

PERSONAL INFORMATION

Raul Ciprian IONEL



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🌐 [LinkedIn](#); [University WebPage](#)

Sex M | Date of birth 07/03/1981 | Nationality romanian

WORK EXPERIENCE

(2005 - present)

Lecturer/Researcher/Associate Professor at the Politehnica University Timisoara, The Faculty of Electronics, Telecommunications, and Informational Technologies (Measurements and Optical Electronics Department)

“Politehnica” University from Timisoara, Pta Victoriei nr. 2, 300006 (www.upt.ro, www.etc.upt.ro)

- Teaching Measurements Principles and Instrumentation, Electrical Measurements Devices, Experimental Data Processing, Modelling and Simulation or Virtual Instrumentation and Performing research activities.

Business or sector Education and Research

(2018 - 2020)

Vice-Dean at the Politehnica University Timisoara, The Faculty of Electronics, Telecommunications and Informational Technologies

“Politehnica” University from Timisoara, Pta Victoriei nr. 2, 300006 (www.upt.ro, www.etc.upt.ro)

- Didactic process responsibilities.

Business or sector Education and Research

(2014 - 2018)

Applications Engineer and R&D Collaborator at Alfa Test SRL

Alfa Test SRL, P. Cermena nr. 22, 300110 (www.alfatest.ro)

- Development of applications for functional testing, boundary scan, technical integrations, trainings instructor and client relations from a technical perspective.

Business or sector Automotive Industry, Consumer Electronics, PCB production industry.

EDUCATION AND TRAINING

(2010 - 2013)

Postdoctoral studies during the project POSDRU/89/1.5/S/57649, 57649 (PERFORM-ERA), “Advanced Signal Processing using Virtual Instrumentation”

“Politehnica” University from Timisoara, Pta Victoriei nr. 2, 300006 (www.upt.ro, www.etc.upt.ro)

- Research activities on Instrumentation & Measurement principles and techniques.

(2005 - 2008)

Doctoral studies in engineering, **Cum Laude** distinction for the Thesis “Contributions to Noise Sources Localization using Virtual Instrumentation”

“Politehnica” University from Timisoara, Pta Victoriei nr. 2, 300006 (www.upt.ro, www.etc.upt.ro)

- Research activities on Instrumentation, Signal Processing and Noise Sources Localization.
- Thesis defended in 19.11.2008, diploma issued by the Faculty of Electronics and Telecommunications – 09.03.2009.

(2000 - 2005)

Engineering Diploma in the Science of Systems and Computers

“Politehnica” University from Timisoara, Pta Victoriei nr. 2, 300006 (www.upt.ro)

- Issued by the Faculty of Automation and Computers - 04.07.2005.

- (2012) **Research Stage - Karlsruhe Technical University, Germany**
- Research activity on electronic engineering - reference Prof.dr.eng. Franz Quint.
- (2012) **Research Stage - Technical University Delft, TU Delft, Holland**
- Research activity on solar energy monitoring - reference Prof.dr.eng. Pavol Bauer.
- (2007) **Research Stage - Power Plant Technology Institute, Stuttgart University, Germany**
- Research activity on instrumentation & measurements - reference Mr.dipl.eng. Jörg Maier.
- (since 2008) **Trainings by National Instruments**
- LabVIEW Basics I, II, Data Acquisition and Machine Condition Monitoring, CLAD Certification Serial Number: 100-316-11761, TestStand Developing Test Programs Using TestStand & Architecting Test Systems Using TestStand.
- (2015) **Boundary Scan Test Core training by XJTAG**
- (2016) **Collaborative robots programming and integration training performed at Universal Robots in Odense, Denmark**
- (2018) **Communication Skills training**
- Trainer Mr. Mircea Enescu

PERSONAL SKILLS

Mother tongue Romanian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
German	A1	A1	A1	A1	A1

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

Communication skills and Managerial skills

- Good communication and social skills gained through my didactic and teaching experience at different Universities from Germany, Netherlands and China. At University level, I have been part of the implementation teams in over 10 national or international R&D projects;
- Among other responsibilities, my activity as Vice-Dean responsible for the educational process generates extended interaction with university students, high-school students, industrial partners or fellow colleagues. Some of my personal qualities involve professional public speaking, the ability to listen, analyse and advise;
- I have collaborated and successfully delivered results in several industry related applications for important partners like Continental, TT Electronics, Benchmark, XJTAG, SMH Technologies or Hella. Besides the technical component, such activities comprise teamwork, openness, friendliness, the ability to receive and give constructive feedback or the ability to present results in a clear and professional manner.

Job-related skills

- Operating systems Windows and Microsoft Office Tools, MATLAB, LabVIEW, TestStand, OrCAD, NI Multisim, C/C++, UR Scripting, Photoshop, Macromedia.

Other skills

Guitar playing, Football playing, Bike Riding, Travelling.

Driving licence B

ADDITIONAL INFORMATION

Publications [University WebPage](#); [WoS](#); [Scopus](#); [Google Scholar](#).

Research projects (coordination) CS10/02.08.2022- [Research on ML-based Virtual Instrumentation for integration with QL Framework](#), financed by competition with industry partners, area of VI with Machine Learning capabilities (results are prepared for publication in WoS conferences);
BC26/21.03.2018 - [Research on advanced integration between the Teradyne TSA N129 test station and the Vector CANCase XL device](#), financed by competition with industry partners, area of VI with Electronic Manufacturing Services integration capabilities (results published in WoS conferences & in WoS Q1/Q3 journals);
Project issued by the UPT administration in 2008, for laboratory infrastructure and research development: "Laboratory for Industrial Applications Development in the Noise and Vibrations Analysis Domain", results have been presented in ISI/IEEE indexed articles published in conferences and journals. Additionally, results have been presented during meetings organized by industry partners.

Prizes [Premiul 2 la Patriot Fest 2022](#) – Innovation for Security, with project Boundary Scan – evaluarea calității plăcilor electronice.
1st place at the 6th IEEE International Conference on Intelligent Data Acquisition and Advanced Computing Systems: Technology and Applications (IDAACS'2011), Prague, Czech Republic, Virtual Instrumentation category.

Citations Updated 01/2023: 65 – WoS, H-5; 123 – Scopus, H-6; 209 – Google Scholar, H-7.

Reviewer activity Mainly for the following ISI/WOS journals: IEEE Transactions on Instrumentation & Measurement (TIM), Elsevier Measurement, and Circuits, Systems and Signal Processing (CSSP).
Member of IEEE Instrumentation and Measurement Society.

Industry presentations/publications Invited as presenter at the 2008 Worldwide Graphical System Design Conference (Bucharest, 2008) and NI Academic and Research Days (Timișoara, 2010), with the article "Locating Leaks in Complex Pipe Systems with LabVIEW and NI Data Acquisition Hardware", (<http://sine.ni.com/cs/app/doc/p/id/cs-12894>);
Collaboration with the Aquatim S.A. leak detection team and publication in the Water Loss Detectives magazine (<http://detectiviipeipierdute.ro/>), of: "Frequency Bands Analysis for Signals Generated by Leaks in Pipe Systems" and "Leak Localization using the Cross Correlation method. General Presentation";
Publication of the article "Boundary Scan Techniques for Test Coverage Improvement" in the Electronica Azi (December 2015 edition) and on the webpage of XJTAG in the Case Studies section (https://www.xitag.com/wp-content/uploads/news_easmt-alfatest-nov15-p16-20.pdf);
Publication of the article "Simple PXI based Functional Test Solution using NI LabVIEW in the Electronica Azi (March 2016 edition);
Presentation of an overview of the Instrumentation and Measurements domain, applied in the functional test area, during the Alfa Test Days 2018 event;
Presentation of courses for different industry partners (Plexus, Yazaki, Continental, Honeywell) on different technical temathics: Measurement and Instrumentation, LabVIEW/TestStand in functional test applications, Boundary Scan Test.

ANNEXES

Patent - [Dispozitiv pentru reducerea incarcaturii microbiologice a aerului expirat de pacientii ventilati mecanic](#).

[Certifications](#).

Medal for invention – [Device for reducing the microbiological load of air exhaled by mechanically ventilated patients](#).

IEEE Instrumentation and Measurement Society (member) - [2022 Outstanding Reviewer Recognition](#).

31.03.2026