

Personal information

Family name: Ghiaus
Given name: Christian
Birth: 29 June 1959, Bucharest, Romania
Nationalities: Romanian and French

Position: Professor
Institution: [INSA Lyon](#)
[CETHIL Centre for thermal sciences of Lyon](#)
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Education and degrees

2006 **Habilitation to direct PhD research (HDR)**, [Université de La Rochelle](#), France
Thesis: Adaptive buildings – control of mass and heat transfer

1991-1996 **PhD**, [Technical University of Civil Engineering \(UTCB\)](#), Bucharest, Romania
Thesis: Numerical and expert control of energy in building

1988 **Control Systems Analyst**, [National Institute for R&D in Information Technology \(ICI\)](#), Bucharest, Romania

1979-1984 **Engineer**, [Technical University of Civil Engineering \(UTCB\)](#), Bucharest

Fellowships and research grants

1998-2000 **Post Doctoral Fellowship**, at [University of La Rochelle](#), France

1997-1998 **Fulbright Senior Research Award**, [Kansas State University](#), United States

1994-1995 **Doctoral Research Grant** [NUFFIC](#) (Netherlands organisation for international cooperation in higher education), [Technische Universiteit Delft](#), The Netherlands

Professional experience

since 2007 **Full Professor, Thermal Sciences Research Centre (CETHIL) and Civil Engineering Department (CGU), National Institute of Applied Sciences (INSA) Lyon, France**
Teaching: Mass and heat transfer, Air conditioning, Energy and buildings
Research: Low energy buildings design and performance evaluation, Inverse problems (parameters optimisation and control)
Coordinator of the scientific field Energy and buildings (3 Professors, 1 Emeritus Professor, 5 Associated Professors, about 20 PhD students)

International projects
International Energy Agency (IEA)
2004-2009 Annex 53: Total Energy Use in Buildings-Analysis and evaluation methods
2011-2015 Annex 58: Reliable Building Energy Performance Characterisation Based on Full Scale Dynamic Measurements
2012-2017 Annex 60: New generation computational tools for building and community energy systems based on the Modelica and Functional Mockup Interface standards

National projects
2007-2010 MIGRER Intelligent buildings and rational management of renewables
2008-2011 ABCLIMSOL Performance evaluation and optimisation of solar absorption air conditioners
2009-2011 4C Cooling without air conditioning
2010-2013 AIDE-3D Fault Detection and Diagnosis of Building Energy Systems
2012-2015 POUDEV Energy use policies in urban environment
2013-2015 IDEFFE Estimation of use and data aggregation of energy in buildings

2014-2018 COMETE Cloud for intelligent buildings and energy efficiency

1998-2007 Senior researcher, University of La Rochelle, France
Laboratory of Transport Phenomena in Buildings (LEPTAB)

Research

International projects

European Commission

- 2004-2006 *European Low Energy Buildings*, project SAVE EIE/04/172/S07.38667, 1'562'112€
- 2003-2005 *Smart Accelerate- Acceleration of Smart Buildings Technologies and Market Penetration*, project SAVE 4.1031/Z/02-094, €610'167
- 2001-2003 *URBVENT Natural ventilation in urban areas*, project NNE5-2000-00238 €1'003'429, project coordinator
- 1999-2002 *SOLVENT Strategies for the efficient use of solar and passive ventilation in urban buildings*, project ALTENER XVII/4.1030/Z/99-225

International Energy Agency (IEA)

- 2004-2009 Annex 44: *Integrating Environmentally Responsive Elements in Buildings*
- 1997-1999 Annex 34: *Computer-Aided Evaluation of HVAC System Performance: The Practical Application of Fault Detection and Diagnosis Techniques in Real Buildings*

National projects

- 2000-2003 *Influence of atmospheric pollution on the global exposure of schoolchildren -- Research of prediction and means for protection*
- 1999-2000 *Ozone picks prediction by using neuro-fuzzy*

Teaching

Graduate School: Master of Science in Building Services Engineering and Built Environment

- 2001 *Participation in the foundation of two Master Programmes:*
 - *Building Management Systems*
 - *Renewables in Built Environment*
- 2001-2007 Master Programme ***Building Management Systems: Energy Efficiency through Control***
- 2001-2007 Master Programme ***Renewables in Built Environment*** Aero-thermal modelling

1997-1998 Fulbright Senior Research Fellow, Kansas State University, United States
Department of Mechanical and Nuclear Engineering, Institute for Environmental Research
Post-doctoral research Intelligent buildings: fault detection and diagnosis of energy systems

1994-1995 Researcher, Technische Universiteit Delft, The Netherlands
Mechanical Engineering Faculty, Energy Technology Laboratory
Doctoral research Intelligent control of indoor climate

1989-1997 Technical University of Civil Engineering, Bucharest, Romania
Building Services Faculty

Since 1996 **Associated Professor**

1993-1996 **Lecturer**

1989-1993 **Assistant Professor**

Teaching and research in *Building Services Engineering*

Director of the 1st Romanian CAD Training Centre

Chief of the *Building Energy Management Systems Laboratory*

1987-1989 Research Institute for Industry, Bucharest, Romania

Department of Automatic Control

Design Engineer Engineered building automation projects in Romania, Germany, China, and Zimbabwe.

1984-1986 Frigotehnica (Refrigerating Engineering company), Bucharest, Romania
Engineer Supervised on-site installing of refrigerating systems.

PhD and scientific responsibilities

since 2008 **Coordinator of the scientific research group: theory of thermal systems**

PhD Director at INSA Lyon, France

2007-2011 [N. Jabbour](#), *Optimisation of solar absorption air-conditioners*
2008-2011 [I. Hazyuk](#), *Control of multiple energy sources*
2009-2013 [R. Ghazal](#), *Optimization of dessicant cooling systems*
2012-2015 [M. Muresan](#), *Knowledge models for optimal control of heat and mass transfer in buildings*
2012-2015 [E. Arik](#), *Politics and uses of energy in cities*
2012-2016 I. Naveros, *Measurability of physical parameters of dynamic systems*
2014-2017 L. Raillon, *Experimental identification of physical parameters of buildings*
2014-2018 L. Negrea, *Contributions to the reduction of energy consumption in buildings by using artificial intelligence*

Cotutoring of PhD thesis, University of La Rochelle, France

2001-2003 [V. Iordache](#), *Outside-inside pollutant transfer*
2003-2006 [A. Chicinas](#), *Intelligent control of air-conditioning systems*
2003-2007 [A. Sempey](#), *Fast dynamic modelling of air flow in buildings*
2005-2008 [I. Jaffal](#), *Simulation-based design of low energy buildings*

Management activities

Project management

2016-2017 **Analysis of energy performance method QUB** – project coordinator
€60'000 (Saint Gobain Research financing)
2016-2017 **Physical Big Data: Physical analysis of massive big data on energy consumption** – project coordinator
€30'000 (COOPERA Rhone-Alpes Region financing)
2014-2018 **COMETE Cloud for Intelligent Home and Energy Efficiency** – coordination of subtask
Thermal models obtained by measurement-adjusted parameters
€102'470 from which €57'000 for CETHIL (ANR Labex IMU financing)
2013-2015 **IDeffE Estimation of energy usage and data agregation by experimental identification**
– project coordination
€1'082'834 (ANR support €455'298) from which €283'684 (ANR support €95'680) for CETHIL
2010-2013 **AIDE-3D Fault Detection and Diagnosis of Building Energy Systems** – coordination of
task 2 Preditif model for energy consumption
€1'082'834 (ANR support €455'298) from which €283'684 (ANR support €95'680) for CETHIL
2008-2011 **ABCLIMSOL Performance evaluation and optimisation of solar absorption air
conditioners** – coordination of task 3 Optimisation of absorption systems
€603'822 (ANR support €307'679) from which €148'400 (ANR support €74'200) for CETHIL
2009-2011 **4C Cooling without air conditioning** – coordination of task 4 Control algorithm
€1'619'592 (ANR support €909'649) from which €231'233 (ANR support €152'880) for CETHIL
2007-2010 **MIGRER Intelligent buildings and rational management of renewables** – coordination of
tasks 4 and 5: Controller design, implementation and validation
€546'741 from which €187'816 (ANR support €126'880) for CETHIL
2004-2009 **Annex 53: Total Energy Use in Buildings-Analysis and evaluation methods** –
coordination of subtask 3: Statistical Methods
w/o financing, about 8 organisation, 12 persons
2000-2004 **URBVENT Natural ventilation in urban areas - Potential assessment and optimal
facade design**, contract NNE5-2000-00238 financed in the 5th Framework Programme
€1'003'429, 9 organisations, 15 persons
1999-2002 **Influence of atmospheric pollution on the global exposure of schoolchildren --
Research of prediction and means for protection** (*Etude de l'impact de la pollution
atmosphérique sur l'exposition des enfants en milieu scolaire – Recherche de moyens de
prédiction et de protection*), Convention no. 99.04.054 between [ADEME](#) and the University

of La Rochelle in the framework of the *Research National Programme for a better Quality of Air at Local Scale (Programme de Recherche Interorganisme pour une Meilleure Qualité de l'Air à l'Echelle Locale PRIMEQUAL-PREDIT)*.

€250'000, 2 organisations, 5 persons

1999-2000 **Ozone peaks prediction by using neuro-fuzzy networks** (*Développement d'un système de prévision des points de pollution par l'ozone sur l'agglomération Rochelaise à l'aide de réseaux de neurones et étude de l'influence océanique*), Convention no. 99.04.054 between the Association for Air Quality in Poitou-Charentes Region (Association régionale pour la mesure de la qualité de l'air en Poitou-Charentes- AREQUA) and the University of La Rochelle

€120'000, 2 organisations, 3 persons

1997-1998 **Computer aided design**, Grant 48 CNFIS-Romania, 25000 USD, financed by the World Bank

\$25'000, 1 organisation, 5 persons

Elected representative

since 2016 **Member of the [National Council of Research Ethics](#) of Romania**

since 2009 **Member of the Council** of Civil Engineering Department of INSA Lyon

since 2008 **Member of the Council** of the Centre for Thermal Sciences of Lyon

2006-2007 **Member of the scientific council** of the University of La Rochelle

2004-2007 **Member of the Council** of the [Laboratory of Transport Phenomena in Buildings](#), University of La Rochelle, France

1992-1998 **Scientific Secretary** of the Romania Society of Electrical and Control Engineers ([SIEAR](#))

1991-1996 **Member of the Council of the Electrical Engineering Lab**, [UTC](#)B, Romania

1981-1984 **Vice-president with professional affairs of the student union**, [UTC](#)B, Romania

Member of scientific societies

since 2004 **Member of the International Solar Energy Society** ([ISES](#))

since 2010 **Member of American Society of Heating, Ventilation and Air-conditioning Engineers** ([ASHRAE](#))

Administrative responsibilities

since 2010 **Coordinator of the Master on Energy Efficient Buildings**, INSA Lyon

2006-2007 **Coordinator of the Master on Energy Efficient Buildings** ([I3ER](#)), Université La Rochelle

1991-1997 **Chief of the Automatic Control Laboratory**, [UTC](#)B, Romania

1990-1996 **Director of the Computer Aided Design Centre**, [UTC](#)B, Romania

1984-1986 **Construction site coordination**, [Figotehnica](#), Romania

Member of editorial board

since 2005 **Energy and Buildings**, Elsevier, 5-year impact factor 2.254

since 2010 **Central European Journal of Engineering**, Versita

since 2011 **Sustainable Cities and Society**, Elsevier

since 2012 **Building Performance Simulation**, Francis and Taylor

National and International Expert

since 2007 **French National Agency for Research (ANR)**

since 2011 **Romanian National Authority for Scientific Research (ANCS)**

since 2012 **Italian National agency for the Evaluation of Universities and Research (ANVUR-MIUR)**,

Publications (see attached list)

Author h-index: 14 ISI-Web of Knowledge, 15 [SCOPUS](#), 19 [Google Scholar](#)

31 ISI papers in international journals (Energy and Buildings, Buildings and Environment, Solar Energy, Energy, Applied Thermal Engineering, Atmospheric Environment, Journal of Ventilation, Control Engineering Practice)

11 chapters in edited books

47 papers published in the proceedings of international conferences

List of publications

1 Papers in ISI international journals

IF = journal impact ISI factor as of April 2015 (source: <http://www.journal-data.com>)

	Paper	Journal Impact Factor
[RI 1]	C. Ghiaus , F. Alzetto (2019) Design of experiments for Quick U-building method for building energy performance measurement, <i>Journal of Building Performance Simulation</i> 465-479 https://doi.org/10.1080/19401493.2018.1561753	3.110
[RI 2]	L. Raillon, C. Ghiaus (2018) An efficient Bayesian experimental calibration of dynamic thermal models, <i>Energy</i> 152:818-833 https://doi.org/10.1016/j.energy.2018.03.168	5.537
[RI 3]	L. Raillon, C. Ghiaus (2017). Study of error propagation in the transformations of dynamic thermal models of buildings, <i>Journal of Control Science and Engineering</i> , 2017:15 http://dx.doi.org/10.1155/2017/5636145	
[RI 4]	T. Baracu, S. Costinas, C. Ghiaus , A. Badea, R. Avram, F. Vladulescu, D. Jugravescu (2016). New analytical methodologies for radiative heat transfer in enclosures based on matrix formalism and network analogy. <i>Applied Thermal Engineering</i> , 107 (2016) 1269-1286 http://dx.doi.org/10.1016/j.applthermaleng.2016.06.157	2.624
[RI 5]	I. Naveros, C. Ghiaus , D.P. Ruiz, S. Castano (2015). Physical parameters identification of walls using ARX models obtained by deduction. <i>Energy and Buildings</i> , 108 (2015) 317-329 http://dx.doi.org/10.1016/j.enbuild.2015.09.021	2.465
[RI 6]	I. Naveros I., C. Ghiaus (2015). Order selection of thermal models by frequency analysis of measurements for building energy efficiency estimation. <i>Applied Energy</i> 139 (2015) 230-244 http://dx.doi.org/10.1016/j.apenergy.2014.11.033	5.746
[RI 7]	C. Ghiaus (2014). Linear algebra solution to psychometric analysis of air-conditioning systems. <i>Energy</i> 74:555-566 http://dx.doi.org/10.1016/j.energy.2014.07.021	4.159
[RI 8]	I. Hazyuk, C. Ghiaus , D. Penhouet (2014). Model Predictive Control of thermal comfort as a benchmark for controller performance. <i>Automation in Construction</i> 43: 98-109 http://dx.doi.org/10.1016/j.autcon.2014.03.016	1.822
[RI 9]	R. Ghazal, C. Ghiaus (2014). Gray-box identification of thermal transfer coefficients of desiccant wheels. <i>Energy and Buildings</i> 70: 384-397 http://dx.doi.org/10.1016/j.enbuild.2013.11.081	2.465
[RI 10]	C. Ghiaus (2013). Causality issue in the heat balance method for calculating the design heating and cooling load. <i>Energy</i> 50: 292-301 http://dx.doi.org/10.1016/j.energy.2012.10.024	4.159
[RI 11]	C. Ghiaus , R. Ghazal, P. Joubert, M.Y. Hayyani (2013). Gray-box state-space model and parameter identification of desiccant wheels. <i>Applied Thermal Engineering</i> . 51:742-752 http://dx.doi.org/10.1016/j.applthermaleng.2012.10.016	2.624
[RI 12]	I. Hazyuk, C. Ghiaus , D. Penhouet (2012). Optimal temperature control of intermittently heated buildings using Model Predictive Control: Part I – Building modeling. <i>Building and Environment</i> . 51: 379-387 http://dx.doi.org/10.1016/j.buildenv.2011.11.009	2.700
[RI 13]	I. Hazyuk, C. Ghiaus , D. Penhouet (2012). Optimal temperature control of intermittently heated buildings using Model Predictive Control: Part II – Control algorithm. <i>Building and Environment</i> . 51: 388-394 http://dx.doi.org/10.1016/j.buildenv.2011.11.008	2.700
[RI 14]	C. Ghiaus , N. Jabbour (2012). Optimization of multifunction multi-source solar	3.541

- systems by design of experiments. *Solar Energy*, 86(1): 593-607
<http://dx.doi.org.scopeesprx.elsevier.com/10.1016/j.solener.2011.11.002>
- [RI 15] C. Inard, J. Pfafferott, C. **Ghiaus** (2011). Free-running temperature and potential for free cooling by ventilation: A case study. *Energy and Buildings*, 43(10): 2705-2711
<http://dx.doi.org/10.1016/j.enbuild.2011.06.017>
- [RI 16] C. **Ghiaus**, I. Hazyuk (2010). Calculation of optimal thermal load of intermittently heated buildings. *Energy and Buildings*, vol. 42(8), pp. 1248-1258
<http://dx.doi.org/10.1016/j.enbuild.2010.02.017>
- [RI 18] I. Jaffal, C. Inard, C. **Ghiaus** (2009). Fast method to predict building heating demand based on the design of experiments. *Energy and Buildings*, 41(6): 669-677
<http://dx.doi.org/10.1016/j.enbuild.2009.01.006>
- [RI 19] A. Sempey, C. Inard, C. **Ghiaus**, C. Allery (2009). Fast simulation of temperature distribution in air conditioned rooms by using proper orthogonal decomposition, *Building and Environment*, 44(2): 280-289
<http://dx.doi.org/10.1016/j.buildenv.2008.03.004>
- [RI 20] A. Sempey, C. Inard, C. **Ghiaus**, C. Allery (2008). A state space model for real-time control of the temperature in indoor space – principle, calibration and results. *International Journal of Ventilation*. (6)4 :327-336
<http://www.ijvent.org.uk/IJV%20Vol%206/IJV%20V6%20No%204/IJV%20Abstracts%20Vol%206%20No%204%20Paper%204.htm>
- [RI 21] C. **Ghiaus**, A. Chicinas, C. Inard (2007). Grey-box identification of air-handling unit elements. *Control Engineering Practice*. 15(4), 421-433
<http://dx.doi.org/10.1016/j.conengprac.2006.08.005>
- [RI 22] R. Belarbi, C. **Ghiaus**, F. Allard (2006). Modeling of water spray evaporation: Application to passive cooling of buildings. *Solar Energy*, 80(12), 1540-1552
<http://dx.doi.org/10.1016/j.solener.2006.01.004>
- [RI 23] C. **Ghiaus** (2006). Experimental estimation of building energy performance by robust regression. *Energy and Buildings*, 38(6), 582-587
<http://dx.doi.org/10.1016/j.enbuild.2005.08.014>
- [RI 24] C. **Ghiaus**, F. Allard (2006). Potential for free-cooling by ventilation. *Solar Energy*, 80(4), 402-413
<http://dx.doi.org/10.1016/j.solener.2005.05.01>
- [RI 25] C. **Ghiaus**, F. Allard, M. Santamouris, C. Georgakis and F. Nicol (2006). Urban environment influence on natural ventilation potential, *Building and Environment*, 41(4), 395-406
<http://dx.doi.org/10.1016/j.buildenv.2005.02.003>
- [RI 26] C. **Ghiaus** (2005). Linear fuzzy-discriminant analysis applied to forecast ozone concentration classes in sea-breeze regime, *Atmospheric Environment*, 39(26), pp. 4691-4702
<http://dx.doi.org/10.1016/j.atmosenv.2005.04.012>
- [RI 27] M. Germano, C. **Ghiaus**, C.-A. Roulet, and F. Allard (2005). Natural ventilation potential of urban buildings, *International Journal of Ventilation*, vol. 4(1), 49-56
- [RI 28] C. **Ghiaus** (2003). Free-running building temperature and HVAC climatic suitability, *Energy and Buildings*, 35 (4), 405 – 411
[http://dx.doi.org/10.1016/S0378-7788\(02\)00110-X](http://dx.doi.org/10.1016/S0378-7788(02)00110-X)
- [RI 29] C. **Ghiaus**, R. Belarbi, F. Allard (2002). Optimal settings of residential oil burners, *Energy and Buildings*, 34 (1), 83-90
[http://dx.doi.org/10.1016/S0378-7788\(01\)00082-2](http://dx.doi.org/10.1016/S0378-7788(01)00082-2)
- [RI 30] C. **Ghiaus** (2001). Fuzzy model and control of a fan-coil, *Energy and Buildings*, 33 (6), 545-551
[http://dx.doi.org/10.1016/S0378-7788\(00\)00097-9](http://dx.doi.org/10.1016/S0378-7788(00)00097-9)
- [RI 31] C. **Ghiaus**, F. Allard (2001). Fuzzy schedule control of a fan-coil, *Solar Energy*, 21, 131-145
- [RI 32] C. **Ghiaus** (1999). Fault diagnosis of refrigerating systems using qualitative bond graphs, *Energy and Buildings*, 30(3), 221-232
[http://dx.doi.org/10.1016/S0378-7788\(98\)00070-X](http://dx.doi.org/10.1016/S0378-7788(98)00070-X)
- [RI 33] C. **Ghiaus**, A.G. Ghiaus (1999). Evaluation of the indoor temperature field using a

given air velocity distribution, *Buildings and Environment*, 34(6), 671-679
[http://dx.doi.org/10.1016/S0360-1323\(98\)00051-1](http://dx.doi.org/10.1016/S0360-1323(98)00051-1)

2 Chapters in edited books

- [OI 1] A. Nassioupoulos, **C. Ghiaus** (2013). Méthodes inverses et identification de modèles. in B. Peuportier (ed.) Livre blanc sur les recherches en énergétique des bâtiments, Presses des MINES – TRANSVALOR, pp. 177- 181.
- [OI 2] F. Allard, **C. Ghiaus**, A. Szucs (2010). Natural Ventilation in High-Density Cities, in E. Ng (ed.), *Designing High-Density Cities for Social and Environmental Sustainability*, ISBN 978 1 84407 460 0, Earthscan Publications Ltd. pp. 137-162 ([ref.](#))
- [OI 3] F. Allard, **C. Ghiaus** (2006). Natural ventilation in the urban environment, in M. Santamouris, P. Wouters (ed.), *Building Ventilation – the state of the art*, Earthscan, ISBN 1844071308, pp. 1-35
- [OI 4] **C. Ghiaus**, F. Allard (2005). Physics of natural ventilation, in C. Ghiaus, F. Allard (ed.), *Natural ventilation in urban environment*, Earthscan, UK USA, ISBN 1-84407-129-4, pp. 36-80
- [OI 5] **C. Ghiaus**, V. Iordache, F. Allard, P. Blondeau (2005). Outdoor-indoor pollutant transfer, in C. Ghiaus, F. Allard (ed.), *Natural ventilation in the urban environment*, Earthscan, UK USA, ISBN 1-84407-129-4, pp. 124-135
- [OI 6] C.-A. Roulet, **C. Ghiaus** (2005) Specific devices for natural ventilation, in C. Ghiaus, F. Allard (ed.), *Natural ventilation in the urban environment*, Earthscan, UK USA, ISBN 1-84407-129-4, pp. 158-167
- [OI 7] **C. Ghiaus**, C.-A. Roulet (2005), Strategies for natural ventilation, in C. Ghiaus, F. Allard (ed.), *Natural ventilation in the urban environment*, Earthscan, UK USA, ISBN 1-84407-129-4, pp. 136-157
- [OI 8] M. Germano, **C. Ghiaus**, C.-A. Roulet (2005). Natural ventilation potential, in C. Ghiaus, F. Allard (ed.), *Natural ventilation in the urban environment*, Earthscan, UK USA, ISBN 1-84407-129-4, pp. 195-226
- [OI 9] **C. Ghiaus**, L. Roche (2005). Whole life costing of ventilation options, in C. Ghiaus, F. Allard (ed.), *Natural ventilation in urban environment*, Earthscan, UK USA, ISBN 1-84407-129-4, pp. 227-235
- [OI 10] **C. Ghiaus**, J. Axley, C.-A. Roulet (2004). Natural ventilation: principles, solutions and tools. *Summer Academy for Mediterranean Solar Architecture*. ISES Italia, Rome August 2004, pp. 1-25
- [OI 11] **C. Ghiaus**, C. Inard (2004). Energy and environment issues of smart buildings. *Handbook of Intelligent Buildings*. NKUA, Greece, pp. 26-52
- [OI 12] **C. Ghiaus**, F. Allard, J. Axley (2003). Natural ventilation in urban areas. *Solar Thermal Technology for Buildings: State of the Art and Future Priorities*. Editor M. Santamouris. James & James, London, UK, ISBN 1 902916 47 6. pp. 116-138.

3 Scientific books

- [OS 1] **C. Ghiaus**, F. Allard, eds.(2005). *Natural Ventilation in the Urban Environment* ISBN 1844071294, Earthscan, London, UK
- [OS 2] **C. Ghiaus**, N. Postavaru (2001). Le management intégré avec des systèmes informationnels. Matrix, Bucarest, Roumanie. ISBN 976852636

4 Proceedings of international congresses

- [CI 1] Naveros I., **Ghiaus C.** (2014). Dynamic heat transfer in buildings: selecting a reduced order model. 45th International HVAC&R Congress. 3-5 Dec 2014. Belgrade, Serbia.
- [CI 2] Naveros I., **Ghiaus C.** (2014). Dynamic heat transfer in walls: limitations of heat flux meters. 45th International HVAC&R Congress. 3-5 Dec 2014. Belgrade, Serbia.
- [CI 3] **C. Ghiaus**, J.-J. Roux (2013). Is it reasonable to calculate the thermal peak load using acausal models and short time steps?. In Proceedings of *Building Simulation 2013*, 25-28 August, Chambéry, France, pp. 2118-2124
- [CI 4] I. Hazyuk, **C. Ghiaus**, D. Penhouet (2011). Optimal simulation of intermittently heated buildings: Part I – modeling. In Proceedings of *Building Simulation 2011*, 14-16 November 2011, Sydney, Australia, pp. 2118-2124
- [CI 5] I. Hazyuk, **C. Ghiaus**, D. Penhouet (2010). Optimal simulation of intermittently heated buildings: Part II – Control. In Proceedings of *Building Simulation 2011*, 14-16 November 2011, Sydney, Australia, pp. 2133-2139
- [CI 6] I. Hazyuk, **C. Ghiaus** (2010). On the physical meaning of minimization criterion for Model Predictive Control. In Proceedings of 2010 IEEE International Conference on *Automation, Quality and Testing, Robotics (AQTR 2010)*, 28-30 May 2010, Cluj-Napoca, Romania, pp. 32-37
- [CI 7] N. Jabbour, **C. Ghiaus** (2010). Simulation Aided Design of Multi-Source, Multifunction Solar Systems, Multifunctional Approach: Space Heating, Space Cooling and Preparation of Domestic Hot Water. CLIMA 2010 10th REHVA World Congress, 9- 12 may, Antalya, Turquie, CD ROM R4-TS28-OP01
- [CI 8] N. Jabbour, **C. Ghiaus** (2010). Optimization by Simulation of a Multi-Source, Multifunction Solar System, Multifunctional Approach: Space Heating, Space Cooling and Preparation of Domestic Hot Water. CLIMA 2010 10th REHVA World Congress, 9- 12 may, Antalya, Turquie, CD ROM R4-TS28-OP02
- [CI 9] I. Hazyuk, **C. Ghiaus** (2010). A method of heating systems sizing for discontinuously occupied buildings. 10th REHVA world congress (*Clima 2010*), 9-12 May 2010, Antalya, Turkey.
- [CI 10] **C. Ghiaus**, I. Hazyuk (2009). Sizing the heat source in variable occupied buildings by using the dynamic matrix method. 40th International *HVAC Congress*, 2-4 December 2009, Belgrade, Serbia
- [CI 11] I. Jaffal, C. Inard, C. Ghiaus (2009). Building heating demand evaluation with a simple polynomial function. 9th International Healthy Building Conference, 13-17 Septembre 2009, Syracuse, USA, CD ROM
- [CI 12] I. Jaffal, C. Inard, C. Ghiaus (2008). Simplified envelope thermal modelling method based on the design of experiments. 29th AIVC International Conference, 14-16 Octobre 2008, Kyoto, Japon, V.2, p. 203-208
- [CI 13] I. Jaffal, C. Inard, C. Ghiaus (2009). Simplified statistical method to predict building annual heating demand. 4th International Building Physics Conference, 14-18 Juin 2009, Istanbul, Turquie, p. 553-558
- [CI 14] A. Sempey, C. Inard, **C. Ghiaus**, C. Allery (2007). Control of temperatures in indoor spaces. Proceedings of 2nd Passive and Low Energy Cooling Conference (PALEN), 27-29 Sept. 2007, Crete, Grece, p. 919-923, ISBN 978-960-6746-02-4
- [CI 15] A. Sempey, C. Inard, **C. Ghiaus**, C. Allery (2007). Reduced order model for air temperature control in indoor spaces. Proceedings of 2nd Passive and Low Energy Cooling Conference (PALEN), 27-29 Sept. 2007, Crete, Grece, p. 924-928, ISBN 978-960-6746-02-4
- [CI 16] A. Chicinas, **C. Ghiaus**, C. Inard (2006). Grey model identification of constant volume air handling unit. Part 1: Discrete Models/. Healthy Buildings 2006, vol. 4, Materials, Systems and Technologies for Healthy Buildings, Lisboa, Portugal 4-8 June 2006, p.199-204, ISBN 989-95067-1-0.
- [CI 17] A. Chicinas, **C. Ghiaus**, C. Inard (2006). Grey model identification of constant volume air handling unit. Part 2: Parameter Identification/. Healthy Buildings 2006, vol. 4, Materials, Systems and Technologies for Healthy Buildings, Lisboa, Portugal 4-8 June 2006, p.205-210, ISBN 989-95067-1-0.
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