



EBC Annex 5: Air Infiltration and Ventilation Centre

Peter Wouters
Operating Agent of AIVC
Manager of INIVE EEIG

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The screenshot shows the AIVC website homepage. At the top right, there are social media icons for LinkedIn, Twitter, YouTube, and Facebook. The navigation menu includes 'About', 'Events', 'Resources', 'Focus Fields & Projects', and 'Contact & Join'. The EBC logo is also present. The main banner features a background image of dandelions and the text: 'Athens, 41st AIVC - ASHRAE IAQ joint conference' and '13 - 15 September 2021', with a 'read more' button. Below the banner, there are four categories: 'Smart Ventilation', 'Resilient Ventilative Cooling', 'Building & Ductwork airtightness', and 'Indoor Environmental Quality'. A 'POSTPONED - 41st AIVC - ASHRAE IAQ 2020 joint conference in Athens' announcement is also visible. The footer contains sections for 'Publications' (listing 'VIP 40: Ductwork airtightness - A review'), 'Events' (listing the '13-15 September 2021, Conference, Athens, 41st AIVC - ASHRAE IAQ joint conference'), and 'AIRBASE' (a database of 22709 publications).

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About



AIVC



AIVC Countries



AIVC Board



Collaborations

- AIVC was launched in 1979
- 2019: Celebration of 40 years of AIVC
- The present operating period covers the period 2017-2021

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AIVC



AIVC Countries



AIVC Board



Collaborations

AIVC Countries



Australia



Belgium



China



Denmark



France



Greece



Ireland



Italy



Japan



Netherlands



New Zealand



Norway



Republic of Korea



Spain



Sweden







United Kingdom



United States of America



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AIVC
AIVC Countries
AIVC Board
Collaborations

AIVC Board Composition



AUSTRALIA

 <p>Mat Santamouris University of New South Wales</p> <p style="text-align: right;">in</p>	 <p>Wendy Miller Queensland University of Technology</p> <p style="text-align: right;">in</p>
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BELGIUM

 <p>Arnold Janssens University of Ghent</p> <p style="text-align: right;">in</p>	 <p>Samuel Caillou Belgian Building Research Institute</p> <p style="text-align: right;">in</p>
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CHINA

 <p>Guoqiang Zhang Hunan University</p> <p style="text-align: right;">in</p>	 <p>Weijun Chen Hunan Shinillion Energy Saving Sci. and Tech. Corp. Ltd</p>
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DENMARK

 <p>Alireza Afshari Danish Building Research Institute, Aalborg University</p> <p style="text-align: right;">in</p>	 <p>Bjarne Olesen Technical University of Denmark</p> <p style="text-align: right;">in</p>
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AIVC
AIVC Countries
AIVC Board
Collaborations

AIVC Board Composition

Representatives of organisations

 <p>Peter Holzer - IEA EBC Annex 80 IEA EBC Annex 80</p> <p style="text-align: right;">in</p>	 <p>Jelle Laverge - IEA EBC Annex 86 IEA EBC Annex 86</p> <p style="text-align: right;">in</p>
 <p>Carsten Rode - IEA EBC Annex 68 IEA EBC Annex 68</p> <p style="text-align: right;">in</p>	 <p>Pawel Wargocki - IEA EBC Annex 78 IEA EBC Annex 78</p> <p style="text-align: right;">in</p>
 <p>Takao Sawachi - IEA EBC IEA-EBC</p> <p style="text-align: right;">in</p>	 <p>Jaap Hogeling - REHVA REHVA</p> <p style="text-align: right;">in</p>
 <p>Jan Hensen - IBPSA IBPSA</p> <p style="text-align: right;">in</p>	 <p>Ben Hughes - International Journal of Ventilation</p> <p style="text-align: right;">in</p>
 <p>Don Weekes - IEQ-GA IEQ-GA</p> <p style="text-align: right;">in</p>	

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AIVC



AIVC Countries



AIVC Board



Collaborations

Collaborations

Umbrella and network organisations



TightVent



venticool



IEQ-GA



QUALICheck



REHVA



ISIAQ



IBPSA



EVIA



ASHRAE



IEA TCP EBC

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Events



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Workshops



Webinars

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Events



Past Conferences



13
Sep
2021

13-15 September 2021, Conference, Athens, 41st AIVC - ASHRAE IAQ joint conference

After careful consideration by the Steering Committee and from input by authors, ASHRAE and AIVC have decided to postpone the conference, which was initially scheduled for September 14-16, 2020 in Athens, Greece. The IAQ 2020 conference is being postponed by one year to September 13-15, 2021 as a face-to-face conference in Athens, Greece.

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Events



Past Workshops

27
Mar
2019

27-28 March 2019, Symposium, Dublin, "Quality ventilation is the key to achieving low energy healthy buildings"

Sustainable Energy Authority of Ireland (SEAI) together with the Air Infiltration and Ventilation Centre (AIVC) organised a symposium entitled "Quality ventilation is the key to achieving low..."

[View More](#)

23
Mar
2018

23 March 2018, Workshop, Sydney (AU) - Ventilation for Indoor Air Quality and Cooling

Aiming to inform Australian researchers and engineers on recent developments in the field of ventilation technologies, the workshop gave international experts visiting Australia the opportunity to...

[View More](#)

19
Mar
2018

19-20 March 2018, Workshop, Wellington (NZ) - Towards higher-performing buildings: The role of airtightness and ventilation

The objective of this AIVC workshop was to discuss and identify ways to improve the quality of our homes with respect to airtightness and ventilation, as well as discussing the impact suboptimal...

[View More](#)



Webinars

• Past webinars

- 19 May: Moisture control
- 13 May: Ventilation requirements, trends and thermal comfort
- 6 May: kitchen ventilation
- 26 March: Ventilative cooling – design and examples



• Future webinars

- **20 November:** COVID-19 Ventilation related guidance by ASHRAE and REHVA
- **30 November:** Better Quantifying and Locating Building Leakages
- **9 December:** Implementation of ventilative cooling in practice.
- **.. January:** Improvements in building airtightness of the building stock - Analysis of European databases



AIRBASE



AIVC Publications



AIVC Conference Proceedings



Collections of publications



Multimedia



News



Newsletters



FAQ



AIRBASE

AIRBASE

Click here for searching in a database of 22709 publications with **16241 pdf documents**



AIVC Publications

Ventilation Information Papers

- VIP 39 - What is smart ventilation?
- VIP 37 - Impact of energy policies on buildings and ductwork airtightness
- VIP 36 - Metrics of health risks from indoor air

Technical reports

- TN 68 – Residential ventilation and health
- TN 67 – Building airtightness: a critical review of testing, reporting and quality schemes in 10 countries

Literature lists

- LL 35 – Building and ductwork airtightness
- LL 34 – Ventilative cooling



Resources



Multimedia



Moisture buffering in modern timber constructions... 20:24



Considerations on IAQ metrics from regulatory and... 19:37



Indoor Carbon Dioxide as Metric Of Ventilation and... 19:34



Extract cooker hoods - possibilities and challenges... 15:12



Ventilative cooling design (Guilherme Carrilho da Graça... 14:54



Durability of building airtightness: Assessment... 11:20

Newsletters

Foreword

Interest & awareness in the field of building and district airtightness continues to grow. The TightVent Associations Committee is continuously involving its members and Stakeholders by scope in the with their activities in the field. There is a major role and an increasing commitment for the TightVent Europe platform to continue disseminating information on these fields. The May 2020 edition of the TightVent newsletter informs you on our latest achievements (events, publications, projects etc.) throughout stakeholder activities.

Please visit our website, follow us on [Twitter](#) and [LinkedIn](#) and [subscribe](#) to our monthly newsletter "Energy Efficiency and Indoor Climate in Buildings" to find out more about our activities. We wish you a pleasant reading!

The TightVent team

14-16 September 2020 – 41st AIVC & 9th TightVent - ASHRAE IAQ joint conference in Athens, Greece

COVID-19 related AIVC and ASHRAE continue to monitor the COVID-19 outbreak. At the same time, preparations for the Athens IAQ 2020 Conference are moving forward as planned - authors are writing papers to be reviewed, workshops are being organized and the conference abstract is being developed. AIVC and ASHRAE are following the recommendations of the World Health Organization and the Centers for Disease Control and Prevention and will comply with relevant national and local laws and regulations.

The conference "IAQ 2020: Indoor Environmental Quality Performance Approaches: Transitioning from IAQ to IEQ", organized by ASHRAE and AIVC will take place September 14-16, 2020 in Athens, Greece. The conference will also be the 9th TightVent and 7th venticool conference.

Indoor Air Quality (IAQ) has been the core of ASHRAE's IAQ series of conferences for the last 50 years. This conference will expand from Indoor Air Quality to Indoor Environmental Quality (IEQ). IEQ includes air quality, thermal comfort, acoustics, and illumination and their interactions. The particular focus of 2020 conference is performance approaches including the metrics, systems, sensors and norms necessary to implement them.

Conference topics, Health and Well-being Approaches and

operational definitions, Performance Metrics. For all aspects of IEQ: Interaction, Interaction between IEQ parameters, Occupant Behavior: How behavior impacts IEQ and how IEQ impacts behavior - psychological dimensions of IEQ, Smart Sensors and Big Data, Sensor properties, data management, cybersecurity, applications, Smart Controls, Equipment properties, commissioning, maintenance, Resilience and IEQ, Responding to climate change and Disaster, Ventilation, Mechanical, passive, natural and hybrid systems, Air Tightness, Trends, methods and impact, Thermal Comfort, Dynamic approaches, health impacts and trends, Energy and Environmental metrics, impacts, implications

Keynote speakers: Filippos Bouras, Professor of Indoor Environment, TU Delft, Richard de Dear, Ph.D., Director, Indoor Environmental Quality Laboratory, University of Sydney, Massimo Gymer, Director of the Lighting Research Center, Roger de Gooijer, Polytechnic Institute, Benjamin Aerts, Associate Professor, University of Leuven, Goh Heidean, FRII, FIM&E, FHEEM, Professor of Environmental Engineering at Beijing University of Leic, Douglas Taylor MD, IM&A, LLC, CEC, FIM&E, M&ME, Taylor Healthcare Consulting, Inc.

For more information, please visit the [conference website](#) or contact [organizers](#).

In this issue

- Foreword
- 14-16 September 2020 - 41st AIVC & 9th TightVent - ASHRAE IAQ joint conference in Athens, Greece
- AIVC Ventilation
- Information Paper on IEQ "Designing airtightness: A matter of choice"
- IAQ series
- TightVent AIVC Webinars on availability
- AIVC TightVent projects: Integrating occupant needs in IAQ and their results
- Standard call project: Feedback and follow up
- Guidelines for progress measurements of airtight buildings
- Product news from our partners

It is not the European General Data Protection Regulation, you can only verify if you are using an email address for mailing as well as possible. See: [http://www.tightvent.eu](#)

Foreword

Welcome to the AIVC September 2020 newsletter!

We hope you are keeping safe and healthy during this challenging period.

This edition can be great newsletter includes information on upcoming and past events, recent publications, our involvement and collaboration with the recently approved IEA EBC Annex 66 and a focus article on the importance of ventilation in the COVID-19 context.

We wish you a pleasant reading and look forward to seeing you at the future events. We would also like to encourage you to visit our website, follow us on Twitter and LinkedIn and subscribe to our monthly newsletter "Energy Efficiency and Indoor Climate in Buildings".

Inoor, Ventilation, Operating AIVC

13-15 September 2020 – 41st AIVC - ASHRAE IAQ joint conference in Athens, Greece

After careful consideration by the Steering Committee and from input by authors, ASHRAE and AIVC have decided to postpone the conference, which was initially scheduled for September 14-16, 2020 in Athens, Greece.

The conference "IAQ 2020: Indoor Environmental Quality Performance Approaches: Transitioning from IAQ to IEQ" is being postponed by one year to September 13-15, 2021 as a face-to-face conference in Athens, Greece. The conference will still be the 9th TightVent and 7th venticool conference.

Indoor Air Quality (IAQ) has been the core of ASHRAE's IAQ series of conferences for the past 50 years. This conference will expand from Indoor Air Quality to Indoor Environmental Quality (IEQ). IEQ includes air quality, thermal comfort, acoustics, and illumination and their interactions. The particular focus of this conference is performance approaches including the metrics, systems, sensors and norms necessary to implement them. The Steering Committee has decided to make environmental aspects of COVID-19 part of the conference. For the topics before the postponement, a call for submissions has been opened. Already accepted abstracts and submitted papers will be kept valid for the new conference dates.

Keynote speakers:

- Authors and look being: Appropriate technical and operational definitions - Performance Metrics for all aspects of IEQ: Interaction, Interaction between IEQ parameters - Occupant Behavior: How behavior impacts IEQ and how IEQ impacts behavior: psychological dimensions of IEQ - Smart Sensors and Big Data: Sensor properties, data management, cybersecurity, applications - Smart Controls: Equipment properties, commissioning, maintenance - Resilience and IEQ, Responding to climate change and Disaster, Ventilation, Mechanical, passive, natural and hybrid systems - Air Tightness: Trends, methods and impact - Thermal Comfort: Dynamic approaches, health impacts and trends - Energy and Environmental metrics, impacts, implications - Role of ventilation and building envelopes in reducing progression of COVID-19 and disinfection options for control COVID-19 - Impact of building impacts on indoor air quality - NEW - AIVC and IEQ in past COVID words - NEW

Call for new abstracts & papers

Submission of new abstract: **December 21, 2020** - Notification of decision of abstract: February 15, 2021 - Submission of complete manuscripts: April 15, 2021 - Final paper acceptance: June 14, 2021.

For more information, please visit: <https://www.aivc.org/conferences/iaq2020/indoor-environmental-quality-performance-approaches> or contact: Information@tightvent.org

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Foreword

13-15 September 2020 - 41st AIVC - ASHRAE IAQ joint conference in Athens, Greece

The importance of ventilation in the COVID-19 context

IAE EBC Annex 66 on "Energy Management for Residential Buildings"

AIVC May 2020 webinar recordings available

AIVC new publications

Healthy Building 2021

Green & Healthy

AIVC list of saved meetings

Foreword

The venticool platform was inaugurated in September 2020 to increase awareness on ventilative cooling and to foster exchanges in the field. From 2015 to 2019, venticool was the main communication and dissemination partner of IEA EBC Annex 62 Ventilative Cooling and hosted the combined venticool-EBC Annex 62 website. Following the official launch of the working phase of IEA EBC Annex 60 Resilient cooling of buildings in June 2020, venticool decided to broaden its scope in line with this new Annex. An agreement was reached with the Annex 60 participants to implement an Annex 62 section on the venticool website, in addition to the Annex 62 dedicated section. venticool aims to play a major role in the ventilative and resilient cooling community with respect to the dissemination of information, either with its conferences, workshops & webinars, or with the material available on its website.

Please visit our website, follow us on Twitter and LinkedIn and subscribe to our monthly newsletter "Energy Efficiency and Indoor Climate in Buildings" to find out more about our activities. We wish you a pleasant reading!

The venticool team

Postponement of 41st AIVC - ASHRAE IAQ & 9th TightVent & 7th venticool joint conference in Athens, Greece

ASHRAE and AIVC, decided to postpone the IAQ 2020 conference. It will be rescheduled for 2021 as a face-to-face conference in Athens, Greece. At the same time, the 31 May deadline for submitting papers is suspended.

The decision to postpone the conference was made in large part by the results of the survey completed by some 170 authors: - a majority (53%) said they are "unwilling" of attending the September 2020 conference in Athens and -77% said they are "unwilling" of postponing the conference until next year.

The Steering Committee will be meeting in the next two weeks to determine the new date for the postponed conference and to develop a revised planning schedule for the papers. Stay tuned!

The conference "IAQ 2020: Indoor Environmental Quality Performance Approaches: Transitioning from IAQ to IEQ", organized by ASHRAE and AIVC will take place in 2021 in Athens, Greece. The conference will also be the 9th TightVent and 7th venticool conference.

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- Foreword
- Postponement of 41st AIVC - ASHRAE IAQ, 9th TightVent & 7th venticool joint conference in Athens, Greece
- IAE EBC Annex 60 Resilient Cooling for Buildings proceedings from the second Expert Meeting
- Selected papers from the AIVC - TightVent - venticool 2019 Conference published at the April 2020 edition of the IEA Journal
- The IEA IEQ-GA COVID-19 taskforce
- Recordings & Slides from the webinar on Ventilative Cooling: Design and Examples
- AIVC literature list 34 on "Ventilative Cooling"
- IEA EBC Annex 62 "Energy Efficient Residential Building"



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Focus Fields & Projects

This section includes information on AIVC's main focus fields and projects. Click on the links below to know more.



Smart Ventilation



Resilient Ventilative Cooling



Building & Ductwork airtightness



Indoor Environmental Quality



AIVC Projects

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40 Years of AIVC

Duration: 2018-2021

Status: On-going

This project deals with reviewing EBC's Annex 5: "Air Infiltration and Ventilation Centre" activities & contributions on the occasion of the project's 40th year of operation.



Smart Ventilation

Duration: 2017-2018

Status: Completed

The trend to increasingly complex ventilation controls (particularly for residences) is leading to



Rationale behind ventilation requirements and regulations

Duration: 2016-2021

Status: On-going

Internationally there are many different requirements and regulations for ventilation. Sometim



Indoor Air Quality-IAQ metrics

Duration: 2017-2021

Status: On-going

There have been many new sensors introduced on the market claiming that they can perform accurate measurements of Indoor Air Quality.



Integrating uncertainties due to wind and stack effect in declared airtightness results

Duration: 2017-2021

Status: On-going

Building airtightness tests have become very common in several countries, either to comply with minimum requirements of regulations or programmes, or to justify input values in calculation methods.



AIVC Projects

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New AIVC project: COVID-19 and ventilation



20 November 2020 (16:00-17:30 CET) – AIVC Webinar – COVID-19 Ventilation related guidance by ASHRAE and REHVA

Ventilation is recognized as a major element in strategies for minimizing the risk of COVID infection. REHVA and ASHRAE have developed guidelines, insisting on existing evidence of long-range aerosol-based transmission and emphasizing the importance of ventilation.

The Air Infiltration and Ventilation Centre with support from ASHRAE and REHVA are organizing the webinar "COVID-19 Ventilation related guidance by ASHRAE and REHVA" to be held on Friday November 20th, 2020 at 16:00-17:30 (CET).

The webinar will present the COVID-19 related guidelines by REHVA and ASHRAE and will also have a closer look to the similarities and differences in both guidelines.

Presentations and Speakers

- Introduction, *Arnold Janssens, chair of AIVC WG COVID-19*
- REHVA guidance regarding ventilation, *Jarek Kurnitski – chair of REHVA COVID-19 task force*
- ASHRAE guidance regarding ventilation, *William P. Bahnfleth, chair of ASHRAE's Epidemic task force*
- Similarities and differences between REHVA's & ASHRAE's guidance, *Valérie Leprince, member AIVC COVID-19 working group & ASHRAE's Epidemic task forces*

Participation to the webinar is **FREE** but requires you to **REGISTER** for the event. For further information please visit our website.

Collaboration with other IEA EBC Annexes

- Operating Agents of several IEA EBC Annexes are member of the board.
- AIVC can play a role in the identification of possible annexes, programme development.
- AIVC is also actively involved in dissemination activities (conferences, workshops, webinars, publications)

AIVC Board Composition

Representatives of organisations



Peter Holzer - IEA EBC Annex 80
IEA EBC Annex 80



Jelle Laverge - IEA EBC Annex 86
IEA EBC Annex 86



Carsten Rode - IEA EBC Annex 68
IEA EBC Annex 68



Pawel Wargocki - IEA EBC Annex 78
IEA EBC Annex 78



Takao Sawachi - IEA EBC
IEA-EBC



Jaap Hogeling - REHVA
REHVA



Jan Hensen - IBPSA
IBPSA



Ben Hughes - International Journal of Ventilation
AIVC



Don Weekes - IEQ-GA
IEQ-GA





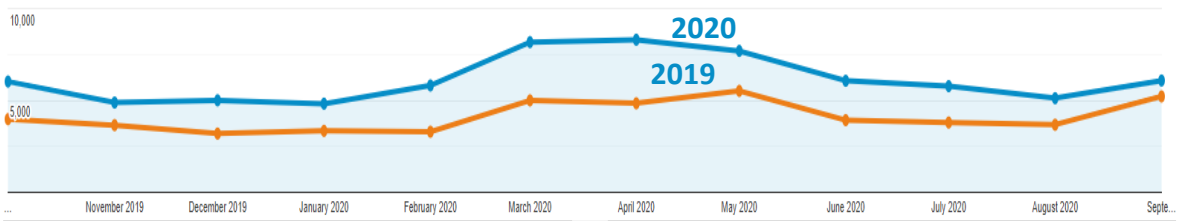
The mission of IEQ-GA

To provide an acceptable indoor environmental quality (thermal environment-indoor air quality-lighting-acoustic) to occupants in buildings and places of work around the world and to make sure the knowledge from research on IEQ get to be implemented in practice

AIVC is one of the founding members

Statistics for AIVC website

- **Visits: October 2019 – 30 September 2020: 60.214 sessions.**
 - **Increase of 50 %** compared with the previous year
- **Acquisition of visits**
 - **77 % through search engines (+58% in absolute number)**
 - **17 % are direct visits (+27% in absolute numbers)**
 - **5% from backlinks (+23% in absolute number)**
- **BACKLINKS: 4671 active links** to AIVC website from **481 unique websites**





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About

AIVC future?



AIVC



AIVC Countries



AIVC Board



Collaborations

- The present activities are part of the operating period 2017-2021
- New operating period in preparation 2022-2026
- **Arnold Janssens** and **Peter Wouters** will be co-operating agents

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Thank you for your
attention!



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