

CURRICULUM VITAE

PhD. Eng. Ilinca NASTASE

*Associate Professor, Building Services Engineering Faculty,
Technical University of Civil Engineering of Bucharest*

1. DATE AND PLACE OF BIRTH: 22th August 1979, Bucharest, Romania

2. STUDIES AND DIPLOMAS:

Engineer Diploma (Bachelor of Science): 2002, (examination mark: 10/10), Technical University of Construction Bucharest, Department of Civil Engineering in Foreign Languages: French; General average mark on study years: 9.21/10.

Master of Science diploma: 2003, University of La Rochelle, France, Mechanics and Civil Engineering, Energetic of built environment

PhD Diploma: thesis title « Analyse des jets lobés en vue de leur intégration dans les unités terminales de diffusion d'air », 2007, thesis accomplished by collaboration of Technical University of Construction Bucharest and University of La Rochelle, domain : Civil engineering, specialisation : Fluid Mechanics, 2006.

Post Doctoral dissertation: 2008, University of La Rochelle, France, Mechanical and Civil Engineering Department, specialty: Experimental Fluid Mechanics

Habilitation Thesis: 2014, Technical University of Civil Engineering of Bucharest

Foreing languages : **French:** speak - excellent; write - excellent (DALF - Diplôme Approfondi de la Langue Française)
 English : speak - excellent; write - excellent.

OTHER SPECIALISATIONS:

- September 2003 – Autumn School 2003 of Velocity metrology and Laser Granulometry in Fluid Mechanics, 15 - 19 September at CAES of CNRS, organized by French Association of Laser Velocimetry
- November 2007: Laser Security training organized by Technological Centre Alphanov Bordeaux 1 University.

3. PROFESSIONAL EXPERIENCE, FORMER EMPLOYERS:

Assistant Lecturer and Researcher (ATER – Attaché temporaire à l'Enseignement et à la Recherche) : during the academic years 2003-2007 and 2007/ spring of 2008 at the Mechanical and Civil Engineering Department, University of La Rochelle, France



Research Engineer: October 2007- May 2008 at LEPTIAB (Laboratory of Study of Transfer Phenomena Applied to Buildings), University of La Rochelle, France

Researcher: since may 2008 – Advanced Research Center for Ambiantal Quality and Building Physics Building Services Department from the Technical University of Civil Engineering in Bucharest

Lecturer: during October 2008 - September 2012 in the chair of Hydraulic, thermal and environmental building services from the Building Services Faculty of the Technical University of civil Engineering

Associate Professor: since September 2012

Teaching (undergraduate): thermodynamics, elementary fluid mechanics (course and laboratory), fluid mechanics (course and laboratory), thermal fluids laboratory, air conditioning, industrial ventilation, advanced measurement techniques for fundamental fluid mechanics, measurement techniques for fluid mechanics applied to buildings, jet flow theory.

Research contracts:

1. EQUATOR: Advanced strategies for high performance indoor Environmental QUALiTy in Operating Rooms- PN-II-PT-PCCA-2011-3.2-0512, 2012-2015, **Principal Investigator** (750 kEuro)
2. INADEVA: INtelligent Air Diffusion for healthy environments: advanced strategies and EVALuation methods - research project PN-II-ID-2011-3-0835, 2011-2014, **Principal Investigator** (350 kEuro)
3. Terminal inovative devices for HVAC air diffusion– research project PNII RP cod CNC SIS 6, 2008- 2010, **Principal Investigator** (150 kEuro)
4. FLUBAT: Suivi et compréhension expérimental des FLUX d’air dans les BATiments – national French research project (1500 kEuro)
5. Optimization of Indoor Environmental Quality & Energy Efficiency in educational facilities using a multi-criteria decision approach PN-II-RU-TE-2012-3-0108, 2013-2015, (200 kEuro)
6. IEQ: Atmospheric pollutants transfer indoors. Tools for indoor pollution level prediction and occupants - PN-II-RU-TE-2011-3-209, 2011-2013, (200 kEuro)
7. MAACH : Advanced methods of analysis and control for hemodynamics with application in peripheral vascular surgery, 2008 –2011, CNMP research (750 KEuro)
8. ECOLOC: Environmental management in urban residential areas in the context of climate change, 2008 –2011, CNMP research grant, (750 KEuro)
9. INDUC : Climatisation à haute induction pour les voitures ferroviaires, 2006- 2008, with Alstom Transport, funded by FEDER, French Government, Poitou Charentes Region, (150 kEuro)
10. INDUBAT: Climatisation à haute induction pour le bâtiment, 2005-2009, with CIAT, funded by ANR and ADEME. (75kEuro)
11. VAICTEUR AIR²: Pour un air sain confortable et économe dans le bâtiment, 2008-2013, funded by OSEO, Project leader: CIAT



12. HAM: Integrated HEAT-AIRFLOW-MOISTURE modeling within enclosures - experimental validation, PN-II-ID-JRP-RO-FR-2012-0071, 2013-2015, (350 kEuro)
13. INSIDE - Innovative strategies of HVAC systems for high indoor environmental quality in vehicles PN-II-PT-PCCA-2013-4-0569, (350 kEuro)
14. AFDPA - Antiflutter Demonstrator with Piezoelectric Actuation, PN-II-PT-PCCA-2013-4, (350 kEuro)

3.3 Scientific activity

The visibility of the scientific contributions.

Invited lectures : • *Experimental techniques in ventilation applications - A state of the art of modern investigation methods applied to flows in buildings*, a key note lecture at GRASMECH' 2009, 26-27 November 2009 in Brussels at Royal Military Academy

• *An overview of Micro Particle Image Velocimetry and applications*, a key note lecture at the first International Summer School of Rheology organized by the Romanian Society of Rheology, august 2010, Cluj-Napoca.

Awards : • *2011 Best Paper Award*” from *Building and Environment* for the article [13]

• *Award for the best research action in France in 2008* accorded by the French Ministry of Research and Education for the INDUBAT research project.

23 ISI Journal Papers, 11 ISI Conference Proceedings, 1 ISI Patent

Hirsch Index – Web of Science: 8, Scopus: 10, Google Scholar: 12

4. LIST OF PUBLICATIONS

PhD thesis: Nastase, I., **Analyse des jets lobés en vue de leur intégration dans les Unités Terminales de Diffusion d'air**, Thèse, Génie civil. 2007, Université de La Rochelle.

Habilitation thesis:

Nastase, I., **Intelligent air diffusion for healthy environments advanced flow control and evaluation methods**, Habilitation thesis, Civil and building systems engineering 2014, Technical University of Civil Engineering of Bucharest

Research Articles ¹:

¹ With bold fonts are the Web of Science indexed journal papers, conference pap



- [1] I. Nastase, A. Meslem, Experimental investigation on the near and far field behaviour of an isothermal lobed jet, WSEAS Transactions on Fluid Dynamics, (1) 5 : 414-422, 2006
- [2] I. Nastase, A. Meslem, K. Abed-Meraim, An experimental investigation on the asymmetric evolution of a lobed jet flow, International Journal of Dynamics of Fluids, Vol.2, No.1, 2006
- [3] **I. Nastase, A. Meslem, Passive control of jet flows using lobed nozzle geometries, Mécanique & Industries, 8, 101-109, 2007**
- [4] A. Meslem, I. Nastase, K. Abed-Meraim, Experimental investigation of a lobed jet flow mixing performance, Journal of Engineering Physics and Thermophysics , 81 (1) 2008 - ISSN : 1062-0125, et Inzheenerno-Fizicheskii Zhurnal 80 (6), 2007
- [5] **I. Nastase , A. Meslem, Vortex dynamics and entrainment mechanisms in low Reynolds orifice jets, Journal of Visualization, 11 (4), 2008**
- [6] **I. Nastase, A. Meslem, T. Bowmans , Vortical structures analysis in jet flows using a classical 2D-PIV system and time resolved visualization image processing, Journal of Flow Visualization and Image Processing, 15 (9), (2008)**
- [7] **I. Nastase, A. Meslem, And P.Gervais, Primary and secondary vortical structures contribution in the entrainment of low Reynolds number jet flow, Experiments in Fluids, 44, (2008)**
- [8] I. Nastase, An experimental study of flows from innovative air diffusion grilles, Acta Technica Napocensis, Series: Applied Mathematics and Mechanics, 52(4), (2009)
- [9] **I. Nastase, A. Meslem, Vortex Dynamics and mass entrainment in turbulent lobed jets with and without lobe deflection angles, Experiments in Fluids, (2010),48 (4)**
- [10] **A. Meslem, I. Nastase, F. Allard, Passive mixing control for innovative air diffusion terminal devices for buildings, Building and Environment, Volume 45, Issue 12, December 2010,**
- [11] **A. Meslem, M. El Hassan, I. Nastase, Analysis of jet entrainment mechanism in the transitional regime by time-resolved PIV, Journal of Visualization, 2010**
- [12] I. Nastase, Experimental investigation of thermal comfort with innovative grilles in a real scale room, Scientific Journal of Technical University of Civil Engineering in Bucharest - Series: Mathematical Modelling in Civil Engineering, Vol.3-4, March, 2011
- [13] **I. Nastase, A. Meslem, V. Iordache, I. Colda, Lobed grilles for high mixing ventilation - An experimental analysis in a full scale model room, Building and Environment, Volume 46, Issue 3, March 2011**
- [14] **V. Iordache, I. Nastase, A. Damian, I. Colda, Average permeability measurements for an individual dwelling in Romania, Building and Environment, Volume 46, Issue 5, May 2011, Pages 1115-1124**
- [15] **M. Boulenouar, A. Meslem, B. Imine, I. Nastase, Numerical study of a turbulent jet flow issued from lobed diffuser, Mechanika, Volume 17, Issue 2, 2011**
- [16] **A. Meslem, A. Dia, C. Beghein, M. El Hassan, I. Nastase, P. Vialle, Three turbulence models comparison in the prediction of parallel lobed jets for perforated panel optimization, Building and Environment, Volume: 46 Issue: 11 Pages: 2203-2219 DOI: 10.1016/j.buildenv.2011.04.037**
- [17] **I. Nastase, A. Meslem, M. El Hassan, Image processing analysis of vortex dynamics of lobed jets from three dimensional diffusers, Fluid Dynamics Research, 43 (6), 2011**



- [18] M. Kristiawan, A. Meslem, I. Nastase, V. Sobolik, Wall shear rates and mass transfer in impinging jets. Comparison of circular convergent and cross-shaped orifice nozzles, *International Journal of Heat and Mass Transfer*, 55 (1-3), pp. 282-293, 2012
- [19] F. Bode, I. Nastase, C. Croitoru, Mesh Dependence Study Using Large Eddy Simulation of a Very Low Reynolds Cross-Shaped Jet, *Mathematical Modelling in Civil Engineering – Scientific Journal*, ISSN 2066-6926, ON-LINE ISSN:2066-6934, Vol.7, No.4, December, 2011, p.16-22
- [20] C. Croitoru, I. Nastase, F. Bode, The Influence of the Geometric Form of the Virtual Thermal Manikin on Convective Flow, *Mathematical Modelling in Civil Engineering – Scientific Journal*, ISSN 2066-6926, ON-LINE ISSN:2066-6934, Vol.7, No.4, December, 2011, p.55-64
- [21] A. Meslem, I. Nastase, F. Bode, C. Beghein, Optimization of a Lobed Perforated Panel Diffuser - A Numerical Study of Orifice Arrangement, *International Journal of Ventilation*, Vol. 11 (3) 2012
- [22] F. Bode, I. Nastase, C. Croitoru, RANS models comparison for a cross-shaped jet flow with straight lobes, *Mathematical Modelling in Civil Engineering – Scientific Journal*, ISSN 2066-6926, ON-LINE ISSN:2066-6934, Vol.8, No.4, December, 2012, p.14-20(6p)
- [23] A. Meslem, A. Dia, C. Beghein, A. Ammar, I. Nastase, M. El Hassan, Numerical simulation of free cross-shaped jet, *Mechanika*, Vol.4, 2012
- [24] C. Croitoru, I. Nastase, F. Bode, Thermal comfort assesemnt for different ventilation strategies using a CFD approach, *Mathematical Modelling in Civil Engineering – Scientific Journal*, ISSN 2066-6926, ON-LINE ISSN:2066-6934, Vol.8, No.4, December, 2012, p.36-45(10p)
- [25] Meslem, A., Bode, F., Nastase, I., Martin, O., Optimization of lobed perforated panel diffuser: Numerical study of orifice geometry,(2012) *Modern Applied Science*, 6 (12), pp. 59-73. Cited 2 times.
- [26] A. Meslem, F. Bode, C. Croitoru, I. Nastase, Comparison of turbulence models in simulating jet flow from a cross-shaped orifice, *European Journal of Mechanics-B/Fluids* 44, 100-120, 2013
- [27] A. Meslem, V. Sobolik, F. Bode, K. Sodjavi, Y. Zaouali, I. Nastase, C. Croitoru, Flow dynamics and mass transfer in impinging circular jet at low Reynolds number. Comparison of convergent and orifice nozzles, *International Journal of Heat and Mass Transfer* 67, 25-45, 2013
- [28] I. Nastase, R. Dolinski, F. Bode, A. Meslem, C. Croitoru, Influence of the choice of the inlet turbulence intensity on the performance of numerically simulated low Reynolds jet flows, *INCAS Buletin*, 5(4), 2013
- [29] A. Dogeanu, A. Iatan, F. Bode, C. Croitoru, I. Nastase, Conception of a simplified seated thermal manikin for CFD validation purposes, *Revista Romana de Inginerie Civila - Romanian Journal of Civil Engineering*, 4(4), 2013
- [30] I. Ursu, I. Nastase Ilinca, S. Caluianu Sorin, A. Iftene, A. Toader, Intelligent control of HVAC systems, Part I: Modeling and synthesis, *INCAS Bulletin*, vol 5(1), 2013
- [31] I. Ursu, I. Nastase Ilinca, S. Caluianu Sorin, A. Iftene, G. Tecuceanu, A. Toader, Intelligent control of HVAC systems. Part II: perceptron performance analysis, *INCAS Bulletin*, vol 5(4), 2013
- [32] C. Croitoru, A. Vartires, F. Bode, A. Dogeanu, Survey Evaluation of the Indoor Environment Quality in a Large Romanian Hospital, *INCAS Bulletin*, vol 5(3), 2013
- [33] A. Meslem, I. Nastase, Cross and Clover shaped orifice jets analysis at low Reynolds number, *Thermal Sciences*, 166-116, 2013.
- [34] R. Dolinski, F. Bode, I. Nastase, A. Meslem, C. Croitoru, Influence of the choice of the inlet turbulence intensity on the performance of numerically simulated moderate Reynolds jet flows-Part 1-the near exit region of the jet, *INCAS Bulletin* 5 (4), 25

[35] Z. Bolashikov, A. Melikov, S. Michal, I. Nastase, A. Meslem, Improved inhaled air quality at reduced ventilation rate by control of airflow interaction at the breathing zone with lobed jets, HVAC&R Research, Volume 20, Issue 2, 2014

[36] A. Meslem, I. Nastase, Conception innovante des unités terminales de diffusion de l'air, Salles Propres No. 87 octobre 2013

[37] A. Meslem, R. Greffet, I. Nastase, A. Ammar, Experimental investigation of jets from rectangular six-lobed and round orifices at very low Reynolds number (2014) Meccanica, 49 (10), pp. 2419-2437.

[38] T.A. Salaoru, M. Andrei, I. Nastase, Optimization study of using PTC for human body heating dissipation, INCAS Bulletin 6 (2), 85, 2014

[39] A. Dogeanu, B. Florin, A. Iatan, C. Croitoru, I. Nastase, Conception of a simplified seated thermal manikin for CFD validation purposes, Revista Romana de Inginerie Civila 5 (1), 27, 2014

[40] F. Bode, K. Sodjavi, A. Meslem, I. Nastase, Numerical prediction of wall shear rate in impinging cross-shaped jet at moderate Reynolds number, (2014) UPB Scientific Bulletin, Series D: Mechanical Engineering, 76 (2), pp. 251-258.

[41] C. Croitoru, I. Nastase, A. Dogeanu, F. Bode, A. Meslem, Thermal comfort models for indoor spaces and vehicles - current capabilities and future perspectives, Renewable and Sustainable Energy Reviews, 44, pp. 304-318, 2015

[42] I. Udrea, C. Croitoru, I. Nastase, R. Crutescu, V. Badescu, Experimental and theoretical thermal comfort analyses in higher education buildings in Bucharest, (2015) UPB Scientific Bulletin, Series D: Mechanical Engineering, 77 (2), pp. 145-156.

[43] C. Croitoru, I. Nastase, F. Bode, A. Meslem, Thermodynamic investigation on an innovative unglazed transpired solar collector, Solar Energy, 131, pp. 21-29, 2016

Conference Proceedings:

[C1] I. Nastase, A. Meslem, Performance de mélange d'un jet lobé et identification des vortex associés, Journées Activités Universitaires de Mécanique, 31 août et 1 septembre 2006, La Rochelle, France.

[C2] I. Nastase, A. Meslem, Structure tourbillonnaire des jets lobés et pouvoir de mélange, Congrès Français de Mécanique, août 2007, Grenoble, France.

[C3] A. Meslem, I. Nastase, M. Burlot, Analyse expérimentale de la structure d'un jet lobé turbulent, 7ème Congrès de Mécanique, 19-22 Avril 2005, Casablanca, Maroc

[C4] A. Meslem, I. Nastase, O. Martin, Instabilités primaires et secondaires d'un jet d'air turbulent asymétrique et pouvoir de mélange, 8ème Séminaire International sur la Physique Energétique, 11-12 novembre 2006, Béchar, Algérie.

[C5] I. Nastase, A. Meslem, Influence des l'inclinaison des lobes sur la performance de mélange d'un jet lobé, 8ème Congrès de Mécanique, février 2007, El-Jadida, Maroc.

[C6] I. Nastase, A. Meslem, Analyse du mécanisme de détachement tourbillonnaire et quantification de la performance de mélange d'un jet lobé, VIIIème Colloque Interuniversitaire Franco-Québécois, mai 2007, Montréal, Québec.

[C7] I. Nastase, A. Meslem, Vortex dynamics and entrainment mechanisms in lobed jets, 60th annual meeting of the APS division of Fluid Dynamics Mechanics, 18-20 novembre 2007, Salt Lake City, USA (Bulletin of the American Physical Society, 52 (12), 2007).

[C8] I. Nastase, A. Meslem, T. Bowmans, Vortex dynamics analysis in jet flows using 2D-Planar PIV



and high-speed Laser Tomography image processing, 13th International Symposium on Flow Visualization and the 12th French Congress FLUVISU, 1-4 juillet 2008, Nice, France.

[C9] I. Nastase, A. Meslem, Analyse de jets libres ou en interaction pour une conception optimisée des grilles de diffusion d'air, IBPSA France 6-7 novembre 2008, Lyon.

[C10] I. Nastase, A. Meslem, Lobed jets for improving air diffusion performance in buildings, The 29th AIVC Conference, 14-16 octobre 2008, Kyoto, Japon.

[C11] I. Nastase, A. Meslem, M. El Hassan, Analyse du phénomène d'induction dans la couche de cisaillement d'un jet circulaire, 9ème Congrès de Mécanique, 21 - 24 avril 2009, Marakech

[C12] I. Nastase, A. Meslem, I. Colda, A new conception of diffusion grilles for improved mixing of air in buildings, 11th International conference on air distribution in rooms, Roomvent 2009, 24-27 mai 2009, Busan, Korea

[C13] A. Meslem, I. Nastase, Analysis of free or twin-jets for innovative air diffusion terminal units, 11th International conference on air distribution in rooms, Roomvent 2009, 24-27 mai 2009, Busan, Korea

[C14] I. Nastase, A. Meslem, I. Colda, Innovative air diffusion grilles for improved mixing of air in buildings, 30th AIVC conference "Trends in High Performance Buildings and the role of Ventilation", 1-2 October 2009, Berlin, Germany

[C15] I. Nastase, Experimental techniques in ventilation applications - A state of the art of modern investigation methods applied to flows in buildings, 26-27 novembre 2009, Bruxelles, Belgique – key note lecture

[C16] I. Nastase, A. Meslem, I. Colda, An experimental study of flows from lobed grilles in a full scale model room, 10th REHVA world congress, 9-12 mai 2010, Antalya, Turkey

[C17] A. Meslem, I. Nastase, F. Allard, High induction air conditioning for buildings, 10th REHVA world congress, 9-12 mai 2010, Antalya, Turkey

[C18] I. Nastase, An overview of micro particle image velocimetry and applications, 1st Summer school in Rheology, Cluj Napoca, 2010

[E19] A. Meslem, E. Nithiyanthan., M. El Hassan, R. Candane, I. Nastase, Numerical simulation of a turbulent jet flow issued from a daisy-shaped orifice, 7th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT), 19-20 July 2010, Antalya, Turkey

[C20] I. Nastase, Experimental investigation of thermal comfort with innovative grilles in a real scale room, 1st Young Research Conference of TUCEB, 18-19 novembre 2010, Bucaresti

[C21] C. Croitoru, I. Nastase, A. Meslem, A. Iatan, I. Colda, Numerical and experimental modeling of airflow and heat transfer of a human body. Roomvent 2011. Trondheim, Norway.

[C22] A. Meslem, A. Dia, C. Beghein, M. El Hassan, I. Nastase, P. J. Vialle, Twin cross-shaped jets analysis for innovative air diffuser optimisation, RoomVent 2011 - 12th International conference on air distribution in rooms, Trondheim, Norway, June 19-22, 2011

[C23] I. Nastase, A. Meslem, M. El Hassan., Melikov A., Hemisphere lobed nozzle jet analysis for mixing and personalized ventilation, RoomVent 2011 - 12th International conference on air distribution in rooms, Trondheim, Norway, June 19-22, 2011

[C24] A. Meslem, I. Nastase, O. Martin, Sur la validation expérimentale des modèles de turbulence. Application à un jet d'air lobé, Journées AUGC/IBPSA, Chambéry, 6-8 juin 2012

[C25] C. Croitoru, I. Nastase, Alegerea modelului de turbulență pentru un caz de convecție naturală a unui corp uman situate într-o încăpere ventilată, "Instalații pentru construcții și economia de energie" iulie 2012

[C25] A. Meslem, M. Kristiawan, I. Nastase, V. Sobolik, Wall shear rates and stagnation mass



transfer on a plate in axisymmetric and cross impinging jets, Eurotherm 2012, September 04-07, Poitiers – Futuroscope France.

[C26] A. Meslem, I. Nastase, C. Beghein, Optimization of Lobed perforation panel diffuser – Numerical study of orifices arrangement, Ventilation 2012, The 10th International Conference on Industrial Ventilation, September 17-19, Paris, France

[C27] F. Bode, I. Nastase, A. Meslem, C. Croitoru, RANS and LES models comparison for a cross shaped jet flow with application in personalized ventilation, 2012 AIVC-Tightvent Conference, Copenhagen

[C28] C. Croitoru, I. Nastase, F. Bode, Air turbulence intensity influence on the thermal comfort evaluation for different ventilation strategies, Joint Conference 33rd AIVC Conference and 2nd TightVent Conference, pag.70-74(10pag), 11-12 October 2012, Copenhagen, Denmark

[C29] A. Dogeanu, C. Croitoru, I. Nastase, A review on the main thermal comfort models for indoor spaces and their capabilities, YRC Conference of TUCEB, November 2012

[C30] A. Dogeanu, A. Iatan, C. Croitoru, I. Nastase, Conception of a real human shaped thermal manikin for comfort assesment, 8th International PhD & DLA Symposium, October 2012

[C31] A. Meslem, V. Sobolik, I. Nastase, F. Bode, Transfert de masse par jet impactant sur paroi plane. Comparaison de jets d'orifice et de convergent à bas nombre de Reynolds, XIème Colloque Interuniversitaire Franco-Québécois sur la Thermique des Systèmes, Reims, 2013

[C32] F. Bode, I. Nastase, A. Meslem, C. Croitoru, RANS and LES Models of a Lobed Jet Flow Integrated in a Personalized Ventilation System, Proceedings of CLIMA 2013, Prague, Czech Republic

[C33] F. Bode, C. Croitoru, I. Nastase, A. Dogeanu, Thermal comfort and IEQ assessment of an under-floor air distribution system, Proceedings of IBPSA 2013, Chambéry, France

[C34] I. Cruceanu, C. Maalouf, I. Nastase, I. Colda, A. Dogeanu, Etude et validation expérimentale d'un modèle zonal du panache thermique génère par un mannequin en position assise, Actes des communications de la session Francophone de la Conférence EENVIRO 2013, Bucarest

[C35] A. Meslem, I. Nastase, Contrôle passif des jets et son intégration dans le bâtiment – diagnostic expérimental et optimisation numérique , Actes des communications de la session Francophone de la Conférence EENVIRO 2013, Bucarest

[C36] C. Croitoru, A. Meslem, V. Badescu, Influence de la dynamique de tourbillons longitudinaux sur le transfert de chaleur lors de l'écoulement d'air à travers un élément de diffusion d'une façade innovante, Actes des communications de la session Francophone de la Conférence EENVIRO 2013, Bucarest

[C37] A. Meslem, V. Sobolik, I. Nastase, F. Bode, Transfert de masse par jet impactant sur paroi plane, Proceedings de Journées Internationales de Thermique 2013, Marrakech, Maroc

[C38] A. Meslem, V. Sobolik, I. Nastase, K. Sodjavi, F. Bode, I. Nastase, Numerical prediction of wall shear rate in impinging cross-shaped jet at moderate reynolds number, Proceedings of CIEM 2013, Bucarest

[C39] R. Greffet, A. Meslem, I. Nastase, Analysis of a Low Reynolds Jet Flow from a Notched Orifice Jet for HVAC Applications, Proceedings of CLIMA 2013, Prague, Czech Republic

[C40] Cristiana Croitoru Andreea Vartires, Tiberiu Catalina, Ligia Tataranu, Octavian Budiu, Florin Bode, Ilinca Nastase, Field evaluation of the indoor environment quality in Romanian Hospitals , 5th European Conference for Hospital Engineering, Swiss 2013

[C41] I. Ursu, I. Nastase, S. Caluianu, A. Iftene, A. Toader, Intelligent control synthesis of HVAC systems, RCEPB 2013, The 5th Romanian Conference on Energy Performance of Buildings (RCEPB-V), 29-30th of May, 2013, Bucharest, Romania



- [C42] C. Croitoru, I. Nastase, A. Vartires, A. Dogeanu, Monitorizarea calitatii mediului interior intr-un centru clinic universitar din Bucuresti , Conferinta « Instalatii pentru constructii si economia de energie, Iasi, iulie 2013
- [C43] A. Vartires, A. Dogeanu, I. Nastase, C. Petieanu, C. Croitoru, Etude de la qualité de l'environnement intérieur dans le milieu hospitalier, EENVIRO 2013 conference, Section Francophone
- [C44] A. Iftene, S. Caluianu, I. Nastase, I. Ursu, G. Tecuceanu, A. Toader, Synthesis and simulation of neuro-fuzzy HVAC systems, A 35-a Conferinta Caius Iacob de Mecanica Fluidelor si Aplicatiile ei Tehnice, noiembrie 2013.
- [C45] C. Croitoru, I. Nastase, F. Bode, A. Meslem, Innovative solar facade implementation in low energy buildings, Indoor Air 2014 - 13th International Conference on Indoor Air Quality and Climate, pp. 316-323.
- [C46] I. Nastase, C. Croitoru, A. Vartires, M. Gustiuc, W. Bosschaerts, Measurement and questionnaires survey of the indoor environment quality in an emergency hospital from Bucharest,(2014) Indoor Air 2014 - 13th International Conference on Indoor Air Quality and Climate, pp. 956-963.
- [C47] 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.
- [C48] 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.
- [C49] I. Udrea, I. Nastase, R. Crutescu, C. Croitoru, V. Badescu, SIMULATION OF A PASSIVE HOUSE FOR THERMAL COMFORT-ANALYSIS, 4th International Conference of Thermal Equipment, Renewable Energy and Rural Development, 2015
- [C50] R. Crutescu, I. Udrea, I. Nastase, C. Croitoru, V. Badescu, Preliminary Results Concerning the Thermal Comfort in a Romanian Passive House, Renewable Energy in the Service of Mankind Vol I, 779-790, 2015
- [C51] E. Iatan, M. Iliescu, F. Bode, I. Nastase, R. M. Damian, M. Sandu, Numerical Study for Open-channel Flow over Rows of Hemispheres, Energy Procedia 85, 260-265 , 2016
- [C52] 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
- [C53] L. Tacutu, I. Nastase, T. Catalina, A Critical Regard on Romanian Regulations Related to Indoor Environment Quality in Operating Rooms and a Technical Case Study, Energy Procedia 85, 511-520, 2016
- [C54] 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
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Patents

[P1] RO130182-A2, Orientable diffuser with enhanced induction achieved by passive flow control for customized ventilation, Assignee: UNIV BUCURESTI TEHNICA CONSTR, Inventor(s): BODE F, NASTASE I, Derwent Primary Accession Number: 2015-317506

Didactic publications (Books)

A. Vartires, I. Nastase, Instalații de ventilare și climatizare – Lucrări practice, Editura Conspress 2010

I. Nastase, C. Croitoru, Equipements et systèmes de ventilation et climatisation – travaux pratiques, Editura Universitară 2011

I. Nastase, C. Croitoru, Echipamente și sisteme pentru ventilarea și climatizarea clădirilor - Note de curs, Editura Universitară 2012

5. OTHER SKILLS:

Technical skills and competences

Expert in PIV, LDV, CTA, IR techniques, Technical advice as an expert in metrology.

Computer skills and competences Fluent, Gambit, Ansys CFX, FEHT, SolidWorks, Inventor, AutoCAD, MathCAD, MATLAB, CoolPack, Engineering Equation Solver (EES)

Additional information

Member of professional associations:

American Society of heating, cold and Air Conditioning (ASHRAE)

Francophone Association of Laser Velocimetry (AFVL)

French Society of Thermal Sciences (SFT)

American Association of Physics (APS)

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Dr. Ilinca NASTASE

