ARC Training Centre for Advanced Building Systems Against Airborne Infection Transmission (Thrive)

Indoor Air Quality in Schools

17 July 2025, 9:00am-3:00pm (AEST)

VENUE:

Owen J Wordsworth Room, S Block, Level 12, Room 1215, 2 George Street, Brisbane, Queensland, 4000 Australia

ZOOM:
https://qut.zoom.us/j/82440035885?pwd=5luTcSZcvDz7b2bYpr0QjvEjDOTtZN.1&from=addon
Meeting ID: 824 4003 5885
Passcode: 185492

Background: Students, teachers and other staff spend a very large proportion of their time in school buildings. As more research points to how indoor air quality directly impacts both physical health and cognitive performance, legislating standards in public buildings, including schools, is an important step toward addressing a problem that many may overlook—poor ventilation and indoor air quality at schools.

School buildings are long-lived assets that provide us with places of education, recreation and work. They provide us with shelter from external elements – both natural and manmade. We expect them to keep students and staff warm when it's cold outside and cool when it's hot. We expect them to be safe. We expect them to be filled with clean, healthy air, free of pollutants of any kind, including infectious pathogens.

Energy is needed to meet these expectations: embodied energy in the materials for the school buildings, their services and fittings; operational energy for heating, cooling, ventilation and the multiple tasks undertaken in schools; and energy to maintain these systems and dispose of, or repurpose, these materials and systems at the end of their life.

Energy not only costs money but can also involve emissions of pollutants and the use of finite resources. Careful consideration of energy sources is required to ensure a vicious cycle of pollution or non-sustainable resource consumption isn't embedded in solutions. Therefore, we must strive to achieve a balance between all these requirements to breathe clean air and have thermal comfort but consuming the least amount of energy possible and in a resource efficient manner.

Big questions include:

1. What do we know about the quality of air in Australian school buildings? What pollutants are of concern? How are they linked to health and cognitive outcomes?
2. Can we achieve a balance in building performance with respect to indoor air quality, thermal comfort, and the energy needed to support this for specific school / classroom types and specific climate(s).?
3. What additional risks will climate change pose with the increased frequency of episodic pollution events, rainfall intensity, and frequency and duration of heat waves? What is the impact of these changes on indoor air quality? What additional efforts will be required to protect students and staff?
4. Can school building mechanical systems be optimised to address dynamic IEQ risk and carbon emissions?
5. Should new school buildings be mechanically ventilated?
6. Do we need more R&D? More regulation? More collaboration between all stakeholders, including occupants?

This interdisciplinary forum is relevant to experts from many fields and to anyone involved with buildings, from academics to leaders tasked with maintaining a safe and resilient internal environment of schools.

AGENDA

Start time	End time	Agenda
9:00am	*9:30am*	*Coffee & Registration*
9:30am	10:00am	Distinguished Professor Lidia Morawska, Queensland University of Technology **Welcome and Acknowledgement to Country** Distinguished Professor Lidia Morawska, Queensland University of Technology **Introduction to the Symposium**
		Session Chair: A/Prof Wendy Miller
10:00am	10:10am	Mr. Greg Bell, Department of Education Queensland **Title: Do we need more R&D? More regulation? More collaboration between all stakeholders, including occupants?**
10:10am	10:20am	Professor Geoff Hanmer, ARINA and THRIVE **Title: Can we achieve a balance in building performance with respect to indoor air quality, thermal comfort, and the energy needed to support this for specific school/classroom types and specific climate(s)?**
10:20am	10:30am	Mr David Thornton, Somerset College **Title: IAQ insights from Somerset College**
10:30am	10:40am	Associate Professor Wendy Miller, QUT and THRIVE **Title: State of Indoor Air in Australian Schools**
10:40am	11:00am	**Q&A**
11:00am	11:30amp	*Group Photo and Coffee Break*
		Session Chair: A/Prof Wendy Miller
11:30am	12:30pm	**Panel session** Practicality of school building design and indoor air quality *Panellists:* • Professor Priya Rajagopalan, RMIT University • Professor Geoff Hanmer, ARINA and THRIVE • Mr David Thornton, Somerset College • Associate Professor Wendy Miller • Professor Jason Monty, Thrive and University of Melbourne
12:30pm	*1:30pm*	*Lunch and Coffee*
		Session Chair: Prof Jason Monty
1:30pm	2:30pm	**Panel session** Focus on possible regulatory, legislative and other responses and collaborative opportunities *Panellists*: • The Hon Ted Baillieu, Former Premier of Victoria (TBC) • The Hon Robin Scott, Former Member of Victorian Parliament • Mr Nicholas Burt, CEO, Facility Management Association of Australia • Ms Robyn Meldon, Acting Manager, Department of Education (Queensland) • Professor Priya Rajagopalan, RMIT University
2:30pm	3:00pm	Conclusion