Curriculum vitae Europass

Personal information

First Name / Surname	**Cristian PÎRVU**
Address	Craiova, Dolj, Romania
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Nationality	Romanian

Work experience

Dates	2022 – present
Occupation or position held	**Lecturer**
Main activities and responsibilities	Coordinated disciplines: • *Basics of data acquisition systems* • *Electronic instrumentation* • *Measurements in electronics and telecommunications* • *Electronic measurements, sensors and transducers* • *Electronic devices and analog electronics*
Dates	2020 – 2022
Occupation or position held	**Associate Teacher**
Main activities and responsibilities	Laboratory work and seminars in the subjects: • *Digital electronics* • *Electronic devices and analog electronics* - online teaching methods - seminar and laboratory (graphical design and simulation tools NI Multisim, OrCAD-Spice, Digital Works) - evaluation activities
Name and address of employer	*University of Craiova*, A.I. Cuza Blvd, 13 No., Craiova, Faculty of Automation, Computers and Electronics, *Department of Automatic Control and Electronics*
Type of bussines or sector	Higher Education

Dates	2017 – 2022
Occupation or position held	**System Instrumentation Engineer**
Main activities and responsibilities	*Responsibilities:* - development of software for test automation - programming the instruments for data acquisition and control - development of device drivers, user interfaces, uC applications (using NI LabWindows/ CVI, MATLAB Simulink) - commissioning and debugging the test benches and equipment, both software and hardware *Achievements:* - development of communication drivers and user interfaces (NI LabWindows/ CVI) - development of application software for microcontroller systems (Atmel Studio, Matlab Simulink) - corrective interventions - hardware and software
Name and address of employer	*HELLA Romania*, Craiova
Type of bussines or sector	HELLA Group develops and manufactures lighting and electronic components and systems for automotive industry.
Dates	2013 – 2016
Occupation or position held	**Automation / SCADA Design Engineer & Software Developer**
Main activities and responsibilities	*Responsibilities:* - control systems design - PLC/ HMI/ SCADA industrial programming (Schneider Electric & Eaton-Moeller equipment) - GPRS-based communication *Achievements:* - GPRS-based communication between a higher-level control system and remote control substations - Redundant supervisory control and data acquisition (SCADA) system for water collection, treatment and distribution network (Vijeo Citect, 2 I/O, alarm, trend, report, OPC DA servers) - Network of water wells for capturing and collecting raw water - automation system for the monitoring and command of the whole process (Modicon M340 & Twido PLCs, Magelis XBT GT graphic console, Ethernet, Modbus TCP/IP) - Industrial programming and communications system for wastewater pumping groups (1+1, 2+0, 3+0 pumps, Modicon M340 PLC, Magelis XBT RT500 semigraphic console, PM710 power meter, Modbus RTU protocol) - Industrial programming for water intake station(1 pump, Twido PLC, Magelis XBT RT semigraphic console, Modbus RTU protocol) - Detail design for wastewater pumping stations (1+1, 2+0, 3+0) - electrical, instrumentation, communications, automation systems (Modicon M340, Altistart 48 starters) - Detail design for water supply network with 11 water wells (connected to the same tank) and submersible pumps: wiring diagrams, protection & automation schemes, manual & automatic mode, local & remote control, sensors, softstarters, frequency converters, communications, PLC programming flowcharts - SCADA system for the exhaust sewage system of Lakes Titan, Tineretului and Carol (WinCC, client-server architecture, GPRS, I/O, alarm, trend, report and WEB servers, documentation) - with Syscom Process Control, Bucharest
Name and address of employer	*Polystart*, Stirbei Voda Blvd, 30 No., Craiova
Type of bussines or sector	Company in the field of engineering and execution of electrical installations

Dates	2012 – 2013
Occupation or position held	**Automation / Instrumentation Engineer**
Main activities and responsibilities	*Responsibilities:* - Process improvement and optimization - Software backup and restore - Changes in PLC software (Siemens S7) - Replacement and adjustment of proximity sensors, inductive, capacitive, optical sensors - Design, execution and commissioning of electrical installations and control systems - Repair and maintenance of automated production lines - Robot calibration, debugging control cabinet (ABB) - Corrective and preventive maintenance *Achievements:* - safety system with two-channel, container detection and access interdiction, integrated in general conditions of security - indicator optical system for the parts - electrical and pneumatic Poka Yoke system for detecting and blocking the non-compliant parts - process validation system with optical barriers (Simatic S7-300, installation of sensors and I/O module, programming, integration) - automatic switching of welding programs by detecting of the parts with proximity sensors - solutions for Poka Yoke systems by use of serially connected inductive sensors
Name and address of employer	*Kirchhoff Automotive Romania*, Henry Ford Street, Craiova
Type of bussines or sector	German company, component supplier for Ford Motor Company
Dates	2009 – 2012
Occupation or position held	**PLC / HMI Programmer**
Main activities and responsibilities	*Responsibilities:* - PLCs & HMI industrial programming (GE Fanuc, Siemens, Eaton-Moeller equipment) - design and commissioning of automation systems - PLC network configuration *Achievements:* - System for automatic operate of a reserve electricity power supply to a 400/220 kV substation, (PLC Eaton XC-CPU201, display XV-102t), Iron Gates, Transelectrica - Gate control system - Maneciu Dam (S7-200, OP73 micro) - Remote control system for Hydro Dispatch Center - Hidroelectrica, Ramnicu Valcea subsidiary (OPC, Networking View and Web-based client applications) - Industrial automation equipment destinated to the cogeneration plant - DONAU CHEM, Turnu Magurele (PLC Simatic S7-300, ET200M, Industrial Ethernet) - corrective interventions in programs, debugging (GE Fanuc 90-30 PLCs, Proficy Logic Developer PLC) - technical documentation, memory maps, flowcharts, real-time trend windows - commissioning and functional test of automation and monitoring systems - HPP Valcea, HPP Calimanesti, HPP Dragasani (GE Fanuc 90-30 PLCs, software Proficy Machine Edition 5.7 SP1 - View & Logic Developer PLC, Data Designer, Datapanel 45, Station Flat Panel PC IC5005/BC5005, Ethernet, RS485) - integration of control systems in the SCADA system - Hidroelectrica, Ramnicu Valcea subsidiary (Ethernet, OPC, Modbus TCP/IP protocols)
Name and address of employer	*Automatic Systems*, Narciselor Street, Craiova
Type of bussines or sector	Engineering activities, industrial automations and application software; company detached from the ICEMENERG, a research and development institute for energy

Dates	2007 – 2009
Occupation or position held	**Automation and Software Engineer**
Main activities and responsibilities	*Responsibilities:* - PLC & HMI industrial programming (Schneider Electric & Siemens equipment) - setting up the variable speed drives (Schneider Electric) - design and commissioning of automation systems *Achievements:* - Control and monitoring system for butterfly valves and automatic transfer switch - HPP Motru (Simatic S7-200 and Twido PLCs, RS485 serial link, Modbus RTU and TCP/IP protocols, Magelis XBTGT graphic terminal, OPC and WEB servers); - functional tests for the SCADA system for pumping stations - Water Company Oltenia Craiova (48 Altistart starters, Twido PLC, RS 485) - Modernization of the Redler conveyor systems with Altivar 71 variable speed drives - Thermo Power Plant Craiova 2 Craiova
Name and address of employer	*IPA,* Stefan cel Mare Street, Craiova
Type of bussines or sector	Research - design institute for automation

Dates	1997 – 2007
Occupation or position held	**SCADA / Instrumentation Engineer**
Main activities and responsibilities	*Responsibilities:* Telemechanics / Informatics / Refurbishment Departments - engineering, development and implementation of data acquisition and control systems - commissioning, diagnosis and maintenance of digital equipments - involved in the analysis of technical projects in instrumentation, automation and communications areas *Achievements:* - Monitoring system with a client-server architecture destinated for Hydro Dispatch Center (RS 422, Modbus, IEC1107, Visual Basic 6.0, ActiveX, Access, TCP/IP, GSM) - Virtual instrument for data communication in Modbus - Backup radio system with Motorola GR300 Repeater - ICE Felix process computers installation (QNX operating system, ISaGRAF programming console) - Visual Basic software application for testing and configuring CEWE Prometer energy meter
Name and address of employer	*Hidroelectrica*, Slatina
Type of bussines or sector	National company of electricity

Dates	1994 – 1995
Occupation or position held	**Electrical Design Engineer**
Main activities and responsibilities	*Responsibilities:* - solid-state power electronics division *Achievements:* - computer aided design of control systems (OrCAD, PSpice)
Name and address of employer	*Electrotehnica*, Timisoara Blvd., Bucharest
Tipul activităţii sau sectorul de activitate	Manufacturer of electrical equipment

Education and training

Dates	2001 – 2006
Title of qualification awarded	**PhD degree** Field of Study: *Electrical Engineering* **Title of the doctoral teshis:** *Contributions to distributed data acquisition and industrial control systems destinated for Hydro Dispatch Center* **Supervisor:** *Professor Doctor* Costin Cepisca **Exams:** • *Electrical and electronic measurements* • *Basics of electrical engineering* • *Distributed data acquisition systems* **Reports:** o *Current stage in the field of data acquisition systems for energy dispatchers* o *Hardware and software structures for the acquisition and control systems intended for hydropower dispatchers* o *Conceptual elements for developing a data acquisition system for hydropower dispatchers*
Name and type of organisation providing education and training	Politehnica University of Bucharest
Dates	2021 – 2022
Title of qualification awarded	**Post-graduate studies** Field of Study**:** *Psychopedagogy*
Name and type of organisation providing education and training	University of Craiova, Department of Teacher Training
Dates	1989 –1994
Title of qualification awarded	*5-year* **B.Eng / M.Eng. degree** *in Electrical and Electronic Engineering* Specialization**:** *Metrology and Measurement Systems* (Instrumentation and Data Acquisition*)* *License exam grade: 9.14* (scale from 1 to 10) ***Title of the bachelor's thesis:*** *Temperature measurement system with multiple thermocouple channels and data acquisition card DAS1602 Keithley,* coordinator *Professor Doctor* Constantin Vlaicu *Entrance Exam:* July 1988
Main disciplines studied / professional skills acquired	*Disciplines studied* Mathematics Complements, Computer Programming, Numerical Methods, Programming Techniques, Fundamentals of Electrical Engineering, Electronic Devices and Circuits, Digital Systems, Systems Theory and Automatic Control, Electric Drives, Electrical and Electronic Measurements, Power Semiconductor Devices, Static Converters, Microprocessor Programming, Microprocessor Systems, Sensors and Transducers, Digital Signal Processing, Analog Signal Processing, Scientific Instrumentation, Digital Measurement Systems *Professional competences acquired* 1. Competences in the analysis, calculation and design of the component elements of the measurement and data acquisition systems 2. Development and use of software specific to metrological applications 3. Analog and digital processing of the information signals
Name and type of organisation providing education and training	Politehnica University of Bucharest, Faculty of Electrical Engineering
Dates	1984 – 1988
Title of qualification awarded	***Baccalaureate diploma*** *Admission exam score: 9.87* (scale from 1 to 10) Major field of study: *mathematics-physics*
Name and type of organisation providing education and training	High school „Ion Minulescu", Slatina

Personal skills and competences

Mother tongue	Romanian
Other languages	
English	intermediate level
French	intermediate level
Social skills and competences	Team spirit, creativity (activity within companies), communication skills (teacher).
Organisational skills and competences	Ability to analyze and synthesize (member of project teams), ability to identify and solve problems, planning skills, time management, didactic skills.
Technical skills and competences	Interest areas: *instrumentation, data acquisition systems, digital electronics, data communications, automation, programming, computer aided design* Training courses: - Design and development of SCADA application - Visual Designer, Eaton Electric, 2014, Bucharest - Harms & Wende middle frequency inverters, 2012, REHM Hegesztéstechnika Kft. - one-month training courses in Automation and SCADA, VA Tech Hydro GMBH, SAT Automation Division, 2007, Vienna, Austria - two-week specialized course in Programming on Microsoft Visual Basic, RADIX, 2003, Bucharest - one-week specialized course in PLCs Programming, Schneider Electric Romania, 2003, Bucharest - three-week specialized course in SCADA Systems, Formenerg, 2000, Bucharest
Computer skills and competences	➢ *PLC/PAC & µC programming* - C, Proficy Logic Developer PLC (LD), STEP 7 Manager (LD), STEP 7 MicroWIN (FBD), Unity Pro (FBD, ST, SFC), TwidoSuite (LD), TwidoSoft (LD), easy Soft CoDeSys (CFC), Easy Soft Pro (LD) ➢ *SCADA & HMI software:* Proficy Machine Edition - View Developer (VBScript), Vijeo Designer (JavaScript), Vijeo Citect (Cicode), Simatic WinCC, WinCC Flexible Micro, Galileo, Visual Designer, Visual Basic, LabWindows/CVI, LabVIEW ➢ *Computer aided design:* NI Multisim, OrCAD-Spice, Digital Works, AutoCAD
Published works	• Books published in CNCS publishing houses ..... 2 • Papers/studies published in scientific/specialized journals..... 6 • Publications in the proceedings of the international or national conferences ..... 13 • Other technical-applicative works 6

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