities, project management
- <http://miv.unitbv.ro>

Business or sector Public institution

february 2002 – present

**CERN user**

European Organization for Nuclear Research (CERN), Geneva, Switzerland

- Scientific research in the field of electronic data acquisition systems

Business or sector International institution

october 2006 – october 2012

**University Lecturer, coordinator of the courses of Image Processing and Analysis, Fundamentals of Signal Processing**

Department of Electronics and Computers, Faculty of Electrical Engineering and Computer Science, Transilvania University of Braşov

- Courses, seminars and laboratory teaching activities

Business or sector Public institution

september 2001 – october 2006

### Research Assistant

Department of Applied Electronics and Information Engineering, Faculty of Electronics, Telecommunications and Information Technology, Politehnica University of Bucharest

- Research activities

Business or sector Public institution

## EDUCATION AND TRAINING

March 2016

### Habilitation in Electronics and Telecommunications Engineering

- Title of the habilitation thesis: Color and Multispectral Texture Image Analysis. Models, Features and Applications
- Jury: prof. C. Burileanu (UPB), prof. C. Rusu (UTCN) și prof. G. Toacșe (UTBv)
- Atestation **OM nr. 3270 / 02.03.2016**
- Defended on: 18 January 2016

october 2001 - january 2006

### PhD in Electronic Engineering and Telecommunications

Politehnica University of Bucharest, Romania

- Title: Emulating quality degradation in computer networks - a perspective on performance measurement applications using FPGAs
- Mentor and scientific coordinator: Vasile Buzuloiu
- PhD in electronic engineering and telecommunications: **OM nr. 3824 / 03.05.2006**
- Thesis defense date: January 26th, 2006

october 2001 – july 2002

### Postgraduate studies

Politehnica University of Bucharest, Romania

- Programme: Images, shapes and artificial intelligence

october 1996 – july 2001

### Bachelor degree studies

Transilvania University of Brașov, Romania

- Programme: Applied Electronics
- Engineer in Digital Electronics and Software Techniques

## PERSONAL SKILLS

Mother tongue

Romanian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	C2	C2	C1	C1	C1

Communication skills

- Good communication skills gained due to work experience as vice-dean, research laboratory coordinator, project director, manager and professor

- Organisational / managerial skills**
- leadership (currently coordinating a team of 12 members in the research laboratory MIV and director of the research center of the C13 CDI Institute of Transilvania University of Braşov with a staff of 27 members)
- Job-related skills**
- good management skills for didactic and research projects
  - good organizational skills - conferences, summer schools, events
  - good skills of drafting project proposals and implementing research projects
  - good administrative skills
  - good programming skills - MATLAB, C/C++
- Digital competence**
- good knowledge of LaTeX
  - good command of Microsoft Office™ tools
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- Representative Projects (as project manager or assistant)**
- 2016-2018 – The ATLAS Experiment at LHC – PNIII CERN-RO Module, coordinated by IFIN-HH Măgurele, responsible Partner no.5 Universitatea Transilvania din Braşov, contract no. 6/2016 (budget: 709.718,00 lei)
  - 2014-2015 – The ATLAS Experiment at LHC – PNII Modul Capacități, coordinated by IFIN-HH Măgurele, responsible Partener no .5 Universitatea Transilvania din Braşov, contract nr. 7/2012 (budget: 124.979,94 lei)
  - 2014 – 2015 Burse doctorale pentru cercetarea de excelență, coordonator Universitatea Transilvania din Braşov, proiect POSDRU/159/1.5/S/134378, Responsabil grup țintă
  - 2014 – 2015 - Cresterea atractivitatii si performantei programelor de formare doctorala si postdoctorala pentru cercetatori in stiinte ingineresti - ATTRACTING, coordonator Universitatea Politehnica din Timișoara, POSDRU/159/1.5/S/137070, Asistent implementare proiect la partener UTBv
  - 2014 - IEEE SPS Summer School on Intensive Program on Computer Vision (IPCV 2014), competitie SPS seasonal schools, finantator:IEEE International LLC NrContract: 5860/21.05.2014
  - 2010 – 2013, *ITEMS – Analysis, Modeling and Simulation Techniques for Imagery, Bioinformatics and Complex Systems (ITEMS)* contract POS-DRU/86/1.2/S/61756, 2010-2013
  - 2012 – SAPAI – International School on Image Processing - Scoala de Studii Aprofundate (UEFISCDI IDEI SSA) *Studii Aprofundate de Prelucrarea si Analiza Imaginilor (SAPAI 2012)* contract 9/2012
  - 2011, Indoor and Outdoor Monocular Video Odometry Assisted by the Available Sensors on Mobile Devices (contract with S.C. ROUTE 66 S.R.L. no. 4878 / 04.04.2011)
  - 2008 - 2009, *System and methodology for video signal quality assessment for MPEG-4 video streaming applications* (contract with S.C. Infinity Design S.R.L. Braşov no. 17486 / 19.11.2008)
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- Publications (the most representative)**
- R. Coliban, **M. Ivanovici**, N. Richard, “Improved probabilistic pseudo-morphology for noise reduction in color images”, IET IMAGE PROCESSING, DOI [10.1049/iet-ivr.2015.0741](https://doi.org/10.1049/iet-ivr.2015.0741)
  - R. Coliban, S. Popa, T. Tulbure, D. Nicula, **M. Ivanovici**, S. Martoiu, L. Levinson, J. Vermeulen, The Read Out Controller for the ATLAS New Small Wheel, JOURNAL OF INSTRUMENTATION, volume 11, February 2016
  - M. Ivanovici, “Color and Multispectral Texture Image Analysis – Models, Features and Applications”, Transilvania University Press, ISBN 978-606-19-0587-4, September 2015
  - A. Căliman, **M. Ivanovici**, N. Richard, „Probabilistic pseudo-morphology for grayscale and color images”, PATTERN RECOGNITION, vol. 47, no. 2, pag. 721-735, 2014
  - A. Căliman, **M. Ivanovici**, N. Richard, G. Toacșe, „A Multivariate Mathematical Morphology Based on Orthogonal Transformation, Probabilistic Extrema Estimation and Distance Optimization”, ISMM - 11<sup>th</sup> International Symposium on Mathematical Morphology, May 27–29 2013, Uppsala, Sweden
  - **M. Ivanovici**, N. Richard, D. Paulus, “Color Image Segmentation”, in “Advanced Color Image Processing and Analysis”, Editor: Christine Fernandez-Maloigne, Springer, 2012
  - **M. Ivanovici**, N. Richard, “Colour Fractal Dimension of Colour Fractal Images”, IEEE TRANSACTIONS ON IMAGE PROCESSING, vol. 20, issue 1, pp. 227–235, 2011
  - **M. Ivanovici**, N. Richard - “Colour Covering Blanket”, IPCV’10 - International Conference on Image Processing, Computer Vision and Pattern Recognition, Monte Carlo Resort, Las Vegas, Nevada, USA, July 12-15, 2010.
  - **M. Ivanovici**, N. Richard, “The Lacunarity of Colour Fractal Images”, ICIP’09 IEEE International Conference on Image Processing, Cairo, Egypt, November 7-11, 2009

<p>Projects (researcher, implementation team member)</p>	<ul style="list-style-type: none"> <li>▪ 2014 – 2016 - Sistem inteligent de asistare automata a diagnosticului in cancerul cervical - PN-II-PT-PCCA-2013-4-0202, Universitatea Politehnica din București, contract no. 7/2014, financed by UEFISCDI</li> <li>▪ 2010 – 2013 - Program multi-regional de studii masterale in domeniul eActivitati - eSTART, ID 54956, POSDRU/86/1.2/S/54956 (short-term expert)</li> <li>▪ 2010 – 2012 – MorFISM: morphologie et fractales pour l'image specialisee et multimedia (project FEDER no. 33073-2010, France)</li> <li>▪ 2008 – Modele de connaissances pour la valorisation des bases des donnees multimedia (DLES/ESRS/MV/AE-projet regional Poitou-Charentes, Lab. SIC, Universite de Poitiers, France)</li> <li>▪ 2007 – 2009 Integrated System for Medical Information Management using the HL7 Standard– SIMIMED (PN2, D1-1-019/14.09.2007)</li> <li>▪ 2007 - MOB-URBIS – Traffic Management of the Urban Mobility Increase (CEEX Cod MEC 1589, nr. X2C34, AMTRANS, conf. MEC-ANCS nr. 10909/19.09.2006)</li> <li>▪ 2006 - The research, design and testing of software tools for the mapping of installed network configurations and correlation of the achieved map with existing equipment data-bases UPB-CERN 2006 I10.06.01</li> <li>▪ 2005 – Development of an Integrated System of Mathematical Models for the Network Devices UPB-Liamis &amp; Heb, 17-03-05</li> <li>▪ 2004 - Research Agreement for characterization of a network of processors for ATLAS Trigger Data Collection UPB-CERN 2004 I10.04.01</li> <li>▪ 2004 – Contributions to the Design, Testing and Evaluation of the Investigation Potential of the ATLAS Detector – PM-01-RIA UPB-IFIN</li> <li>▪ 2004 – New Mathematical Models for the Network Devices - UPB-Liamis &amp; Heb EL400410</li> <li>▪ 2003 – 2005 - FPGA-based Network Emulator PPARC (Particle Physics and Astronomy Research Council) UK CERN-EU4A- PPARC PIPSS Project No: PPA/I/S/2002/00653</li> <li>▪ 2003 - Software tools for the ATLAS data acquisition system (Research Agreement) UPB-CERN 2005 I10.05.01</li> <li>▪ 2002 – Ethernet Traffic Generation Software for the CERN Network UPB- 17-02-05</li> </ul>
<p>Lectures delivered as guest</p>	<ul style="list-style-type: none"> <li>▪ 2010, September 29, Multi-scale Variance-driven Active Contours for CT Image Segmentation with Application to Hepatic Volumetry, Laboratoire des signaux et systèmes (L2S), SUPELEC, France</li> <li>▪ 2010, June 25, Fractal Analysis for Colour Images, Laboratoire des signaux et systèmes (L2S), SUPELEC, France</li> <li>▪ 2010, May 27, Colour Fractal Analysis for Video Quality Assessment, University of Konstanz, Germany</li> <li>▪ 2007, December 2th, Quality of Service in computer networks, European Organization for Nuclear Research, CERN, Geneva, Switzerland</li> </ul>
<p>Other information</p>	<p>summary of key achievements:</p> <ul style="list-style-type: none"> <li>• 2 book chapters published by international publishers</li> <li>• 5 books published by national publishers</li> <li>• 4 book chapters published by national publishers</li> <li>• 20 ISI indexed papers</li> <li>• 25 BDI indexed papers</li> <li>• 39 papers in conference proceedings</li> </ul>
<p>Membership in professional societies</p>	<ul style="list-style-type: none"> <li>▪ IEEE Signal Processing, IEEE Computer</li> <li>▪ European Organization for Nuclear Research, Geneva, Switzerland</li> </ul>
<p>References</p>	<ul style="list-style-type: none"> <li>▪ <b>Prof. Christine Fernandez-Maloigne</b>, XLIM-SIC research laboratory manager, Université de Poitiers, France (<a href="mailto:christine.fernandez-maloigne@univ-poitiers.fr">christine.fernandez-maloigne@univ-poitiers.fr</a>).</li> <li>▪ <b>Prof. Detlef Richter</b>, Hochschule RheinMain, University of Applied Sciences, Wiesbaden, Germany (<a href="mailto:Detlef.Richter@hs-rm.de">Detlef.Richter@hs-rm.de</a>)</li> <li>▪ <b>Brian Martin</b>, Senior Engineer, head of the ATLAS Networking Group, European Organization for Nuclear Research (CERN), Geneva, Switzerland (E-mail: <a href="mailto:Brian.Martin@cern.ch">Brian.Martin@cern.ch</a>)</li> </ul>