

## PERSONAL INFORMATION

Ruxandra-Cristina STĂNESCU


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## TITLE

Assistant Professor – Transilvania University of Brasov

## PROFESSIONAL EXPERIENCE

1/10/2024 - present

## Assistant Professor

Transilvania University of Braşov  
29 Eroilor, 500036 Braşov (Romania)

[www.unitbv.ro](http://www.unitbv.ro)

Faculty of Mechanical Engineering – Department of Automotive and Transport Engineering

▪ Teaching activities

1. Computer Programming and Programming Languages
  - Ro - Applications
  - En – Lecture and Applications
2. Applied Computing – Lecture and Applications
3. Fuels, Lubricants and Special Materials for Vehicles – Lecture and Applications (Ro/En)
4. Vehicle Maintenance – Applications

1/10/2021 – 30.06.2024

## Associate Professor

Transilvania University of Braşov  
29 Eroilor, 500036 Braşov (România)

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▪ Teaching activities

1. Computer Programming and Programming Languages
  - Ro - Applications
  - En – Lecture and Applications
2. Applied Computing – Lecture and Applications
3. Fuels, Lubricants and Special Materials for Vehicles – Lecture and Applications (Ro/En)
4. Project Management – Seminary

08/1998 - present

## System Engineer

SC Debut SRL, Braşov, România

- Installation and servicing of IBM brand fiscal devices
- Network administration
- Software configuration and maintenance

2005 - present

## Ski Instructor Trainer

Ana Ski and Snowboard School, Poiana Braşov, România

- Organization of ski and snowboard instructor courses
- Training of new instructors

04/2013 – 10/2013

### Logistics and Quality Manager

SC OLIN SRL, Braşov, România

- Coordination of the double-glazed window and decorative glass distribution sector.

## EDUCATION AND TRAINING

2021 – 2023

### Master's Degree

Transilvania University of Braşov

Field of Study: Psychology and Educational Sciences

Specialization: Educational Psychology, School and Vocational Counseling

2009 – 2012

### Doctorate

Transilvania University of Braşov

Field of Study: Mechanical Engineering

Thesis Title: Research on the Production Technologies and Performance of Biofuels for Automobiles

2006 – 2008

### Master's Degree

Transilvania University of Braşov

Field of Study: Mechanical Engineering

Specialization: Electrotechnics for Land Transport (in French)

1998 – 2003

### Diploma Engineer

Transilvania University of Braşov

Field of Study: Electrical Engineering and Computer Science – Automation and Industrial Computing

Thesis Title: Wireless Communication Between a Robot and a Fixed Control Station .

2016

### Trainer

SC STAND UP TRAINING SRL, Bucharest

12/2011

### Training Internship

AVL List (Engine Developer and Research Applications), Graz, Austria

- Installation and testing of single-cylinder research engines

04/2011

### Doctoral Research Internship

Technical University of Denmark, Copenhagen, Denmark

- Studies on the use of DME and natural gas as fuels for automobiles.

05/2011 – 07/2011

### Doctoral Research Internship

Universidad de Malaga, Malaga, Spain

- Studies and research on the use of microalgae as a raw material for biodiesel

11/2010

### Advanced Course

CIHEAM - International Centre for Advanced Mediterranean Agronomic Studies, Zaragoza, Spain

- Marine algae culture for biofuels and bioproducts

2003

### Thesis Development Internship

Université du Havre, Le Havre, France

- Wireless communication between a robot and a fixed control station

10/2001 – 04/2002

### Socrates Mobility – 4th Year of Studies

University of Salerno – Department of Electrical Engineering, Salerno, Italy

07/2001 – 10/2001

## Leonardo Mobility – Training Internship

Unindustria di Treviso, Datasys, ClaMM – Gruppo Dada, Treviso, Italy

### PERSONAL SKILLS

Mother tongue Romanian

#### Other Languages Known

	UNDERSTANDING		SPEAKING	WRITING
	LISTENING	READING	CONVERSATION	
English	C1	C1	B2	B2
French	B2	B2	B2	B1
Italian	B2	B2	A2	A2
Spanish	B2	B2	A2	A2

Levels: A1/A2: Basic User - B1/B2: Independent User - C1/C2: Proficient User  
Common European Framework of Reference for Languages

#### Interpersonal Communication Skills

- Excellent communication skills developed through collaboration in intercultural environments and the coordination of diverse groups.
- Ability to convey complex ideas clearly and accessibly, both in individual presentations and group sessions.
- Relationship-building and effective negotiation skills used to manage professional relationships and encourage successful collaboration and partnerships.

#### Organizational/Managerial Skills

- Strong leadership skills developed through coordinating and motivating teams to achieve common goals.
- Experience in managing teams, ensuring that each team member reaches their full potential and contributes to the success of the project.
- Ability to organize and coordinate complex activities, including managing multiple projects simultaneously.
- Coordination of students' diploma projects, guiding them in conducting applied research and developing presentation and scientific argumentation skills.

#### Entrepreneurial Skills

- Strategic business development and management skills, including identifying growth opportunities and implementing innovative solutions.
- Experience in creating and managing successful teams, developing and optimizing business processes.
- Ability to navigate dynamic business environments with a quick adaptability to change.

#### IT Skills

- Programming languages and modeling/simulation systems – advanced knowledge in programming languages, especially MATLAB and Simulink, for simulations and technical analyses.
- Microsoft Office – efficient use of Microsoft Office suite (Word, Excel, PowerPoint) for creating documents, reports, and presentations.
- Corel Draw & Canva – skills in using Corel Draw and Canva for creating graphics and designs for presentation materials.
- Statistical analysis programs – experience with SPSS for processing and analyzing statistical data, essential for technical and scientific research.

#### Technical Skills

- Engine instrumentation – experience in using and maintaining equipment for measuring and monitoring engine performance, including pressure and temperature sensors, fuel systems, and connections for exhaust gas analysis.
- Engine test stand control – operating and maintaining Horiba Titan T250 engine testing equipment.
- Data acquisition and processing – experience using equipment and software for collecting and processing technical data, including RAC AVL angle encoders and pressure sensors in cylinders and intake systems.
- Diesel particulate evaluation – using the micro-Horiba dilution tunnel to analyze particles emitted by diesel engines.

- Exhaust gas analysis – skills in analyzing chemical pollutants in engine exhaust gases for performance improvement and emission reduction.
- IT equipment installation and servicing – experience in installing, configuring, and maintaining IT systems and networks, including IBM point-of-sale systems and fiscal devices.

Driving License Category B – 1998, Category A – 2003

Networks and Affiliations

- Member of SIAR (since 2021)
- Member of ISIA – Category I (since 2005)
- Member of Salvamont – Poiana Braşov (since 2017)

Hobbies and Passions Photography, motorcycling, skiing, kitesurfing

## OTHER INFORMATION

Relevant Publications STĂNESCU R.C., GÎRBACIA F., POSTELNICU C.C. – Îndrumar de Laborator – Programarea Calculatoarelor şi Limbaje de Programare, Ed. Universitatea Transilvania din Braşov, 2023, ISBN 978-606-19-1596-5

STĂNESCU R.C., GÎRBACIA F. – Laboratory guide – Computer Programming and Programming Languages, Ed. Universitatea Transilvania din Braşov, 2023, ISBN 978-606-19-1597-2

STĂNESCU, A.M., STĂNESCU, R.C., NOȚIUNI DE TEROTEHNICĂ, FIABILITATE ŞI DEGRADAREA PIESELOR AUTOMOBILELOR, Ed. Universitatea Transilvania din Braşov, 2019, ISBN 978-606-19-1178-3.

STANESCU, R.-C.; LEAHU, C.-I.; SOICA Influence of Biodiesel from Used Cooking Oil and Sunflower Oil on Engine Efficiency and Emission Profiles. Energies 18(3), 583, 2025.  
<https://doi.org/10.3390/en18030583>

STANESCU, R.-C.; LEAHU, C.-I.; SOICA, A. Aspects Regarding the Modelling and Optimization of the Transesterification Process through Temperature Control of the Chemical Reactor. Energies 16, 2883, 2023. <https://doi.org/10.3390/en16062883>

VOINEA, G.D., GÎRBACIA, F., POSTELNICU, C.C., DUGULEANA, M., ANTONYA, C., SOICA, A., STĂNESCU, R.C. – Study of social presence while interacting in metaverse with an augmented avatar during autonomous driving. Applied Sciences 12, no. 22 (2022) doi: 10.3390/app122211804, indexed Web of Knowledge, 2022.

DICA-STĂNESCU, R.C., CHIRU, A., MUNTEAN, A.B., SĂCĂREANU, S., The Automobile and the Environment: International Congress of Automotive and Transport Engineering CONAT 2010, Chapter Fourteen, pg. 181-194, Algae as Fuel Resource for the Automotive Sector, Ed. Cambridge Scholars Publishing ISBN (10): 1-4438-2972-2, ISBN (13): 978-1-4438-2972-4, 2011.

MUNTEAN, A., ULRICH, J., SOIMARU, C., STANESCU, R.C., SACAREANU, S. – Impact of different in-cylinder pressures on hydraulic performances of the diesel fuel injection systems – Proc. of the 15th International Conference on Experimental Mechanics, Porto, Portugal, ISBN: 978-972-8826-25-3, 2012, indexed Web of Knowledge, 2012.

CHIRU, A., SACAREANU, S., STANESCU, R.C., STAN, C., ZIMA, P. – The energetic potential of engines fueled with biomass derived products. In: Proceedings of the FISITA 2012 World Automotive Congress. Lecture Notes in Electrical Engineering, vol 189. Springer, Berlin, Heidelberg. 2013. [https://doi.org/10.1007/978-3-642-33841-0\\_38](https://doi.org/10.1007/978-3-642-33841-0_38)

JEREZ, C.G., STANESCU, R.C. et. al. – Optimization of Hydrodynamic and Light Conditions for Chlorella Fusca in a Thin Layer Photobioreactor – Proc. of the 5th European Phycological Congress - Exploring the Phycocosmos: A European Perspective, Rhodes, Greece, ISSN 0967-0262, 2011.

STANESCU, R.C., CHIRU, A. et. al. - Algae Biogas at the Romanian Black Sea Shore for Commercial Vehicles Engines – Proc. of the 13th EAEC 2011 Congress, Valencia, Spain, ISBN

978-84-615-1794-7, 2011.

MUNTEAN, A., CHIRU, A., STANESCU, R.C. et. al. - Comparison of Combustion Characteristics of a Diesel Monocylinder Engine, Using Different Fuels - Proc. of the 13th EAEC 2011 Congress, Valencia, Spain, ISBN 978-84-615-1794-7, 2011.