Using Metal Oxide Semiconductor (MOS) sensors to measure Volatile Organic Compounds (VOC) for ventilation control

Tuesday 4 September 2018

15:00-16:30 (Brussels, BE)

14:00-15:30 (London, UK)

09:00-10:30 (New York, USA)

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MOS VOC sensors gain increasing attention in the ventilation community because of their low price and claimed ability to supplement or even substitute CO₂ sensors for demand control. Even though there are many "IEQ" meters available on the market, where these sensors are used, the amount of scientific studies focused on their reliability and applicability is still limited.

In this webinar, participants of IEA EBC Annex 68 will present research results, experiences and thoughts related to MOS VOC sensors. The aim of the webinar is to intensify discussion on the topic of low-cost sensors in the ventilation community.

This webinar is jointly organised by the IEA EBC Annex 68: "Indoor Air Quality Design and Control in Low Energy Residential Buildings" and the Air Infiltration and Ventilation Centre (www.aivc.org). The webinar is hosted by INIVE (www.aivc.org).

Programme (Brussels time)

15:00	Introduction Peter Wouters, AIVC, Belgium Carsten Rode, IEA-EBC Annex 68, Technical University of Denmark, Denmark	15:55	Questions and answers
15:10	Can the TVOC-sensors be used for ventilation control? Nadja Lynge Lyng, Danish Technological Institute, Denmark	16:00	VOC vs. CO ₂ controlled DCV: A case study Jelle Laverge, Gent University, Belgium
15:30	Questions and answers	16:20	Questions and answers
15:35	MOS VOC sensors' properties and suitability for DCV control: analysis based on laboratory measurements Jakub Kolarik, Technical University of Denmark, Denmark	16:30	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 200 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

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About AIVC

Created in 1979, the Air Infiltration and Ventilation Centre (www.aivc.org) is one of the projects/annexes running under the International Energy Agency's Energy in Buildings and Communities 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: Belgium, China, Denmark, France, Italy, Japan, Netherlands, New Zealand, Norway, Republic of Korea, Spain, Sweden, UK and USA.

About IEA-EBC

The IEA (International Energy Agency) Energy in Buildings and Community (EBC) Programme carries out research and development (R&D) activities towards near-zero energy and carbon emissions in the built environment. These joint international research projects are directed at energy saving technologies and activities that support technology application in practice. Results are also used in the formulation of international and national energy conservation policies and standards. The EBC R&D Programme is mainly undertaken through a series of research projects, so-called 'Annexes'. Typically each Annex has a life span of 3 to 4 years, although an extension is possible if a continuing need for the activity is identified. For further information on the IEA EBC Programme please visit: http://www.iea-ebc.org/

About IEA-EBC Annex 68

The international research project IEA EBC Annex 68 on Indoor Air Qualitry Design and Control in Low Energy Residential Buildings is to investigate how to optimize the provision of ventilation to ensure comfortable and healthy conditions for occupants in energy efficient buildings. This will be based om models, data and information from case studies that make it possible to manage pollutants, air flows and hygrothermal conditions under in-use conditions in residential buildings. This science based knowledge along with information about contemporary sensor technology and controls will lead to a guide on design and operational strategies of buildings that have minimal use of energy, while maintaining very high standards regarding indoor environmental quality. Annex homepage: http://www.iea-ebc-annex68.org/

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 (www.inive.org). 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 9 member organisations (BBRI, CETIAT, CSTB, eERG, IBP-Fraunhofer, SINTEF, NKUA, TMT US and TNO). INIVE is coordinating and/or facilitating various international projects, e.g. the AIVC, TightVentEurope, <a href="went-ten-to-ten-t





