



DISCOVERING
THE SUSTAINABLE
PATHWAYS

SUMMIT
WEBINAR SERIES

TO AFFORDABLE
HEATING AND
COOLING

i-Hub Summit webinar series program outline

v.1.0 – June/July 2020

IHUB.ORG.AU





The Innovation Hub for Affordable Heating and Cooling (i-Hub) is an initiative led by the Australian Institute of Refrigeration, Air Conditioning and Heating (AIRAH) in conjunction with CSIRO, Queensland University of Technology (QUT), the University of Melbourne and the University of Wollongong and supported by Australian Renewable Energy Agency (ARENA) to facilitate the heating, ventilation, air conditioning and refrigeration (HVAC&R) industry's transition to a low emissions future, stimulate jobs growth, and showcase HVAC&R innovation in buildings.

The objective of i-Hub is to support the broader HVAC&R industry with knowledge dissemination, skills-development and capacity-building. By facilitating a collaborative approach to innovation, i-Hub brings together leading universities, researchers, consultants, building owners and equipment manufacturers to create a connected research and development community in Australia.



This Project has received funding from ARENA as part of ARENA's Advancing Renewables Program.

INTEGRATED DESIGN STUDIO WEBINAR

12pm AEST
11.30am ACST
10am AWST

Integrated design is a crucial tool with which to combat societal challenges such as climate change and resource scarcity. Done well, it improves both the architectural and engineering outcomes in buildings.

As an industry we know how to do integrated design, though it happens far less often than it should for a variety of reasons. The i-Hub Integrated Design Studio aims to explore how integrated design happens between architects, engineers, and clients in a project environment with a view to facilitating more of it in industry. The first two IDS underway use schools and data centres as case study projects.

The webinar will provide an overview of the design of the IDS programme and present some of the early findings/observations.

AGENDA

Time	Topic	Presenter(s)
12-12.05pm	Introduction	Brendon McNiven
12.05-12.35pm	IDS update	Brendon McNiven + Lu Aye
12.35-12.45pm	Looking to the future	Brendon McNiven + Lu Aye
12.45-1pm	Q&A; close	

Total: 60 minutes

approximate; times listed in AEST



INTEGRATED DESIGN STUDIO WEBINAR

12pm AEST
11.30am ACST
10am AWST

PRESENTERS



Brendon McNiven • i-Hub Integrated Design Studio co-leader

Brendon is an enterprise professor in architectural engineering in the Faculty of Architecture Building & Planning at the University of Melbourne. He has more than three decades of experience in the construction industry and recently joined University of Melbourne to pursue research in the field of architectural engineering.



Lu Aye • i-Hub Integrated Design Studio co-leader

Lu is a professor in the Department of Infrastructure Engineering at the University of Melbourne. He has more than 40 years of engineering experience in university teaching, research, development, demonstration and commercialisation of renewable energy and energy efficiency technologies.



Dr Dominik Holzer

Dominik is a senior lecturer in digital architecture at the University of Melbourne where he teaches master-level design studios (CDE) and the elective subject of contemporary digital practice.



DATA CLEARING HOUSE WEBINAR

12pm AEST
11.30am ACST
10am AWST

The i-Hub Data Clearing House aims to support Australian innovation in this area of smart controls and the digitalisation of buildings. It aims to use the digitalisation of buildings to support integration of HVAC with onsite renewables.

The i-Hub Data Clearing House webinar will introduce the concept of the i-Hub Data Clearing House, and how it could help to scale-up the use of modern IT approaches in the HVAC industry, and support innovation in the delivery of data-driven building-services applications.

AGENDA

Time	Topic	Presenter(s)
12–12.20pm	Introduction	Stephen White
12.20–12.35pm	Semantic web technologies and the buildings industry	Subbu Sethuvenkatraman
12.35–12.55pm	Q&A on data sovereignty	Arne Hansen
12.55–1.15pm	Q&A on open innovation in data-driven services	Iain Stewart
1.15–1.35pm	National HVAC Demand Response Atlas	Mark Goldsworthy
1.35–1.50pm	Q&A; close	Stephen White

Total: 105 minutes

approximate; times listed in AEST



DATA CLEARING HOUSE WEBINAR

12pm AEST
11.30am ACST
10am AWST

PRESENTERS



Dr Stephen White • i-Hub Data Clearing House activity leader

Stephen leads CSIRO's energy efficiency research and has over 25 years of experience in energy end use efficiency and electricity industry demand side management. He oversees the NatHERS benchmark software, NEAR, and the Australian Housing Database.



Dr Subbu Sethuvenkatraman

Sethuvenkatraman is research team leader at CSIRO. He is a thermo-fluids research engineer and technology manager with over 13 years of industrial R&D experience in developing and implementing technology in the energy domain.



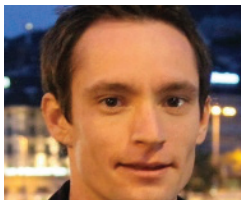
Arne Hansen

Arne is a creator of strategies for technology and data in the built environment. He has managed major infrastructure projects for over 20 large residential, commercial and industrial clients, including CSIRO, NSW Department of Education, Lend Lease and more.



Iain Stewart

Iain is the founder and CEO of Exergenics, which helps businesses reduce air conditioning and refrigeration costs using machine learning and optimisation. Iain has a master's degree in environmental engineering from the University of Melbourne.



Mark Goldsworth

Mark is a researcher with over 10 years' experience in energy systems modelling and data analysis. He has worked on a range of projects, from product R&D through to monitoring of real-world installations, and authored over 40 journal/conference publications.



Wednesday, July 8

LIVING LABORATORIES WEBINAR

12pm AEST
11.30am ACST
10am AWST

The University of Wollongong partnered with Queensland University of Technology to establish four Living Laboratories across the healthcare and education sectors under the i-Hub umbrella.

The Living Laboratories aim to provide real-world validation of technologies that integrate on-site renewable energy and HVAC loads to improve the value of renewable energy in front of major building portfolio owners.

AGENDA

Time	Topic	Presenter(s)
12–12.05pm	Introduction	Georgios Kokogiannakis
12.05–12.35pm	Education (schools) Living Laboratories	Georgios Kokogiannakis
12.35–1.05pm	Healthcare Living Laboratories	Sherif Zedan + Aaron Liu
1.05–1.35pm	Panel session; Q&A; close	

Total: 90 minutes

approximate; times listed in AEST



LIVING LABORATORIES WEBINAR

12pm AEST
11.30am ACST
10am AWST

PRESENTERS



Dr Georgios Kokogiannakis • i-Hub Living Laboratories co-leader

Georgios is a senior lecturer at the University of Wollongong's Faculty of Engineering and Information Sciences. His primary group is UoW's Sustainable Buildings Research Centre, with interest in the development and validation of whole building energy simulation programs.



Sherif Zedan

Sherif is a QUT research associate and project manager for Fernhill RACF. He is an energy efficiency consultant, with a PhD in stakeholder management of energy efficient housing. He has a degree in architectural engineering, and over 10 years' experience in the construction industry.



Aaron Liu

Aaron is a QUT research fellow and project manager for the i-Hub Living Lab at Queensland Children's Hospital. He is a registered professional engineer and has a PhD in energy investment planning and energy management.



Clayton McDowell

Clayton is an associate research fellow at the University of Wollongong's Sustainable Buildings Research Centre.





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