

EUROPEAN
CURRICULUM VITAE
FORMAT



PERSONAL INFORMATION

Name

Address

Telephone

Fax

E-mail

Nationality

WORK EXPERIENCE

• Dates (from-to)

• Name and address of employer

• Type of business or sector

• Occupation or position held

• Main activities and responsibilities



CRISTEA LUCIANA

+40 268 416352

lcristea@unitbv.ro

Romanian

2001-present

Transilvania University of Brasov, 29, Eroilor, 500036, Brasov

Product Design, Mechatronics and Environment Department

Professor,

Scientific secretary of Precision Mechanics and Mechatronics Department (2001-2004),

Vice-Head of Precision Mechanics and Mechatronics Department (2004-2008),

Head of Precision Mechanics and Mechatronics Department (2008-2011),

Vice Dean of Product Design and Environment Faculty (2012-2015),

Head of Product design, Mechatronics and Environment Department (2015-present)

Erasmus-Socrates Coordinator for Technical University College (2000-2005),

Erasmus-Socrates Coordinator for Mechanical Engineering Faculty (2005-2008),

Coordinator of Advanced Mechatronics Systems Research Department (2008-2015),

Coordinator of the " Precision Mechanics" bachelor program (1997-2012),

Coordinator of the " Medical Engineering" bachelor program (2020-present)

Coordinator of Mechatronics Systems for Industry and Medicine – master program (2005-present)

WorldSkills expert for Mechatronics (2019-present).

Teaching activities in Mechatronic Systems, Medical Equipment, Automat Dimensional Inspection Systems, Processes and Systems for Dimensional Control, Manufacture and Assembly in Mechatronics using Flexible Systems, Advanced Methods of Quality Inspection and Mechatronic Systems for Services,

Scientific activities -**36 research projects**, **19 as a coordinator**, from 1990 up to date.

153 scientific papers in the field of Precision Mechanics and Mechatronics and is the author of **3 inventor patents**, **PhD coordinator** since 2004.

Vice Dean of Product Design and Environment Faculty

Head of Precision Mechanics and Mechatronics Department (2008-2011),

Coordinator of the " Medical Engineering" bachelor program,

Coordinator of Mechatronics Systems for Industry and Medicine – master program,

Coordinator of CATEPAC Division- SAVAT Research Platform (2004-2008),

Vice-President of the Romanian Society of Mechatronics (SROMECA) (2013-present).

PhD Coordinator since 2004.

WorldSkills expert for Mechatronics (2019-present).

- Dates (from – to) 1997-2001
 - Name and address of employer Transilvania University of Brasov, 29, Eroilor, 500036, Brasov
 - Type of business or sector Precision Mechanics and Mechatronics Department
 - Occupation or position held Assistant Professor, Scientific secretary of Precision Mechanics and Mechatronics Department
 - Main activities and responsibilities Teaching activities in Automat Dimensional Inspection Systems, Processes and Systems for Dimensional Control,
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- Dates (from – to) 1990-1997
 - Name and address of employer Transilvania University of Brasov, 29, Eroilor, 500036, Brasov
 - Type of business or sector Precision Mechanics and Mechatronics Department
 - Occupation or position held Assistant lecturer, Lecturer
 - Main activities and responsibilities Teaching activities in: Metrology and Robotics
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- Dates (from – to) 1987-1990
 - Name and address of employer Bearings and Machinery Parts Scientific Institute Brasov, ICPROA Brasov, 96, 13 Decembrie, BRASOV
 - Type of business or sector Bearings Automat Production Systems Department
 - Occupation or position held Research worker;
 - Main activities and responsibilities Researches concerning the improvement of performances of bearings automat production systems
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- Dates (from – to) 1984-1987
 - Name and address of employer Aeronautic Constructions Factory, Ghimbav, Brasov, SC IAR BRASOV, 1, Aeroportului, Brasov
 - Type of business or sector Production Department
 - Main activities and responsibilities Production engineer

EDUCATION AND TRAINING

- Dates (from – to) 1975-1979
- Name and type of organisation providing education and training High school: scientific profile "Andrei Saguna" BRASOV school
- Principal subjects/occupational skills covered
- Title of qualification awarded
- Level in national classification (if appropriate)
- Dates (from – to) 1979-1983
- Name and type of organisation providing education and training "Transilvania" University of Braşov, ROMANIA, Mechanical Faculty
- Principal subjects/occupational skills covered Mechanics, Precision Mechanics specialization
- Title of qualification awarded engineer with a diploma in Precision Mechanics
- Level in national classification (if appropriate)
- Dates (from – to) 1988

<ul style="list-style-type: none"> • Name and type of organisation providing education and training 	Politehnica University of Bucuresti,
<ul style="list-style-type: none"> • Principal subjects/occupational skills covered 	Industrial Robots
<ul style="list-style-type: none"> • Title of qualification awarded 	Post univ. degree
<ul style="list-style-type: none"> • Level in national classification 	master
<ul style="list-style-type: none"> • Dates (from-to) 	1990-1997
<ul style="list-style-type: none"> • Name and type of organisation providing education and training 	"Transilvania" University of Braşov, ROMANIA, Mechanical Engineering Faculty
<ul style="list-style-type: none"> • Principal subjects/occupational skills covered 	Thesis: "Theoretical and experimental contribution to the static and dynamic optimisation of feeding, transport and dosing systems used in automatic dimensional control", Advisor: Ph.D.Eng. Sergiu T. Chiriacescu, Corresponding Member of the Romanian Academy
<ul style="list-style-type: none"> • Title of qualification awarded 	Scientific qualification: Ph.D.
<ul style="list-style-type: none"> • Level in national classification (if appropriate) 	
<ul style="list-style-type: none"> • Dates (from – to) 	November 2011 - May 2012
<ul style="list-style-type: none"> • Name and type of organisation providing education and training 	Postgraduate course developed in partnership by the University of Bucharest, Babes-Bolyai University of Cluj-Napoca and West University of Timisoara, within the project POSDRU / 57 / 1.3 / S / 26646 - Continuous training of "blended learning" type for university teachers (BLUE)
<ul style="list-style-type: none"> • Principal subjects/occupational skills covered 	Graduate certificate Graduate Course Quality assurance in higher education, Module M1.1 Internal management systems and quality assurance
	The course addressed the following topics: quality and internationalization in higher education; external evaluation of quality in higher education; the institutional approach to quality in higher education; quality management procedures and dimensions; internal quality assessment procedures and tools.
<ul style="list-style-type: none"> • Title of qualification awarded 	
<ul style="list-style-type: none"> • Level in national classification (if appropriate) 	ISCED 7
<ul style="list-style-type: none"> • Dates (from-to) 	August 2013
<ul style="list-style-type: none"> • Name and type of organisation providing education and training 	FESTO DIDACTIC Romania
<ul style="list-style-type: none"> • Principal subjects/occupational skills covered 	The course covered the following topics: symbols used in electro-pneumatic schemes; structure, functionality and maintenance of electrical appliances specific to electro-pneumatic circuits; reading and interpreting electro-pneumatic diagrams; proximity sensors; electrical connections; installation, commissioning and adjustment of electro-pneumatic systems.
<ul style="list-style-type: none"> • Title of qualification awarded 	Graduation certificate - Electro-pneumatics - PN281 - basic level
<ul style="list-style-type: none"> • Level in national classification (if appropriate) 	
<ul style="list-style-type: none"> • Dates (from-to) 	June 2015
<ul style="list-style-type: none"> • Name and type of organisation providing education and training 	VICON Motion Systems Ltd, Oxford, United Kingdom
<ul style="list-style-type: none"> • Principal subjects/occupational skills covered 	The course covered the following topics: Description and configuration of the VICON tracking system, motion capture, simulation, real-time modeling, consisting of 6 video cameras with 250fps, LED lighting system, near-infrared (NIR @ 780nm), with adjustable brightness, Gigabit Ethernet interface for transferring information to a graphics station; Presentation and use of calibration software, real-time tracking, motion capture, simulation, modeling, NEXUS post-processing and Vicon Plug-in Gait gait analysis module, to examine the kinematics of the upper or lower body joints or the whole body and patient kinetics.
<ul style="list-style-type: none"> • Title of qualification awarded 	Certificate of participation - Vicon hardware Set-Up and Nexus Training

- Level in national classification
(if appropriate)
- Dates (from -to)
- Name and type of organisation providing education and training
- Principal subjects/occupational skills covered
- Title of qualification awarded
- Level in national classification
(if appropriate)

September 2016

systems GLOBAL CERTIFICATION RO, the official representative in Romania of Global Group United Kingdom

Course Switching from ISO 9001: 2008 to the risk-based approach of the updated version of ISO 9001: 2015 in quality management systems GLOBAL CERTIFICATION RO, the official representative in Romania of Global Group United Kingdom - independent certification, inspection and training body with proven experience worldwide

Completion Certificate - ISO 9001: 2015 Risk-based management and Transition Training

February 2016

AeroDrone SRL, member of the NATO Training, Studies and Research providing education and training Vehicle Systems.

The course covered the following topics: Rules and safety measures for the operation of RPAS (Remotely Piloted Aircraft Systems); Multicopter overview (constructive models); Comparative presentation of existing autopilots; Abbreviations used in aviation; Presentation of MONICULT project multi-copters; Presentation of the Mission Planner navigation software; Training in piloting multi-copters using the flight simulator; Legislative and aviation safety elements regarding the use of airspace; Planning and preparing a mission (NOTAM, checklist, flight logs); Double command flight training for flight modes: stabilize, alt hold, loiter. Training for executing an autonomous mission; FPV (First Person View) flight training in dual control with the help of the FPV monitor and FPV glasses.

Certificate of participation - RPAS Multicopter operator training program

PERSONAL SKILLS AND COMPETENCES

Acquired in the course of life and career but not necessarily covered by formal certificates and diplomas.

MOTHER TONGUE OTHER LANGUAGES

- Reading skills
- Writing skills
- Verbal skills

- Reading skills
- Writing skills
- Verbal skills

- Reading skills
- Writing skills
- Verbal skills

Romanian

English

good

good

good

German

good

basic

good

French

basic

basic

basic

SOCIAL SKILLS AND COMPETENCES

Living and working with other people, in multicultural environments, in positions where communication is important and situations where teamwork is essential (for example culture and sports), etc.

European Summer School. I.P. " I.C.T. tools: PV-systems engineering: Teaching and Learning", Patras – Greece, 29.06 -14.07.2005

TEACHING STAYS ABROAD IN GERMANY, FRANCE, ITALY, UK, GREECE;

ORGANISATIONAL SKILLS AND COMPETENCES

Coordination and administration of people, projects and budgets; at work, in voluntary work (for example culture and sports) and at home, etc.

Scientific secretary of Precision Mechanics and Mechatronics Department (2001-2004),
Vice-Head of Precision Mechanics and Mechatronics Department (2004-2008),
Head of Precision Mechanics and Mechatronics Department (2008- 2011),
Vice Dean of Product Design and Environment Faculty (2012-2015)
Head of department Product design, Mechatronics and Environment Department (2015-present),
WorldSkills expert for Mechatronics (2019- present)
Erasmus-Socrates Coordinator for Technical University College (2000-2005),
Erasmus-Socrates Coordinator for Mechanical Engineering Faculty (2005-2008),
Coordinator of the " Precision Mechanics" bachelor program (1997-2012),
Coordinator of the " Medical Engineering" bachelor program (2020-present),
Coordinator of Mechatronics Systems for Industry and Medicine – master program (2005-present),
Coordinator of CATEPAC Division- SAVAT Research Platform (2004-2008),
Coordinator of Advance Mechatronics Systems Research Department (2008-2015).
Vice-President of the Romanian Society of Mechatronics (SROMECA) (2013- present).
36 research projects, 19 as a coordinator, from 1990 up to date

TECHNICAL SKILLS AND COMPETENCES

With computers, specific kinds of equipment, machinery, etc.

Automated Processes and Systems for Dimensional Control
Computer literacy (MS Office programs, Internet)
Scientific programs on computer(COSIMIR IND. DATA PLOT 04, FluidSim P)

ARTISTIC SKILLS AND COMPETENCES

Music, writing, design, etc.

Design and painting

DRIVING LICENCE(S)

B category

ADDITIONAL INFORMATION

-Inventor Patents: Cristescu,D., **Furnică (Cristea),L.**, Dumitru,G., Device for radial ball-bearings friction moment measurement, Innovator Certificate No. 14/01.04.1991. Nemeş,C., Cristescu,D., **Furnică (Cristea),L.**, Pneumatic device for cardan ball-bearing rings' multi parametrical measurement, Innovator Certificate No. 4/16.10.1990. Nemeş,C., Cristescu,D., **Furnică (Cristea),L.**, Suciu,V., Device for collar distance width and parallelism of OLTCIT collared semi bearing measurement. Innovator Certificate No. 8/01.04.1991. Nemeş,C., Cristescu,D., **Furnică (Cristea),L.**, Device for collar distance and parallelism of OLTCIT collared semi bearing measurement. Innovator Certificate No. 608/06.10.1990. Nemeş,C., Cristescu,D., **Furnică (Cristea),L.**, Automatic installation for ball-bearing measurement and sorting, Patent No. 107477B1 / 30.11.1993. Nemeş,C., Cristescu,D., **Furnică (Cristea),L.**, Automatic installation for cardan ball-bearing rings' sorting. OSIM File 145059. Nemeş,C., Cristescu,D., **Furnică (Cristea),L.**, Automatic device for cardan ball-bearing rings' depth measurement, Patent No. 108082 B1/31.01.94.

Membership in Professional Associations:

- Member of the **Romanian General Association of Engineers (AGIR)**;
- Funding Member of the **Romanian Association of Precision Mechanics and Optics (AMFOR)**;
- Funding Member of the **Romanian Society of Mechatronics (SROMECA)**.
- Vice-President of the **Romanian Society of Mechatronics (SROMECA)** since 2013.

-36 research projects, 19 as a coordinator, from 1990 up to date.

-9 books published in consecrated publishing houses (1 book in an international publishing house), 12 university courses and manuals, 153 scientific papers in the field of Precision Mechanics and Mechatronics and is the author of 3 inventor patents, PhD coordinator since 2004.

SOME PAPERS PUBLISHED IN THE LAST FIVE YEARS

- [L1.] Ungureanu L., Cristea L., Baritz M. – Evaluate the Electromagnetic Radiation Effects on the Facial Tissue Jurnal BDI: Applied Mechanics and Materials (Volume 332) link:<http://www.scientific.net/AMM.332.485> 2013;
- [L2.] Manescu M., Cristea L., Braun B., Ola D.- Research on Actuator Optimization via PID Closed Control Algorithm for Video and Photo Cameras Stabilization JurnalBDI:Applied Mechanics and Materials (Volume 436) link:<http://www.scientific.net/AMM.436.337> 2013.
- [L3.] Ola D., Manescu M., Cristea L. – Software Application in Machine Vision Investigation of Agricultural Seeds Quality JurnalBDI:Applied Mechanics and Materials (Volume 436) link:<http://www.scientific.net/amm.436.463>, 2013.
- [L4.] Faluvegi E., Cristea L. – Probe-radius Compensation of the Bevel Gears Tooth Surface Using 3D Measured Points JurnalBDI:Applied Mechanics and Materials (Volume 332) link: <http://www.scientific.net/AMM.332.405>, 2013.
- [L5.] Luculescu M. C., Zamfira S., Cristea L. – WiSeIn: Wireless Sensor Network Used for Data Acquisition from Indoor Locations JurnalBDI:The 11th IFToMM International Symposium on Science of Mechanisms and Machines – Springer Link http://link.springer.com/chapter/10.1007/978-3-319-01845-4_39 2, 2013.
- [L6.] Luculescu M. C., Zamfira S., Cristea L. – WiSeManS: Wireless Sensor Network Data Management System for Indoor Climatic Control JurnalBDI:The 11th IFToMM International Symposium on Science of Mechanisms and Machines – Springer Linkhttp://link.springer.com/chapter/10.1007/978-3-319-01845-4_40, 2013.
- [L7.] Baritz M., Cotoros D., Cristea L. – The Heating Level Analysis at Facial Tissue During the Exposure of Electromagnetic Radiations Provided from a Mobile Phone JurnalBDI:Proceedings of the 4th IEEE International Conference on E-Health and Bioengineering – EHB 2013 link:<http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=6707355>, 2013.
- [L8.] Cristea L., Zamfira S., Luculescu M. C. – New Applications for Mechatronic Platforms in Trans and Interdisciplinary Education JurnalBDI:Applied Mechanics and Materials Vol. 659 (2014) pp 589-594 © (2014) Trans Tech Publications, Switzerland doi:10.4028/<http://www.scientific.net/AMM.659.589> 2014.
- [L9.] Bulmagă M., Cristea L., Ungureanu L. Cazangiu D. – Analysis of visual acuity according to the intensity of artificial light JurnalBDI:Applied Mechanics and Materials link:www.scientific.net/AMM.555.731, 2014.
- [L10.] Ungureanu L., Cristea L., Bulmagă M., Cazangiu D. The Analysis of the Influence of EMR Effects provided from the Mobile Phones with different SAR Index JurnalBDI:Applied Mechanics and Materials link: www.scientific.net/AMM.555.446 2014.
- [L11.] Luculescu, M.C., CRISTEA, L., ZAMFIRA C.S., BARBU I., *Spectral Monitoring of the Crops Vegetation Status in Precision Agriculture*, Applied Mechanics and Materials Vol. 811 (2015) pp 236-240 © (2015) Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/AMM.811.236, BDI – SCOPUS.
- [L12.] Stanciu A., Cotoros D., Cristea L., Baritz M., Determination of stress and strains of a composite tank used for liquid medical products, JOURNAL OF OPTOELECTRONICS AND ADVANCED MATERIALS, volume 17, no. 7-8, ISSN 1842-6573, IF 0,412, 2015
- [L13.] Luculescu, M.C., CRISTEA, L., ZAMFIRA C.S., BARBU I., *Mechatronic System for Spectral Monitoring of the Crops Vegetation Status*, Applied Mechanics and Materials Vol. 823 (2016) pp 405-410 © (2016) Trans Tech Publications, Switzerland, doi:10.4028/www.scientific.net/AMM.823.405, BDI – SCOPUS <http://www.scientific.net/AMM.823.405>
- [L14.] CRISTEA, L., Luculescu, M.C., ZAMFIRA C.S., BOER, A.L., POP, S., *Multiple criteria analysis of remotely piloted aircraft systems for monitoring the crops vegetation status*, IOP Conf. Series: Materials Science and Engineering 147 (2016) 012059 doi:10.1088/1757-899X/147/1/012059, ISI, Scopus <http://iopscience.iop.org/article/10.1088/1757-899X/147/1/012059/pdf>
- [L15.] BOER, A.L., Luculescu, M.C., CRISTEA, L., ZAMFIRA C.S., BARBU, I., *Comparative Study between Global Positioning Systems Used on Remotely Piloted Aircraft Systems*, The 18th International Conference Scientific Research and

- Education in the Air Force-AFASES 2016, pp.127-132, DOI: 10.19062/2247-3173.2016.18.1.16, http://www.afahc.ro/ro/afases/2016/RP/BOER_LUCULESCU_CRISTEA_ZAMFIRA_BARBU.pdf
- [L16.] Pop, S., Luculescu, M., C., Cristea, L., Zamfira, S., C., Boer A., L. - Improving Communication Between Unmanned Aerial Vehicles and Ground Control Station Using Antenna Tracking Systems JurnalBDI:Online Engineering & Internet of Things link:https://link.springer.com/chapter/10.1007/978-3-319-64352-6_49
- [L17.] Cosma, A., Preda C., Luculescu, M., C., Cristea, L., Zamfira, S., C. - Data acquisition system used in precision agriculture for vegetation status monitoring - Software subsystem JurnalBDI:Proceedings - 2017 International Conference on Optimization of Electrical and Electronic Equipment, OPTIM 2017 and 2017 Intl Aegean Conference on Electrical Machines and Power Electronics, ACEMP 2017 link:<http://ieeexplore.ieee.org/document/7975077?reload=true>
- [L18.] Luculescu, M., C., Cristea, L., Zamfira, S., C., Boer A., L. - MoniSCAN: software for multispectral monitoring of the crops vegetation status, Proceedings Volume 10664, Autonomous Air and Ground Sensing Systems for Agricultural Optimization and Phenotyping III; 106640X (2018) <https://doi.org/10.1117/12.2305197>, Event: SPIE Commercial + Scientific Sensing and Imaging, 2018, Orlando, Florida, United States <https://www.spiedigitallibrary.org/conference-proceedings-of-spie/10664/106640X/MoniSCAN--software-for-multispectral-monitoring-of-the-crops-vegetation/10.1117/12.2305197.short?SSO=1>
- [L19.] Luculescu, M., C., Cristea, L., Zamfira, S., C., Boer A., L. - Using hyperspectral sensors for crop vegetation status monitoring in precision agriculture, Proceedings Volume 10664, Autonomous Air and Ground Sensing Systems for Agricultural Optimization and Phenotyping III; 106640X (2018) <https://doi.org/10.1117/12.2305156>, Event: SPIE Commercial + Scientific Sensing and Imaging, 2018, Orlando, Florida, United States <https://www.spiedigitallibrary.org/conference-proceedings-of-spie/10664/106640W/Using-hyperspectral-sensors-for-crop-vegetation-status-monitoring-in-precision/10.1117/12.2305156.short>
- [L20.] Rusanu, O.A., Cristea, L., Luculescu, M.C., Cotfas, P.A., Cotfas, D.T., Virtual robot arm controlled by hand gestures via Leap Motion Sensor JurnalBDI:IOP Conference Series - Materials Science and Engineering link:<https://iopscience.iop.org/article/10.1088/1757-899X/514/1/012021/pdf> <https://iopscience.iop.org/article/10.1088/1757-899X/514/1/012021/pdf>
- [L21.] Rusanu, O.A., Cristea, L., Luculescu, M.C., Cotfas, P.A., Cotfas, D.T., Virtual keyboard based on a brain-computer interface JurnalBDI:IOP Conference Series: Materials Science and Engineering link:<https://iopscience.iop.org/article/10.1088/1757-899X/514/1/012020/pdf> <https://iopscience.iop.org/article/10.1088/1757-899X/514/1/012020/pdf>
- [L22.] Sebastian P., Luculescu, M.C., Cristea, L., Zamfira, S.C., Boer, A., Vegetation Index Estimation in Precision Farming Using Custom Multispectral Camera Mounted on Unmanned Aerial Vehicle Jurnal BDI: Lecture Notes in Networks and Systems link:https://link.springer.com/chapter/10.1007/978-3-030-23162-0_61, DOI https://doi.org/10.1007/978-3-030-23162-0_61 Publisher Name Springer, Cham Print ISBN 978-3-030-23161-3 Online ISBN 978-3-030-23162-0 https://link.springer.com/chapter/10.1007/978-3-030-23162-0_61