CV – Cristina Stefania Olariu

Email / Telephone: oocristina@yahoo.com // +40742626412

Actual Position:

Preh Group Romania

https://www.preh.com/

Sandru building, Sos. Nationala nr.31, 700237, Iasi, Romania

System Engineering Team – CBC project (Combined Booster Convertor) - eMobility department

https://www.preh.com/en/products/e-mobility

The projects developed on e-Mobility department are focused on OnBoard Chargers (OBCs) for various passenger cars, trucks and busses.

System Engineer

The System Engineer role cover all System's aspects:

●**Functional Safety Architecture implementation**

- interface between FSM and system / disciplines engineers (TestTrack Client Tool)

- micro-design and implementation of safety architecture (Enterprise Architect Tool, Medini Tool)

●**Safety guidance at the System and Component Levels:**

- correct safety decomposition and implementation, from Functional Safety Functions to Technical Safety Concept and Component functions implementations

- correct ASIL allocation, covered by FMEA analysis at System level and FMEDA analysis at Hardware level

- Correct safety implementation in Software (Autosar architecture, Safety Manual of microcontrollers, safety software functions and redundancy), Hardware (FMEDA implementation) and Electronic components level.

● **Sensor's Concept, signals, microcontrollers pins:**
- functionality, formulas, lookup tables, ASILs, calibration concepts (Surround Application)

●**DOORS requirements engineering:**

- traceability from client documents to specific System Level documents and Components implementation

- correct links between System and Components level documents, including: System Requirements Specification (SysRS), SystemArchitecture (SysArch), Hardware-Software-Interface (HSI), Mechanic-Hardware-Interface (MHI), Specifications, Parameters, System Integration documents

●**ASPICE assessment:**

- system document cleanliness

Continental Work Experience:

Continental Automotive Romania,

https://www.continental.com/ro-ro/cariera/myjobisdone/testimoniale-romania/iasi/

Blvd. Poitier no.6, P6.06, 700671, Iasi, Romania

VED System Engineering – AMS VED CVEV SYS ENG IS, SistemSafetyAnalysis&FunctionalSafetyManagement (SSA&FSM) Team

https://www.continental-automotive.com/en-gl/Passenger-Cars/Safety-and-Motion/Products/Brakes/Electronic-Brakes

The Project developed on VED Continental department are focused on one-box electronic brake systems MK120, MK1, MKC2. The classical hydraulic brake is assisted by an ECU controlled motor.

2019 – 2021: System Safety Engineer

● Work on L2 – System Level with safety focus on L3 – Components Level,
●Primary focus on Motor Control safety analysis for MKC1 and MKC2 base projects.
●Involved in safety engineering for Iasi IATs (Interdisciplinary Architecture Teams): DSCC (Drive System Control Chain), NVRAM (Non-Volatile Memory), Input/Output, Feature development & Solution Team

WPs:
- ISO26262 implementation at L2 (System level), Analyzing Safety Goals and customer requirements,
- Communication and working into IATs (Interdisciplinary Architecture Teams) to assure Safety way of working,
- Specific safety cases, safety states and fallback degradations,
- Safety Requirements creation, Safety requirements decomposition,
- Correct ASIL assignation and correct refinement of system requirements,
- Traceability, from Safety Goals to component's level implementation,
- Testability, review tests,
- Involved and supervision of Safety Analysis at the System Level (L2): FMEA, FTA and at the Component Level (L3): FMEDA,
- System -> Components interfaces, HW/SW/EE interfaces,
- Process defined work packages

Awareness:
- Product Liability Rules, SOTIF, ISO26262 and V model development process,
- AGILE way of working,
- ASPICE standard best practices,
- Basic AUTOSAR standard for SW architecture,
- UML architecture principles -> basic Enterprise Architecture,
- MKC1 and MKC2 automotive brakes technical operation,
- automotive vehicle architecture and ECU communication,
- Basic knowledge in System Engineering, Project Engineering, Requirements Engineering, Test Engineering

VED System Engineering - AMS VED CVEMS MS IS, Modelling & Simulation Team

2016 – 2019: Function Developer

● focused on modeling and simulation of Tandem Master Cylinder in Matlab/Simulink for MKC1 base project and in Matlab/Simscape for MKC2 base project (Ansys Matlab / Simulink Tools.

● PFS (pedal feel simulation) characteristics for diverse customer projects: BMW, Ford, Mazda…

● S-function generation for VC projects

WPs:
- Parametrization of Tandem Master Cylinder,
- Friction Forces simulation, Detection and cancelling of noise oscillations,
- Input signals parametrization for specific output values,
- Pedal Feel Simulation according with customer measurements and parameters,
- Simulink S-function generation

Awareness:
- Physical Modeling of technical components,
- Matlab scripting, Simulink and Simscape graphical toolboxes
- C++ software debugging,
- Basic principles of Finite Element Modelling

Previous Work Experience:

2013 – 2016: Research Scientist - *NIRDTP- IFT Iasi, National Institute of Research and Development for Technical Physics Iasi, Romania (*www.phys-iasi.ro*), Magnetism and Magnetic Devices Department*
The NIRDTP Iasi (www.phys-iasi.ro) develops basic and applied research in the field of advanced materials with novel structures and properties.
I processed, modeled and simulated the electromagnetic properties of ferromagnetic micro-wires in High Frequency domain in order to integrate them in different type of sensors and shielding applications.

2010 – 2013: Research Scientist – postdoc position - *Faculty of Physics, Alexandru Ioan Cuza University, Iasi, Romania, Dielectrics, Ferroelectrics and Multiferroics Materials Group -> Theme: Electromagnetic properties of composites: experiment and modelling.*

2004 – 2009: PhD Research Student - *Faculty of Physics, Alexandru Ioan Cuza University, Iasi, Romania*
Research Thesis: Contributions to the modeling of devices with magnetoresistive elements (Key word: spintronics, synthetic antiferromagnets, critical curve for switching, Stoner-Wohlfarth approach)

2009 – 2010: Physics Teacher - *Miron Costin High School, Iasi, Romania -> Classical duties*

1997 – 2005: Physics Teacher - *Costache Negruzzi High School Iasi, Romania / Nicolae Iorga High School Botosani, Romania*
-> Classical duties

Education:

2004 – 2009: PhD Physics, Magnetism, Cum laude - *Faculty of Physics, University of Iasi, Romania -> Thesis: Contributions to the modeling of devices with magnetoresistive elements*

2003 – 2005: MSc Physics, Applied Physics, 9.93/10 - *Faculty of Physics, University of Iasi, Romania -> Final Paper: Magnetic Memories*

1998 – 2003: Diplomat Engineer, 7.90/10 - *Electrical Engineer and Computer Science, University of Suceava, Romania -> Final Thesis: Workflow of documents in a City Hall (Microsoft Access Tool)*

1992 – 1997: BSc Physics, general Physics, 9.10/10 - *Faculty of Physics, University of Iasi, Romania -> Final Paper: Iono-acoustic wave in plasma discharge*

Scientific Work:

10 scientific publications in ISI International Journals // 5 general science communication papers // 1 Romanian Patent // 1 national research grant: Grant type TD for Young Researcher, PNII-RU-TD 163/2007: Contributions to the modeling of devices with magnetoresistive elements 41.000 RON (supported by CNCSIS, Ministry of Education and Research of Romania) // 10+ international conferences.

https://www.researchgate.net/profile/Cristina_Stefania_Olariu/publications?pubType=article

Personal Skills:

Direct and easy communication, strong teamwork, easy conflict resolution, ability to work under pressure, well-organized, logical and strong analytical, resilience, adaptability, continuous learning.
Languages: - Romanian – mother tongue,
    - English: reading – very well, writing – very well, spoken – well.
Computer skills: DOORS, IMS, Surround, Enterprise Architect, Matlab /Simulink /Simscape, Office Tools, Internal Process Developing tools, basic C, Python, Maple, Origin

Recommendations:

Doru Tiuhuniuc – doru.tiuhuniuc@preh.ro e-Mobility group, Preh Iasi, Romania

Michael Doericht – Michael.Doericht@continental-corporation.com Continental Corporation, Frankfurt