

PROGRAM DAY ONE, TUESDAY 26TH OCTOBER

SESSION A – WATER DEMAND AND SUPPLY I

Session Chair: Bart Bleys

7am (UK)	Opening Remarks – Professor Lynne Jack
7.10am (UK)	Verification on the dynamic calculation method for cold and hot water supply loads, and a simple calculation method for the instantaneous maximum flow rates Saburo Murakawa, Daisuke Ikeda, Kazuhiko Sakamoto, Hiroshi Takata
	Estimation of water supply loads in a general hospital by the dynamic calculation method Daisuke Ikeda, Saburo Murakawa, Takehiko Mitsunaga
	A Study of Hot Water Consumption for Residential Building in Taiwan Yi-Ting Wang, Cheng-Li Cheng, Sadahico Kawamura
	Design of water supply systems in buildings based on the estimation of instantaneous flow rates by the dynamic calculation method Kazuhiko Sakamoto, Saburo Murakawa, Daisuke Ikeda, Hiroshi Takata
	The prediction method of supply water temperature for energy simulation of hot water supply systems. Part 4 Prediction methods of supply water temperature based on measurements in purification plants of 52 cities in Japan Shizuo Iwamoto, Ayano Dempoya, Renon Ohnishi, Kyosuke Sakaue
	Q&A/Panel discussion
BREAK (8.40am – 9.00am) (UK)	
SESSION B – DRAINAGE AND SANITATION I	
Session Chair: C. Pimentel-Rodrigues	
9.00am (UK)	Research on the performance evaluation of the drainage system in residential buildings

	Yu-Lun Zhu, Cheng-Li Cheng, Wan-Ju Liao
	Network integration between above and below ground drainage systems K.S. Sharif, M. Gormley
	Study on Experiments and Estimation Methods for Fixture Discharge Characteristics and Carrying Performance when Horizontal Drainage Pipe of Various Pipe Diameters are connected to Water-saving Toilets Kazuya Akiyama, Masayuki Otsuka, Yusuke Kubota, Takumi Yamashiro, Hiroshi Shigefuji
	Prediction of the air pressure distribution in the building drainage and vent system using Artificial Neural Network Model I. Mahapatra, M. Gormley
	Development and Drainage Performance Evaluation of Disposable Underwear Shredder System Applicable Caring Facilities Ayaka Kimura, Masayuki Otsuka, Michitaro Maki, Yusuke Kubota
	Q&A/Panel discussion
BREAK (10.30am – 10.50am) (UK)	
SESSION C– PUBLIC HEALTH AND HYGIENE I	
Session Chair: Professor Cheng-Li Cheng	
10.50am (UK)	Public Health Engineering in the context of COVID-19: Assessing Risk and Preparing For the Future M. Gormley
	Consideration of the thermal environment in the sanitary space and the elderly's thermal sensation H.Yamaguchi
	Research trends and issues regarding Covid-19 infection risks in toilet spaces Masayuki Otsuka, Ayaka Kimura, Yusuke Kubota
	Q&A/Panel discussion
BREAK (11.50am – 12.10pm) (UK)	

SESSION D – WATER CONSERVATION

Session Chair: Dr M.C. Jeffery. Lee

12.10am (UK)	The integration of water efficiency requirements in the new Portuguese regulation for water supply and drainage for buildings A. Silva-Afonso, C. Pimentel-Rodrigues
	Research of Nearly Zero Water Consumption Evaluation Method for Elementary School Yen-Chi Chan, Cheng-Li Cheng, Sadahico Kawamura
	Evaluation Method and System of Nearly Zero Water Consumption for Residential Building Sadahico Kawamura, Cheng-Li Cheng
Short break	15 minutes
	Water consumption and behavioural demand patterns of young people in Scotland D.A. Kelly, M. Gjerull, and A. Darve
	Factor analysis of precipitation characteristics and water demand in net zero water building evaluation Toyohiro Nishikawa
	A financial analysis of water conservation technologies in residential dwellings of the Federal District, Brazil J.T.D.S. Vianna, D. Sant'Ana
	Q&A/Panel discussion
CLOSE 2.10pm (UK)	

PROGRAM DAY TWO, WEDNESDAY 27TH OCTOBER

SESSION E – PUBLIC HEALTH AND HYGIENE II

Session Chair: Professor Vranayova

7am (UK)

Legionella development in sanitary heat exchangers

B. Bleys, K. Dinne, M. Guarini, M. Roger

Visualization of Contaminant Spreading through Building Drainage System

Yen-Yu. Lin, Cheng-Li. Cheng

The health risk assessment of the dissolved plasticizer from uPVC water supply pipes

M.C. Jeffery. Lee, Y.C. Yeu, C.C. Chen, C.Y. Chen

The Detection of Bacterial and Viral Aerosols in a Full-Scale Building Drainage Test Rig – Implications for Disease Transmission

T. Dight & M. Gormley

Q&A/Panel discussion

BREAK 8.15-8.35am (UK)

SESSION F – DRAINAGE AND SANITATION II

Session Chair: Professor Gormley

8.35am (UK)

Measurement of positive air pressure in a ventilation section of a 150-mm diameter stack during a branch pipe discharge

L.T. Wong, K.W. Mui, C.H. Yeung

Development and Drainage Performance Evaluation of Drainage Stack System Applicable to Mid-rise Apartment Houses Built Using ALC Construction Method

Kanako Ishii, Masayuki Otsuka, Toya Abe, Koji Matsumura, Ryota Oba

	<p>Understanding of Drainage Performance and Examining Repair Methods in Waste Pipe Systems for High-rise Apartment Housing Stock</p> <p>Natsuki Ono, Masayuki Otsuka, Toshihiko Shinozuka, Shingo Yamazaki</p>
	<p>Case Study and Evaluation of Siphonic Drainage System for Waste Water in Apartment Building</p> <p>Takehiko Mitsunaga, Kyosuke Sakaue, Satoshi Sasaki</p>
	<p>Q&A/Panel discussion</p>
<p>BREAK 9.50 – 10.10am (UK)</p>	
<p>SESSION G – ROOF DRAINAGE/GREEN ROOFS/HYDROLOGY</p> <p>Session Chair: Professor S Murakawa</p>	
<p>10.10am (UK)</p>	<p>Evaluation Model for Water Balance between Supply and Demand in Extensive Green Roof</p> <p>Lin, Ying-Chun, Cheng, Cheng-Li</p>
	<p>Transformation of an administrative building into a sponge structure element</p> <p>M.Vertal, Z. Vranayova, Vargova A., Kaposztasova, D.</p>
	<p>Field investigation of the hydrological characteristics of an experimental raingarden designed for flood alleviation in Scotland</p> <p>A. Kalaichelvam and D.A. Kelly</p>
	<p>A study on management of the rooftop biotope</p> <p>Takahiko Suzuki, Shigeru Kuriki, Masayuki Otsuka</p>
	<p>Q&A/Panel discussion</p>
<p>BREAK 11.25am-11.45am (UK)</p>	
<p>SESSION H – WATER DRAINAGE AND SUPPLY II</p> <p>Session Chair: Professor M Otsuka</p>	
<p>11.45am (UK)</p>	<p>Summary of research on flow rates and water consumption in residential buildings in Czech Republic</p> <p>J. Vrana, J. Mostek</p>

	<p>Calculation of the loads of hot water consumption in Japanese hot spring hotel</p> <p>Hiroshi Takata, Seiji Shimada, Saburo Murakawa, Daisuke Ikeda</p>
	<p>Evaluation of the Power Saving Performance of Water Supply Pump. Part 2: Power Saving Performance Depending on the Water Supply System</p> <p>Shigekazu Okauchi, Kyosuke Sakaue, Takehico Mitsunaga, Guangzheng Wu</p>
	<p>Estimating the Probability of Use for Efficient Fixtures in Commercial Buildings</p> <p>T. Omaghomj, Tao Li and Steven Buchberger</p>
	<p>Stochastic simulation model of water demand in residential buildings</p> <p>Tiago de Vasconcelos Gonçalves Ferreira, Orestes Marraccini Gonçalves</p>
	<p>Q&A/Panel discussion</p>
	<p>Closing Remarks – Professor Lynne Jack</p>
<p>CLOSE 1.25pm (UK)</p>	