

PERSONAL INFORMATION



Cristiana-Verona CROITORU, PhD. MSc. Eng.

📍 4, Barajul Cucuteni Alley, Bucharest, Romania

☎ - 📠 0040722409521

✉ cristianaveronacroitoru@gmail.com

🌐 www.cambi.ro

💬 Skype cristianaverona

Sex F | Date of birth 24.08.1983 | Nationality Romanian

WORK EXPERIENCE

February 2008 – now

Lecturer

Technical University of Civil Engineering, Faculty of Building Services

- Senior researcher and teaching duties: courses, seminars, laboratories, technical projects (Ventilation and Air Conditioning, Ecology, Sustainability, CO2 Reduction in Atmosphere)
- Coordinator/Responsible for 6 research projects: SOLAIR- Innovative ventilated envelope elements for solar heat recovery in low energy buildings 75.000 Euro; SOLECT- Environment improvement of Sludge dewatering from the wastewater treatment system of SEAU Glina by Optimizing the Local Effluent Capture and Treatment– Principal Investigator, 100.000 Euro; SCOPE-intelligent Solar COLlector with Phase change materials intEgration– Principal Investigator, 133.000 Euro; CIA-CLIM Smart Buildings Adaptable to the Climate Change Effects 200.000 Euro; BISCUIT -Building integrated solar crop dryer for food preservation in urban farming applications 135.000 Euro; DivAirCity- Horizon 2020 project; 479.000 Euro

Business or sector Research and Education

2018-2020

Member of the Civil Engineering and Management Commission of the National Council for the Certification of Titles, Diplomas and University Certificates (**CNATDCU**) within the Ministry of National Education

2016- now

Projects evaluation expert for the European Commission

- Energy and Sustainability expert for Horizon 2020 Calls

April 2012- October 2015

Principal Investigator

Politehnica University Bucharest, Faculty of Mechanics and Mechatronics

- Principal investigator for smart building facade research postdoctoral fellowship

Business or sector Research

2019

World Bank contract- Energy Efficiency Improvement through Renovation of Buildings Romanian Strategy

2020

International Consultant for UNDP - United Nations Development Programme
International Consultant in Green Urban Design Code in Moldova Sustainable Green Cities Project

2020- now

Member of the Management Council Board of Pro-nZEB Cluster Association

EDUCATION AND TRAINING

October 2015

Sustainability Manager

European Certification and Qualification Association, Krems, Austria

- Certified Sustainability Manager

January 2014

BREEAM In Use International Auditor

Building Research Establishment, UK

- December 2013

Romanian Building Energy Efficiency Auditor, degree I

Development Ministry, Romania

 - BREEAM In-Use Auditor helps building managers and owners to reduce the running costs and to improve the environmental performance of existing buildings.
- September 2013

Training and specialization research stage in optical methods of investigation

University of La Rochelle, France

 - Energy efficiency assessment of buildings for envelope and building services.
 - Particle Image Velocimetry systems.
- July 2012

Project manager

Labour and family Ministry, Romania

 - Scientific and technical projects coordination, writing proposal, team coordination etc.
- March 2012

BREEAM International Assessor

Building Research Establishment, UK

 - BREEAM International certification provides a multi-criteria approach to the environmental aspects associated with the construction and renovation of a building. Points are awarded for each of these aspects on the basis of performance achieved, and a weighting system is used to aggregate these scores to obtain an overall final score .
- 2011– 2014

Post-doctoral researcher

Technical University of Civil Engineering Bucharest, Romania

 - CFD; Thermal Comfort; Indoor Quality, Building Energy Efficiency, PIV researcher
- 2008 – 2011

PhD

Technical University of Civil Engineering Bucharest, Romania

 - Thesis title: *“Numeric and experimental studies regarding the influence of turbulence intensity on thermal comfort of the occupants in ventilated buildings”*
- March-July 2010

PhD research stage

Royal Military Academy Brussels, Mechanics Department- Belgium

 - Doctoral research scholarship at Royal Military Academy Brussels- Belgium : *„Numerical investigation with CFD methods”*
- 2008-2009

Pedagogical formation certificate

Technical University of Civil Engineering Bucharest, Romania
- 2007 – 2008

Master

Technical University of Civil Engineering Bucharest, Romania

 - Master in Comfort and Energy Efficiency
- 2004-2005

Master

University of La Rochelle, France

 - Master 1 *Equipements Techniques et Energétiques*, University of La Rochelle, Erasmus scholarship
- 2002 – 2007

License

Technical University of Civil Engineering Bucharest, Romania

 - Building services engineering; Thermal Comfort; Indoor Air Quality, Building energy efficiency, Sustainable buildings

PERSONAL SKILLS

Mother tongue(s) Romanian

Other language(s)

UNDERSTANDING	SPEAKING	WRITING
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	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	C1	C2	C1	C1	C2
Language certificate issued by University of La Rochelle, France					

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 lecturer and conference speaker

Organisational / managerial skills ▪ leadership skills; project management;
 ▪ team work- I have worked in different research teams
 ▪ organisational skills- Member of Young Researchers Conference from TUCB, www.yrc.utcb.ro
 organizing Committee of **EENVIRO** 2013-2020, www.eenviro.ro
 ▪ member of Scientific Committee of **EENVIRO** 2016-2020 International Conference and
 International Conference – Towards a Sustainable Urban Environment (EBUILT-2016), CIEM 2017,
 ROOMVENT 2018, CLIMA 2019

Job-related skills ▪ International Relations responsible for Faculty of Building Services
 ▪ In charge with CSR and sustainability management for Faculty of Building Services
 ▪ Responsible for vocational trainings
 ▪ Funding applications consultant

Digital competence

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

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

Computer operator diploma

- good command of office suite (word processor, spread sheet, presentation software, access)
- good command of photo editing software : Adobe Illustrator
- excellent computer skills: Windows, MSOffice, ANSYS Fluent, Lab View, Mathcad, ACAD, Pascal, Visual Basic, C++; Design Builder, HAP, IES VE
- web-design (WYSIWYG)

Driving licence B since 2002.

ADDITIONAL INFORMATION

Publications and other indices :

10 ISI Journal Papers, 20 ISI Conference Proceedings, 1 Patent pending, 25+ IDB Journal Papers,
 Reviewer at 5 ISI indexed journals: Indoor and Built Environment, Applied Thermal Engineering, Journal of Thermal Biology, ASHRAE Transactions,
 Journal of Energy Engineering;

Hirsch Index – Web of Science: 6, Scopus: 7, Google Scholar: 11

Association affiliation:

American ASHRAE Society; **REHVA Committee Member**; ISIAQ :AIR ; RoGBC; ZERO WASTE ROMANIA ; Eco-Innovation Institute- Co-founder
Pro-nZEB Cluster- Member in the advisory Board

Journal Publications (Selection)

Research papers indexed in Web Of Science:

1. Thermal comfort models for indoor spaces and vehicles—Current capabilities and future perspectives C Croitoru, I Nastase, F Bode, A Meslem, A Dogeanu Renewable and Sustainable Energy Reviews 44, 304-318 101 2015
2. Comparison of turbulence models in simulating jet flow from a cross-shaped orifice, A Meslem, F Bode, C Croitoru, I Nastase European Journal of Mechanics-B/Fluids 44, 100-120 40 2014
3. Thermodynamic investigation on an innovative unglazed transpired solar collector, CV Croitoru, I Nastase, FI Bode, A Meslem Solar Energy 131, 21-29 33 2016
4. Flow dynamics and mass transfer in impinging circular jet at low Reynolds number. Comparison of convergent and orifice nozzles, A Meslem, V Sobolik, F Bode, K Sodjavi, Y Zaouali, I Nastase, C Croitoru International Journal of Heat and Mass Transfer 67, 25-45
5. Experimental investigation of transpired solar collectors with/without phase change materials AS Bejan, C Teodosiu, CV Croitoru, T Catalina, I Nastase Solar Energy 214, 478-490

Conferences (Selection)

1. C. CROITORU, F. BODE, I. NASTASE, A. DOGEANU, A. MESLEM, Innovative solar wall performance study for low energy buildings applications(2014) International Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM, 1 (4), pp. 307-314.
2. C. CROITORU, A. DOGEANU, F. BODE, I. NASTASE, A. MESLEM, Heat transfer analysis for a transpired solar collector numerical model (2015) international Multidisciplinary Scientific GeoConference Surveying Geology and Mining Ecology Management, SGEM, 1 (4), pp. 939-944.
3. C. CROITORU, I. NASTASE, M. SANDU, C. LUNGU, Multi-criteria Design and Impact on Energy Consumption of a Residential House—A Parametric Study, Energy Procedia 85, 141-148, 2016
4. C. CROITORU, I. NASTASE, I. VOICU, A. MESLEM, M. SANDU, Thermal Evaluation of an Innovative Type of Unglazed Solar Collector for Air Preheating, Energy Procedia 85, 149-155, 2016
5. C. CROITORU, I. NASTASE, R. CRUTESCU, V. BADESCU, Thermal Comfort in a Romanian Passive House. Preliminary Results, Energy Procedia 85, 575-583, 2016
6. I. NASTASE, C. CROITORU, A. VARTIRES, L. TATARANU, Indoor Environmental Quality in Operating Rooms: An European Standards Review with Regard to Romanian Guidelines, Energy Procedia 85, 375-382, 2016
7. I. NASTASE, C. CROITORU, C. LUNGU, A Questioning of the Thermal Sensation Vote Index Based on Questionnaire Survey for Real Working Environments, Energy Procedia 85, 366-374, 2016

Research projects (Selection)

Team member:

1. INADEVA – Intelligent Air Diffusion for healthy environments: advanced strategies and evaluation methods; <http://www.cambi.ro/inadeva/> - team member
2. EQUATOR - Advanced Strategies for High Performance Indoor Environmental Quality in Operating Rooms; <http://www.cambi.ro/equator/> - team member
3. EST IN URBA – Solar systems with high thermal efficiency for implementation in urban environment <http://cambi.ro/projects.html> - team member
4. QUEST - Advanced air diffusion system of the crew quarters for the ISS and deep space habitation systems, STAR-CDI-C3-2016-577, Principal Investigator, 2017-2019, (450 kEuro)
5. SMARTSENSE - Real time SMART application for urban air quality management respecting the SENSitivE categories of population, PN-III-P2-2.1-PED-2016-1285 (150 kEuro), Principal Investigator, 2017-2018 (150 kEuro) Team member
6. INSIDE - Innovative strategies of HVAC systems for high indoor environmental quality in vehicles PN-II-PT-PCCA-2013-4-0569 2015-2018 (350 kEuro)
7. HAM: Integrated HEAT-AIRFLOW-MOISTURE modeling within enclosures - experimental validation, PN-II-ID-JRP-RO-FR-2012-0071, 2013-2015, (350 kEuro)

Principal investigator/Director/Team responsible

1. SOLAIR- Innovative ventilated envelope elements for solar heat recovery in low energy buildings – Principal Investigator CNCS - UEFISCDI, project number PN-II-RU-PD-2012-3-014, 75.000 Euro; results on www.cambi.ro/solair
2. SOLECT- Environment improvement of Sludge dewatering from the wastewater treatment system of SEAU Glină by Optimizing the Local Effluent Capture and Treatment– Principal Investigator, project number PN-III-P2-2.1-PED-2016-1158, 133.000 Euro; results on www.cambi.ro/solect
3. SCOPE-intelligent Solar Collector with Phase change materials intEgration– Principal Investigator, 100.000 Euro; Project number PN-III-P2-2.1-PED-2016-1154; results on www.cambi.ro/scope
4. CIA-CLIM Smart Buildings Adaptable to the Climate Change Effects, Team responsible, 200.000 Euro for UTCB out of 1.000.000 Euro, Project number 30PCCDI/2018. Results on <https://www.icer.ro/cercetare/proiecte-de-cercetare/cia-clim>
5. BISCUIT -Building integrated solar crop dryer for food preservation in urban farming applications 135.000 Euro, project number PN-III-P2-2.1-PED-2019-4165; results on www.cambi.ro/biscuit
6. DivAirCity- The power of diversity and social inclusion as a mean for reducing air pollution and achieving green urban nexux in climate neutral cities Horizon 2020 project HORIZON-LC-CLA-11-2020-Innovative nature-based solutions for carbon neutral cities and improved air quality, project number 101003799; Team responsible for UTCB; 479.000 Euro out of total sum 9.800.000 Euro; <https://divaircity.eu/>

