#### **Guide and Instructions for Online Participants**

The 9th expert meeting of IEA EBC Annex-79 meeting and 8th International Symposium on Occupant Behavior Research will be conducted using hybrid Zoom video and web conferencing platform (https://www.zoom.us/) hosted by the National University of Singapore.

#### Zoom links

# Main Conference Room (Annex 79 Meeting and Occupant Behavior Symposium)

Join Zoom Meeting

https://nus-sg.zoom.us/j/86232536527?pwd=UGtFSmozRUs0VW1ybXgxYXFsUHRX dz09

Meeting ID: 862 3253 6527

Passcode: 699974

#### **Subtask 1 Breakout Room (Same as the Main Conference Room):**

Join Zoom Meeting

https://nus-sg.zoom.us/j/86232536527?pwd=UGtFSmozRUs0VW1ybXgxYXFsUHRX dz09

#### Subtask 2 Breakout Room: :

Join Zoom Meeting

https://nus-sg.zoom.us/j/7389326969?pwd=MGt6Q3pnQ3l3YmdxL2xaZFUyQjU3UT09

#### **Subtask 3 Breakout Room:**

Join Zoom Meeting

 $\frac{https://nus-sg.zoom.us/j/81217711552?pwd=dktXdnY1VjNYank4c1pkTlZDM1NYZz0}{9}$ 

#### Subtask 4 Breakout Room:

Join Zoom Meeting

https://nus-sg.zoom.us/j/87591480487?pwd=NEp3aUFkbjhaNzRhU3JRWTVBdjlZdz

#### Log in

Participants should log in to the web conferencing platform 15-minutes before the start of the session. All participants will be required to provide their full name, and can include their institution name in brackets if they would prefer to. Attendees will be encouraged to share their camera; however, those that do not wish may use a profile picture instead. The moderator will be online to assist where necessary.

#### Use of Zoom

Zoom can be used on a PC, Mac, tablet or mobile, where presenters and attendees will be able to communicate using the device microphone with text options available. If you have not used Zoom before, we will provide you with a link to the program. The meeting ID for each day can be found in the information mail sent to you before the event.

To ensure full functionality, it is recommended that participants download the Zoom app or plug-in where possible (https://zoom.us/download/). For those unable to download any plugins or software there is a zoom web client allowing one to join from the browser. The web client functions best on Google Chrome however it has limited features. You can enter the meetings at any time to test your connection and install the app and/or plugin in advance of the events.

#### Internet connection

If one participant has a poor connection that is causing issues, the moderator will privately message the participant offering possible solutions. Where necessary moderator will also have the ability to restrict access.

#### Contact

In case of issues during the conference, please email moderator Chua Yun Xuan: <a href="mailto:chuayunxuan@nus.edu">chuayunxuan@nus.edu</a> who will be online and will be happy to address your questions.

#### **Annex 79 Meeting**

The Annex 79 Meeting sessions will run from a single Zoom meeting, with access provided via a meeting link emailed to registered participants. The subtask meetings

will be run in parallel using the 'Breakout Rooms' functionality of the Zoom platform. Participants are required to download and install the Zoom app. Participants using Zoom Rooms, Web Client, or Chrome OS client may be required to have additional plugins, please check out the article:

#### **Occupant Behavior Symposium**

The Symposium will run from a single meeting (one Zoom link during the entire Symposium). A moderator will be on hand throughout the event to provide support and assistance.

#### **Presenters**

Presenters are asked to email their presentation slide decks by 8 am SGT on Tuesday, Sept 20 to the Symposium organizer, Dr. Clayton Miller (clayton@nus.edu.sg) and CC Co-organizer, Yun Xuan (chuayunxuan@nus.edu.sg), to be held locally. During the Symposium and Annex meeting, presenters will need to share their presentation on their screen. In case there is a problem, the organizers will use the local versions of the presentation for the meeting.

Please note that the programme is structured to deliver the presentations within the allocated time slots. Please make sure that you do not go beyond your allotted time. The moderator will be strict with the programme timing.

#### **Attendees**

Attendees will be muted upon joining the session and will be able to raise questions through the chat function of the platform. By the end of the session, the presenters will have time to answer these. All those that join the meeting will initially join as an attendee and those presenting will be temporarily given presenter permissions (co-host) where they will be able to share their screen. These permissions will be altered between sessions by the moderator in the breaks between the sessions.

# 9th Annex 79 Meeting and OB-22 Symposium Programme - Singapore Please note: ALL TIMES ARE IN Singapore Time (SGT)!

	OB-22 Symposium (Wednesday): September 21, 2022
8:30 - 9:00	The program timing is in Singapore Time (SGT) Registration and log-in Location: SDE4-EXR1-2
9:00 - 9:30	Welcome, introduction and agenda
	Session 1: Data
9:30 - 9:40	Data-driven framework to extract the occupant-related profiles in institutional archetype buildings — Sanam Dabirian, Department of Building, Civil, and Environmental Engineering, Concordia University (Online)
9:40 - 9:50	Beyond occupant surveys and interviews: exploiting big data from User-Generated-Content to improve IEQ and human-building interactions  — Giorgia Chinazzo, Department of Civil and Environmental Engineering, Northwestern University (Online)
9:50 - 10:00	CityLearn V2: Data-driven occupant-centric district control  — Zoltan Nagy, UT Austin (Online)
10:00 - 10:10	Exploring urban scale human mobility through big data analysis and machine learning  — Yapan Liu, Department of Mechanical and Aerospace Engineering, Syracuse University (Online)
10:10 - 10:20	Levels of detail for occupant representation in building performance simulation: A case study of office building  — Jeetika Malik, Building Technology and Urban Systems, Lawrence Berkeley National Laboratory (Online)
10:20 - 10:30	Open discussion/Q&A

10:30 - 11:00	Break
	Session 2: IEQ/Covid-19
11:00 - 11:10	International Survey on the Perceived Indoor Environmental Quality of Home-based Workplaces During COVID-19: deployment and early results  — Donna Vakails, University of British Columbia (Online)
11:10 - 11:20	Window operation behaviour in naturally ventilated classrooms during the COVID-19 pandemic  — Paula Brumer Franceschini, School of Civil Engineering, Architecture and Urban Design, University of Campinas (In person)
11:20 - 11:30	Effect of Covid-19 lockdowns on indoor environment in apartments  — Rune Korsholm Andersen, Technical University of Denmark (In person)
11:30 - 11:40	Individual and Group-wise Classroom Seating Experience: Effects on Student Engagement in Different Courses  — Nan Gao, Royal Melbourne Institute of Technology (Online)
11:40 - 11:50	Occupant-centric zoning design: A case study at activity-based workspaces  — Eikichi Ono, Department of the Built Environment, National University of Singapore (In person)
11:50 - 12:00	Open discussion/Q&A
12:00 - 13:00	Lunch break
	Session 3: Residential
13:00 - 13:10	User behaviour after renovation of dwelling — Marleen Spiekman, TNO, Centre for Technical Sciences (In person)
13:10 - 13:20	Wellbeing in the Built Environment: Developing assessment tools for multi-family buildings — Marianne Touchie, Civil & Mineral Engineering, University of Toronto (In person)

13:20 - 13:30	Patterns of Residential Thermal Comfort and Human-Building Interactions: Findings from a Novel Data Set  — Katherine Bassett, Department of Civil and Environmental Engineering, Northeastern University (In person)
13:30 - 13:40	The impact of sensor grid density and configuration on the efficacy of RP-1747 demand-controlled ventilation: Simulations and the introduction of a real-world testbed  — Brodie Hobson, Department of Civil and Environmental Engineering, Carleton University (In person)
13:40 - 13:50	Developing Residential Occupant Archetypes for Canada — Mohamed Ouf, Department of Building, Civil and Environmental Engineering, Concordia University (In person)
13:50 - 14:00	Open discussion/Q&A
14:00 - 14:30	Break
	Session 4: Behaviour
14:30 - 14:40	Towards smartwatch-driven just-in-time adaptive interventions (JITAI) for building occupants  — Chua Yun Xuan, Department of Built Environment, National University of Singapore (In person)
14:40 - 14:50	How built environments affect our social systems at multiple scales  — Andrew Sonta, School of Architecture, Civil and Environmental Engineering, EPFL (In person)
14:50 - 15:00	Impact of Behavioral and Non-Behavioral Intervention on Building Energy Use —Zachary Colligan, Integrated Design and Construction Laboratory, Washington State University (In person)
15:00 - 15:10	Consideration of occupant preferences and habits during the establishment of occupant-centric buildings: a critical review  — Xiangchao Lian, Institute of HVAC Engineering, Tongji University (Online)
15:10 - 15:20	Empowering building occupants with advanced intelligent solutions towards energy-efficient and healthy buildings — Giorgia Spigliantini, Integrated Environmental Solutions R&D Rina Consulting Spa (Online)

15:20 - 15:30	Open discussion/Q&A
15:30 - 16:00	Break
	Session 5: Behaviour
16:00 - 16:10	High quality indoor environments for human occupancy: Reflections on the role of standards  — Christiane Berger, Department of Architecture, Design and Media Technology; Aalborg University (Online)
16:10 - 16:20	A wearable device for the built environment based on an open-source ecosystem and low-cost sensors: the first phase  — Francesco Salamone, Construction Technologies Institute - National Research Council of Italy, Department of Architecture and Industrial Design - Università degli Studi della Campania "Luigi Vanvitelli" (Online)
16:20 - 16:30	Optimizing Automated Shading System by Exploring Occupant Behaviour and Comfort in Office Environment: An Experimental Study  — Ghadeer Derbas, Building physics and technical building equipment (b+tga), Wuppertal University (Online)
16:30 - 16:40	Rethinking energy retrofit: how thermal comfort could lead to a user centric process  — Athina Petsou, Institute of Environmental Design and Engineering, UCL (Online)
16:40 - 17:00	Open discussion/Q&A
17:00 - 17:10	End of OB-22 Symposium
17:10 - 19:30	Happy Hour (Optional) Hop onto the internal shuttle bus with us to enjoy a happy hour drinks at Good Beer Company:  2 Science Park Dr, Ascent #01-23 Singapore 118222
	There are pizza and other food options at Good Beer Company. We can also lead willing participants to Holland

Village for dinner options as well at about 19:30+ if desired.

	Annex 79 Meeting (Thursday): September 22, 2022
8:30 – 9:00	The program timing is in Singapore Time (SGT) Registration and log-in Location: SDE4-EXR1-2
9:00 – 9:10	Opening speech by Khee Poh Lam  — Provost's Chair Professor of Architecture and the Built Environment at National University of Singapore
9:10 – 9:30	Welcome, introduction, roll call & adoption of the agenda
9:30 – 10:30	Overview and general information about Annex 79 by Operating Agents Introduction and discussion of schedule for preparing the Deliverables
10:30 – 11:00	Break
11:00 – 12:00	Overview of activities in all Subtasks and discussion, Agenda for breakouts
12:00 – 13:00	Group photo + Lunch Break

13:00 – 15:00	Breakout sessions for presentations, discussions, further work plan, and planning of deliverables
	Subtask 1 - Location : SDE4-EXR1-2
	Subtask 2 - Location : SDE2-ER1
	Subtask 3 - Location : SDE1-SR1
	Subtask 4 - Location : SDE1-SR5-6
15:00 – 15:30	Break
15:30 – 16:15	Open Blue Innovation Center Presentation
16:15 – 16:30	Prepare to leave for Lau Pa Sat
17:00 – 20:00	Singapore food tasting tour at Lau Pa Sat (Optional)
	Experience Singapore's unique food culture with us!
	A chartered bus will pick everyone up at SDE4 and head to Lau Pa Sat.
	Lau Pa Sat address:
	18 Raffles Quay, Singapore 048582

	ristration and log-in ation: SDE4-EXR1-2  f agenda for breakouts from STLs for each ST  akout sessions for presentations, discussions, further work plan, and planning of deliverables  task 1 - Location: SDE4-EXR1-2  task 2 - Location: SDE2-ER1  task 3 - Location: SDE1-SR1
8:30 – 9:00	The program timing is in Singapore Time (SGT)
	Registration and log-in
	Location: SDE4-EXR1-2
9:00 – 9:20	Brief agenda for breakouts from STLs for each ST
9:20 – 12:00	Breakout sessions for presentations, discussions, further work plan, and planning of deliverables
	Subtask 1 - Location : SDE4-EXR1-2
	Subtask 2 - Location : SDE2-ER1
	Subtask 3 - Location : SDE1-SR1
	Subtask 4 - Location : SDE1-SR5-6
12:00 – 13:00	Lunch Break
13:00 – 13:45	Plenary session for cross-subtask activities
13:45 – 14:45	STs' summary presentations and discussion

14:45 – 15:15	Break
15:15 – 16:15	Discussion about next Annex Proposal
16:15 – 16:45	Dissemination issues: seminars/workshops at conferences, special issues of journals, website, newsletters, outreach to other organisations
16:45 – 17:00	Ending presented by host - Summary and closing remarks

Please note: ALL TIMES ARE IN Singapore Time (SGT)!

## **Time Zone Assistance**

### World Time Buddy Link

•	Singapor Singapore	- <b>18:00</b> Wed, Sep 21	SEP 21						6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21			
+2	Sydney Australia	- <b>20:00</b> Wed, Sep 21	2				6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22		SEP 22		
-6	Copenha Denmark	- <b>12:00</b> Wed, Sep 21	18	19	20	21	22		WED SEP 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
-7	London United Kingd	- <b>11:00</b> Wed, Sep 21	17	18	19	20	21			SEP 21	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
-12	New York United States	- 06:00 Wed, Sep 21	12	13	14	15	16	17	18	19	20	21	22	23	SEP 21	1	2	3	4	5	6	7	8	9	10	11	
-13	Chicago United States	- <b>05:00</b> Wed, Sep 21	11	12	13	14	15	16	17	18	19	20	21	22	_	SEP 21	1	2	3	4	5	6	7	8	9	10	
-14	Denver MDT United States	- <b>04:00</b> Wed, Sep 21	10	11	12	13	14	15	16	17	18	19	20	21	22	23	SEP 21	1	2	3	4		6	7	8	9	
-15	Vancouv	- 03:00 Wed, Sep 21	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	SEP 21	1	2	3			6	7	8	