



Rainwater harvesting and Stormwater Management Research and Innovation Forum

CET 09:00-12:00, 11th November 2021.

Zoom: <https://us02web.zoom.us/j/85806518336?pwd=bEVjZVJXS21hamZJODd1S3lKVzZCQT09>

Organizers



STORM AQUA

ISN Universitetet i Sørøst-Norge

In collaboration with IWA/IAHR Rainwater Harvesting Specialist Working Groups

About the webinar

Rainwater collected in lakes and reservoirs has been the main source for water supply in many countries. However, rainwater in cities, also called stormwater, was treated as “waste” in past engineering practices, was thus drained away from urban areas by the designed urban drainage systems. Climate change has caused more frequent extreme rainfall events, increasing consequences of flood damages and pollution caused by combined sewer overflow discharges (CSOs). There is also an increased experience of drought and water shortage in some periods. To minimize the negative impacts, it is essential to treat the stormwater locally through a range of BlueGreen solutions for urban stormwater management in terms of flood mitigation, pollution control, and harvesting the rainwater or greywater for different purposes.

A new paradigm of rainwater is proposed, which is to collect rainwater and use it for potable and non-portable purposes, instead of just draining it away. The webinar was initiated under such a background. It is designed to be a Research and Innovation platform for researchers, industrial companies, public and private actors and universities. Experts from different countries in the world were invited to share the latest research and innovation experience in Rainwater harvesting and Stormwater Management.

The objectives of this webinar

- Learning from international experience on RWH-SWM.
- Promote RWH in Norway and internationally, adapt to climate change, while transfer the rainwater from problems to resources for multi-purposes.
- Establish a communication platform for research and innovation on RWH and SWM between researchers, industry partners and city managers
- Enhance international collaboration






Agenda CET 09:00-12:00, 11TH November 2021







Central EU (CET)	Australia	China	Portugal	S. Korea	USA
09:00 (11.11.2021)	19:00	16:00	08:00	17:00	03:00

Moderators: Dr. Linmei Nie (CSDI WaterTech) and Britt Viljugrein (Vannklyngn-SWN), Norway.

Time	Presentation title	Speakers
08:50-09:00	Log in	
09:00-09:10	About the webinar	Dr. Linmei Nie Director for Centre for Sustainable Development and Innovation of Water Technology, CSDI WaterTech, Oslo, Norway
09:10-09:30	Rainwater Revolution: From Drain City to Rain City by Training Brain Citizens	Dr. Mooyoung Han, Professor Emeritus Seoul National University, Korea. Chairman of IWA RWHM SG
09:30-09:50	Regional evaluation of the performance of rooftop of RWH systems for domestic uses and case studies in Italy	Assoc. Professor Alberto Campisano, Catania University, Italy. Chairman of the IWA/IAHR Urban Stormwater Harvesting Working Group.
09:50-10:10	Stormwater harvesting and treatment, experience in Australia	Dr. Kefeng Zhang, Senior Lecturer at Water Research Centre, UNSW Sydney, Australia
10:10-10:30	Rainwater management and harvesting in China – Policy and practices, China	Dr. Assoc. Prof. Wei Zhang, Beijing University of Civil Engineering and Architecture, China.
10:30-10:40	Break	
10:40-11:00	Making rainwater harvesting a part of overall water management	Dr. Sarah L. Sojka Associate Professor, Environmental Studies and Physics at Randolph College, University of Virginia, USA.
11:00-11:20	Technical feasibility of RWH in Portugal and in Brasil - combining RWH with green roofs and assessing the influence of climate change	Cristina Matos Silva, Assistant Professor Department of Civil Engineering, Architecture and Georesources, Instituto Superior Técnico, Universidade de Lisboa, Portugal. Professor Vitor Sousa, at ULisboa-IST. Alissandra Pessoa is an engineer, PhD student at ULisboa-IST.
11:20-11:40	Pilot projects on Rainwater harvesting and Stormwater Management in Norway	Edvard Sivertsen, senior researcher, SINTEF community, Norway
11:40-11:50	Industrial research and Innovation on RWH and SWM	Per Møller-Pedersen, Manager, StormAqua AS; Vannklyngen-SWN; Norway.
	From rainwater research to education	Jarle T. Bjerkholt, Professor, University of South-Eastern, Norway.
11:50-12:00	Q & A	
12:00	Webinar closed	

Introduction of the invited speakers

 <p>Professor Mooyoung Han</p>	<p>Dr. Mooyoung Han is the professor Emeritus at Seoul National University, Korea. He is the founder and chairman of IWA Rainwater harvesting and management specialist group since 2003.</p>
 <p>Assoc. Professor Alberto Campisano</p>	<p>Alberto Campisano, Associate Professor at UNICT (University of Catania, Department of Civil Engineering and Architecture, Italy). PhD degree in Hydraulic Engineering released by the University of Naples, Italy. 20 years teaching and research experience in the field of water engineering. Research activities include design, modelling and control of urban water systems, hydrology of natural and urban catchments, modelling of sediment transport in river and drainage systems, reservoir sedimentation, design of sediment control structures in rivers, sustainable urban drainage, rainwater harvesting systems. Author of more than 150 papers. Supervisor of more than 70 diploma and master theses, and of 7 PhD theses. Currently, Chief Editor for Urban Water Journal. He was the Chairman of the IWA/IAHR Urban Stormwater Harvesting Working Group</p>
 <p>Dr Kefeng Zhang</p>	<p>Dr Kefeng Zhang is a Senior Lecturer at Water Research Centre, UNSW Sydney, Australia. He is also an ARC DECRA fellow (Australia Research Council Discovery Early Career Researcher Award), who is currently developing frameworks for risk quantification, control and monitoring of nature-based solutions for stormwater harvesting. His main areas of interest include stormwater quality monitoring and modelling.</p>
 <p>Assoc. Prof. Wei Zhang</p>	<p>Wei Zhang, PhD, Associate professor at Beijing University of Civil Engineering and Architecture. Strong capabilities in urban stormwater management and sponge city development, especially in stormwater soil infiltration facility (bioretention, green roof, etc.) and urban drainage modelling.</p>
 <p>Dr. Sarah Sojka</p>	<p>Sarah Sojka is an Associate Professor of Environmental Studies and Physics at Randolph College. She earned her MS and PhD in Environmental Sciences at the University of Virginia where her research focused on feedbacks between primary producers and sediment transport in shallow coastal lagoons. After graduation, she worked for Rainwater Management Solutions for four years, designing rainwater harvesting systems, studying controls on water quality in these systems, and developing a time series model for rainwater harvesting systems. She was also the first author on the second edition of the Virginia Rainwater Harvesting Manual. She has maintained her research interest in rainwater harvesting systems in her current role at Randolph College.</p>

 <p>Dr. Edvard Sivertsen</p>	<p>Edvard Sivertsen, Dr.ing, is a senior scientist at SINTEF Community. He has since 2015 worked with stormwater management with a special focus on meeting future challenges as a result of climate change. Sivertsen is responsible for the work package that deals with stormwater management in the centre Klima 2050 (www.klima2050.no) and works with both strategic tools and practical solutions for handling quantity as well as quality of stormwater. In Klima 2050 several large-scale pilot projects have been initiated to verify and document performance of novel stormwater solutions under real conditions.</p>
 <p>Dr. Cristina Matos Silva</p>  <p>Professor Vitor Sousa</p>  <p>Alissandra Pessoa</p>	<p>Assistant Professor Cristina Matos Silva. PhD in Civil Engineering. Department of Civil Engineering, Architecture and Georesources Instituto Superior Técnico, Universidade de Lisboa. She has been an Assistant Professor at IST/UL since 2007. Her research interests focus on green roofs and living walls, namely on their economic evaluation and associated urban planning, thermal and acoustic performance and maintenance planning in a Mediterranean climate. Her work also evaluates the efficiency of rainwater harvesting systems, at both urban and building scale and when combined with green roof solutions. Please visit https://www.projectgenesis-ist.com/ and http://gigroup.tecnico.ulisboa.pt/PHP/members.php for more information.</p> <p>Vitor Sousa is a Professor at ULisboa-IST and a research member at research unit CERIS. PhD in Civil Engineering (2012). His research involves mostly data and uncertainty modeling to improve/aid the management of physical asset, which encompasses various topics such as degradation modelling, water and energy efficiency, water-energy nexus, carbon reduction in construction materials and waste management, and Artificial intelligence tools.</p> <p>Alissandra Pessoa is an engineer working at the Federal University of Roraima. A PhD student at ULisboa-IST since 2017, focusing on water and energy efficiency at university campus. Her work includes facility management, inspection and maintenance of buildings.</p>
 <p>Per Møller-Pedersen</p>	<p>Per Møller-Pedersen has worked with stormwater management for the last 15 years. He is the general manager and founder of Storm Aqua - a competence company linked to the Skjæveland Group. He has been responsible for the development of a range of services that covers most of a construction process. In addition, he has worked on the development of new solutions for managing the stormwater. He is passionate about a holistic approach to stormwater management and believes that the best way of robust and sustainable solutions lies in effective interaction between all actors.</p>
 <p>Prof. Jarle T. Bjerkholt</p>	<p>Jarle T. Bjerkholt is a Professor in Water and Environmental Technology at University of South-Eastern, Norway.</p>