



CIB W062
Leuven / 2023



Buildwise

PROGRAM DAY 1 – TUESDAY 29th AUGUST

08:30 - 09:00	REGISTRATION
09:00 - 09:15	SYMPOSIUM COMMENCES OPENING ADDRESS Bart Ingelaere – GCO Buildwise and CIB Board Member
09:15 - 10:45	TECHNICAL SESSION 1 – SIZING I <i>Chairs: L.B. Jack and L.T. Wong</i>
	Application of dynamic cold and hot water supply loads calculation method in buildings - Effects of introducing cold and hot water-saving plumbing fixtures in an apartment complex H. Takata, S. Murakawa, D. Ikeda, K. Sakamoto
	Examination of unit model applied to dynamic cold and hot water supply loads calculation method - as an example of toilet flushing water supply system in the office building S. Murakawa, D. Ikeda, K. Sakamoto, H. Takata
	Implementation of sustainability and circularity solutions in the building water cycle: The need to review sizing methods A. Silva-Afonso, C. Pimentel-Rodrigues
	Pipe sizing research in Australia; a decade on. T. Roberts
	Towards a better understanding of hot water demand in nursing homes T. Delwiche, M. Guarini, C. Jacques, B. Poncelet, B. Bleys
10:45 - 11:15	COFFEE BREAK
11:15 - 12:45	TECHNICAL SESSION 2 – DRAINAGE <i>Chairs: W. van der Schee and K. Dinne</i>
	The Transport of a Model Viral Pathogen on Bioaerosols through a Full-Scale Building Drainage Test Rig under Realistic Conditions T. Dight, M. Gormley
	Comparison and Assessment of Building Drainage Design Codes for use in Tall Buildings S. A. Mohammed, M. Gormley, C. Stewart, D.A. Kelly and D.P Campbell
	A hybrid particle-polygon technique for the simulation of solid transport in a building drainage system M.C.B. Teixeira, L. S. Pereira, R.A. Amaro Jr, L.Y. Cheng, L.H. Oliveira
	Studies on High-pressure Washing of Drainage Pipe in Apartment Building Part 1 : Cleaning Performance in Actual Piping and Piping with Pseudo-Dirt Y. Nishimura, T. Mitsunaga, K. Sakaue, K. Sakai
	Study on simulation of building drainage systems by CFD Part 1 : Verification based on existing experimental results S. Iwamoto, R. Fujimoto, K. Sakaue, T. Mitsunaga

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12:45 - 14:00	LUNCH
14:00 - 15:15	TECHNICAL SESSION 3 – MISCELLANEOUS <i>Chairs: B. Bleys and L.H. Oliveira</i>
	Experimental study of the heat transfer coefficient between human skin and the flowing water during showering L.T. Wong, C.W. Poon, K.W. Mui, D. Zhang
	Current Circumstances and Issues Surrounding Disposable Underwear Crushing/Disposal Systems to be Installed at Care and Nursing Homes Y. Ino, M. Otsuka, A. Kimura, M. Maki
	Aqua container house for natural disasters and non-sanitary areas Part 2 : Suitability evaluation by water use experiment M. Hashimoto, H. Iizuka, K. Sakaue, T. Mitsunaga
	Study on the performance and quality evaluation of unit bathrooms in Taiwan C. Lo, C. Cheng
15:15 - 15:45	COFFEE BREAK
15:45 - 17:00	TECHNICAL SESSION 4 – HEALTH & HYGIENE I <i>Chairs: C. Cheng and D. Kelly</i>
	Analysis of the possibility of dispersion of SARS-CoV-2 in bathrooms, using computational fluid dynamics (CFD) L. S. Vieira, L.H. Oliveira, F.A. Kurokawa
	Designing a lead measuring protocol in de domestic drinking water installation M. Blokker, A. Dash
	Study on Hand Washing for Preventing COVID-19 in Various Countries, Regulatory Trends, and Issues M. Itabashi, M. Otsuka
	Climate change - underestimated risk factor for domestic water hygiene F. Schmidt
17:00 - 18:30	FREE TIME
18:30 - 22:30	SOCIAL PROGRAM

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PROGRAM DAY 2 – WEDNESDAY 30th AUGUST

08:30 - 10:00	TECHNICAL SESSION 5 – ENERGY AND GHG EMISSIONS REDUCTION <i>Chairs: M. Gormley and S. Murakawa</i>
	Advanced building facilities embodying the transition to carbon neutrality K. Osako, U. Roslan, K. Shibata, N. Aizawa, M. Otsuka
	Impact of domestic hot water safety advices on energy consumption and the energy transition in The Netherlands A. Moerman, F. Oesterholt
	Study on Energy Efficiency Evaluation Indicators for Building Hot Water Systems in Taiwan H. Huang, C. Cheng
	The energy saving efficiency of hot water transmission pipeline between PU-insulated and uninsulated stainless pipes. M. C. Jeffrey Lee
	Climate resilience design of potable water installations in buildings - hygienic safe temperature reduction of potable water hot (PWH) C. Schauer
10:00 - 10:30	COFFEE BREAK
10:30 - 11:45	TECHNICAL SESSION 6 - LOW WATER CONSUMPTION BUILDINGS I <i>Chairs: A. Silva-Afonso and M. Otsuka</i>
	Research of water saving design and near zero water consumption feasibility for office buildings W. Chang, C. Cheng, K. Sadahico
	Study on water balance and environmental performance evaluation in buildings Part 3 : Water Balance and CO2 Emissions by Precipitation Characteristics of Rainwater Utilization Buildings J. Oyagi, T. Nishikawa
	Towards the Feasibility of Near-Zero Water Consumption Buildings Sadahico Kawamura, Cheng-Li Cheng
	Role of Discharge Water Temperature Upon Hydraulic Performance of High-Rise Wastewater Drainage Stacks C. Stewart
11:45 - 13:00	TECHNICAL SESSION 7 – LOW WATER CONSUMPTION BUILDINGS II <i>Chairs: H. Kose and B. Bleys</i>
	Economic feasibility of implementing rainwater harvesting systems for sustainable urban water management: A case study in Goiânia, Brazil. L.M. Gonçalves, M. A. S. Campos
	CO2 Emissions from Water Supply Facilities and Rainwater Utilization Facilities in Japan U. Takeuchi, T. Mitsunaga
	Study on suitability of hybrid feed-forward-PSO ANN model for predicting pressure profile data in the building drainage system I. Mahapatra, M. Gormley

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	Navigating Modern Crises through Sustainable and Resilient Urban Development (How to do more with Less?) H. Nekrep, M. Nekrep Perc, T. P. Nekrep
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13:00 - 14:00	LUNCH
14:00 - 15:45	TECHNICAL SESSION 8 – HEALTH & HYGIENE II <i>Chairs: L.B. Jack and M. Nekrep</i>
	Study on Evaporation Phenomenon of Trap Seal Water Part 2 : Indoor and outdoor evaporation rates by regions T. Mitsunaga, K. Sakaue
	Improving the Environment of Toilet Spaces in Evacuation Centers – Organizing the Problem of Evacuation Toilets based on Previous Studies and the Thermal Environment of Temporary Toilets – H. Yamaguchi
	Risk Assessment to Contaminant Spreading through Building Drainage System in Residential Building Y Lin, C. Cheng
	The impact of current and future extreme rainfall events on historic buildings D.A. Kelly and J.J. Claridge
	Trends in Studies, and Reviews Thereof, in Relation to Droplets on and around Toilets that Can Cause Infections A. Kimura, M. Otsuka
	Vertical bioaerosol transmission in toilet environment Tsang TW, Mui KW, Wong LT, Wong YS
15:45 - 16:15	COFFEE BREAK
16:15 - 17:45	TECHNICAL SESSION 9 – SIZING II <i>Chairs: M.C. Jeffrey Lee and C. Pimentel-Rodrigues</i>
	An international review of design requirements for the single stack drainage configuration J. S. Lansing
	Modeling Study of “Zero Water Building” H. Kose
	Modification of the Building Drainage System airflow and pressure regime due to airflow from the sewer network. K.S.Sharif, M.Gormley
	DHW production for collective residential buildings: development of a sizing method B. Poncelet, B. Bleys
	The need for a new approach to the assessment of water demand loading, post-Covid, for office buildings L.B. Jack, S. Fernandez, S. Dass and C. Rogers
17:45 - 18:30	FREE TIME
18:30 - 22:00	SOCIAL PROGRAM

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PROGRAM DAY 3 – THURSDAY 31th AUGUST

TECHNICAL VISITS

09:00 - 09:45	TRIP TO BUILDWISE LIMELETTE
09:45 - 10:15	ARRIVAL AND WELCOME
10:15 - 12:30	TECHNICAL VISIT BUILDWISE LIMELETTE
	Water tower visit
	Experience lab exploration
	Acoustic lab exploration
12:30 - 13:30	LUNCH
14:00 - 14:45	TRIP TO BUILDWISE ZAVENTEM
14:45 - 16:00	TECHNICAL VISIT BUILDWISE ZAVENTEM
	Green walls and efficient heating system
	Virtual reality
	Drones flight
16:00 - 17:00	ROOFTOP DRINK
17:00 - 17:45	TRIP TO PARK-INN LEUVEN
17:45 - 18:30	FREE TIME
18:30 - 23:00	SOCIAL PROGRAM

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