KERTÉSZ CSABA-ZOLTÁN

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Work experience

Occupied job	**Senior Lecturer**
Period	oct. 2009 –
Company	Transilvania University, Braşov
Department	Electronics and Computers
Job description	research and education in the field of microcontrollers, digital signal processors, real time operating systems and power electronics

Occupied job	**Scientific researcher**
Period	may 2009 – sep. 2009
Company	Transilvania University, Braşov
Department	Electronics and Computers
Job description	research and education in the field of microcontrollers, digital signal processors and power electronics

Occupied job	**Research engineer**
Period	dec. 2008 – apr. 2009
Company	Transilvania University, Braşov
Department	Electronics and Computers
Job description	research and education in the field of microcontrollers, digital signal processors and power electronics

Occupied job	**PhD Student**
Period	jan. 2005 – oct. 2008
Company	Transilvania University, Braşov
Department	Electronics and Computers
Job description	research and education in the field of microcontrollers and digital signal processors

Occupied job	**Automatization engineer**
Period	jul. 2004 – dec. 2004
Company	Continental Automotive Products, Sibiu
Department	ContiTemic R&D center
Job description	embedded systems programming

Education

Earned degree	**PhD**
Period	jan. 2005 – oct. 2008
Institution	Transilvania University, Brașov, Faculty of Electrical Engineering and Computer Science
PhD thesis title	Contributions to development of microcontroller systems for monitoring of some safety parameters in buildings

Earned degree	**M.Sc.**
Period	oct. 2004 – feb. 2006
Institution	Transilvania University, Brașov, Faculty of Electrical Engineering and Computer Science
Major	Computer Engineering
Master thesis title	CAN Analyzer Based on MB91F362 Microcontroller

Earned degree	**Dipl. eng.**
Period	oct. 1999 – jun. 2004
Institution	Transilvania University, Brașov, Faculty of Electrical Engineering and Computer Science
Major	Applied Electronics
Diploma project	Digital Audio Signal Processing on StarCore Architecture

Skills and competences

Mother tongue	**hungarian**
Other languages	**romanian** (very good), **english** (very good)

Technical skills	Experience with microcontroller families: Atmel AVR, Microchip PIC, TI MSP430, Freescale Starcore, Infineon C17x, Fujitsu 8FX, 16L and FR programming languages: C/C++, assembly, Matlab, chora, sh development tools: gcc, Qt, AVR Studio, MPlab, Code Composer, Keil µVision, Softune Workbench, Metrowerks Codewarrior, Embedded Wizard
Computer skills	Good knowledge of Windows and Linux operating systems
Driver's license	B,C

Additional information

Embedded projects worked on	**Exit door control system** description: controlling the exits from a factory and randomly selecting exiting personnel for checking role: junior software developer **Frost-free refrigerator control module** description: electronic module for adaptive freezing and defrosting in an industrial refrigerator role: lead hardware & software developer

Remote radon measurement apparatus
description: device for measuring radon concentrations in air and transmitting data to a remote server
role: senior software developer

Locomotive starting system based on supercapacitors
description: system using supercapacitors and batteries to start the Diesel engine of a locomotive
role: senior hardware designer

LCD TV GUI
description: graphical user interface for a new LCD TV set running on Embedded Linux
role: senior software developer

Published works

Kertész, Cs.Z., Gerigan C., *CAN Bus Analyzer with General Purpose Microcontroller*, Proc. of OPTIM'06, vol IV., pp. 61-64, Braşov, 2006
Kertész, Cs.Z., Ogruțan, P., Székely, I., *Embedded System with Atmega16 for Measuring Radon Concentration*, Buletinul Universităţii Transilvania, pp. 243-248, Braşov, 2008
Kertész, Cs.Z., *Speed-optimized Fingerprint Image Enhancement for Embedded Systems*, Proc. of OPTIM'08, vol IV., pp. 75-79, Braşov, 2008
Kertész, Cs.Z., Ogruțan, P., Székely, I., *Intelligent Biometric Access Control System with Environment Monitoring*, Proc. of SIITME'08, pp. 296-300, Predeal, 2008 — Best Poster Presentation for Young Scientist award
Kertész, Cs.Z., Borza, P.N., *Starter Aiding System Based on Supercapacitors for the LDE2100 Locomotive*, Proc. Of SIITME'09, pp. 239-244, Gyula, 2009

Prizes won

International Hard&Soft Contest, Suceava, 2004 — 3rd place
National Microchip Contest, Cluj-Napoca, 2007 — 1st place

Teaching activities

held courses and labs in:
Embedded Systems
Embedded System Design
Digital Signal Processing and Image Processing
Operating Systems
Real-time Operating Systems