Curriculum Vitae

Personal information

First name(s) / Surname(s)	**RAUL CATALIN CIOBAN**
Nationality	Romanian

Work experience

Dates	Jun 2017 - Present
Occupation or position held	**Simulation Engineer**
Main activities and responsibilities	- Multi - physics simulations - Thermal assesment of ECU design - Research and development
Name and address of employer	**Robert Bosch SRL, Cluj-Napoca**
Type of business or sector	**Automotive electronics**

Dates	July 2014 – Jun 2017
Occupation or position held	**Working student / PhD student**
Main activities and responsibilities	- Failure analysis - Environmental testing - Research and development
Name and address of employer	**Robert Bosch SRL, Cluj-Napoca**
Type of business or sector	**Automotive electronics**

Dates	July 2011 – July 2014
Occupation or position held	**Scientific Research Practice**
Main activities and responsibilities	- Morphological analysis of different materials using Scanning Electron Microscopy
Name and address of employer	**Institutul de Cercetari Interdisciplinare in Bio-Nano-Stiinte, Babes-Bolyai University Cluj-Napoca**
Type of business or sector	Academic

Education

Dates	October 2015 – Present
Title of qualification	***Ph.D.***
Principal subjects/occupational skills covered	- Thermal modeling - Multi-physics Simulations - FEM and CAD - Electronic packages - Development of doctoral thesis : “Model calibration for simulation aided thermal design”
Name and type of organization providing education and training	Faculty of Physics, Babes-Bolyai University, Cluj-Napoca, Romania

Dates	October 2013 – July 2015
Title of qualification awarded	***M.Sc. (Biomaterials)***
Principal subjects/occupational skills covered	- Modern Technologies of materials synthesis - Biomaterials and Bionanostructures - Ceramics and Vitreous materials - Polymers and composite materials - Spectroscopic and difractometric methods - Development of master thesis
Name and type of organization providing education and training	Faculty of Physics, Babes-Bolyai University, Cluj-Napoca, Romania
Dates	October 2009 – July 2013
Title of qualification awarded	***B.Sc. in Technological Physics***
Principal subjects/occupational skills covered	- Basic theoretical physics (mechanics, optics, electronics, thermodynamics) - Advanced theoretical physics (analytical mechanics, quantum mechanics, solid state, plasma) - Different types of materials (polymers, semiconductors, superconductors, ceramics) - Spectroscopic and diffractometric methods - Development of bachelor thesis ("Gold Nanoparticles developed in aluminosilicate structures with rare earth elements")
Name and type of organization providing education and training	Faculty Of Physics, Babes-Bolyai University, Cluj-Napoca, Romania

Training/Certifications

Dates	May 2013
Title of qualification awarded	**SEM DualBeam Training Certificate**
Name and type of organization providing education and training	FEI NanoPort, Eindhoven, Netherlands
Dates	March 2013
Title of qualification awarded	**TEM Training Certificate**
Name and type of organization providing education and training	Ronexprim, Bucharest, Romania
Dates	February 2007
Title of qualification awarded	**Level 2 Certificate in English (ESOL), Council of Europe Level C1**
Name and type of organization providing education and training	University of Cambridge ESOL Examinations

Scientific papers

Finite element thermal modelling of power MOSFET packages
R. Cioban, Sz. Szőke, D. Zaharie-B, Z. Kórádi, C. Leordean, S. Simon
Microelectronics Reliability, submitted with manuscript number: MICREL-D-22-00024R2, 2022

FEM model calibration for simulation aided thermal design
R. Cioban, Sz. Szőke, D. Zaharie-B, Z. Kórádi, C. Leordean, S. Simon
Microelectronics Reliability, Volume 118, 2021, 114042, ISSN 0026-2714, https://doi.org/10.1016/j.microrel.2021.114042

Validated Model Calibration for Simulation Aided Thermal Design
R. Cioban, S. Szöke, Z. Kórádi, D. Zaharie-B., C. Leordean
2020 36th Semiconductor Thermal Measurement, Modeling & Management Symposium (SEMI-THERM), 2020, pp. 114-123, doi: 10.23919/SEMI-THERM50369.2020.9142853

Nanostructured silica-based microspheres for biomedical or catalytical applications
S. Simon, O. Ponta, T. Radu, M. Todea, **R. Cioban**
Conference book: The twenty-first Annual International Conference on COMPOSITES/NANO ENGINEERING ICCE-21 Tenerife, Spain, July 21-27, 2013

International conferences

Nanostructured silica-based microspheres for biomedical or catalytical applications
S. Simon, O. Ponta, T. Radu, M. Todea, **R. Cioban**
The twenty-first Annual International Conference on COMPOSITES/NANO ENGINEERING ICCE-21 Tenerife, Spain, July 21-27, 2013

Personal skills and competences

Mother tongue(s) **Romanian**

Other language(s) English

Self-assessment	**Understanding**				**Speaking**				**Writing**	
European level (*)	Listening		Reading		Spoken interaction		Spoken production		Written production	
English	C1	Independent User	C1	Independent User	C1	Independent User	C1	Independent User	C1	Independent User

Organizational skills and competences

- Ability to solve immediate problems under stress and deadlines.
- Able to organize and lead teams
- Confident in handling new tasks
- Quick learner

Technical skills and competences

- Equipment use: X-ray photoelectron spectroscopy (XPS), Scanning Electron Microscope (SEM), Transmission Electron Microscope (TEM), X-Ray Diffractometer (XRD), Differential Thermal Analyzer (DTA/DSC)

Social skills and competencies

- Sociable and a dynamic teamwork person

Computer skills and competences

- FEM simulations (Ansys Mechanical)
- Acquisitions software using and data processing
- Programming techniques: Java, PHP

Driving license

- category B

Professional referees	- Dr. Leordean Cosmin - Dr. Grasin Robert
Annexes	