

Dr. Guna Hewa

PRECONFERENCE SPEAKER -
IRCITUM2022

**"URBAN WATER CYCLE MANAGEMENT:
HOLD THE RAIN WHERE IT FALLS "**

Senior Lecturer, Research Degree
Coordinator, University of South Australia,
UniSA STEM



Profile

Dr Guna joined UniSA in 2003, and since then, she has been educating both undergraduate and postgraduate students in Hydrology & Water Resources Engineering. She has also been the Program Director for Masters of Water Resources Management, delivered through the International Centre of Excellence in Water Resources Management (ICEWaRM) at the University of South Australia until 2014. During her academic career, she has supervised nine PhD degrees for completion. Guna has also been the Research Degree Coordinator (RDC) for UniSA STEM since 2016.

SYNOPSIS:

**URBAN WATER CYCLE MANAGEMENT: "HOLD THE
RAIN WHERE IT FALLS"**

Urbanisation dramatically increases the fraction of impervious areas, resulting in a change in the region's hydrology. The total water cycle management in Australian urban landscapes uses an infiltration-based technology known as Water Sensitive Urban Design (WSUD). This is considered a sustainable way to combat the consequences of urbanisation on stream hydrology. The WSUD in Australia is equivalent to the Low-Impact Development (LID) in the USA, Sustainable Urban Drainage Systems (SuDS) in the UK, Low-Impact Urban Design and Development (LIUDD) in New Zealand, and Sponge City in China.

WSUD enhances the values of amenities, ecosystems, livability, and society in urban planning. The presentation covers WSUD for stormwater quantity management with three strategies



Education

1994

UNIVERSITY OF MORATUWA

Bachelor of Science (Civil Engineering)

**NATIONAL UNIVERSITY OF IRELAND,
UNIVERSITY COLLEGE GALWAY**

1996

Masters of Science (Hydrology)

2001

**UNIVERSITY OF MELBOURNE ,
AUSTRALIA**

Doctor of Philosophy (Hydrology & water
resources)



Pre-Conference speech



researchunit@itum.mrt.ac.lk



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Date : 27th October 2022

**Time : 11.15 am – 12.45 pm
Sri Lanka (GMT + 5.30)**