Europass
Curriculum Vitae

Personal information

First name(s) / Surname(s)	**Marius Rotaru**
Address	Colentina Str., N°. 56, Bucharest (Romania)
Mobile	+40722612994
E-mail(s)	marius.rotaru@gmail.com
Nationality	Romanian
Date of birth	23 January 1978
Gender	Male

Work experience

Dates	1 Mar 09 →
Occupation or position held	Sr. Software Engineer – Technical Coordinator
Main activities and responsibilities	● Responsibilities: - New Product Introduction - Platforms bring-up - AUTOSAR MCAL Drivers: architecture, design and implementation - AUTOSAR MCAL Drivers Configuration Management - AUTOSAR MCAL SW Customer Engineering. - Technical supervision in projects – Communication Drivers/Platforms Bring-up - Freescale's University program: Internship projects (definition and coordination). - CR tracking, Activity Tracking, Process & Quality Follow Up (to comply with ISO/SPICE standards) ● Achievements: - AUTOSAR MCAL3.0/MCAL4.0 implementation on different Freescale's uC (MPC55xx/MPC56xx) - LIN Stack for S08/S12 (Lin2.0/J2602) in collaboration with FPT Vietnam - SPICE Level3 Certification for MCAL Products. ● Technical environment: PowerPC, ASM, Makefile, Perl, Lauterbach, Doors, LDRA, PCLINT, ClearCase, ClearQuest, CanOE.Lin, Doxygen, AUTOSAR, SPICE, ISO26262 (Safety), Tresos Studio, PowerPC, S12/S08, ARM
Name and address of employer	Freescale Semiconductor Bucharest (Romania)
Type of business or sector	Semiconductors: Microcontrollers Solution Group – Automotive Software
Dates	1 May 05 - 1 Mar 09
Occupation or position held	Software Engineer
Main activities and responsibilities	● Responsibilities: - Deliver (develop and test) embedded/host software applications for Freescale's Wireless Mobile Platforms to internal/external customers to validate the chipsets (BB,RF and PA) at the Hardware Platform level; - Define the FSRD (Feature Software Requirement Specifications) for PHI tool - Technical consultation and leadership on the design and development effort - Lead the CCB (Change Control Board) - Write technical papers documenting the software applications delivered (user's guide, programmer's guide, design documents); - Support Customer Project Office in engagement with key Freescale's customers

	● Main Activities/Achievement: - PHI (Platform Hardware Integration) tool for single core modem architecture platforms: definition, architecture, implementation, optimization and porting. - HW Bring-up and Validation for different 2.5G -3G+ Chipsets and Platforms; - Instruction Set Simulator for Ruby IP – LTE IP , micro-code based, for Physical Signal and Channels processing within a 3GPP compliant - On-site support for Freescale's Key Customers (Motorola, Samsung, RIM) ● Technical Environment: C, ASM, Labview, TestStand, Makefile, Doors, ClearCase, ClearQuest, ARM Development Suite, Lauterbach, Measuring Equipments, CodeWarrior for StarCore, 3GPP, Matlab/Simulink, Linux
Name and address of employer	Freescale Semiconductor Bucharest (Romania)
Type of business or sector	Semiconductors: Wireless Mobile Phone – Platform Tools
Dates	1 Jun 03 - 1 May 04
Occupation or position held	Embedded Software Engineer
Main activities and responsibilities	● Responsibilities: - Design and Develop embedded systems (Hardware and Software) - Elaborate technical documentation (installation guides, functional descriptions…) - Customers' Interface for training and support. ● Achievements: - M2M system - GPSR based system for POS data transfer – Firmware development - RADFLEET - AVL (fleet management application) – design and development RADFLEET is a modular system, which provides to the urban transportation companies a complete tool for monitoring, dispatching and controlling the traffic. ● Main contributions: - Vehicle status parameters' acquisition, process and display subsystem (on-board vehicle equipment). Firmware and Hardware design - Station passengers' information subsystem - Firmware design - Communication subsystem (GPRS technology) - Firmware design ● Technical environment: C, ASM, GPRS, TCPIP, UDP. Hardware Design, PCB Design (Orcad), Rabbit Uc
Name and address of employer	SC Radcom Srl Bucharest (Romania)
Type of business or sector	Telecommunications
Dates	1 Sep 01 - 1 Jun 03
Occupation or position held	Teaching Assistant
Main activities and responsibilities	● Responsibilities: - Discuss assigned duties with classroom teachers in order to coordinate instructional efforts; - Design, prepare, and implement lessons in coordination with the classroom teacher; - Maintain computers in classrooms and laboratories and assist students with hardware and software use; - Instruct and monitor students in the use and care of equipment and materials, in order to prevent injuries and damage - Grade homework and tests, compute and record results; - Participate to the University research programs. ● Courses: - Digital Integrated Circuits - Microprocessor Systems (Embedded Microcontrollers) - Digital Signal Processors - Data Acquisition Systems and Virtual Instrumentation ● Tools: Matlab, CVI/Labview, CodeComposer, Spice

Name and address of employer	University of Craiova, Faculty of Automatic Control, Computers and Electronics Craiova (Romania)
Type of business or sector	Education

Education and training

Dates	Nov. 2013
Title of qualification awarded	Ph.D. in Telecommunication
Principal subjects / occupational skills covered	● Major: Telecommunication/Signal Processing ● Project field: Adaptive Systems ● Adviser: Prof. Silviu Ciochina, Ph.D
Name and type of organisation providing education and training	"Politehnica" University of Bucharest, Faculty of Electronics and Telecommunication Bucharest (Romania)

Dates	1 Oct 01 - 1 Jul 02
Title of qualification awarded	Master degree in "Non-conventional Control Systems"
Principal subjects / occupational skills covered	● Major: Control Systems / Programming / Automation ● Thesis: "Distributed Control Systems in WEB. Remote control system for CNC C88 -ENGELHARDT equipments using IPC@DK40 controller from BECK IPC GmbH". ● Adviser: Prof. Sorin Nicola Ph.D
Name and type of organisation providing education and training	University of Craiova, Faculty of Automatic Control, Computers and Electronics Craiova (Romania)

Dates	1 Oct 96 - 1 Jul 01
Title of qualification awarded	Bachelor Degree in Applied Electronics
Principal subjects / occupational skills covered	● Major: Control Systems / Programming / Automation ● Thesis: "Distributed Control Systems in WEB. Remote control system for CNC C88 -ENGELHARDT equipments using IPC@DK40 controller from BECK IPC GmbH". ● Adviser: Prof. Sorin Nicola Ph.D
Name and type of organisation providing education and training	University of Craiova, Faculty of Automatic Control, Computers and Electronics Craiova (Romania)

Publications
Research Grant
PN-II-ID-PCE-2011-3-0097

1. **M. Rotaru**, S. Ciochină, C. Paleologu and J. Benesty, *Evaluation of Signal Distortion Methods for Stereophonic Acoustic Echo Cancellation*, 10th International Symposium on Electronics and Telecommunications (IEEE ISETC), pp. 303-306, Timişoara, Nov. 2012.

2. **M. Rotaru**, F. Albu, H. Coanda, *A variable step size modified decorrelated NLMS algorithm for adaptive feedback cancellation in hearing aids*, 10th International Symposium on Electronics and Telecommunications (IEEE ISETC), pp. 263-266, Timişoara, Nov. 2012.

3. **M. Rotaru**, S. Ciochină and F. Albu, *An Efficient GSC VSS-APA Beamformer with Integrated Log-energy Based VAD for Noise Reduction in Speech Reinforcement Systems*, International Symposium on Signals, Circuits & Systems (IEEE ISSCS), Iaşi 2013.

4. **M. Rotaru**, C. Stanciu, S. Ciochina, F. Albu and H. Coanda, *A FPGA Implementation of Prediction Error Method for Active Feedback Cancellation using Xilinx System Generator*, ADAPTIVE 2013, pp. 26-29, Valencia, Spain 2013.

5. F. Albu, **M. Rotaru**, R. Arablouei, and K.Dogancay, *Intermittently-updated affine projection algorithm*, in Proc. of IEEE ICASSP 2013, pp.585-589, Vancouver, Canada, May 2013.

6. F. Albu, D. Coltuc, **M. Rotaru** and K. Nishikawa, *An efficient implementation of the kernel affine projection algorithm*, 8th International Symposium on Image and Signal Processing and Analysis (IEEE ISPA 2013), pp. 342-346, Trieste, Italy 2013

7. F. Albu, H. Coanda, D. Coltuc, & **M. Rotaru**, "Intermittently Updated Simplified Proportionate Affine Projection Algorithm", in *Proc. of ADAPTIVE 2014,* pp. 42-47, Valencia, Spain, 2014.

Personal skills and competences

Mother tongue(s) | **Romanian**

Other language(s)

Self-assessment

European level (*)

	Understanding				Speaking					Writing	
	Listening		Reading		Spoken interaction		Spoken production					
English	B2	Independent user	B2	Independent user	B2	Independent user	-	-		B2	Independent user
French	A2	Basic User	A2	Basic User	A2	Basic User	-	-		A2	Basic User

(*) Common European Framework of Reference (CEF) level

Technical skills and competences

● Programming/scripting languages and technologies:

- ASM, Pascal, C, C++, Microsoft VisualC++ (MFC, STL)

- Scripting: Pearl, TCL/TK, Shell programming

- LabWindows-CVI, LABVIEW, TestStand – NI Inc.

- LAUTERBACH (Debugging/Scripting/Code Profiling/Code Coverage)

- Embedded RTOS (uCOS/OSEK)

- PSPICE (Electronics Circuits Simulation) - Orcad.Inc

- MATLAB - MathWorks. Inc

- UML Design - Enterprise Architect

- CanOE.Lin (universal development, analysis, stress and test tool) - Vector GmbH

- Tresos Studio - Elektrobit Automotive GmbH

- Doxygen

- Multi (GreenHills), CodeWarrior, Diab (WindRiver), ARM Development Suite

● Microcontrollers and DSP systems - design and programming:

- Microcontrollers & Microprocessors Systems:

PowerPC e200, ARM9/ARM11, Intel x86, Z80 MCS-51, ATMega Family, Rabbit, HC08/12

- DSP Systems:

TMS 320C3x/TMS 320C5x (Texas Instruments) / StarCore SC140 (Freescale)

ADSP 2106x : SHARC Family (Analog Devices)

● Hardware Design Tools

- Languages: VHDL/Abel

- Technologies: Xilinx ISE DEsign Suite / ModelSIM/ NI LabView FPGA Toolkit

- Devices: Xilinx FPGA Spartan-3/Virtex5, CPLD XC95xx

● Buses, Protocols, Interfaces:

- RS232, RS422, RS485, GPIB, SPI, CAN, LIN, I2C, USB, TCPIP, UDP, DigRF, 3G-DigRF GSM, 3G,

● PCB Design (CAD):

- ORCAD (v7.0 - v9.2) - Cadence-Spectra Inc.

- EAGLE - CadSoft Computer GmbH

● Requirements, Configuration Management and Code Quality Tools:

- Doors, Rational ClearCase, Rational ClearQuest, CVS, Visual Source Safe, KlocWork, PC-Lint

(MISRA2004), LDRA (Code Coverage/Cyclomatic Complexity)

● Operating Systems:
- Windows, Linux, Embedded RTOS (uCOS/OSEK)

Driving licence(s) | B