AIOH 2026

ANNUAL SCIENTIFIC CONFERENCE & EXHIBITION

26 Fe Iron

TO THE FIRE: STRENGTHENING OCCUPATIONAL HYGIENE

Continuing Education Sessions Program

BRISBANE CONVENTION & EXHIBITION CENTRE

28TH NOV – 29TH NOV

AIOH AUSTRALIAN INSTITUTE OF OCCUPATIONAL HYGIENISTS ®

AIOH 2026
ANNUAL SCIENTIFIC CONFERENCE & EXHIBITION

TO THE FIRE: STRENGTHENING OCCUPATIONAL HYGIENE

Continuing Education Sessions

Location: Brisbane Convention & Exhibition Centre
Dates: Saturday 28th - Sunday 29th November 2026

Pricing
(Includes GST)

Half Day CES:
- Member - $330
- Non-Member - $390

Morning or afternoon tea and lunch are included.

Workshop 6:
- Member - $130
- Non-Member - $186

Lunch and afternoon tea are included.

Career Development Pathway (CDP)

The AIOH **Career Development Pathway (CDP)** assists members and aspiring occupational hygienists progress through their career.

For more information on the AIOH Career Pathway for Occupational Hygienists, please click here.

CDP Level
1. Allied Professional
2. Early Career
3. Practitioner
4. Professional
5. Senior Professional

Certification Maintenance Points
If you are a COH you will receive CM Points for a half day CES. CM Points and certificates will be sent out digitally post conference.

Half Day: 0.5 CM points

To register for the full conference and your continuing education sessions scan the QR code or click here.

For registration or conference enquiries, please reach out to AIOH Events.

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CES 1: Making Sense of PM Sensor Data: Analytical Approaches for Real-Time Particulate Monitoring

Date: Saturday 28th November
Half Day: 8:30am - 12:30pm

Speakers: Dustin Bennett (FAIOH, COH), Principal Hygienist, GCG Health Safety & Hygiene &
Sebastian D'Hyon, Hygiene Innovation Consultant, GCG Health Safety & Hygiene
CDP Level: 3/4

Monitoring for particulates using direct reading devices (PM sensors) is now an established part of the occupational hygiene toolkit in Australia, yet practical and reputable guidance on analytical methods remains elusive. As this practice continues to advance, the volume and complexity of the data we collect is rapidly outgrowing the traditional analytical habits our profession was built upon, and with it grows the risk of drawing confident conclusions from data that cannot support them.

This practical course deepens the "review" and "act" stages of the monitoring lifecycle. Drawing on grassroots experience and real-world case studies from Australian workplaces using a variety of instrumentation, it works through the full path from raw instrument signal to fit for purpose interpretation. Participants will learn to interrogate what their instruments are reporting, to systematically screen large datasets for missing, corrupted and misleading values, and to apply analysis techniques suited to time-series data. Throughout, the emphasis is on rigour, transparency and communicating findings in ways that drive sound decisions, alongside candid discussion of the pitfalls that commonly undermine advanced programs.

Although it is not a pre-requisite, this course is an extension to the highly successful one-day AIOH CES on the foundations of Real Time Particulate Monitoring.

On completion, participants will be able to:

- Understand how data is outputted by instrumentation, and how it will affect your analysis
- Diagnose, flag and treat erroneous, corrupted or missing data
- Pre-screen large datasets and confirm they are fit for the program's objectives
- Apply analysis approaches appropriate to complex time-series exposure data
- Communicate results effectively to varied audiences and stakeholders.

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CES 3: Accelerating Productivity and Performance Using the Structured Deterministic Model (SDM) 2.0 (PART A)

Date: Saturday 28th November
Half Day: 8:30am - 12:30pm

Speakers: Dr Susan Arnold, Associate Professor, BC CSA/University Of British Columbia &
Steve Arnold
CDP Level: 4/5

Back by popular demand...Part A of Dr Susan's session was first introduced at AIOH25 with the session titled "Structured Deterministic Model 2.0 (SDM2.0)"

In this session, participants will first be introduced to the Structured Deterministic Model (SDM), a user-friendly tool to guide exposure judgments involving pure chemicals, chemical mixtures, particulates and aerosols, through a series of interactive real-world case studies.

Working through case studies, participants will learn how to provide effective and efficient assessments that inform solutions for managing health risk across a range of frequently encountered occupational hygiene scenarios. This hands-on workshop will build practical skills that the participant can take back to their workplace and apply immediately. Participants will receive the software and a robust set of guidance materials as part of this session.

On completion, participants will be able to:

- Summarise the factors contributing to poor exposure judgment accuracy
- Describe the structure, algorithms and uses of the Structured Deterministic Model (SDM)2.0
- Apply the SDM2.0 to real-world occupational exposure and risk scenarios.

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CES 4: Accelerating Productivity and Performance Using the Structured Deterministic Model (SDM) 2.0 (PART B)

Date: Saturday 28th November
Half Day: 1:00pm - 5:00pm

Speakers: Dr Susan Arnold, Associate Professor, BC CSA/University Of British Columbia & **Steve Arnold**
CDP Level: 4/5

Part B of Dr Susan Arnold's session will focus on the application of the SDM2.0 advanced materials. This session is targeted at participants who have already gained the initial skills from the Part A CES run in AIOH25 or AIOH26.

Participants will then learn how to apply SDM2.0 advanced functionality to address a range of frequently encountered challenges when assessing real-world, complex scenarios – quickly and accurately, through a series of case studies. This hands-on workshop is designed to provide opportunities for participants to practice using the more advanced functionality and concepts using real-world case studies.

Participants learn how to apply this tool to inform professional judgment through inference, account for weathering of chemical mixtures (changes in chemical composition and physical characteristics over time due to factors such as selective evaporation of volatile components and their components), leverage direct-reading instrument data with the SDM2.0 to estimate exposures of unmeasured components, and assess exposures to chemical mixtures comprised of both solvent and aqueous phases.

On completion, participants will be able to:

- Demonstrate how to retrieve previously entered and saved mixtures formulations in the SDM2.0
- Determine how to use Henry's versus Raoult's Law when assessing chemical mixtures using the SDM
- Summarise how weathering can change the chemical composition of a mixture (and related exposure)
- Demonstrate how to use the SDM 2.0 to calculate changes in chemical composition and exposure associated with weathering
- Apply the SDM 2.0 to related real-world scenarios.

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CES 5: Transitioning to the New AS/NZS ISO Respiratory Protection Standards

Date: Saturday 28th November
Half Day: 8:30am - 12:30pm

Speakers: Mark Reggers (MAIOH, COH), RESP-FIT Chair, Specialist Application Engineer, 3M Australia & **Melanie Cox** (MAIOH, COH), RESP-FIT Board Member, Principal Occupational Hygienist & Director, Hygienium Consulting
CDP Level: 3/4/5

The AIOH and RESP-FIT invite you to join us for this CES focused on the transition to the new AS/NZS ISO Respiratory Protection Device (RPD) Standards across Australia and New Zealand. With AS/NZS 1715 and AS/NZS 1716 scheduled to be superseded in 2030, now is the ideal time to understand the upcoming changes, their implications for industry, and how to prepare for the transition with confidence.

This interactive half-day session will simplify the new AS/NZS ISO RPD classification framework, providing a practical overview of key concepts including:

- Protection classes and protection levels
- Work rate classifications
- Filtration classes
- Respiratory interfaces
- Special application designations
- Equivalency between the current AS/NZS 1715/1716 system and the new AS/NZS ISO standards.

Participants will also use the RESP-FIT Online RPD Selector through worked examples that demonstrate how to apply the new classification system in real-world respiratory protection programs.

This session will provide the knowledge and practical tools needed to navigate the transition period effectively and gain a clear understanding of where the standards are heading, what they mean for your organisation, and the actions you can take today to ensure you're prepared for the future of respiratory protection.

On completion, participants will be able to:

- Explain why Australian respiratory protection standards are changing and what is driving the transition to AS/NZS ISO RPD Standards
- Describe the key features and benefits of the new AS/NZS ISO RPD classification system in comparison to AS/NZS 1715/1716
- Identify what will change for workplaces — and what doesn't need to change yet
- Use the RESP-FIT Online Respirator Selector tool to undertake holistic respirator selection with both AS/NZS ISO RPD and AS/NZS 1715/1716 classification recommendation.

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Workshop 6: COH Exam Preparation and Maintenance Workshop

Date: Saturday 28th November

Half Day: 1:00pm - 5:00pm

Speakers: Dr Jen Hines (FAIOH, COH), Certification Board Chair, AIOH, **Gavin Wellings** **(**MAIOH COH), NSW Team Leader / Senior Occupational Hygiene Consultant, GCG Health Safety & Hygiene & **Dr Julia Norris** (FAIOH, COH, FRACGP), Global Occupational Hygiene Manager, Alcoa Corporation
CDP Level: 3

This half-day CES provides an overview of the Certified Occupational Hygienist (COH®) certification pathway, with a balanced focus on preparing for the COH examination and maintaining certification once achieved.

The first part of the session will focus on preparation for the COH examination, including understanding the breadth and depth of knowledge expected of candidates, approaches to preparing for the examination, and strategies for applying occupational hygiene knowledge to examination-style questions. The session will consider how candidates can identify areas requiring further development and approach their preparation in a structured and manageable way.

The second part will focus on maintaining COH certification and professional competence. It will explore the purpose and expectations of certification maintenance, approaches to continuing professional development and record keeping, and how COHs can plan professional development that supports both certification requirements and ongoing professional practice.

Throughout the session, practical examples and discussion will be used to provide participants with strategies that can be applied to their own certification journey, whether they are preparing to sit the COH examination or maintaining an existing certification.

On completion, participants will be able to:

- Describe the COH certification process and the expectations associated with achieving and maintaining certification
- Identify the principal areas of knowledge and professional competence relevant to preparation for the COH examination
- Apply practical strategies for planning and structuring COH exam preparation
- Recognise approaches to examination questions that require the application and integration of occupational hygiene knowledge
- Explain the requirements and principles associated with maintaining COH certification
- Develop a practical approach to planning, documenting and reviewing continuing professional development activities
- Identify opportunities to use certification maintenance as a framework for ongoing professional growth and competence.

Workshop materials have been prepared by the current AIOH Certification Board; Jen Hines, Gavin Wellings, Linda Apthorpe, Naree Carton, Kerry McDougall, Zac Bentley and Adelle Liebenberg.

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CES 7: When the Alarm Sounds: Reconsidering Alarm Language and Setpoint Strategy in Personal Gas Detectors

Date: Saturday 28th November
Half Day: 1:00pm - 5:00pm

Speaker: Aleks Todorovic (MAIOH), Managing Director/Occupational Hygienist, Active Environmental Solutions
CDP Level: 3/4

Personal gas detectors are commonly viewed as straightforward warning devices; however, the alarms they generate increasingly shape critical decisions concerning work continuation, evacuation, investigation, exposure management and compliance. In Australian workplaces, alarm terms such as Low, High, STEL and TWA are often accepted as standard instrument terminology, without sufficient consideration of whether their meaning, configuration and use support an effective control strategy.

This becomes increasingly relevant as workplace exposure limits decrease, work shifts extend beyond 8 hours and real-time monitoring data becomes more central to field decisions. It examines how the conventional alarm hierarchy can blur distinctions between immediate danger, short-term exposure excursions and cumulative exposures.

Gas-specific case studies will illustrate situations in which revised exposure limits approach the practical capabilities of sensors, and where apparently compliant settings may create false confidence, excessive alarms or unclear responses.

The session will introduce a structured framework for defining each alarm's protective purpose, assessing whether the sensor can support the proposed setting, selecting technically justifiable setpoints and establishing response actions. It will also consider whether alarm names should simply describe instrument logic or instead communicate the intended action to workers, supervisors and hygienists, strengthening exposure decisions, training, procedures and control strategies.

On completion, participants will be able to:

- Explain the purpose of gas monitor alarms in the context of the toxicology of the gas or vapour being measured against the applicable exposure limits
- Assess whether sensor performance can support a proposed alarm setting
- Identify limitations associated with resolution, detection limits, uncertainty and
- response time
- Interpret alarms during peaks, fluctuating exposures and extended shifts
- Apply a structured process for selecting technically justifiable alarm setpoints with clear action guidance.

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CES 8: Creating Impact! Crafting Presentations That Change Minds and Drive Action

Date: Saturday 28th November
Half Day: 1:00pm - 5:00pm

Speaker: Linda Apthorpe (FAIOH, COH), Associate Principal Occupational Hygienist, Hibbs & Associates Pty Ltd
CDP Level: 2/3/4

As Occupational Hygienists, we know that communication is an integral component of the work we do. You may need to deliver your occupational hygiene message standing in front of workers, OHS committees, management representatives or even delegates at occupational hygiene conferences!

This CES will be an interactive workshop focused on designing and executing your presentation to get your message across. It will include presenter techniques, tips for engaging your audience and designing your PowerPoint slides. It will help you craft and execute your presentations to create impact and allow you to communicate your message with credibility and authenticity.

The CES will be useful for anyone who wants to build and gain more confidence through presenting and those wishing to improve their communication and presentation skills to make compelling presentations that change minds and drive action.

On completion, participants will be able to:

- Identify and recognise relevant communication types and styles for occupational hygienists based on target audience
- Utilise various oral and visual techniques, including use of digital technologies and other resources to enhance and maximise communication opportunities
- Design effective communication to meet desired outcomes and target audience, including presentation of occupational hygiene data and results, risk and hazard management, and how to control hazards
- Apply tips and tricks to improve presentations and communication opportunities, and build confidence when presenting
- Understand how to engage listeners and make your message stick.

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CES 9: Reasoning or Rationalising: Decision Making in Occupational Hygiene

Date: Sunday 29th November

Half Day: 8:30am - 12:30pm

Speakers: Fouad Rizk (MAIOH, COH), Industrial Hygiene Co-ordinator, Woodside Energy &
Neil Goulding (FAIOH, COH), Industrial Hygiene Co-ordinator, Woodside Energy
CDP Level: 3/4/5

Ethical dilemmas in occupational hygiene practice are not rare edge cases. They arise when monitoring data is commercially inconvenient, when professional competence reaches its boundary, when client interests conflict with worker health, and when confidentiality obligations collide with disclosure requirements. Most practitioners encounter them. Few have a structured framework for reasoning through them when it matters.

This session introduces the major ethical frameworks used in professional practice, including deontology, virtue ethics and consequentialism. The distinction between ethical reasoning and rationalisation is examined explicitly, and moral relativism is rejected as a professional defence.

Anchored throughout by the AIOH Code of Ethics, the session uses four original case studies set across different industries. Each is designed to produce genuine disagreement and resist easy resolution. The session is structured to draw on the diversity of experience in the room and concludes with a structured decision-making framework participants can apply in practice.

On completion, participants will be able to:

- Identify and apply multiple ethical frameworks to real occupational hygiene dilemmas
- Apply ethical principles to situations involving competing professional obligations
- Distinguish between ethical reasoning and rationalisation
- Apply a structured decision-making process to ethical problems encountered in practice.

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CES 10: Air Monitoring and Workplace Exposure Limits for Airborne Contaminants

Date: Sunday 29th November
Half Day: 8:30am - 12:30pm

Speakers: Dr Sue Reed AM (FAIOH, COH), Director & Principal Occupational Hygienist, Reed OHE & **Dr Adelle Liebenberg** (FAIOH, COH), Academic Program Director: Occupational Hygiene, Senior Lecturer, University of Wollongong
CDP Level: 2/3/4

This CES is intended to provide attendees with practical tools and greater confidence in interpreting monitoring data and applying the new Workplace Exposure Limit (WEL) framework within contemporary occupational hygiene practice.

The new SafeWork Australia *Technical Guide on Air Monitoring and Workplace Exposure Limits for Airborne Contaminants* will be covered especially in relation to:

- Exposure assessment and air monitoring strategies for airborne contaminants
- Interpretation and application of Workplace Exposure Limits
- Adjustment of exposure limits for extended work shifts
- Data analysis and interpretation of monitoring results
- Representative sampling and compliance assessment approaches
- Factors affecting exposure: workload considerations, exposures to mixtures
- Contaminant-specific guidance: such as carcinogens, sensitisers, dusts not otherwise classified (NOC), nanoparticles, asphyxiants, etc.

During the session the participants will work through various case studies relating to the interpretation of exposure data and WELs.

On completion, participants will be able to use the Technical Guide to assess a range of air monitoring scenarios and determine whether a situation presents a risk.

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CES 11: Practical Approaches to Airborne and Biological Monitoring of Isocyanates in Occupational Hygiene

Date: Sunday 29th November
Half Day: 8:30am - 12:30pm

Speaker: Dr Jimmy Hu, Director, SafeChem Insight
CDP Level: 3/4

Isocyanates are a leading cause of occupational asthma and sensitisation and continue to present significant challenges for exposure assessment across industries such as spray painting, polyurethane foam application, coatings, and maintenance activities in the resources sector. Their high reactivity, presence in both vapour and aerosol phases, and lack of reliable warning properties make accurate measurement and interpretation of exposure particularly complex. This half-day session delivers a practical, end-to-end framework for assessing and managing isocyanate exposures using integrated airborne and biological monitoring approaches.

The session is designed to move beyond theory, focusing on real-world application, method selection, and defensible interpretation of data. Content will cover airborne sampling strategies (including derivatisation techniques and measurement of monomers and oligomers), biological monitoring approaches and biomarkers, and critical evaluation of analytical data quality and limitations. Emphasis will be placed on common sources of error, uncertainty, and misinterpretation that can undermine exposure assessments. Drawing on case studies from motor vehicle repair and resource sector applications, the session will highlight practical challenges in dynamic workplaces and demonstrate effective solutions.

On completion, participants will be able to:

- Design appropriate airborne and biological monitoring strategies for isocyanates
- Critically interpret exposure data and recognise analytical limitations
- Integrate multiple lines of evidence to strengthen exposure assessment
- Apply practical approaches to improve risk management outcomes.

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CES 12: Noise Controls – Hit or Myth?

Date: Sunday 29th November

Half Day: 8:30am - 12:30pm

Speaker: David Warrington, IEng – Technical Authority, NVMS Pty Ltd
CDP Level: 3/4

The Noise Controls – Hit or Myth? session will look into a range of noise control strategies and processes, posing a range of questions and addressing some common misconceptions. Using practical demonstrations, acoustics theory and a very small amount of maths, the session is designed to give participants a better understanding of both the benefits and limitations of specific engineering noise control techniques. The session will also reinforce the advantages of noise control over hearing protection using practical examples.

With acknowledgement (and apologies) to the original MythBusters™ crew.

On completion, participants will be able to:

- Identify opportunities for engineering noise control on site
- Appreciate the limitations of specific noise control techniques and strategies for different noise characteristics
- Understand the value of incremental reductions in noise environment and their effect on exposure
- Differentiate between noise level and noise exposure
- Integrate noise control recommendations into noise management strategies.

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CES 13: Tested by Fire: Myths and Lessons from Occupational Hygiene Practice

Date: Sunday 29th November
Half Day: 1:00pm - 5:00pm

Speakers: Kate Cole OAM (FAIOH, COH), Certified Occupational Hygienist & **Tracey Bence** (FAIOH, COH), Certified Occupational Hygienist
CDP Level: 3/4/5

The conference theme is Iron to the Fire. Just as iron is strengthened through fire, a profession is strengthened through challenge and experience. Between us, we have spent decades working in occupational hygiene. We have both served as Presidents of the AIOH and sat at many different tables: some where policy was shaped, some where difficult battles were won or lost, and many where the day began and ended by calibrating a sampling train.

Our work has taken us through the COVID-19 response, the engineered stone ban, crystalline silica regulations, workplace exposure limit matters and other significant health issues. Along the way, we have contributed to key decision-making bodies, spoken in Parliament, given evidence at public inquiries, appeared on live radio and television, and used many opportunities to make the case for worker health.

These experiences tested more than our technical expertise. They required judgement, adaptability, courage, clear communication and a commitment to evidence, particularly when circumstances were difficult and the answers were not straightforward. In this session, we will share what those experiences taught us and bust a few myths along the way. We will reflect on approaching complex problems and applying technical knowledge in the real world.

This hands-on, half-day session will draw on real experiences, practical lessons and open discussion, supporting participants to reflect on and further develop their practice. Not only suited to the battle weary professional, this CES will throw up some curly ethical considerations for our immersion and amusement including the inertia that can sometimes prevent us from fulfilling our primary purpose of acting decisively in the best interest of worker health.

Participants can expect to actively participate in open discussions, putting ethical principles through realistic scenarios. Together, we'll test how these principles hold up in the heat of the moment and challenge ourselves to ask: when the iron was in the fire, did we act when we had the chance, and are there more lessons to learn?

- Explore some real-world conundrums in OH practice
- Unpack some scenarios where one can move quickly and confidently to protect worker health through applying the Code of Ethics
- Play around with the presenters on what they could have / should have done better when they had the chance.

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CES 14: Making Defensible Occupational Hygiene Decisions from Imperfect Statistical Data

Date: Sunday 29th November
Half Day: 1:00pm - 5:00pm

Speaker: Duane Bester (MAIOH, COH)
CDP Level: 4/5

Occupational hygienists are expected to make defensible decisions from evidence that is often incomplete, variable, censored or open to more than one interpretation - the greatest risk may not be uncertainty itself, but becoming certain too quickly.

Through interactive scenarios and facilitated discussion, participants will explore what commonly used statistics can and cannot tell us. The session will examine descriptive and inferential statistical measures, what they mean and how they support evidence-weighted decision-making.

This session will introduce the memorable mnemonic F.KNOWS, B.S. and the Dangerous Art of Being Certain to make complex statistical concepts more approachable and encourage participants to question how readily assumptions can become embedded in professional judgement.

Particular attention will be given to the distinction between the location of an exposure estimate and the certainty surrounding that estimate to highlight that a result below an exposure standard may not necessarily demonstrate that higher-exposure workers, tasks or days are adequately controlled. Frequentist and Bayesian approaches will be compared with participants examining the different questions they answer and how both can support defensible decisions when their assumptions and limitations are properly understood.

This session is designed for practitioners who want to move beyond reporting statistical outputs to being better equipped to challenge premature certainty, communicate uncertainty credibly and translate imperfect evidence into proportionate action.

On completion of the session, participants should be able to:

- Recognise how biases, intuition and organisational narratives can affect occupational hygiene decisions and apply the F.KNOWS framework to improve decision-making
- Gain confidence in interpreting exposure assessment statistics, including confidence intervals, upper confidence limits, percentiles and exceedance fractions
- Evaluate how sample size, censored-data treatment, measurement uncertainty and method selection can influence conclusions
- Compare the questions addressed by frequentist and Bayesian Statistical (B.S.) approaches
- Integrate statistical evidence with operational context, control effectiveness, health consequences and decision error
- Communicate uncertainty, conclusions and recommended actions clearly.

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CES 15: Informing Professional Judgment – Indoor Air Quality in Public Spaces

Date: Sunday 29th November
Half Day: 1:00pm - 5:00pm

Speakers: Distinguished Professor Lidia Morawska, Centre Director, ARC Training Centre for Advanced Building Systems Against Airborne Infection Transmission (THRIVE) & **Dr Peter McGarry** (MAIOH, COH), Scientific Co-ordinator, THRIVE
CDP Level: 2/3

This session will provide occupational hygiene and health professionals with key concepts that support the application of professional judgment when evaluating indoor air quality (IAQ) in public spaces.

Professional judgment involves the disciplined application of scientific knowledge, practical experience, observation, and available evidence to make defensible decisions where data may be incomplete, uncertain, or evolving. Such decisions should be informed by both qualitative and quantitative assessment approaches grounded in contemporary science.

Drawing on research conducted through THRIVE*, together with the presenters' extensive expertise in indoor and outdoor environmental quality and occupational hygiene, the session will examine the principles that underpin effective IAQ assessment and decision-making.

Topics will include:

- Outdoor and indoor air: composition, pollutants, sources, and health impacts
- Indoor air quality assessment methods and interpretation
- Air quality management and control strategies
- Optimising indoor air quality, thermal comfort, and energy performance
- Applying evidence to support professional judgment in practice.

*The ARC Training Centre for Advanced Building Systems Against Airborne Infection Transmission (THRIVE) was established in 2023 and is hosted by the Queensland University of Technology (QUT). The Centre is funded by the Australian Research Council (ARC), QUT, the University of Melbourne, and a network of leading industry partners across Australia, North America, Europe, and Asia.

THRIVE's mission is to design and engineer building systems that reduce airborne infection transmission through improved indoor air quality while maintaining occupant comfort, energy efficiency, and overall building performance.