Silvano Seva

Curriculum vitæ



Education and training November 2019 Research doctorate in Information Technology, area Systems and Control, Politecnico di Milano. February 2016 Master's degree in Automation and Control Engineering, Politecnico di October 2019 Milano, 107/110. October 2013 Bachelor's degree in Automation and Control Engineering, Politecnico di February 2016 *Milano*, *96/110*. September 2008 Scientific lyceum diploma, Liceo classico e scientifico "Giulio Casiraghi", June 2013 *91/100*. Work experience May 2017 Stage as Research and Development Engineer, Leaf Space srl, via Cavour January 2018 2, Lomazzo (CO), Italy. • Hardware design. • Software development for embedded systems. • Unit and assembly tests of equipment. January 2014 Member of Electronics Systems department, Skyward Experimental Rock-June 2017 etry, Politecnico di Milano, Milano, Italy. • Hardware design and software development of some subsystems of the R-2X rocket o Design and realization of the process control, data acquisition and safety systems for a rocket engine test bench developed in the HRE-15K project. • Preliminary design and supervision of the development of the process gas (oxigen and nitrogen) handling system used in rocket engine test bench developed in the HRE-15K project. Languages Italian Mother tongue English Intermediate level

Technical skills and competences

- Good knowledge of C and C++ programming languages.
- Basic knowledge of Python and Java programming languages.
- Good knowledge of Linux, Microsoft Windows and Apple Mac OSX operating systems as well as of Microsoft Office package.
- Good knowledge of LaTeX environment.
- Good knowledge of EDA (Electronic Design Automation) softwares Eagle, Altium Designer and KiCad.
- Good knowledge of 2D CAD software Draft Sight.
- Good practice in electronic circuit design and realization.
- Good practice in software development for embedded systems with the following microcontrollers:
 - Microchip ATSAMxx, using C and C++.
 - Microchip PIC Micro using C and Assembly.
 - Silicon Laboratories EFM32, using C and C++.
 - ST Microelectronics STM32 using C and C++.
- Basic knowledge of FPGA-based systems using Verilog language.
- Skills in metal and woodworking also using the various machineries associated with these activities.

Social skills and competences

Both in Skyward Experimental Rocketry and Leaf Space I have been working in groups of different sizes, often with the role of team leader. Inside Skyward Experimental Rocketry I have given some short courses on programming for embedded systems, some for the members of the association and some open to the public; the most recent one, titled "Prototype embedded systems", has been inserted into the PEoPLe@DEIB program.

Organisational skills and competences

Inside Skyward Experimental Rocketry I have been managing and supervising the workflow for the electronics team assigned to the HRE-15K project, covering aspects like definition of requirements, partitioning of tasks between team members, and financial management. The work on this project required also to strictly interact with the main project manager and the other working groups. in order to define and maintain a coordinated workflow between the various teams.

Other activities

Contributor of Miosix Kernel development regarding the writing of device drivers, the creation of Board Support Packages and the development of kernel parts.

Licenses and certifications

- European computer license ECDL Core.
- First Certificate in English (FCE), level B2.
- TOEIC Listening and Reading Certificate (punteggio 940/990).
- CEPT Amateur radio license, class A.

Personal interests

Small farming activities and management of agricultural heritage, railway modeling, amateur radio activity, design and construction of electronic equipment for specific applications, small metal structural work and basic mechanical processing.

Publications

S. Seva A. Leva and A.V. Papadopoulos. Progress rate control for computer applications. In *17th European Control Conference*, June 2018.

S. Seva A. Leva, F. Terraneo. Event-based thermal/power/performance management at the core level in multicore cpus. In *4th International Conference on Event-Based Control, Communication, and Signal Processing*, June 2018.

A. Leva and S. Seva. Structure-specific analytical pid tuning for load disturbance rejection. In *3rd IFAC Conference on Advances in PID Control*, May 2018.

A. Leva, F. Terraneo, and S. Seva. Periodic event-based control with past measurements transmission. In 2017 3rd International Conference on Event-Based Control, Communication and Signal Processing (EBCCSP), May 2017.

A. Leva, F. Terraneo, S. Seva, and I. Giacomello. High-speed thermal management for power-dense microprocessors. In *2016 IEEE 55th Conference on Decision and Control (CDC)*, Dec 2016.

F. Terraneo, A. Leva, S. Seva, M. Maggio, and A. V. Papadopoulos. Reverse flooding: Exploiting radio interference for efficient propagation delay compensation in wsn clock synchronization. In *2015 IEEE Real-Time Systems Symposium*, Dec 2015.