

PERSONAL INFORMATION

Venetia SANDU

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POSITION
IOSUD UTBV

PhD Coordinator
Doctoral studies field: Mechanical Engineering
Since 2016

EXPERTISE FIELD AND
RESEARCH INTEREST AREAS

- Internal combustion engines;
- Air pollution / transportation induced pollution;
- Internal combustion engine emissions / measurement methods/toxicity indices;
- Reduction of fuel consumption and increase of engine performances
- Vehicle noise / overall engine noise/attenuation methods;
- Automotive parts / design, manufacturing and testing;
- Automotive fuels and lubricants ;
- Energy harvesting from heat engines

WORK EXPERIENCE

(10.2004 – up to present)

Professor, Associate Professor, Lecturer

Transilvania University Braşov, Eroilor 29, www.unitbv.ro

- Teaching and research work activities in the field of mechanical engineering
- Responsibilities: Teaching, elaboration of academic courses and laboratory guides , elaboration of scientific papers

(09.1988 Ia – 10.2004)

Academic teaching

Research worker (gr.I,II,III)

Road Vehicle Institute Braşov, Poienelor nr.5, <http://www.inarbrasov.rdsweb.ro/>

- Research activity in the field of internal combustion engines and vehicles
- Responsible with research work on exhaust gas systems

(09.1984-09.1988)

Research activity

Mechanical engineer, designer

Road Vehicle Institute Braşov, Poienelor nr.5, <http://www.inarbrasov.rdsweb.ro/>

- Design activities in the field of internal combustion engines and vehicles
- Responsible with auxilliary installation design

Research activity

EDUCATION AND TRAINING

(02.92 – 06.98)

Ph D

Transilvania University

- Disciplines : Internal combustion engines, Pollutant emissions, Noise levels, Abatement methods
- Abilities: Experimental research, numerical methods

(09.79 – 06.84)

Mechanical Engineering

Polytechnical University Bucharest , Mechanical Engineering Faculty, Heat Engine training program

- Disciplines : Internal Combustion Engines, Experimental research of heat engines, Thermodynamics, Heat Transfer, Fluid Mechanics
- Abilities: capacity to solve problems specific to mechanical engineering.

PERSONAL SKILLS

Mother tongue Romanian

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
French	B1	B1	B1	B1	B1

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

Communication skills ▪ good communication skills gained through my experience as a teacher

Organisational / managerial skills ▪ Departement Manager In Road Vehicle Institute (responsible for a team of 25 people)
 ▪ Coordinator of research and education projects , around 95 Scientific secretary of Mechanical Engineering Faculty 2008-2012
 ▪ Coordinator for Erasmus practical placements, Mechanical Engineering Faculty 2008-2012

Digital skills

SELF-ASSESSMENT				
Information processing	Communication	Content creation	Safety	Problem solving
Independent user	Independent user	Independent user	Basic user	Independent user

Levels: Basic user - Independent user - Proficient user
Digital competences - Self-assessment grid

▪ Microsoft Office (Word, Excel, PowerPoint), MathCAD, AutoCAD, Internet documentation

Other skills ▪ English language translator for technical fields

ADDITIONAL INFORMATION

Publications Selection:
 Books:
 Combaterea poluarii mediului in transporturile rutiere (Pollution abatement in road transportation), Technical Publishing House, Bucharest, 2000, ISBN:973-31-1455-3
 Automotive fuels, Matrixrom Publishing House, Bucharest, 2004, ISBN 978-973-755-188-7

Projects -Performance Indicators for Health, Comfort and Safety of the Indoor Environment, 2009-2011 financed by : European Commission, Contract: FP7/212998/2008
 -Partnership of continuous education institutions with environmental protection and energy saving companies,: 2001, financed by: European Commission Contract: RO / 2000 / 85201 / EX
 -- New Strategies of COMPetence Acquisition for Lifelong Learning in Energy – Transport - Environment Engineering ,2004-2006, financed by : European Commission Contract: 2004 - RO/04/B/F/PP – 175016

Memberships Member of Romanian Society of Thermal Engineers

LIST OF RELEVANT PUBLICATIONS /RESEARCH (selection)

- 1. Assessment of Internal Combustion Engine Exergy Based on Theoretical Cycles and Experimental Data**, TEM JOURNAL-TECHNOLOGY EDUCATION MANAGEMENT INFORMATICS, Vol. 8, nr. 4, 2019, http://apps.webofknowledge.com.am.e-nformation.ro/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=D3ZYSm6NBA1M9PrFe6K&page=1&doc=1
- 2. Chemical analysis of retail automotive gasolines on Romanian market**, Revista de Chimie, București. Vol. 67, nr. 12, 2016, http://apps.webofknowledge.com.am.e-nformation.ro/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=C1umr2kVV8esNlzbyhx&page=1&doc=1
- 3. Evaluation and abatement of environmental noise. A case study for district heating plant placed in a residential area of Brasov – Romania**, http://apps.webofknowledge.com.am.e-nformation.ro/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=C1umr2kVV8esNlzbyhx&page=1&doc=4
- 4. Experimental Study of Urea SCR Catalyst for Diesel Engine NOx Abatement** http://apps.webofknowledge.com.am.e-nformation.ro/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=C1umr2kVV8esNlzbyhx&page=1&doc=5
- 5. Experimental Investigation of Thermoelectric Heat Recovery from a Diesel Engine** http://apps.webofknowledge.com.am.e-nformation.ro/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=C1umr2kVV8esNlzbyhx&page=1&doc=6
- 6. Contributions to operation modelling specific to flexible couplings** http://apps.webofknowledge.com.am.e-nformation.ro/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=C1umr2kVV8esNlzbyhx&page=1&doc=9
- 7. Data Acquisition and Virtual Instrumentation System for the Study of Peltier and Seebeck Effects** http://apps.webofknowledge.com.am.e-nformation.ro/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=C1umr2kVV8esNlzbyhx&page=1&doc=10
- 8. Instructional Design in the Vocational Training on "Computer Networking"** http://apps.webofknowledge.com.am.e-nformation.ro/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=C1umr2kVV8esNlzbyhx&page=2&doc=11
- 9. Problem based learning - case study for automotive engineering** http://apps.webofknowledge.com.am.e-nformation.ro/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=C1umr2kVV8esNlzbyhx&page=2&doc=13
- 10. Dezvoltarea unor catalizatori pentru purificarea gazelor de evacuare emise de motoarele Diesel** http://apps.webofknowledge.com.am.e-nformation.ro/full_record.do?product=WOS&search_mode=GeneralSearch&qid=1&SID=C1umr2kVV8esNlzbyhx&page=2&doc=14