

CURRICULUM VITAE

SIMON KONTOYIANNIDIS

M.Sc. Environmental Physicist

ATHENS

March 2017

SIMON KONTOYIANNIDIS M.Sc.

Environmental Physicist, Research Assistant

Group Energy Conservation (www.energycon.org)

Institute for Environmental Research & Sustainable Development (www.meteo.noa.gr)

National Observatory of Athens (www.noa.gr)

I. Metaxa & Vas. Pavlou, GR 152 36 P. Penteli, Athens, Hellas

Tel.: +30- 210-8109145, Fax: +30-210-8103236, Email: skonto@noa.gr

Place of birth: Wuppertal - Germany, 12-11-1966

Marital status: Married, Two children

RESEARCH INTERESTS & ACCOMPLISHMENTS

Developer of the official software used for building energy audits and labelling (TEE-KENAK) in Greece. Programming and multimedia software development of 22 applications. Development of web pages and on-line applications. Research and Development in the areas of renewable energy sources, energy conservation, thermal and solar building applications, numerical modelling of thermal energy systems and building thermal simulations, solar cooling, solar radiation and meteorological measurements. Responsible for the maintenance of the Penteli weather station and for the calibration of meteorological instruments.

EDUCATION

Master of Science (M.Sc.)	Environmental Physics, National Kapodistrian University of Athens Department of Applied Physics	March 1993
Bachelor of Science	Physics National Kapodistrian University of Athens Department of Physics	March 1990

FOREIGN LANGUAGES

- English
- German

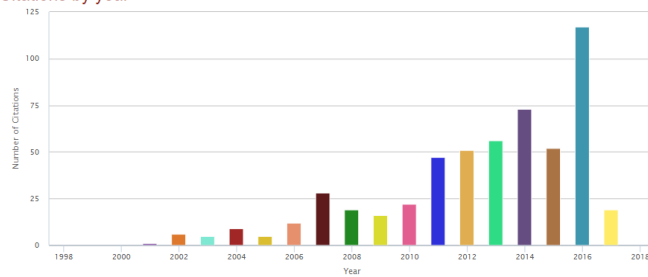
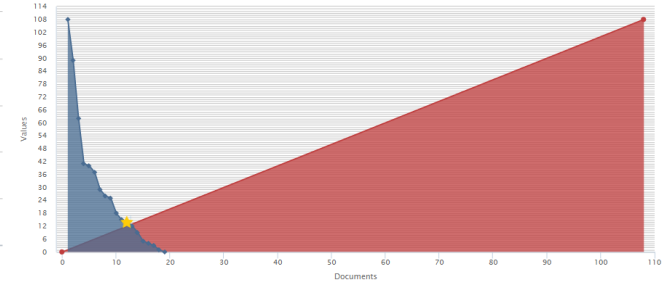
CONTINUING EDUCATION

- Energy Conservation in Transports, Hellenic Productivity Center, 1992
- Bioclimatic Architecture and Solar Systems, CIENE, 1993 (SAVE Project)
- Energy Conservation in Buildings, CIENE, May 1994 (SAVE Project)
- Solar Energy and Energy Conservation in Urban Buildings, CIENE, November 1994 (SAVE Project)
- Training and Education in the Energy Field, CIENE, May 1995 (SAVE Project)
- Energy Conservation in Office Buildings, CIENE, May 1995 (SAVE Project)
- Passive Cooling of Buildings, CIENE, June 1995 (SAVE Project)

PUBLICATIONS - SOFTWARE & eAPPLICATIONS

International Journals:	13	Hellenic Journals & Technical Magazines:	6
Scientific Publications:	16	Technical Reports:	46
Conferences & Symposiums:	45	Books:	1
Software & eApplications	22	Theses:	2

Citations by year

This author's *h*-index is 12The *h*-index is based upon the number of documents and number of citations.

PROFESSIONAL EXPERIENCE

1992 – 1995

- **External Research Scientist**

Department of Applied Physics - University of Athens

Participant in various Research and Scientific European and National projects, as a member of the GRoup Building Energy Studies. Laboratory Instructor. Supervisor of Diploma Theses.

- **Software Developer**

Developer of web pages for private companies

- **Research Scientist**

Hellenic Army (period 5/95 - 8/95)

Software developer, in Software Department, of Hellenic Army in Xanthi

- **Associate**

Department of Solid State Physics - University of Athens

Laboratory Instructor.

- **Associate**

CIENE - University of Athens, 1993

Organizer of the seminar "Energy Conservation in School Buildings - Solar Systems" (1993)

1996 – 2001

- **External Research Scientist**

Institute of Meteorology & Physics of Atmospheric Environment (IMPAE) - National Observatory of Athens

Participant in various Research and Scientific European and National projects, as a member of the GRoup Energy Conservation.

- **Associate**

Technological Educational Institute of Piraeus (period 1998-2000).

Developer of 4 multimedia packages, in the framework of Distance learning programme on "Conventional & Renewable Energy Sources"

- **Software Developer**

Developer of web pages for private companies

- **Associate**

Hellenic Productivity Center 1996

Developer of Educational Material.

2001 – 2015

- **Research Assistant**

Institute for Environmental Research & Sustainable Development (IERSD, ex-IMPAE) - National Observatory of Athens

Participant in various Research and Scientific European projects, as a member of the GRoup Energy Conservation. Development of project and GREC activities web pages for the promotion of scientific results to third parties. Development of all electronic publications and multimedia CDROMs for GREC publications. Maintenance of the Penteli weather station and web page for the presentation of on-line measurements to the public since 2004; Quality control and processing of meteorological data from Thessio weather station used to prepare NOA Meteorological Bulletin. Responsible for the calibration of meteorological instruments for third parties and IERSD since 2004. Maintenance of the Hellenic EPIQR software that is commercially available from GREC. Technical support to all GREC software to third parties. Staffed the participation of IERSD in the International Expos Climatherm 2004, 2006 & 2008, ENERGYRES 2007 & 2008.

2016 –

- **Research Assistant - Consultant**

Ministry of Infrastructure and Transport – Minister's Office

RESEARCH EXPERIENCE

Participant in the following research, demonstration and technical projects with the corresponding affiliations:

UNIVERSITY OF ATHENS

- **RESEARCH PROGRAMMES**

1992 - 1995 JOULE, DG XII for Science, Research and Development, European Commission

TITLE: PASCOOL, Passive Cooling for Buildings (JOU2CT92-0013)

PARTICIPANTS: University of Athens, CRES, NOA, and various organisations from Italy, Spain, France, Portugal, Switzerland, England, Belgium.

1996 - 1998 JOULE, DG XII for Science, Research and Development, European Commission

TITLE: POLIS: Urban Planning Research Actions to Improve Solar Access, Passive Cooling and Microclimate (JOR-CT95-0024)

PARTICIPANTS: BRE, University of Athens, University of Liege, University of Seville

CIENE, UNIVERSITY OF ATHENS

- **SCIENTIFIC PROJECTS**

1993 - 1994 SAVE, DG XVII for Energy, European Commission

TITLE: PASSIVE COOLING - Creation of an Educational Structure on the Energy Efficiency of Cooling Systems and Techniques for Buildings (XVII/4.1031/93-071)

PARTICIPANTS: Joint European Programme. Central Institution for Energy Efficiency Education, Universities and other organisations from several European countries.

NATIONAL OBSERVATORY OF ATHENS

- **RESEARCH PROGRAMMES**

1996 - 1998 JOULE, DG XII for Science, Research and Development, European Commission

TITLE: SOLAR CONTROL - Integrated Approach to Solar Control Techniques (JOR3-CT96-0113)

PARTICIPANTS: NOA, Conphoebus-I, BRE-GB, Univ. of Seville-E, VTT-FN, TNO-NL, Meletitiki, IBP-G., CEA-F, Pirlington-GB, Univ. of Ljubjana-SL.

1997 - 2000 JOULE, DG XII for Science, Research and Development, European Commission

TITLE: SOLHEATCOOL - Study and Development of Heating/Cooling Systems Using Renewable Energy (JOR3-CT97-0181)

PARTICIPANTS: NOA, COSTIC, D.F. Liedelt Productions & Vertriebs, Jacques Giordano Industries S.A., ZAE Bayern.

2001 - 2004 GROWTH, DG for Research (DG XII), European Commission

TITLE: INVESTIMMO - A Decision-making Tool for Long-term Efficient Investment

Strategies in Housing Maintenance and Refurbishment (GIRD-CT-2000-00371)

PARTICIPANTS: NOA, Hellenic Ministry of State, CSTB & LF – France, EPFL, CUEH & ESTIA sarl – Switzerland, FhG/IBP & VdW – Germany, DIPARC & ENVIPARK – Italy, SBI & SBS – Denmark, KAPE & UZ – Poland.

2002 - 2003 Fifth Framework, DG for Research (DG XII), European Commission

TITLE : SACE - Solar Air Conditioning in Europe (NNE5/2001/00025)

PARTICIPANTS: NOA, TU Delft – Holland, FhG-ISE – Germany, Joanneum – Austria, Technion Haifa – Israel.

- SCIENTIFIC PROJECTS**

2001-2002 ELVAL – Hellenic Aluminium Industry S.A.

TITLE: ELVAL I - Evaluation of aluminium wall cladding on building facades

PARTICIPANTS: National Observatory of Athens

2002-2003 ALTENER, DG for Energy(DG XVII), European Commission

TITLE: XENIOS - Development of an audit tool for Hotel buildings and the promotion of RUE and RES (AL 4.1030/Z/01-135/2001)

PARTICIPANTS: National Observatory of Athens, Terra Nova Ltd - Hellas, CSTB - France, CAATB - Spain, CONPHOEBUS - Italy, CALVIA - Spain, Municipality of Kallithea Rhodes - Hellas, GEDISA - Spain, AHPM - Spain, D.G. D'Energia - Spain.

2002-2004 ALTENER, DG for Energy(DG XVII), European Commission

TITLE: EPA-ED Development of and preparations for the implementation of an Energy Performance Assessment Method for Existing Dwellings to stimulate RUE and the use of RES in the existing dwelling stock in Member States (AL 4.1030/Z/01-142/2001)

PARTICIPANTS: National Observatory of Athens, Damen Consultants BV (Holland), OTB (Holland), DBUR (Denmark), Austrian Institute for Applied Ecology (Austria).

2005-2007 Intelligent Energy – Europe, DG for Energy (DG XVII), European Commission

TITLE: EPA-NR Energy Performance Assessment for Existing Non Residential Buildings (EIE/04/125/S07.38651)

PARTICIPANTS: National Observatory of Athens, Damen Consultants BV (Holland), Arsenal (Austria), Austrian Institute for Applied Ecology (Austria), DBUR (Denmark), CSTB (France), Fraunhofer-IBP (Germany), ENEA (Italy), TNO (Netherlands).

2006-2009 Intelligent Energy – Europe, DG for Energy (DG XVII), European Commission

TITLE: DATAMINE Collecting Data from Energy Certification to Monitor Performance Indicators for New and Existing Buildings (EIE/05/097/SI2.419651)

PARTICIPANTS: National Observatory of Athens, Institut Wohnen und Umwelt GmbH (Germany), Narodowa Agencja Poszanowania Energii S.A. (Poland), Energy for Sustainable Development Ltd (UK), EBM-consult BV (Netherlands), Politecnico di Torino (Italy), Flemish Institute for technological research (Belgium), Austrian Energy Agency (Austria), Building and Civil Engineering Institute ZRMK (Slovenia), Ecofys ema SL (Spain), Energy Action Limited (Ireland), Sofia Energy Agency (Bulgaria).

2009-2012 Energy Intelligent Europe

TITLE: TABULA Typology Approach for Building Stock Energy Assessment (EIE/08/495/SI2. 528393)

PARTICIPANTS: National Observatory of Athens, Institut Wohnen und Umwelt/ Institute for Housing and Environment (Germany), Building and Civil Engineering Institute ZRMK (Slovenia), Politecnico di Torino - Department of Energetics (Italy), French Energy and Environment Agency (France), Energy Action Limited (Ireland), Flemish Institute of Technological Research (Belgium), Narodowa Agencja Poszanowania Energii SA (Poland), Austrian Energy Agency (Bulgaria), Mälardalens University (Sweden), STU-K (Czech Republic), Danish Building Research Institute (Denmark)

2010-2013 Technical Chamber of Greece

TITLE: TEE-KENAK - Software Development for the Implementation of the National Regulation on the Energy Performance of Buildings

PARTICIPANTS: National Observatory of Athens

2012-2014 FP7 -Small or medium-scale focused research project (STREP)

TITLE: ISES Intelligent Services for Energy-Efficient Design and Life Cycle Simulation (288819/ FP7-ICT-2011-7)

PARTICIPANTS: National Observatory of Athens, Technische Universität Dresden (Germany), Olof Granlund Oy (Finland), University of Ljubljana (Slovenia), SOFiSTiK Hellas S.A. (Greece), Nyskopunarmidstod Islands (Iceland), Leonhardt, Andrä und Partner (Germany), Trimo d.d. (Slovenia)

2013-2016 Intelligent Energy – Europe, DG for Energy (DG XVII), European Commission

TITLE: EPISCOPE (EY) - Energy Performance Indicator Tracking Schemes for the Continuous Optimisation of Refurbishment Processes in European Housing Stocks (IEE/12/695/SI2.644739)

PARTICIPANTS: National Observatory of Athens, Institut Wohnen und Umwelt, Institute for Housing and Environment (Germany), Buildings Performance Institute Europe (Belgium), Building and Civil Engineering Institute ZRMK (Slovenia), Danish Building Research Institute, Aalborg University (Denmark), Austrian Energy Agency (Austria), Building Research Establishment Ltd (United Kingdom), Flemish Institute for Technological Research (Belgium), Politecnico di Torino -

Department of Energy (Italy), STU-K (Czech Republic), Energy Action Limited (Ireland), Budapest University of Technology and Economics (Hungary), Valencian Institute of Building (Spain), Cyprus University of Technology (Cyprus), Delft University of Technology (Netherlands), Pouget Consultants (France), Norwegian University of Science and Technology (Norway)

- 2016-2019 E.C. Interreg MED Programme, European Regional Development Fund
TITLE: CESBA MED - Sustainable MED Cities
(INTERREG MED 990 / IMED15_2.1_M23_207)
 PARTICIPANTS: City of Torino (IT), iiSBE Italia R&D srl (IT), Municipality of Udine (IT), EnvirobatBDM (FR), Rhônalénergie Environment (FR), Government of Catalonia (ES), Municipality Sant Cugat del Vallès (ES), University of Malta (MT), National Observatory of Athens (GR), Association of Common European Sustainable Built Environment Assessment (AT), Energy Institute Hrvoje Požar (HR), Urban Community of Marseille Metropolitan Province (FR)
- 2017-2017 Technical Chamber of Greece
TITLE: Maintenance of TEE KENAK Software for energy audits & certification of buildings, inspection of boilers
 PARTICIPANTS: National Observatory of Athens
- 2017-2018 Technical Chamber of Greece
TITLE: Update of TEEKENAK Software
 PARTICIPANTS: National Observatory of Athens

COMPUTING EXPERIENCE

- **Programming**

- .NET Framework,
- Integrated Development Environment (*VS2010*),
- Hypertext Preprocessor,
- Active Server Pages,
- Multimedia platform (*FL*),
- ActionScript 3.0,
- JavaScript Flash language (*JSFL*),
- Web Development Application (*DW*),
- Application Deployment (*IS12*),
- TRNSYS

- **Software Development**

- 2001 **SOLHEATCOOL - TRN-DISPLAY**. A tool for data base management used to review the results of hourly simulations using TRNSYS. A total of 20000 scenarios were investigated for 3 European locations, different types of solar collectors, collecting surface area and geometry, different building typologies (heavy and light thermal mass) and different system operating conditions of the absorption heat pump and the sub-floor distribution system
- 2003 **SACE**. Solar Air Conditioning in Europe. Overview of solar AC applications throughout Europe.
- 2004 **XENIOS - REFURBISHMENT OF HOTELS**. European diagnosis and decision making method for the refurbishment of hotels. The user can follow the audit procedures to collect data and assess the existing condition, evaluate different interventions (on the building envelope and HVAC installations) for energy and water conservation, improve the indoor environmental quality, assess the environmental impact from energy consumption, and come up with a budget and technical report, in a short time frame
- 2004 **EPA-ED**. Development of and preparations for the implementation of an Energy Performance Assessment Method for Existing Dwellings to stimulate RUE and the use of RES in the existing dwelling stock in Member States
- 2010 - today **TEE KENAK - ENERGY AUDIT**. Official software for Energy Performance Certification of Buildings, used by the Energy Auditors. *Over 400000 have been issued. Latest update on 27/03/2012*
- TEE KENAK - ENERGY STUDY**. Official software for Energy Study. *Latest update on 27/03/2012*
- NOMIS**. Standalone calculation engine for the certified software for EPC as well for the electronic database (www.buildingcert.gr) developed by YPEKA for issuing and handling the official EPC, and building audits, according to the EPBD provisions. Latest update on 27/03/2012
- Electronic forms for Inspection Reports of Boilers, Heating Installations and Air-Conditioning Systems

- **Software Adaptation**

- 2000 **EPIQR** - Refurbishment of Residential Buildings. **Hellenic version of EPIQR** (*Energy Performance Indoor environmental Quality Retrofit*), a European diagnosis and decision making method for apartment building refurbishment. The user can follow the audit procedures to collect data and assess the existing condition, evaluate different interventions (on the building envelope and electromechanical installations) for energy conservation and indoor environmental quality, and come up with a budget and technical report, all within two days.
- 2007 **EPA-NR. Hellenic version.** Energy Performance Assessment Method For Existing Non-Residential Buildings. Software in line with the Energy Performance Directive for Buildings (EPBD) established by the E.C. and reflect the final draft CEN-standards

- **Multimedia Development**

- 2010 - 2013 **22 multimedia CD-ROM** applications presenting the results of various European projects.
- DAYLIGHT TECHNIQUES IN BUILDINGS – REFERENCE HANDBOOK (CD-ROM)
 - DAYLIGHT TECHNIQUES IN BUILDINGS – PRODUCT INFORMATION HANDBOOK (CD-ROM)
 - DAYLIGHT TECHNIQUES IN BUILDINGS – EDUCATIONAL SLIDES (CD-ROM)
 - TOBUS - REFURBISHMENT OF OFFICE BUILDINGS – HELLENIC CASE STUDIES (CD-ROM)
 - EPIQR SOFTWARE REFURBISHMENT OF APARTMENT BUILDINGS – HELLENIC (CD-ROM)
 - EPIQR METHOD – HELLENIC (CD-ROM)
 - REFURBISHMENT OF APARTMENT BUILDINGS – HELLENIC CASE STUDIES (CD-ROM)
 - EPIQR REFURBISHMENT OF APARTMENT BUILDINGS (Educational Version 2.3)
 - TOBUS - RETROFIT OF OFFICE BUILDINGS (CD-ROM)
 - OPERATING ROOMS - CODE OF GOOD PRACTICE (CD-ROM)
 - DESIGN GUIDELINES - SOLAR CONTROL HANDBOOK
 - SHADING COMPONENT DICTIONARY - SOLAR CONTROL HANDBOOK
 - SOLAR CONTROL HANDBOOKS (CD-ROM)
 - SOLHEATCOOL - TRN-DISPLAY & DESIGN GUIDELINES (CD-ROM)
 - SACE - SOLAR AIRCONDITIONING IN EUROPE (CD-ROM)
 - TME 2006 ATHENS (CD-ROM)
 - TME 2000 ATHENS (CD-ROM)
 - XENIOS – SOFTWARE FOR HOTEL REFURBISHMENT (CD-ROM)
 - XENIOS – DISSEMINATION MATERIAL (CD-ROM)
 - INVESTIMMO – ERBAD (CD-ROM)
 - INVESTIMMO – BDAG (CD-ROM)
 - INVESTIMMO – BEIG (CD-ROM)
 - EPA-ED (CD-ROM)
 - EPA-NR (CD-ROM)
 - SOLAR DATA (CD-ROM)
 - eKIA (CD-ROM)

- **Development and Management of online applications**

- 2002 **ELVAL** - Building Energy Performance and Educational Material (*Mediterranean Architectural Competition 2002*)
- 2003 -today **SACE** (*Solar Air-Conditioning in Europe*) Online application for estimation of solar air-conditioning in European buildings
- 2011- today **eKIA** Online application for estimation of energy performance of residential buildings

- **Development and Management of web pages**

- 2001-today **ENERGYCON**. Web page of Group energy conservation
- 2002-today **XENIOS** Audit Tools for Hotel Buildings
- 2004-2006 **ASHRAE REGION AT LARGE** (*American Society Of Heating, Refrigerating & Air Conditioning Engineers Inc.*)
- 2006-today **DATAMINE** (*Collecting DATA from Energy Certification to Monitor Performance Indicators for New and Existing buildings*). Website has been promoted on the interactive BUILD UP web portal of the European Commission, as part of 'Intelligent Energy Europe projects'
- 2007-2012 **ASHRAE Hellenic Chapter** (*AMERICAN SOCIETY OF HEATING, REFRIGERATING & AIR*

CONDITIONING ENGINEERS INC.)

2011-today [TABULA](#) Typology Approach for Building Stock Energy Assessment. Hellenic Typology and promotional material.

TEACHING EXPERIENCE

Undergraduate and post-graduate courses at the following Institutions:

- Department of Applied Physics, University of Athens
- Department of Solid State Physics, University of Athens

PARTICIPATION IN SCIENTIFIC COMMITTEES

2010

- Developer of the official Hellenic software for building energy audits and labeling ([TEE-KENAK](#)) as well as the **core calculation engine** for all the certified software for Energy Performance Certifications.
- Member of the technical committee of the Technical Chamber of Greece (TEE) for the development of the Technical Guideline (**TOTEE 20701-3/2010**) “*Climate Data of Hellenic Cities*”, First edition, July 2010.
- Member of the technical committee of the Technical Chamber of Greece (TEE) for the development of the Technical Guideline (**TOTEE 20701-4/2010**) “*Guidelines and Forms for Building Energy Audits, Inspection of Boilers & Heating Installations, and Inspection of Air-Conditioning Systems*”, First edition, July 2010.

2011

- Member of the Technical Committee of the Technical Chamber of Greece (TEE) for the development of the Educational Material for the Training of Energy Auditors, June 2011

2012

- Member of the technical committee of the Technical Chamber of Greece (TEE) for the development of the Technical Guideline (**TOTEE 20701-3/2010**) “*Climate Data of Hellenic Cities*”, Second edition, March 2012
- Member of the technical committee of the Technical Chamber of Greece (TEE) for the development of the Technical Guideline (**TOTEE 20701-4/2010**) “*Guidelines and Forms for Building Energy Audits, Inspection of Boilers & Heating Installations, and Inspection of Air-Conditioning Systems*”, Second edition, March 2012

2 0 1 7

- Member of the Technical Committee of the Technical Chamber of Greece (TEE) for proposals on the revision of the national Regulation on the Energy Efficiency of Buildings (KENAK), Technical Guidelines (**TOTEE 20701**), Upgrade and debugging of the national software for building energy audits, inspections and certification (TEE-KENAK)

SERVICES TO THE PRIVATE SECTOR

In the frame of services to the private sector have undertaken the following activities:

- Calibration of meteorological instruments for third parties and IERSD
- Technical support to all GREC software (EPIQR, XENIOS, EPA-ED, EPA-NR) to third parties

PUBLICATIONS IN SCIENTIFIC JOURNALS

1 9 9 4

- 1 I. Tselepidaki, M. Santamouris, D.N. Asimakopoulos and S. Kontoyiannidis
On the Variability of Cooling Degree Days in an Urban Environment. Application to Athens, Greece.
Energy & Buildings, 21, p. 93-99 (1994).

1 9 9 9

- 2 A.A. Argiriou, S. Lykoudis, S. Kontogiannidis, C.A. Balaras, D.N. Asimakopoulos, M. Petrakis, P. Kassomenos
Comparison of Methodologies for TMY Generation Using 20 Years Data for Athens, Greece.
Solar Energy, 66, 33-45, (1999).

2004

- ③ A.A. Argiriou, C.A. Balaras, S. Kontoyiannidis, E. Michel
Numerical Simulation and Performance Assessment of a Low Capacity Solar Assisted Absorption Heat Pump Coupled with a Sub-Floor System
Solar Energy, in press, (2004).

2005

- ④ C.A. Balaras, K. Droutsas, E. Dascalaki, S. Kontoyiannidis
Heating Energy Consumption and Resulting Environmental Impact of European Apartment Buildings
Energy & Buildings, 37, 429-442, (2005).
- ⑤ C.A. Balaras, K. Droutsas, E. Dascalaki, S. Kontoyiannidis
Deterioration of European Apartment Buildings
Energy & Buildings, 37, 515-527, (2005).
- ⑥ A.A. Argiriou, C.A. Balaras, S. Kontoyiannidis, E. Michel
Numerical Simulation and Performance Assessment of a Low Capacity Solar Assisted Absorption Heat Pump Coupled with a Sub-Floor System
Solar Energy, Vol. 79, No 3, p. 290-301, (2005).
Ranked No 20 (July-September 2005) in the ScienceDirect TOP25 Hottest Articles.

2010

- ⑦ E. Dascalaki, P. Droutsas, A. Gaglia, S. Kontoyiannidis and C.A. Balaras, Data Collection and Analysis of the Building Stock and its Energy Performance – An Example for Hellenic Buildings, **Energy & Buildings**, Vol. 42, No 8, p. 1231-1237, (2010).

2011

- ⑧ E. G. Dascalaki, K. G. Droutsas, C.A. Balaras and S. Kontoyiannidis, Building Typologies as a Tool for Assessing the Energy Performance of Residential Buildings – A Case Study for the Hellenic Building Stock, **Energy & Buildings**, Vol. 43, No 12, p. 3400-3409, 2011.

2012

- ⑨ E. G. Dascalaki, C.A. Balaras, A.G. Gaglia, K. G. Droutsas and S. Kontoyiannidis,
Energy performance of buildings—EPBD in Greece,
Energy Policy 45, p. 467 - 477, 2012.

2013

- ⑩ C. A. Balaras, E. G. Dascalaki, P. Droutsas, and S. Kontoyiannidis,
Hellenic renewable energy policies and energy performance of residential buildings using solar collectors for domestic hot water production in Greece
J. Renewable Sustainable Energy 5 (4), DOI 10.1063/1.4813066, 12 pages, 2013.
- ⑪① E. G. Dascalaki, S. Kontoyiannidis, C. A. Balaras and P. Droutsas,
Energy certification of Hellenic buildings: First findings
Energy & Buildings Vol. 65, p. 429–437, 2013.
- ⑪② C.A.Balaras, S.Kontoyiannidis, E.G.Dascalaki and K. G. Droutsas,
Intelligent Services for Building Information Modeling - Assessing Variable Input Weather Data for Building Simulations (DOI: 10.2174/1874836820131022005)
The Open Construction and Building Technology Journal, Vol.7, p. 138–145, October 2013.

2014

- ⑪③ K.G. Droutsas, S. Kontoyiannidis, E.G. Dascalaki, C.A. Balaras
Ranking cost effective energy conservation measures for heating in Hellenic residential buildings
Energy & Buildings, Vol.70, p 318–332, February 2014
- ⑪④ Balaras C.A., E.G. Dascalaki, K.G. Droutsas, S. Kontoyiannidis, R. Guruz, G. Gudnason,
Energy & Other Key Performance Indicators for Buildings – Examples for Hellenic Buildings
Global Journal of Energy Technology Research Updates, 1 (2), 71-89.
<http://dx.doi.org/10.15377/2409-5818.2014.01.02.2>

2016

- ⑪⑤ Constantinos A. Balaras, Elena G. Dascalaki, Kalliopi G. Droutsas, Simon Kontoyiannidis

Empirical assessment of calculated and actual heating energy use in Hellenic Residential buildings

Applied Energy 164 (2016) 115–132

- ①⑥ K.G. Droutsas, S. Kontoyiannidis, E.G. Dascalaki, C.A. Balaras

Mapping the energy performance of hellenic residential buildings from EPC (energy performance certificate) data

Energy 98 p 284-295

- ①⑦ Elena G. Dascalaki, Constantinos A. Balaras, Simon Kontoyiannidis, Kalliopi G. Droutsas

Modeling energy refurbishment scenarios for the Hellenic residential building stock towards the 2020 & 2030 targets

Energy & Buildings, Vol. 132 p 74–90

2017

- ①⑧ C.A. Balaras, E.G. Dascalaki, K. Droutsas, S. Kontoyiannidis, Premošćivanje razlike između stvarnog i proračunatog korišćenja toplotne energije i modelovanje stambenih zgrada odozdo naviše (Bridging the gap of actual and calculated heating energy consumption in bottom-up residential building stock modelling)

KGH – Heating, Ventilation and Air-Conditioning, [S.l.], Vol. 46, No 1, p. 59-67, 2017. ISSN 2560-340X

2018

- ①⑨ K.G. Droutsas, C.A. Balaras, E.G. Dascalaki, S. Kontoyiannidis, A.A. Argiriou, Energy Use Intensities for Asset Rating of Hellenic Non-Residential Buildings,

Global Journal of Energy Technology Research Updates, Vol. 5, No 1, p. 19-36, (2018).

BOOKS

2011

Co-author in the following book published by the Technical Chamber of Greece (TEE), Athens, June (2011) for educational purposes and training of permanent energy inspectors throughout Greece (*in Hellenic*).

- ① **DK3** –Building Energy Audit (132 p.)

SCIENTIFIC PUBLICATIONS

2000

- ① A.A. Argiriou, S. Lykoudis, S. Kontoyiannidis, C.A. Balaras

Test Reference Year (TRY) for Athens, CD-ROM

Group Energy Conservation, IERSD, National Observatory of Athens, (ISBN 960-87905-7-3), Athens (2000).

2001

- ② A.A. Argiriou, C.A. Balaras, S. Kontoyiannidis

SOLHEATCOOL TRN-Display & Design Guidelines. Study & Development of Heating – Cooling Systems Using Renewable Energy, CD-ROM

Group Energy Conservation, IERSD, National Observatory of Athens, Athens, (ISBN 960-87905-8-1), November (2001).

2004

- ③ C.A. Balaras, E. Dascalaki, S. Kontoyiannidis, A. Gaglia

XENIOS Software

Group Energy Conservation, IERSD, National Observatory of Athens, (ISBN 960-87905-3-0), Athens, February (2004).

- ④ C.A. Balaras, E. Dascalaki, K. Droutsas, S. Kontoyiannidis

European Residential Building Audits Database – ERBAD Multimedia CD-ROM

Group Energy Conservation, IERSD, National Observatory of Athens, (ISBN 960-87905-5-7), Athens, March (2004).

- ⑤ C.A. Balaras, E. Dascalaki, K. Droutsas, S. Kontoyiannidis

Building Deterioration Assessment Guidelines – BDAG Multimedia CD-ROM

Group Energy Conservation, IERSD, National Observatory of Athens, (*ISBN 960-87905-6-5*), Athens, March (2004).

- ⑥ C.A. Balaras, E. Dascalaki, K. Droutsas, S. Kontoyiannidis, K. Hansen, E.H. Petersen
Building Environmental Impact Guidelines – BEIG Multimedia CD-ROM
 Group Energy Conservation, IERSD, National Observatory of Athens, (*ISBN 960-87905-4-9*), Athens, March (2004).
- ⑦ C.A. Balaras, S. Kontoyiannidis (Editors)
Energy Performance Assessment method for Existing Dwellings (EPA-ED) Dissemination Material, Multimedia CD-ROM
 Group Energy Conservation, IERSD, National Observatory of Athens, (*ISBN 960-88325-2-7*), Athens, November (2004).

2006

- ⑧ C.A. Balaras, S. Kontoyiannidis, S. Lykoudis
Test Reference Year (TRY 2006) for Athens, CD-ROM
 Group Energy Conservation, IERSD, National Observatory of Athens, *ISBN 960-88325-4-3*, Athens, (2006).

2007

- ⑨ C.A. Balaras, S. Kontoyiannidis (Editors)
Energy Performance Assessment method for Non-Residential Buildings (EPA-NR) Dissemination Material & Software, Group Energy Conservation, IERSD, National Observatory of Athens, *ISBN 978-960-88325-9-6*, Athens, November (2007).

2008

- ⑩ A. Gaglia, S. Kontoyiannidis
Solar Data, Database of Solar Radiation, Group Energy Conservation, IERSD, National Observatory of Athens, *ISBN 978-960-6816-00-0*, Athens, February (2008).

2010

- ①① A. Argiriou, A. Gaglia, E. Dascalaki, P. Zaharias, D. Katsanos, S. Kontoyiannidis, G. Ladopoulos, J. Ladopoulos
Hellenic Climatic Data – 1st Edition
 Technical Guideline of the Technical Chamber of Greece **TOTEE 20701-3/2010**, 79 p., First edition, Athens, July (2010).
- ①② A. Athanasiou, C.A. Balaras, A. Gaglia, G. Giannakidis, E. Dascalaki, K. Droutsas, S. Kontoyiannidis, G. Koras, G. Malaxias, D. Mantas, A. Maris, T. Maris, E. Sofronis
Guidelines and Forms for Building Energy Audits, Inspection of Boilers & Heating Installations, and Inspection of Air-Conditioning Systems.
 Technical Guideline of the Technical Chamber of Greece - **T.O.T.E.E 20701-4/2010**. 160 p., First edition, Athens, July (2010).
- ①③ Balaras C.A., Dascalaki E.G., Droutsas K., Gaglia A.G., Kontoyiannidis S.,
TEE-KENAK Software
 Technical Chamber of Greece, September (2010).

2011

- ①④ WebTool **eKIA**, November 2011

2012

- ①⑤ A. Argiriou, A. Gaglia, E. Dascalaki, P. Zaharias, D. Katsanos, S. Kontoyiannidis, G. Ladopoulos, J. Ladopoulos
Hellenic Climatic Data – 2nd Edition
 Technical Guideline of the Technical Chamber of Greece **TOTEE 20701-3/2010**, 79 p., Second edition, Athens, March (2012).
- ①⑥ A. Athanasiou, C.A. Balaras, A. Gaglia, G. Giannakidis, E. Dascalaki, K. Droutsas, S. Kontoyiannidis, G. Koras, G. Malaxias, D. Mantas, A. Maris, T. Maris, E. Sofronis
 Guidelines and Forms for Building Energy Audits, Inspection of Boilers & Heating Installations, and Inspection of Air-Conditioning Systems.

Technical Guideline of the Technical Chamber of Greece - T.O.T.E.E 20701-4/2010. 160 p., Second edition, Athens, March (2012).

2013

- ①⑦ E. Dascalaki, K. Droutsas, C.A. Balaras, S. Kontoyiannidis,
eKIA – Building Energy Performance Assessment
 Group Energy Conservation, IERSD, National Observatory of Athens, ISBN 978-960-6816-01-7, Athens, May (2013).

2014

- ①⑧ A. Argiriou, A. Gaglia, E. Dascalaki, P. Zaharias, D. Katsanos, S. Kontoyiannidis, G. Ladopoulos, J. Ladopoulos
Hellenic Climatic Data – 3rd Edition
 Technical Guideline of the Technical Chamber of Greece TOTE 20701-4/2010, 78 p., **Third edition**, FEK 2945B/3.11.2014, p. 35410–251 to 35410–329, Official Journal of the Hellenic Republic, Athens, November (2014).
- ①⑨ A. Athanasiou, C.A. Balaras, A. Gaglia, G. Giannakidis, E. Dascalaki, K. Droutsas, S. Kontoyiannidis, G. Koras, G. Malaxias, D. Mantas, A. Maris, T. Maris, E. Sofronis,
Guidelines and Forms for Building Energy Audits, Inspection of Boilers & Heating Installations, and Inspection of Air-Conditioning Systems
 Technical Guideline of the Technical Chamber of Greece TOTE 20701-4/2010, 148 p., **Third edition**, FEK 2945B/3.11.2014, p. 35410–331 to 35410–478, Official Journal of the Hellenic Republic, Athens, November (2014).

PUBLICATIONS IN HELLENIC TECHNICAL JOURNALS

2000

- ① C.A. Balaras, A.A. Argiriou, S. Kontoyiannidis
 Solar Assisted Absorption Heat Pump and a Floor Heating and Cooling.
Technical Review, pp. 34-38, June (2000).

2001

- ② C.A. Balaras, A.A. Argiriou, S. Kontoyiannidis
 Parametric Investigation and Optimization of a System with a Solar Assisted Absorption Heat Pump and a Floor Heating and Cooling.
J. Nat. Soc. Mech. & Elec. Eng., No. 339, pp. 42-49, February (2001).

2004

- ③ C.A. Balaras, E. Dascalaki, K. Droutsas, S. Kontoyiannidis
 European Methodologies and Decision Making Software Tools for the Assessment of Building Refurbishment
Technical Chronicles, *The J. of the Technical Chamber of Greece*, 2, March – April, p. 1-8, (2004).

2008

- ④ E. Dascalaki, A. Gaglia, K. Droutsas, S. Kontoyiannidis, C.A. Balaras
 DATAMINE – Data collection and analysis method for the building stock and its energy performance.
TECHNIKA, 243, p. 46-50, April, (2008).
- ⑤ E. Dascalaki, C.A. Balaras, A. Gaglia, S. Kontoyiannidis K. Droutsas
 DATAMINE – Hellenic Building Stock.
TECHNIKA, 249, p. 16-22, November, (2008).

2011

- ⑥ E. Dascalaki, K. Droutsas, C.A. Balaras, S. Kontoyiannidis
 Typology of Hellenic Residential Buildings & Evaluation of their Energy Performance
TECHNIKA, 28, p. 8-15, August - September (2011).

2014

- 7 S. Kontoyiannidis, C.A. Balaras, E. Dascalaki, K. Droutsas
Building Information Modeling (BIM) – Advantages, requirements & Smart Solutions
Ktirio, 3/2014, p. 57-62, April (2014).

2016

- 8 E. Dascalaki, K. Droutsas, C.A. Balaras, S. Kontoyiannidis
Overview of Energy Renovation Measures in the Residential Sector
Technical Reviews, Vol. 269, p. 18-24, March-April (2016).

PUBLICATIONS IN CONFERENCES - SYMPOSIUMS

1994

- 1 Lykoudis S, Proedrou M, Kontogiannidis S, Tselepidaki I.
Study of Precipitation Trends for Several Regimes in Northern Greece,
2nd National Conference in Meteorology-Climatology-Atmospheric Physics, Thessaloniki, 29-30
September 1994.

1998

- 2 I. Bellas-Velidis, A.A. Argiriou, C.A. Balaras, S. Kontoyiannidis,
Predicting Energy Demand of Single Solar Houses Using Artificial Neural Networks
EUFIT - The European Congress on Intelligent Techniques and Soft Computing, Vol. 2, σ 873-875,
Aachen, Germany, 1998.
- 3 A. Argiriou, S. Lykoudis, S. Kontogiannidis, C.A. Balaras, D.N. Asimakopoulos, M. Petrakis, P.
Kassomenos
Development of Test meteorological Years for Athens. Applications with Energy Simulation Tools. **4th Pan-
4th National Conf. Meteorology-Climatology Physics of the Atmosphere**, p. 225-230, Vol. 2, 22-25
September, Athens, (1998).

1999

- 4 C.A. Balaras, A.A. Argiriou, S. Kontogiannidis
Solar Absorption Heat Pump and Floor Heating-Cooling System.
6th National Conf. on Optimization of Energy Sources, p. 363-370, 3-5 November, Volos (1999).

2000

- 5 C.A. Balaras, A.A. Argiriou, S. Kontoyiannidis
Parametric Investigation & Optimization of an Absorption Heat Pump with Solar Energy and Floor
Heating Cooling System.
Technologies for Soft Energy Sources & Environment, pp. 113-122, Technical Chamber of Greece,
11-12 December, Athens (2000).

2001

- 6 C.A. Balaras, A.A. Argiriou, S.D. Kontoyiannidis
Solar Assisted Absorption Heat Pump Coupled with Floor Heating & Cooling.
CLIMA 2000 World Congress, Naples, Italy, 15-18 September, (2001).

2002

- 7 C.A. Balaras, E. Dascalaki, K. Droutsas, S. Kontoyiannidis
EPIQR – TOBUS –XENIOS – INVESTIMMO, European Methodologies & Software Tools for Building
Refurbishment, Assessment of Energy Savings and IEQ.
33rd HVAC Congress, p. 20-29, December 4-6, Belgrade, Serbia, (2002).

2003

- 8 C.A. Balaras, E. Dascalaki, K. Droutsas, S. Kontoyiannidis
European Methodologies & Software for Decision Making During the Assessment of Building Retrofit
Strategies.

HELECO '03 “International Conference on Environmental Technology”, session on “Lifetime Engineering of Buildings & Civil Infrastructure”, Technical Chamber of Greece, 30 January - 2 February, Athens, (2003)

2004

- ⑨ C.A. Balaras, E. Dascalaki, S. Kontoyiannidis
Decision Support Software for Sustainable Building Refurbishment.
ASHRAE TRANSACTIONS, Vol. 110, Part 1, pp. 592-601, ASHRAE Annual Winter Meeting, 25-28 January, Anaheim, USA (2004). Candidate paper considered to receive ASHRAE Best Paper Awards, to recognize the authors of the best technical and symposium papers presented at Society meetings in 2004.
- ⑩ C.A. Balaras, G. Grossman, H-M. Henning, C.A.I. Ferreira, S. Kontoyiannidis, E. Podesser, L. Wang, E. Wiemken
Overview of Solar Assisted Air-Conditioning Systems & Applications.
Heat Powered Cycles HPC'04 Cooling, Heating & Power Generation Systems, ISBN 01874418353, p. 1109, Larnaca, Cyprus (2004).
- ①① C.A. Balaras, E. Dascalaki, S. Kontoyiannidis
Energy Performance Assessment (EPA) Method for Existing Dwellings.
35th HVAC Congress, 1-3 December, Belgrade, Serbia (2004).

2005

- ①② C.A. Balaras, E. Dascalaki, S. Kontoyiannidis
Evaluation of the Energy Performance of the Existing Buildings - Houses.
HELECO '05 “5th International Exhibition & Conference on Environmental Technology”, session on “Sustainable Construction”, Technical Chamber of Greece, 3 - 6 February, Athens (2005).
- ①③ C.A. Balaras, S. Kontoyiannidis
Overview of Solar Air-Conditioning Installations & Applications.
3rd National Conference RENES, “The Application of RES – Prospects & Priorities Towards the Target of 2010”, 23-25 February, Athens (2005).
- ①④ C.A. Balaras, K. Droutsas, E. Dascalaki, S. Kontoyiannidis, A. Doloca, C. Wetzel, J. Lair, M. Bauer
Service life of building elements & installations in European apartment buildings.
10DBMC 10th Int. Conference on Durability of Building Materials and Components, 17-20 April, Lyon, France (2005).

2006

- ①⑤ S. Kontoyiannidis, C.A. Balaras, Applications of Solar Air Conditioning – Data collection and evaluation method
8th Nat. Conf. On Renewable Energy Sources, 29-31 March, Thessaloniki (2006).
- ①⑥ C.A. Balaras, E.G. Dascalaki, K. Droutsas, S. Kontoyiannidis, Energy Performance Assessment Method For Existing Non-Residential Buildings
37th Int. Congress “Heating, Refrigeration & Air-Conditioning”, p. 43-54, Belgrade, Serbia, 6 - 8 December, 2006.

2007

- ①⑦ K. Droutsas, A. Gaglia, S. Kontoyiannidis, C.A. Balaras
European methodologies for energy audits & retrofitting of buildings
Workshop “EΞEN-2E – Smart Buildings – Energy Conservation through Smart Controls & Communications”, LDK Consultants, 19 January, Athens, (2007).
- ①⑧ C.A. Balaras, E. Dascalaki, A. Gaglia, K. Droutsas, S. Kontoyiannidis
Energy Performance of European Buildings
ASME ES2007 Energy Sustainability 2007, American Society of Mechanical Engineers, Long Beach, CA, June 27-30 (2007).
- ①⑨ C.A. Balaras, A. Gaglia, K. Droutsas, S. Kontoyiannidis,
Energy Efficiency of Hellenic and European Buildings
ENERTECH 2007 2nd Int. Conference for the Renewable Energy Sources and the Energy Performance, 18 – 21 October, Athens, (2007).

2008

- ②① C.A. Balaras, E. Dascalaki, S. Kontoyiannidis, A. Gaglia, K. Droutsas
Energy Performance Assessment of Residential & Non-Residential Buildings in Greece,

Int. Expert Workshop on Monitoring by Use of Energy Performance Certificates, Brussels, Belgium, 13 November (2008)

2009

- 2 1 C.A. Balaras, E. Dascalaki, A. Gaglia, S. Kontoyiannidis
Energy Conservation & Energy Audits in Hellenic Buildings, **Scientific Symposium EKDDA Natural Disasters & Renewable Energy Sources: Financial & Environmental Importance for Greece**, p. 83-94, Training Institute, National Centre for Public Administration and Local Government, Athens, 5-6 February (2009)
- 2 2 E. Dascalaki, P. Droutsa, A. Gaglia, S. Kontoyiannidis, C.A. Balaras
Datamining & Data Analysis for the Building Stock and its Energy Performance – The Datamine Project, **9th National Conference “Soft Energy Sources”**, p. 37-44, Geroskipou, Paphos, Cyprus, 26 – 28 March, (2009)

2011

- 2 3 C.A. Balaras, E.G. Dascalaki, A.G. Gaglia, K.G. Droutsa, S. Kontoyiannidis
An Overview of the New Hellenic Regulation on the Energy Performance of Buildings (KENAK), **3rd Int. Conference on Renewable Energy Sources & Energy Efficiency**, p. 445-455, I. Michaelides and E. Charalambides (editors), ISBN 978-9963-567-02-7, Nicosia, Cyprus, 19-20 May (2011).
- 2 4 C.A. Balaras, E.G. Dascalaki, K. Droutsa, S. Kontoyiannidis, A.G. Gaglia
Hellenic Regulation on the Energy Performance of Buildings – An update on EPBD Transposition in Greece
42nd Int. Congress “Heating, Refrigeration & Air-Conditioning”, p. 188-201, Belgrade, Serbia, 30 November – 2 December, 2011
- 2 5 E.G. Dascalaki, C.A. Balaras, K.G. Droutsa, S. Kontoyiannidis
Building Typologies And The Assessment Of The Energy Conservation Potential In The Residential Sector - The Tabula Project
42nd Int. Congress “Heating, Refrigeration & Air-Conditioning”, p. 202-212, Belgrade, Serbia, 30 November – 2 December, 2011
- 2 6 S. Kontoyiannidis
eKIA : a tool for the house
«**Residential Buildings Typologies & KENAK**»,
National Observatory of Athens, Athens, 23 November, 2011.

2013

- 2 7 E.D. Dascalaki, S. Kontoyiannidis, K.G. Droutsa, C.A. Balaras
Energy Certification of Hellenic Buildings
Proc. 4th Int. Conference on Renewable Energy Sources & Energy Efficiency – New Challenges, ISBN 978-9963-567-04-1, σ. 199-207, Nicosia, Cyprus, 6-7 June, 2013.
- 2 8 S. Kontoyiannidis
Building Information Model. The ISES Project,
Proc. 4th ECO Building Conference, 6th International Conference Building Green, Athens, 4 October, 2013 (invited speaker)

2014

- 2 9 K.G. Droutsa, E.G. Dascalaki, C.A. Balaras, S. Kontoyiannidis
Energy Performance of Hellenic Dwellings – The EPISCOPE project
Scientific Symposium on Sustainable Construction – Energy Refurbishment, DOMICATEC 2014 - Building & Renovating, Athens, May 9, 2014.
- 3 1 C.A. Balaras, E.G. Dascalaki, K. Droutsa, S. Kontoyiannidis
Theoretical & Actual Energy Performance of Hellenic Dwellings
Scientific Symposium on Energy in Buildings, ASHRAE Hellenic Chapter and Technical Chamber of Greece (TEE), Regional Section of Central Macedonia, Thessaloniki, 31 May, 2014.
- 3 2 C.A. Balaras, E.G. Dascalaki, K.G. Droutsa, S. Kontoyiannidis
Good Practices & Challenges Towards Nearly Zero Energy Buildings
ASHRAE RAL Annual Regional Conference, **Int. Symposium on “Building Renovation and Sustainability”**, Madrid, Spain, 19 September, 2014.
- 3 3 C.A. Balaras, E.G. Dascalaki, K.G. Droutsa, S. Kontoyiannidis
Calculated & Field Data of Energy Savings for Heating in Hellenic Dwellings

EinB2014 - 3rd Int. Conference “Energy in Buildings 2014”, ASHRAE Hellenic Chapter (ISSN 978-960-2241-9748) and Technical Chamber of Greece (TEE), 15 p., Athens, 15 November, 2014.

- ③④ E.G. Dascalaki, K.G. Droutsa, C.A. Balaras, S. Kontoyiannidis
Overview of Energy Refurbishment Actions in the Household Sector
10th National Conference “Soft Energy Sources”, Volume B, p. 1003-1013, Thessaloniki, 26 – 27 November, 2014.
- ③⑤ K.G. Droutsa, S. Kontoyiannidis, E.G. Dascalaki, C.A. Balaras
Mapping the Energy Performance of Hellenic Buildings Through the Energy Certificates
10th National Conference “Soft Energy Sources”, Volume B, p. 1047-1056, Thessaloniki, 26 – 27 November, 2014.

2015

- ⑤⑥ C.A. Balaras, E.G. Dascalaki, K.G. Droutsa, S. Kontoyiannidis
Building Refurbishment for Energy Efficiency - A Cost Effective National Energy Resource
Int. Symposium ERFC “Social Cooperatives for Energy Cost Reduction”, ERFC - European Regional Framework for Co-operation, Panteion University, General Secretaries Association of the Municipalities in Greece and SD MED, Athens, 31 March, 2015.
- ③⑥ C.A. Balaras, E.G. Dascalaki, K.G. Droutsa, S. Kontoyiannidis
Instruments-Framework for Energy Refurbishment of Existing Buildings
Symposium “Energy Conservation in Buildings”, Mediterranean College, Athens, 1 April, 2015.
- ③⑦ C.A. Balaras, E.G. Dascalaki, K.G. Droutsa, S. Kontoyiannidis
European Residential Building Typologies and Energy Efficiency Measures
ASHRAE 2015 Annual Summer Conference, **S9 - International Perspectives on Residential Energy Efficiency**, Atlanta, GA, 27 June – 1 July, 2015.
- ③⑧ C.A. Balaras, E.G. Dascalaki, P. Droutsa, S. Kontoyiannidis
Energy Performance of Hellenic Residential Building Stock Towards the 2020 & 2030 Targets
EinB2015 – 4th Int. Conference “Energy in Buildings 2015”, ASHRAE Hellenic Chapter and Technical Chamber of Greece (TEE), Athens, 31 October, 2015.
- ③⑨ S. Kontoyiannidis
Mapping the energy performance of Hellenic buildings from EPCs
EinB2015 – 4th Int. Conference “Energy in Buildings 2015”, ASHRAE Hellenic Chapter and Technical Chamber of Greece (TEE), Athens, 31 October, 2015.

2016

- ④⑩ C.A. Balaras, E.G. Dascalaki, P. Droutsa, S. Kontoyiannidis
Bottom-up Assessment of Hellenic Residential Building Stock Energy Performance
ASHRAE 2016 Annual Winter Conference, OR-16-C071, 8 p., Orlando, FL, 23-27 January, 2016.
- ④① C.A. Balaras, E.G. Dascalaki, K.G. Droutsa, S. Kontoyiannidis
Actual & Calculated Heating Energy Consumption in Hellenic Dwellings Using Data from EPCs and Field Studies
CLIMA 2016 – Proc. of the **12th REHVA World Congress**, Heiselberg, P. K. (Ed.), Vol. 6 “Building Performance”: ISBN (electronic) 87-91606-31-4 (vol. 6), Aalborg, Denmark, 22-25 May, 2016.
- ④② C.A. Balaras, E.G. Dascalaki, K. Droutsa, S. Kontoyiannidis
Heating Energy Use in Hellenic Residential Buildings
Workshop “How do households adapt to changing energy environments”, **3rd Energy and Society Conference: Transforming Energy for Society**, Leipzig, Germany 12-13, September 2016.
- ④③ K.G. Droutsa, S. Kontoyiannidis, E.G. Dascalaki, C.A. Balaras
Benchmarking Energy Use of Existing Hellenic Non-Residential Buildings
SBE16 – “Sustainable Synergies from Buildings to the Urban Scale”, 8 p., Thessaloniki, October 17-19, 2016.
- ④④ K.G. Droutsa, E. Dascalaki, S. Kontoyiannidis, C.A. Balaras
Trends of Popular Energy Conservation Measures and Savings in Hellenic Schools, p. 49-58
EinB2016 – 5th Int. Conference “Energy in Buildings 2016”, ASHRAE Hellenic Chapter (ISSN 2241-9748, ISBN 978-618-82991-0-8) and Technical Chamber of Greece (TEE), 237 p., Athens, 12
- ④⑤ C.A. Balaras, E.G. Dascalaki, K. Droutsa, S. Kontoyiannidis
Bridging the Gap of Actual and Calculated Heating Energy Consumption in Bottom-Up Residential Building Stock Modeling
47th International HVAC&R Congress and Exhibition (ISBN 978-86-81505-82-3), p. 115-133, Belgrade, Serbia, November 30 – December 2, 2016.

2 0 1 7

- ⑥⑤ C.A. Balaras, E.G. Dascalaki, K.G. Droutsa, M. Micha, S. Kontoyiannidis, A.A. Argiriou, Energy Use Intensities for Non-Residential Buildings, p. 369-389, **48th International HVAC&R Congress** (ISBN 978-86-81505-85-4), 408 p., B. Todorovic (Editor), SMEITS – KGH Srbije, Belgrade, Serbia, December 6-8, 2017.

TECHNICAL REPORTS FOR RESEARCH & OTHER PROJECTS

1 9 9 6

- ① S. Kontogiannidis, K. Droutsa, M. Santamouris. POLIS-Solar Control: Theoretical Background. POLIS - Urban Planning Research Actions to Improve Solar Access, Passive Cooling and Microclimate, European Commission, Joule Programme, Directorate General XII, (1996).
- ② S. Kontogiannidis, K. Droutsa, M. Santamouris. POLIS-Solar Control: A Detailed Tool. POLIS - Urban Planning Research Actions to Improve Solar Access, Passive Cooling and Microclimate, European Commission, Joule Programme, Directorate General XII, (1996).

1 9 9 7

- ③ A.A. Argiriou, S. Kontogiannidis, C.A. Balaras, D.N. Asimakopoulos. Presentation of Experimental Activities of the National Observatory of Athens. Solar Control Meeting, European Commission, Joule Programme, Directorate General XII, Seville, Spain, 27-29 November, (1997).
- ④ A.A. Argiriou, S. Kontogiannidis, C.A. Balaras, M. Nikou, D.N. Asimakopoulos. Analysis of the Awning Experiments. Solar Control Meeting, European Commission, Joule Programme, Directorate General XII, Seville, Spain, 27-29 November, (1997).
- ⑤ S. Kontogiannidis, A.A. Argiriou, C.A. Balaras, D.N. Asimakopoulos. Software Produced for the Acquisition and Analysis of the Experimental Data. Solar Control Meeting, European Commission, Joule Programme, Directorate General XII, Seville, Spain, 27-29 November, (1997).

1 9 9 8

- ⑥ C.A. Balaras, S. Kontogiannidis, A.A. Argiriou. System Component Simulations & Building Models. Study and Development of Heating/Cooling Systems Using Renewable Energy Meeting, XII Directorate of EC, Digne, France, 12 June, (1998).
- ⑦ S. Kontogiannidis, C.A. Balaras, A.A. Argiriou. Simulations of the Solar Collector System. Study and Development of Heating/Cooling Systems Using Renewable Energy Meeting, XII Directorate of EC, Genova, Italy, 17 December, (1998).
- ⑧ A.A. Argiriou, S. Kontogiannidis, C.A. Balaras. Simulations of the Floor/Heating System. Study and Development of Heating/Cooling Systems Using Renewable Energy Meeting, XII Directorate of EC, Genova, Italy, 17 December, (1998).
- ⑨ C.A. Balaras, S. Kontogiannidis, A.A. Argiriou. Absorption Heat Pump - Preliminary Implementation. Study and Development of Heating/Cooling Systems Using Renewable Energy Meeting, XII Directorate of EC, Genova, Italy, 17 December, (1998).
- ⑩ C.A. Balaras, S. Kontogiannidis, A.A. Argiriou. Study of the Complete System - Preliminary Implementation. Study and Development of Heating/Cooling Systems Using Renewable Energy Meeting, XII Directorate of EC, Genova, Italy, 17 December, (1998).
- ⑪ S. Kontogiannidis, A.A. Argiriou, C.A. Balaras. Archimedes v1.0 – User's Manual. Solar Control, European Commission, Joule Programme, Directorate General XII, (1998).

1 9 9 9

- ①② C.A. Balaras, K. Droutsa, Kontoyiannidis S. Contribution to General Questionnaire (Report99-015). TOBUS Programme, XII Directorate of EC, March (1999).
- ①③ C.A. Balaras, S. Kontogiannidis, A.A. Argiriou. Solar Collector System. Study and Development of Heating/Cooling Systems Using Renewable Energy, XII Directorate of EC, August (1999).

- 14 C.A. Balaras, S. Kontogiannidis, A.A. Argiriou. Solar Collector System. Study and Development of Heating/Cooling Systems Using Renewable Energy, XII Directorate of EC, August (1999).
- 15 S. Kontogiannidis, C.A. Balaras, A.A. Argiriou. TRN Display and System Optimization Study and Development of Heating/Cooling Systems Using Renewable Energy, XII Directorate of EC, Athens, 22 October (1999).

2000

- 16 S. Kontogiannidis, C.A. Balaras, A.A. Argiriou. Work package 4 – Study of the Complete System. Task 20-Synthesis An example for the evaluation of the results. Study and Development of Heating/Cooling Systems Using Renewable Energy, XII Directorate of EC, Paris, February (2000).

2001

- 17 A.A. Argiriou, CA Balaras, S. Kontogiannidis - *Simulations and Optimization*.
- 18 AA Argiriou, CA Balaras, S. Kontogiannidis - *TRN-Display & Design Guidelines - CDROM*. Final technical report for the European project Study and Development of Heating/Cooling Systems Using Renewable Energy, XII Directorate of EC, October (2001).

2003

- 19 C.A. Balaras, K. Droutsas, E. Dascalaki, S. Kontoyiannidis, Building Deterioration Assessment Guidelines, BDAG Handbook, INVESTIMMO Technical Report, Report N° 02-097, 10 p., October, 2003.
- 20 C.A. Balaras, K. Droutsas, E. Dascalaki, S. Kontoyiannidis, Building Deterioration Assessment Guidelines, BDAG Multimedia CD-ROM, INVESTIMMO Technical Report, Report N° 02-098, 430 p., October, 2003.
- 21 C.A. Balaras, K. Droutsas, E. Dascalaki, S. Kontoyiannidis, K. Hansen, E.H. Petersen, Building Environmental Impact Guidelines, BEIG Handbook, INVESTIMMO Technical Report, Report N° 03-048, 150 p., October, 2003.
- 22 C.A. Balaras, K. Droutsas, E. Dascalaki, S. Kontoyiannidis, K. Hansen, E.H. Petersen, Building Environmental Impact Guidelines, BEIG Multimedia CD-ROM, INVESTIMMO Technical Report, Report N° 03-049, 10 p., October, 2003.
- 23 C.A. Balaras, S. Kontoyiannidis – *SACE Multimedia CDROM* Final technical report for the European project SACE, European Commission, DG Research, November (2003).

2004

- 24 D. Caccavelli, C.A. Balaras, K. Droutsas, E. Dascalaki, S. Kontoyiannidis, R. Lawrence, A. Rabinovich, F. Joerin, F. Hamel, C. Wetzels, B. Hiebeler, G. Franco, S.F. Musso Building Asset Management Code of Good Practice Final technical report for the European project INVESTIMMO, European Commission, DG XII, January (2004).
- 25 C.A. Balaras, E. Dascalaki, S. Kontoyiannidis, A. Gaglia - *XENIOS Software* For the European project XENIOS, European Commission, DG TREN, February (2004).
- 26 C.A. Balaras (Editor), E. Dascalaki, S. Kontoyiannidis, B. Bittner, R. Lechner, K.B. Wittchen, K. Thomsen, I. Vis, G. van Cruchten, J. Berben, M. Sunikka Pilot Studies, σ. 154.
- 27 C.A. Balaras (Editor), S. Kontoyiannidis, B. Bittner, R. Lechner, K.B. Wittchen, K. Thomsen, J. Berben, M. Sunikka *Recommendations on EPA-ED Method & Tool*, σ. 29.
- 28 C.A. Balaras, S. Kontoyiannidis *EPA-ED Multimedia CDROM* Final technical reports for the EPA-ED, European Commission, DG TREN, p. 154, September (2004).

2005

- 29 C.A. Balaras, E. Dascalaki, P. Droutsas, A. Gaglia, S. Kontoyannidis, S. Geissler, K. Nikolics, R. Lechner, K.B. Wittchen, K.E. Thomsen, R. Lahrech, H. Erhorn, H. Erhorn-Kluttig, M. Zinzi, G. Fasano, Mr. Bart Poel, L. Soethout and B. Elkhuisen, *Survey: National Context and Need for Instruments*, p. 76, Final technical report for the European project **EPA-NR**, European Commission, DG TREN, June (2005).

2006

- ③① C.A. Balaras, E. Dascalaki, P. Droutsas, A. Gaglia, S. Kontoyiannidis, S. Geissler, K. Nikolic, R. Lechner, K.B. Wittchen, K.E. Thomsen, R. Lahrech, H. Erhorn, H. Erhorn-Kluttig, M. Zinzi, G. Fasano, Mr. Bart Poel, L. Soethout and B. Elkhuisen, *Survey: National Context and Need for Instruments*, Revised final report, p. 84, Final technical reports for the European project **EPA-NR**, European Commission, DG TREN, November (2006).

2007

- ③① C.A. Balaras (Editor) E. Dascalaki, P. Droutsas, A. Gaglia, S. Kontoyiannidis, S. Geissler, K. Nikolic, R. Lechner, P. Oswald, K. Wittchen, R. Lahrech, H. Erhorn, H. Erhorn-Kluttig, M. Zinzi, G. Fasano
Final technical report for the European project **EPA-NR**, European Commission, DG TREN, June (2007).

2008

- ③② E. Dascalaki, C.A. Balaras, P. Droutsas, S. Kontoyiannidis and A. Gaglia, *Data collection from energy audits for Hellenic buildings in the residential and tertiary sector – Summary report*, 40p, Final technical reports for the European project **DATAMINE**, European Commission, Intelligent Energy Europe, December (2008).

2011

- ③③ E. Dascalaki, C.A. Balaras, K. Droutsas, S. Kontoyiannidis, *National Scientific report (1st draft)*, *Final Technical Report D6.2*, 76 p, for **TABULA**, European Commission, Intelligent Energy – Europe (IEE), May (2011).
- ③④ E. Dascalaki, K. Droutsas, C.A. Balaras, S. Kontoyiannidis, *Hellenic Building Typology Brochure*, Hellenic contribution to the *Final Technical Report D3: National Building Typologies / D5.2: National typology Brochures*, 88 p., for **TABULA**, European Commission, Intelligent Energy – Europe (IEE), May (2011)

2012

- ③⑤ E. Dascalaki, C.A. Balaras, K. Droutsas, S. Kontoyiannidis, *National Scientific report - Greece*, *Final Technical Report D6.2*, 76p., for **TABULA**, European Commission, Intelligent Energy – Europe (IEE), May (2012).
- ③⑥ T. Loga, N. Diefenbach, B. Stein (eds) E. Dascalaki, C.A. Balaras, K. Droutsas, S. Kontoyiannidis, et al, *Typology Approach for Building Stock Assessment – Main results of the TABULA project*, *Final Technical Report TABULA*, 43p., European Commission, Intelligent Energy – Europe (IEE), October (2012).

2014




- ③⑦ C.A. Balaras, G. Gudnason, F. Noack, B. Marteinson, S. Kontoyiannidis, P. Katranuschkov, *D4.1+ Amendment Technical specification of the overall framework and the principal energy profile and consumption patterns - Stochastic energy profiles & consumption patterns*, 17 p., **Final Technical Report D4.1+** (Additional Deliverable) for the European project **ISES**, European Commission, DG Information Society and Media, FP7, January (2014).
- ③⑧ E.G. Dascalaki, K. Droutsas, C.A. Balaras, S. Kontoyiannidis, *D2.3 Hellenic Building Typology Brochure – Energy Conservation Potential (In Hellenic)*, 146 p., **Technical Report D2.3** for the European project **EPISCOPE**, European Commission, Executive Agency for Small and Medium-sized Enterprises (EASME), Intelligent Energy – Europe (IEE), July (2014).
- ③⑨ E.G. Dascalaki, C.A. Balaras, K. Droutsas, S. Kontoyiannidis, *D2.4 Inclusion of New Buildings in Residential Building Typologies – Steps towards NZEBs exemplified for different European countries – Synthesis Report 1* for **EPISCOPE**, Hellenic Contribution, 17 p., **Final Technical Report D2.4** for the European project **EPISCOPE**, B. Stein, T. Loga, N. Diefenbach (eds), 284 p., European Commission, Executive Agency for Small and Medium-sized Enterprises (EASME), Intelligent Energy – Europe (IEE), October (2014).

2016

- ④ ① B. Stein, T. Loga, N. Diefenbach, (eds), E. Dascalaki, C.A. Balaras, K. Droutsas, S. Kontoyiannidis, et al. Hellenic Contribution in D1.2 Monitor Progress Towards Climate Targets in European Housing Stocks Main Results of the EPISCOPE Project, 36 p
- ④ ① B. Stein, T. Loga, N. Diefenbach, (eds), E.G. Dascalaki, C.A. Balaras, K. Droutsas, S. Kontoyiannidis. Hellenic Contribution in D2.1 Statistical Tables, <http://episcope.eu/building-typology/country/gr/>
- ④ ② K. Droutsas, E.G. Dascalaki, C.A. Balaras, S. Kontoyiannidis. Hellenic Contribution in D2.2 National “Building Type Matrices” and datasets of example buildings, TABULA.xlsm
- ④ ③ Dascalaki, K. Droutsas, C.A. Balaras, S. Kontoyiannidis, D2.3 Hellenic Building Typology Brochure – Energy Conservation Potential (in Hellenic), 152 p., D2.3 National “Typology Brochures”
- ④ ④ E.G. Dascalaki, C.A. Balaras, K. Droutsas, S. Kontoyiannidis, D3.2b *Potential and Prospects on energy Upgrading of the Hellenic Building Stock (in Hellenic)*, 47 p., **D3.2b National “Typology Brochures”**
- ④ ⑤ E.G. Dascalaki, C.A. Balaras, K. Droutsas, S. Kontoyiannidis. Hellenic Contribution in D3.3 Tables of Basic Energy Performance Indicators, TABULA WebTool
- ④ ⑥ B. Stein, T. Loga, N. Diefenbach, (eds), E. Dascalaki, C.A. Balaras, K. Droutsas, S. Kontoyiannidis, et al. D3.5 Scenario Analyses Concerning Energy Efficiency and Climate Protection in Regional and National Residential Building Stocks Examples from Nine European Countries

Final Technical Reports for the European project **EPISCOPE**, N. Diefenbach, T. Loga, B. Stein (eds.)

EDUCATIONAL NOTES

	<p>Educational Material for Training Energy Auditors</p>	<p>Material used for educational purposes and training of permanent energy inspectors throughout Greece. Published by the Technical Chamber of Greece (TEE), June (2011). Participation in volumes: ΔΚ3 – Building Energy Audits (132 p.) Book (100 p.) & CDROM with the educational version of the EPIQR software (version 2.3). Used in the frame of the course «Building Energy Audits», Department Environmental Engineers, Demokritio University of Thrace (ΔΠΘ), March (2006). Authors: C.A. Balaras, S. Kontoyiannidis, K. Droutsas</p>
 	<p>EPIQR Refurbishment of Apartment Buildings – Energy & Environmental Audits & Construction Diagnosis for the Assessment of Apartment Buildings (Educational version 2.3)</p>	<p>Material used for educational purposes and training of permanent energy inspectors throughout Greece. Published by the Technical Chamber of Greece (TEE), June (2011). Participation in volumes: ΔΚ3 – Building Energy Audits (132 p.) Book (100 p.) & CDROM with the educational version of the EPIQR software (version 2.3). Used in the frame of the course «Building Energy Audits», Department Environmental Engineers, Demokritio University of Thrace (ΔΠΘ), March (2006). Authors: C.A. Balaras, S. Kontoyiannidis, K. Droutsas</p>

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