Resilient ventilative cooling in practice

Wednesday, December 9th, 2020

14:00-15:45 (Brussels, BE)

13:00-14:45 (London, UK)

15:00-16:45 (Athens, GR)

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The current development in building energy efficiency towards nZEB buildings represents a number of new challenges to design and construction. One of these major challenges is the increased need for cooling in these highly insulated and airtight buildings, which is not only present in the summer period but also in the shoulder seasons and in offices even in midwinter. Resilient ventilative cooling can be an energy efficient solution to address this cooling challenge in buildings.

This webinar will present solutions of ventilative cooling in practice in residential and non-residential buildings. Peter Holzer, operating agent of IEA EBC Annex 80 Resilient Cooling of Buildings, will give an overview, and speakers from industry will demonstrate interesting ventilative cooling components.

This webinar is organised by INIVE EEIG (<u>www.inive.org</u>) with the support of the IEA EBC Annex 80 Resilient Cooling of Buildings (<u>https://annex80.iea-ebc.org/</u>), the IEA-EBC Annex 62 Ventilative Cooling (<u>https://venticool.eu/annex-62-home/</u>) and the venticool platform (<u>www.venticool.eu</u>), and in cooperation with the Air Infiltration and Ventilation Centre (<u>www.aivc.org</u>).

Programme (Brussels time)

- 14:00 INTRODUCTION TO RESILIENT VENTILATIVE COOLING AND VENTICOOL Hilde Breesch, KU Leuven, BE
 14:10 VENTILATIVE COOLING COMPONENTS: AN OVERVIEW Peter Holzer, Operating Agent EBC Annex 80, Institute of Building Research & Innovation, AT
 14:25 APPLICATION OF LOUVRES TO SUPPORT VENTILATIVE COOLING Ivan Pollet, Renson, BE
- 14:40 **Questions and answers**

- 14:50 EXAMPLES OF AIR FLOW ENHANCING AND NATURAL COOLING COMPONENTS Nick Hopper, Monodraught, UK
- 15:05 CONTROLLED WINDOWS FOR VENTILATIVE COOLING Peter Foldbjerg, Velux, DK
- 15:20 VENTILATIVE COOLING INTEGRATED DESIGN Jannick Roth, WindowMaster, DK
- 15:35 Questions and answers
- 15:45 End of the webinar







Cost and registration

Participation to the webinar is free but requires you to register for the event. The webinar will be limited to a maximum of 1000 persons. To register, please click on the "Register now" button above or visit <u>inive.webex.com</u>.

What is a webinar?

A webinar is a conference broadcasted on internet. To follow a webinar you must have a computer with a sound card and speakers or headphones. Once logged in the "conference room", you will be able to see the slides of the presentation and to hear the panellists' comments. You will also be able to ask written questions to the speakers, and to answer on-line surveys.

Hardware, software

Our webinars are powered by WebEx Event Center. The only thing you need is a computer with a sound card and speakers. Before you can log in the "conference room", WebEx will install the required application. If you are not a WebEx user, please visit https://help.webEx.com/en-us/n665eiq/Join-a-Cisco-Webex-Meeting-for-the-First-Time-as-a-Guest to check the system requirements and join a test meeting. Please also join the event 15 minutes in advance.

About IEA EBC Annex 80 - Resilient Cooling of Buildings

Annex 80 Resilient Cooling of Buildings (<u>https://annex80.iea-ebc.org/</u>) is an international research project of the IEA Energy in Buildings and Communities (EBC) programme. It is the motivation of Annex 80 to develop, assess and communicate solutions of resilient cooling and overheating protection. Resilient Cooling is used to denote low energy and low carbon cooling solutions that strengthen the ability of individuals and our community as a whole to withstand, and also prevent, thermal and other impacts of changes in global and local climates. It encompasses the assessment and Research & Development of both active and passive cooling technologies. The Annex 80's main objective is to support a rapid transition to an environment where resilient low energy and low carbon cooling systems are the mainstream and preferred solutions for cooling and overheating issues in buildings.

About IEA EBC Annex 62 - Ventilative Cooling

Annex 62 Ventilative Cooling (https://venticool.eu/annex-62-home/) was an international research project of the IEA Energy in Buildings and Communities (EBC) programme that aimed to make ventilative cooling an attractive and energy efficient cooling solution to avoid overheating of both new and renovated buildings. Objectives were: to develop and evaluate suitable methods and tools for prediction of cooling need, ventilative cooling performance and risk of overheating in buildings; to develop guidelines for an energy efficient reduction of the risk of overheating by ventilative cooling solutions and for design and operation in both residential and commercial buildings; to develop guidelines for integration of ventilative cooling in energy performance calculation methods and regulations including specification and verification of key performance indicators; to develop instructions for improvement of the ventilative cooling capacity of existing systems and for development of new solutions including their control strategies; and to demonstrate the performance of solutions through analysis and evaluation of well-documented case studies.

About venticool

The platform for resilient ventilative cooling, venticool (http://venticool.eu/) supports better guidance for the appropriate implementation of resilient ventilative cooling strategies as well as adequate credit for such strategies in building regulations. The platform philosophy is to pull resources together and to avoid duplicating efforts to maximise the impact of existing and new initiatives. venticool has been initiated by the International Network for Information on Ventilation and Energy Performance (INIVE EEIG) with the financial and/or technical support of the following partners: Agoria-NAVENTA, Velux and WindowMaster.

About AIVC

Created in 1979, the Air Infiltration and Ventilation Centre (<u>www.aivc.org</u>) is one of the projects/annexes running under the International Energy Agency's Energy in Buildings and Communities (IEA-EBC) Programme. With the support of its member countries as well as key experts and two associations (REHVA, IBPSA, ISIAQ), the AIVC offers industry and research organisations technical support aimed at better understanding the ventilation challenges and optimising energy efficient ventilation. The AIVC activities are supported by the following countries: Australia, Belgium, China, Denmark, France, Greece, Italy, Ireland, Japan, Netherlands, New Zealand, Norway, Republic of Korea, Spain, Sweden, UK and USA.

About INIVE

INIVE EEIG (International Network for Information on Ventilation and Energy Performance) was created in 2001 as a so-called European Economic Interest Grouping. The main reason for founding INIVE was to set up a worldwide acting network of excellence in knowledge gathering and dissemination. At present, INIVE has 8 member organisations (BBRI, CETIAT, CSTB, eERG, IBP-Fraunhofer, NKUA, SINTEF, and TNO) (www.inive.org). INIVE is coordinating and/or facilitating various international projects, e.g. AIVC (www.aivc.org), TightVent Europe (www.tightvent.eu), venticool and Dynastee (www.dynastee.info). INIVE has also coordinated the ASIEPI project dealing with the evaluation of the implementation and impact of the EU Energy Performance of Buildings Directive, the QUALICHeCK project aiming towards improved compliance and quality of the works for better performing buildings, BUILD UP the European portal on Energy Efficiency and the EPBD feasibility study 19a (https://www.epbd19a.eu/).





