

#### PERSONAL INFORMATION

## Cristiana-Verona CROITORU, Habil. PhD. MSc. Eng.



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Skype cristianaverona

Sex F | Date of birth 24.08.1983 | Nationality Romanian

#### WORK EXPERIENCE

#### March 2021- Sept 2021

#### Advisor of President of National Institute of Administration

National Institute of Administration

Research and analysis in public administration; public policies in administration on Buildings and Energy Efficiency

#### February 2008 - now

#### Associate professor (Lecturer)

Technical University of Civil Engineering, Faculty of Building Services

- Senior researcher and teaching duties: courses, seminaries, laboratories, technical projects (Ventilation and Air Conditioning, Ecology, Sustainability, CO2 Reduction in Atmosphere)
- Coordinator/Responsible for 9 research projects, more than 1.5 mil euro funded

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/ Horizon Europe

### April 2012- October 2015

## Associated Researcher

Politehnica University Bucharest, Faculty of Mechanics and Mechatronics

Principal investigator for smart building facade research postdoctoral fellowship

**Business or sector Research** 

#### 2019- now

World Bank contract- Energy Efficiency Improvement through Renovation of Buildings Romanian Strategy, Safer, Inclusive and Sustainable Schools Project, TA Renovation Wave, Country Climate and Development Report (CCDR) for Romania and Azerbajan

#### 2020-201

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 Board of Directors of Pro-nZEB Cluster Association

#### **EDUCATION AND TRAINING**

## 2022 ONE Click LCA, Life Cycle Analysis

June 2021

## Habilitation thesis

Urban Synergies for the built environment

#### 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

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

## December 2013 Romanian Building Energy Efficiency Auditor, degree I

Development Ministry, Romania

• Energy efficiency assessment of buildings for envelope and building services.

## September 2013 Training and specialization research stage in optical methods of investigation

University of La Rochelle, France

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

#### 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) Other language(s)

English

French

#### Romanian

UNDERSTANDING		SPEAKING		WRITING
Listening	Reading	Spoken interaction	Spoken production	
C2	C2	C2	C2	C2
C1	C2	C1	C1	C2
	l anguage certificate is:	sued by University of La	Rochelle, France	

Language commode located by offiverony of Language

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 TUCEB, <u>www.yrc.utcb.ro</u>
  organizing Committee of **EENVIRO** 2013-2020, <u>www.eenviro.ro</u>
- 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 <u>Digital competences - Self-assessment grid</u>

#### 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 :

16 ISI Journal Papers, 20+ ISI Conference Proceedings, 1 Patent, 25+ IDB Journal Papers,

Revewer 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 :AIIR ; RoGBC; ZERO WASTE ROMANIA ; Eco-Innovation Institute- Co-founder **Pro-nZEB Cluster- Member in the advisory Board** 



## Journal Publications (Selection)

#### Research papers cited in Web Of Science:

- 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
- 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
- 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
- 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)

- 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.
- 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.
- 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
- 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
- C. CROITORU, I. NASTASE, R. CRUTESCU, V. BADESCU, Thermal Comfort in a Romanian Passive House. Preliminary Results, Energy Procedia 85, 575-583, 2016
- 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
- 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 Director/Team Responsible

- -SOLAIR- 88 din 30/04/2013 (PN-II-RU-PD-2012-3-0144) Innovative ventilated envelope elements for solar heat recovery in low energy buildings – Principal Investigator, 75.000 Euro
- -SOLECT- 67BG din 30/09/2016 (PN-III-P2-2.1-BG-2016-0158), 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
- 3. -SCOPE- 83PED din 03/01/2017 (PN-III-P2-2.1-PED-2016-1154) intelligent Solar COllector with Phase change materials intEgration—Principal Investigator, 133.000 Euro
- CIA-CLIM, 30PCCDI / 2018 (PN-III-P1-1.2-PCCDI-2017-0391), Smart Buildings Adaptable to the Climate Change Effects UTCB team leader, 200.000 Euro;
- BISCUIT 436PED din 23/10/2020 (PN-III-P2-2.1-PED-2019-4165) Building integrated solar crop dryer for food preservation in urban farming applications Principal Investigator, 133.000 Euro;
- DivAirCity- Ctr 101003799 Horizon 2020 H2020-LC-CLA-2018-2019-2020 project; Improving Air Quality in Cities through Social Inclusion and Nature Based Solutions, UTCB team leader; 479.000 Euro
- -nanoSUN- 716PED din 24/06/2022 (PN-III-P2-2.1-PED-2021-1903)

   – "Adaptive air solar collector with integrated nano-enhanced phase changing materials" 125.000 euro
- 8. -nZEB ready (H2020-LC-SC3-EE-2020-2) Ctr 101033733 "Improving market readiness for the implementation of the nZEB concept"- partner responsible 100.400 euro
- -BUS4RoBOOST (LIFE-2021-CET)- Ctr 101076873 "BUILD Up Skills for mainstreaming long-term renovation of Romanian building stock" - partner responsible 100.000 euro





Research projects (Selection)