







# ROADMAPS FOR NZEBS AND ZEBS

**Between Obligations And Possibilities** 

# RCEPB 2023 PROGRAM

SIMULTANEOUS INTERPRETATION EN&FR 8-9 JUNE 2023, Romanian National Library, Bucharest

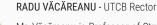


### REGISTRATION & WELCOME COFFEE

June 8th 2023, 9:00 - 9:30



#### CONFERENCE CHAIRS WELCOME





Mr. Văcăreanu is Professor of Structural Reliability and Seismic Risk Analysis at UTCB. He is President of the European Association for Earthquake Engineering (EAEE), National Delegate of Romania at the International Association for Earthquake Engineering (IAEE) and Executive President of the National Commission for Earthquake Engineering of Ministry of Development, Public Works and Administration of Romania. In between 2002 and 2008 he served as the director of the National Centre for Seismic Risk Reduction, implementing the JICA (Japan Technical Cooperation Agency) Project on Seismic Risk Reduction for Buildings and Structures in Romania. His research interest covers mainly seismic hazard, fragility and risk analyses. Since March 2016 he has been serving as the Rector of UTCB.

#### MARIN TOLE - MDLPA State Secretary

Mr. Tole holds a doctorate in Economics since 1999 and he is University Professor in the "Finance, Credit, Accounting" department of the Faculty of Commercial and Financial Relations - Domestic and International Banking. He has published more than 30 editions of specialized textbooks and 14 specialized articles presented at conferences or in magazines and was part of research teams for 8 domestic and international projects.



#### MARIAN MOICEANU-UAUIM Rector

Mr. Moiceanu is Prof.dr.arch. at UAUIM, former Vice Dean, Dean and now Rector. He is running his own architect company, contributing to important architectural projects in Romania and abroad (office buildings, malls, showrooms, hospitals etc.) He is present in many decisions taking commissions at Bucharest and national level. He is author or co-author of known professional architect guidebooks and interesting scientific articles.



#### IOAN-SILVIU DOBOSI - AllR President & General Manager - DOSET IMPEX

Mr. Doboşi is President of Romanian Association of Building Services Engineers and the founder of the Doset Impex company - currently one of the main players on the Romanian and Belgian market of installation works for constructions and equipment delivery for this sector. He has extensive expertise in the fields of facility engineering, building energy performance, building sustainability and renewable energy utilization.



#### RADU STĂNICĂ-SELZER - General Manager - TEXCO (main sponsor)

Mr. Stănică-Selzer is a specialist in a wide range of advanced humidification and dehumidification technologies, including steam humidifiers, fine spray systems, evaporative humidifiers and more. All the products are manufactured using the latest technologies and high-quality materials, guaranteeing long-term reliability and efficiency.



#### LIVIU DRUGHEAN - AIIR Executive Director & AFCR President

Mr. Drughean is Professor at the Technical University Of Civil Engineering Bucharest. He is Doctor of Engineering with experience in Thermotechnics and Thermal Machines, Heat and Mass Transfer, Cooling, Cryogenics and Heat Pumps. He is also member of BOG (Board of Governors) in ASHRAE Danube Chapter and Treasurer of ASHRAE REGION XIV.



#### CĂTĂLIN LUNGU - REHVA President

Mr. Lungu is Assoc. Professor at UTCB and was for 7 years a visiting professor at the Ecole Nationale Superieure de l'Energie, l'Eau et l'Environment ENSE3 (France). He is specialized in dynamic simulation of HVAC and RES systems, including EPB and NZEB. He represents REHVA as president, OAER as president and AlIR as prime-vicepresident. Dr. Lungu was the organizing committee chair of the HVAC World Congress CLIMA 2019 (2016-2019) and chair of 14 editions of RCEPB, since 2009. He is/was project manager of 5 research projects and member in other 4, including the project for recasting the national methodology for the calculation of the energy performance of buildings, according to the new set of EPB standards. He is also member of 6 standardization technical committees (5 ASRO and 1 ISO). As main author or co-author, Dr. Lungu has been publishing 6 books and more than 50 scientific or technical articles.





# SESSION I Round Table With Romanian Authorities



Moderation by: CĂTĂLIN LUNGU - REHVA President CRISTIAN ERBAŞU - FPSC President





OANA ÖZMEN - Romanian Parliament Deputy

Ms. Ozmen graduated from the Faculty of Law, "Dimitrie Cantemir" University, specializing in labor law. She currently owns an individual law office with main activity in the field of commercial law and insolvency procedures. During her career, she was involved in a multitude of institutional development and restructuring projects. In 2016, she took her first steps in politics. Currently, as a member of Parliament, she is actively involved in the design, promotion and implementation of projects on the energy efficiency of buildings and hydrogen. Ms. Ozmen's political mission is updating energy legislation.



ANCA GINAVAR - General Director - MDLPA

Ms. Dr.arch. Ginavar, within the Ministry of Development, Public Works and Administration is coordinatig the activity of spatial planning, housing policies, urban and regional planning at central administration level, drafting legislation, drafting public policies and strategies and monitoring the implementation of the national strategies. She is the head of the national authority, monitoring committee member for ESPON 2013 Programme – the European observation network for territorial development and cohesion, part-financed by the European Regional Development Fund under Objective 3 for European Territorial Cooperation.



ADRIAN AXINIA - Romanian Parliament Deputy

Mr. Axinia graduated from the Faculty of Civil, Industrial and Agricultural Constructions within the Technical University of Civil Engineering Bucharest. He is an entrepreneur, site manager and technically responsible for execution. Since December 2020, he has been a deputy for Prahova in the Romanian Parliament, representing the Alliance for the Union of Romanians. He entered politics with a fervent desire to change something in society, being involved in numerous civic actions before taking this important decision.



IULIANA CHILEA - General Manager - ASRO

Ms. Chilea is the General Director of the Romanian standardization body - ASRO since 2017. She has been actively involved in the standardization activity for over 15 years, with active participation in the technical and management structures of CEN and CENELEC – the European standardization organizations, where she was nominated to lead various working groups focused on developing and reshaping the standardization processes. As the Romanian delegate to the Committee on Standards from the European Commission she is aware of all the trending activities related to regulations, directives, standardization Mandates the EC is developing in order to implement its objectives for the European Market.



PAUL RACOVITĂ - General Inspector ISC

Mr. Racovită has the rank of State Secretary and is a graduate of the Faculty of Plant Engineering from UTCB. He also held the position of IG in the period 2013-2015. Prior to the current promotion, Paul Racovita held the position of deputy general inspector at the ISC. The State Construction Inspectorate is the specialized technical body designated to exercise, according to the law, state control regarding the observance of urban planning discipline and the construction authorization regime, as well as the uniform application of the legal provisions in the field of construction quality.



LIVIU MUSAT - General Manager - "Sud-Muntenia" Regional Development Agency (ADRSM)

Mr. Muşat – General Director of "Sud-Muntenia" Regional Development Agency. Involved in the monitoring of all instruments for European integration, in the elaboration of the CBC Programme, in partnerships related to projects that have as objectives the use of European funds, all of these are activities that reflect the professional experience in the field of regional development.- President of the South Muntenia Regional Program 2021-2027 Monitoring Committee; Vice President of ROREG - Association of Regional Development Agencies in Romania; - President of Board of Directors for Cross Border Co-Operation Regional Office Călărași for the Romania – Bulgaria Border premises



DAN NICULA - General Manager - "Bucharest-Ilfov" Regional Development Agency (ADRBI)

Mr. Nicula is coordinating the institution's activities since its establishment in 1999. Prior to Romania's accession to the EU, ADRBI implemented at the regional level the PHARE CES Programs allocated to the Bucharest-Ilfov region. After 2007, ADRBI implemented the powers delegated by the Management Authority to ADRBI as an Intermediate Body for two Regional Operational Programs (with a total budget for both programs of almost 800 million Euro). Currently, the Agency is the Management Authority for the Bucharest-Ilfov Regional Program 2021-2027, a program with a budget of over 1.4 billion Euro.



CRISTIAN ERBAŞU - FPSC & TECT President & owner of the largest Romanian construction company, "Cristian Erbaşu"

Mr. Erbaşu is the President of the Federation of Employers of Construction Companies (FPSC). He is a graduate of the Technical University of Civil Engineering Bucharest with a specialization in Civil Engineering and holds a PhD in technical sciences from the same faculty. Mr. Erbaşu is intensively involved in employers' organizations, being one of the founding members of the Patronage of Construction Companies (PSC) and of the Federation of Employers of Construction Companies (FPSC), and internationally, he is a member of the board of the European Union of Developers and House Builders and of the International Association for Hydro-Environment Engineering and Research (IAHR)".

(11:00 - 11:30)

**COFFEE BREAK** 







#### SESSION II



Moderation by: FLORIN BĂLTĂREȚU - UTCB Vice Rector ILINCA NĂSTASE - TRC Co-chair REHVA & Director of UTCB Doctoral School





CHRISTIAN INARD Head of Faculty La Rochelle Université

11:30-11:50

Presentation: "Building design towards adaptation to climate change: A sensitivity analysis"

Mr. Inard is Professor at La Rochelle University (France) since 1998. He is author or co-author of more than 130 international papers and communications and he supervised 30 PhDs. He is head of the joint laboratory for energy and environmental efficiency in cities (4EV LAB) at La Rochelle University & Editor of the Journal Energy and Buildings.



LARS KNACKE - Business Development Manager - CONDAIR & RADU STĂNICĂ-SELZER - General Manager - TEXCO (main sponsor)

Presentation: "The adiabatic humidification process - Direct room humidification"

Mr. Knacke is acting in the field of business development for existing structures and establishment of new networks with a focus on sales in the international capital goods business.



JAAP HOGELING - CEN/TC371 Chair

12:10-12:30

11:50-12:10



Presentation: "The new EPBD-2023 is expected to include more requirements related to IEQ performance and ventilation system inspection, will this impact the update of the current set of CEN and ISO EPB standards?"

Mr. Hogeling is manager for international standards at ISSO, Chair of CEN/TC 371 Energy performance of buildings and Member of ISO/TC 163/WG 4 [Joint Working Group (JWG) between ISO/TC 163 and ISO/TC 205: Energy performance of buildings, using holistic approach]. He is also Expert at EPB.Center and Editor-in-Chief of the REHVA-Journal.



PARIS FOKAIDES - Frederick University Associate Professor

12:30-12:50

Presentation: "Operational Rating: A Key Tool for Achieving NZEBs and Development of a New CEN Standard"

Mr. Fokaides is Associate Professor at the School of Engineering of Frederick University, Cyprus, and a research mentor at Kaunas University of Technology, Lithuania. In Frederick University, Paris is lecturer of the courses of Fluid Mechanics and Heat Transfer at the Department of Mechanical Engineering, as well as the courses of Sustainable Energy Resources, and Energy Design of Buildings in the Masters Programme of Energy Engineering, which he also coordinates.



LIVIO MAZZARELLA - Politecnico di Milano Professor & REVHA Vice President

12:50-13:10

Presentation: "Building performance indicators: open questions on their assessment"

Mr. Mazzarella is a mechanical engineer specialized in energy application at Politecnico di Milano. He is Full Professor of Building Physics and Building Energy System at Politecnico di Milano since 2000. Full Professor of Building Physics and Building Energy System at Politecnico di Milano since 2000, he is currently teaching "Green Building Energy Systems" at the School of Industrial and Information Engineering and "Acoustics in Building" at the School of Architecture, Urban Planning and Construction Engineering.

## **DISCUSSIONS**

13:30 - 14:30

## **NETWORKING LUNCH**





# SESSION III

Moderation by: ANDREI DAMIAN - UTCB Associate Professor ANCUȚA MĂGUREAN - EU Comission REA Expert





SYLVIAN COURTEY - Eurovent Certification President

14:30-14:50

Presentation: "Energy efficient ventilation: how investors can take the lead"

Mr. Courtey has a PhD in Civil Engineering and Building Science. He is developer of certification programmes for HVAC&R products or components and follow-up of European standards and regulations related to HVAC&R industry. His specialties are: Regulation, Standardization, Certification in the HVAC&R field.



RADU STĂNICĂ-SELZER - General Manager - TEXCO (main sponsor)

14:50-15:10

Presentation: "Isothermal humidification process + JUMAG brand steam generators"

Mr. Stănică-Selzer is a specialist in a wide range of advanced humidification and dehumidification technologies, including steam humidifiers, fine spray systems, evaporative humidifiers and more. All the products are manufactured using the latest technologies and high-quality materials, guaranteeing long-term reliability and efficiency.







JANA BENDŽALOVÁ - Executive Manager - ENBEE

Presentation: "Key performance indicators for NZEB and ZEB - the quantified example of a family house"

Ms. Bendžalová is a managing director and senior expert in the consultancy company ENBEE. She was responsible for energy performance and key performance indicators in several EU projects (ALDREN, CEN-CE, EPC RECAST). She worked for the DG ENER European Commission.



IRINA ODOR - Business Manager - CELCO

15:30-15:45

15:10-15:30

Presentation: "Sustainable buildings for future generations"

Ms. Odor has accumulated 20 years of experience in the field of construction materials. From this role, she is coordinatig the strategy for sales and marketing activities within the organization for the three factories: BCA Factory, Lime Factory and Mortar Factory. She is also involved in working groups regarding national and EU policies in the field of construction materials, climate and industrial decarbonization.



ANDREI LIŢIU - Executive Director - EPB Center

15:45-16:00

Presentation: "EU projects supporting the epbd recast: energy performance certificates & smart readiness indicator"

Mr. Litiu has more than 12 years experience in design, installation, commissioning, operation and research of technical building systems with a complementing political 'dimension' i.e. sound knowledge and understanding of EU's decision-making process and EU's climate and energy policy framework acquired while working as lobbyist for eu.bac and further developed during technical advocacy activities at REHVA

### **DISCUSSIONS**

16:00 - 16:30

#### COFFEE BREAK



#### SESSION IV



Moderation by: GRATIELA TÂRLEA - AGFR President
NICOLAE ANTONESCU - UTCB Associate Professor





ILHEM BORCHENI - Head of Civil Engineering Department - IIT

16:30-16:50

Presentation: "Proposal of new asphalt mixes with low energy and ecological impacts: Formulation and Behavior"

Ms. Borcheni holds a permanent professorship at the International Institute of Technology of Sfax (IIT), Tunisia and has been serving as the head of the Civil Engineering Department since 2019. Currently, she also serves as the director of technological studies at the IIT.



JAVIER LINARES - Technical Director - ATREA

16:50-17:05

Presentation: "New generation of school ventilation units: Duplex Inter and Inter-H. Vertical and under-ceiling installation'

Mr. Linares is Technical & After Sales Manager at ATREA Romania, expert in control systems. He graduated from Glasgow Caledonian University and Edinburgh College. He currently deals with the technical aspects and the training workshops of HVAC professionals in Romania.



NIKOS MPOUZIANAS - Associate Researcher - CERTH

17:05-17:25

Presentation: "Building renovation roadmapping: An automated methodology framework for energy efficiency improvement and sustainable renovation planning"

Mr. Mpouzianas is an associate researcher at the Center for Research and Technology Hellas (CERTH) since 2022. His main research interests concern renovation roadmaps, dynamic EPC issuance, forecasting of electrical load consumption, and operational optimization of microgrids. His diploma thesis designed an impulse current generator to simulate the thermal stresses of a lightning strike.

# **DISCUSSIONS**

17:30 - 18:15) Entertainment show by Dinu Lipatti College



18:15 - 19:00

COCKTAIL







## **REGISTRATION & WELCOME COFFEE**

June 9th 2023, 9:00 - 9:30



## **CONFERENCE OPENING**



CEZAR VLĂDUŢ - UTCB Vice Rector

Mr. Vlăduț is the vicerector of the Technical University of Civil Engineering Bucharest, responsible for student activities, communication, IT and university image. He is a lecturer in the Department of Hydraulics Sanitary Engineering and Environmental Protection and his interests are in aerodynamics and wind engineering.



CĂTĂLIN LUNGU - REHVA President

Mr. Lungu is Assoc. Professor at UTCB and was for 7 years a visiting professor at the Ecole Nationale Superieure de l'Energie, l'Eau et l'Environment ENSE3 (France). He is specialized in dynamic simulation of HVAC and RES systems, including EPB and NZEB. He represents REHVA as president, OAER as president and AlIR as prime-vicepresident. Dr. Lungu was the organizing committee chair of the HVAC World Congress CLIMA 2019 (2016-2019) and chair of 14th editions of RCEPB, since 2009. He is/was project manager of 5 research projects and member in other 4, including the project for recasting the national methodology for the calculation of the energy performance of buildings, according to the new set of EPB standards. He is also member of 6 standardization technical committees (5 ASRO and 1 ISO). As main author or co-author, Dr. Lungu has been publishing 6 books and more than 50 scientific or technical articles.

#### SESSION V



Moderation by: CRISTIANA CROITORU - UTCB Associate Professor TIBERIU CATALINA - UTCB Associate Professor



10:05-10:20

JAREK KURNITSKY - REHVA TRC Chair

Presentation: "Primary energy, ZEB and new IEQ requirements in EPBD proposal by EU Parliament"

Mr. Kurnitsky is Professor specialized in Energy Performance of Buildings and Indoor Climate, at Tallinn University of Technology. Since April 2012 he is the leader of Nearly Zero Energy Buildings nZEB research group at TUT. Prof. Kurnitsky is a REHVA and SCANVAC awarded scientist with about 300 items in his list of publications.



RĂZVAN GLIGA - Area Sales Manager - HEXONIC

Presentation: "In search of energy efficiency for more than 30 years"

Presentation: "EPBD2023 - The consequences of the fossil fuel ban"

Mr. Gliga has 10 years of experience with thermal transfer solutions and more than 20 years of fluid vehicle solutions. He had the opportunity to work over time with some of the biggest experts in the field in Romania and with established international manufacturers of equipment, market leaders in their fields.



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JOHANN ZIRNGIBL - REHVA Vice President

10:20-10:40



Mr. Zirngibl is since 2019 independent expert in the field of energy efficiency in buildings and the related policy support. He is adviser for the European Commission (DG TREN, DG Enterprise, DG Enlargement), National authorities and majors in the Construction sector (financial sector, service and energy suppliers). He is convenor of European (CEN) and International (ISO) standardization working groups related to energy efficiency, especially in the HVAC sector. Since 2022, he is REHVA Vice President and Director of EPB Center.



LIVIU BĂJENARU & MIHAI VIERU - MAN&MACHINE

Presentation: "How BIM contributes to the analysis and optimization of the building's energy

From construction design to execution and operation, Man and Machine will help you deliver high quality BIM projects





PEDRO VICENTE-QUILES - REHVA Vice President

Presentation: "Energy Efficiency in office buildings: measurements and simulations"

Mr. Vicente-Quiles is an expert in Energy Efficiency in Buildings, President of ATECYR Technical Committee and Senior Professor at Universidad Miguel Hernández. He is since 2022 Vice President of REHVA.







DIANA COMŞA - Engineering marketing specialist - BOLOBOC

Presentation: "Climate emergency from a business & marketing perspective"

BOLOBOC is the marketing agency specialised in engineering & construction sector, having more than 15 years experience in this sector.

### **DISCUSSIONS**

11:30 - 12:00

#### **COFFEE BREAK**



#### SESSION VI



Moderation by: ANDREI BURLACU - TUIASI Professor ANAGABRIELA DEAC - UTCN Lecturer



12:00-12:15



CĂTĂLIN NEGRUȚIU - Commercial Sales Manager - DAIKIN

Presentation: "Accreditation of green buildings (BREEAM) using Daikin energy efficient equipment"

Mr. Negruțiu coordinates the sales activity in the commercial segment at Daikin Romania. Cătălin is passionate about the HVAC industry and its universal applications, having a solid academic background in this field. In the almost 20 years of experience within Daikin Romania, he has provided complex solutions and HVAC-R equipment for a wide range of hotels, office buildings, industrial and residential projects.



TIBERIU CATALINA - AIIR-FV Vice President

12:15-12:30

Presentation: "Investigating the Relationship Between Ventilation and Indoor Air Quality in Schools: An Experimental Approach"

Mr. Catalina is an associate professor of Building Physics and Building Services at the Technical University of Civil Engineering Bucharest. Since 2013, as PhD coordinator, he worked with PhD and master students on performance simulation and optimization of NZEB, energy systems for buildings and indoor environmental quality in schools.



MIRELA ANDOR - Project Manager - DANFOSS

12:30-12:45

Presentation: "Decarbonization of heating systems in multi-family buildings – Evoflat the solution for renovation and new construction"

Ms. Andor has been a member of the Danfoss team since 2009 and in this capacity coordinated the development of projects in the field of centralized heating throughout Romania. The portfolio of projects includes infrastructure projects, such as the modernization and efficiency of heating stations, as well as residential projects, new constructions or renovations, with centralized heating models.



RALUCA TEODOSIU - Energy Efficiency Expert - TUD Group

12:45-13:00

13:00-13:15

Presentation: "Guidelines on Investing in a Greener Future in Romania"

Ms. Teodosiu is Associate Professor at the Technical University of Civil Engineering with 19 years of experience. She is specialized in CFD experimental and numerical simulation, modelling of HVAC energy efficiency, including EPB and nZEB. She is also head of the energy efficiency department at TUD Group, developing major projects in the energy field.



HORAŢIU BAŞA - General Manager - TESTO

Presentation: "Cost reduction by measuring the energy performance of buildings with the help of professional measurement tools"

Mr. Başa is an experienced Managing Director with a long history of working in the electrical and electronic manufacturing industry. Skilled in Negotiation, Budgeting, Operations Management, Sales and Sales Operations.







ANCUŢA MĂGUREAN - Expert of EU Commission - Research Executive Agency

13:15-13:30

Presentation: "nZEB in Public Buildings - Between Obligations and Possibilities. Case Study: the Central University Library Cluj-Napoca, Romania"

Ms. Măgurean is an engineer and researcher in the field of energy efficiency of buildings, being an energy auditor for buildings Ici degree, Asst. Prof. at the Technical University of Cluj-Napoca, expert of the European Commission, former Vice-President of AAECR (Association of Energy Auditors for Buildings in Romania).

13:30-13:45



ANDREI GUŞTIUC - General Manager - WEBER ENGINEERING

Presentation: "The Glass System with Intelligent Transparency Adjustment (SRIT SYSTEM)

Mr Andrei Gustiuc is the General Manager of Weber Engineering SRL and represents a group of companies with over 20 years of experience in different industrial and HVAC projects.



HORIA PETRAN - Cluster pRO-nZEB President

13:45-14:00

Presentation: "nZEB Ready: Changing the Common Construction and Design Practices"

Mr. Petran is senior research scientist and coordinator of the Romanian Building Knowledge Hub, within the National Institute for Research and Development in Construction, Urban Planning and Sustainable Spatial Development "URBAN-INCERC". He is Doctor of Science in Mechanical Engineering since 2003 and he has a long teaching activity as guest assistant or associate professor at various technical universities in Bucharest.

### **DISCUSSIONS**

14:00 - 14:30

#### **NETWORKING LUNCH**



## SESSION VII —— EPB Tools: ENERG+ & DOSET-PEC Discussions with the developers and energy auditors



Moderation by: CĂTĂLIN LUNGU & IOAN BISTRAN





ENERG+ - Developed by OAER for all designers, engineers, architects and energy auditors for buildings in Romania

The ENERG+ software was designed to be used by all energy auditors for buildings but also by architects and designers in the field of building services and construction. ENERG+ is intended both for the energy certification of multi-zonal buildings or building units, as well as for apartments. The program can also be used as an energy design tool for nZEB buildings, new or renovated buildings, including in the "lifetime" license version the economic calculations from audit reports.

Created in a complex programming language, ENERG+ has an interactive interface, offering the energy auditor a very useful and fast tool for energy certification and auditing.



DOSET-PEC - Calculation Software for Energy Performance of Buildings and Apartments

The company Dosetimpex SRL, Timişoara - IT department, developed this computer program, "Doset-PEC", in order to ease the tasks of certified energy auditors for the preparation of the energy audit and the development of the energy certificate of a building/apartment.

The program interface is friendly, easy, with an attractive design and well organized, so that the user can access the main functions of the program with a simple click. Having all the available information about the building to be certified, it takes 25-30 minutes to enter the data and issue the energy certificate.

(15:15 - 16:00)

## RCEPB CLOSURE

# Artistic Show by "Cuibul Artistilor" & Awards Ceremony

Moderation by: CĂTĂLIN LUNGU & EMIL IAKABOŞ & TEXCO (main sponsor) & NIKOOS





