

30<sup>th</sup> & 31<sup>st</sup> August 2018. Coventry University, England. UK.

## Programme. Day 1- Thursday 30th Aug 2018

9.00 - 10.00 Registration

10.00 - 10.10 Introduction and conference welcome

10:10 - 10:40 KEYNOTE SPEAKERS

**ROSEMARY JENKINSON & MILLY HENNAYAKE (ARUP)** 

### Session 1 – SuDS in Challenging Environments

TIME	TITLE	AUTHOR(S)
10.40	The efficacy of Sustainable Drainage Systems (SuDs) in humanitarian settlements: a case for an alternative method in flood risk management.	Mitch McTough¹, Andrew Adam-Bradford² and Sue Charlesworth²  ¹ Human Relief Foundation ² Centre for Agroecology, Water and Resilience
11 <b>.00</b>	Innovative Drainage Techniques for Surface Water Management in African Refugee Camps	Oluwatoyin Opeyemi Ajibade <sup>1*</sup> & Kiran Tota- Maharaf <sup>2</sup> <sup>1</sup> University of Greenwich. <sup>2</sup> University of West of England
11 <b>.20</b>	Arbuscular mycorrhizal colonisation of biofiltration cells at Franschhoek, South Africa	Liz Trenchard, Sue Charlesworth & Stephen Coupe Coventry University
11 <b>.40</b>	The Interplay of Green Infrastructure on Urban Heat Stresses and Stormwater Management: Southeast Asia's Urban Future	K. Tota-Maharaj <sup>1</sup> and M. Gómez <sup>2</sup> <sup>1</sup> University of the West of England, <sup>2</sup> Polytechnic University of Catalonia, Spain
12.00	Addressing disease vectors with SuDS: the Zika virus in favelas in NE Brazil	R. Lewis, S. Charlesworth, M. Blackett, F. Warwick Coventry University



Session 1 Supported by Humanitarian Innovation Fund

### 12.20 - 1.20 Networking LUNCH

### Session 2 – Source Control SuDS: Green roofs, Planters & Plants

TIME	TITLE	AUTHOR(S)
1.20	Improving the functionality of the "sponge" – Does plant choice matter?	Siti Nur Hannah Ismail, Ross W. F. Cameron and Virginia Stovin
		University of Sheffield
1.40	1.40 Ecological enhancement from wildlife habitat on constructed green roofs.	Sophie Barron-West <sup>1</sup> , <b>Stephen Coupe</b> <sup>1</sup> , Liz Trenchard <sup>1</sup> & Ben Shuttleworth <sup>2</sup>
		<sup>1</sup> Coventry University. <sup>2</sup> SEL Environmental Limited
2.0 <b>0</b>	Seasonal variations in green roof hydrology	Simon De-Ville <sup>1</sup> & Virginia Stovin <sup>2</sup>
		<sup>1</sup> Loughborough University <sup>2</sup> Sheffield University
2.2 <b>0</b>	Reduction of CSO discharges and improved surface water runoff quality	<b>Alex Stephenson</b> <sup>1,2</sup> & Lorna Davis <sup>2,3</sup>
	through the use of rainwater planters	<sup>1</sup> H2O Intelligence Ltd and <sup>2</sup> SuDSPlanter Ltd <sup>3</sup> Lorna Davis Designs
2.40	Greener Gardens – Raingardens and attenuation units in residential gardens	Wade, R. <sup>1</sup> , Travers, J, <sup>2</sup> Berwick N, <sup>1</sup> & Peter, R. <sup>1</sup>
		<sup>1</sup> Abertay University <sup>2</sup> Lovell Homes

3.00 - 3.20 Break







30<sup>th</sup> & 31<sup>st</sup> August 2018. Coventry University, England. UK.

## Session 3 – Water Quality and Pollution Control

TIME	TITLE	AUTHOR(S)
3.20	Simulation of the fate of polycyclic aromatic hydrocarbons from storm water using a model swale mesocosm.	Janine Robinson, Fay Couceiro, Joy Watts and John Williams University of Portsmouth
3.4 <b>0</b>	Pollutant removal efficacies of permeable pavements comprising recycled concrete aggregates	J. Monrose <sup>1,2</sup> K. Tota- Maharaj <sup>1</sup> and A. Mwasha <sup>3</sup> <sup>1</sup> University of the West of England <sup>2</sup> AECOM, Trinidad and Tobago <sup>3</sup> University of the West Indies
4.00	Validating a SUDS treepit for the Scottish Climate	A.M. Duffy¹, D. Bowie J². Dalrymple², J. Akunna¹  ¹Abertay University ²GreenBlue URBAN

4.00 - 4.20 BREAK

#### Session 4 - SuDS Education and Articulation

TIME	TITLE	AUTHOR(S)
4.20	Articulation of Stormwater in Cities	<b>Bruce Ferguson</b> Pennsylvania, USA
4.40	SuDS and Raingarden Education in Schools	Rebecca Wade <sup>1</sup> , Alison Duffy <sup>1</sup> , Neil Berwick <sup>1</sup> , James Travers, Patricia Dello Sterpaio <sup>1</sup> Abertay University
5 <b>.00</b>	Inspiring the New Generations: Introducing SuDS at Undergraduate and Postgraduate Studies	Luis A. Sañudo-Fontaneda <sup>1,2</sup> , Felipe P. Alvarez-Rabanal <sup>1</sup> , Angel Martin-Rodriguez <sup>1</sup> , Mar Alonso- Martinez <sup>1</sup> , Zenaida A. Hernandez- Garrastacho <sup>1</sup> , Juan J. del Coz- Diaz <sup>1</sup> <sup>1</sup> University of Oviedo. <sup>2</sup> Coventry University

5.20 – 5.30 Discussion and Close of Day 1

7.00 for 7.30pm Conference Dinner – St Marys Guildhall

St Marys Guildhall, Bayley Lane, Coventry, CV1 5RN

www.stmarysguildhall.co.uk





30<sup>th</sup> & 31<sup>st</sup> August 2018. Coventry University, England. UK.

## Programme. Day 2 - Friday 31st Aug 2018

9.00 – 9.30 Registration

9:30 – 10.00 KEYNOTE SPEAKERS

BRIAN SMITH (Yorkshire Water) & PROF LIAN LUNDY (Middlesex University)

#### Session 5 – Permeable Pavements and Filter Media

TIME	TITLE	AUTHOR(S)
10.00	Optimising Pervious Pavement Systems: A laboratory-based investigation of novel materials as water barrier/treatment systems	Natasa Tziampou <sup>1</sup> , Stephen J. Coupe <sup>1</sup> , Luis A. Sañudo-Fontaneda <sup>2</sup> , Alan P. Newman <sup>1</sup> , Daniel Castro-Fresno <sup>3</sup> <sup>1</sup> Coventry University <sup>2</sup> University of Oviedo <sup>4</sup> Universidad de Cantabria
10.20	The Hydrological "end-of-life" concept for Permeable Pavement Systems: A Case Study from Northern Spain	Luis A. Sañudo-Fontaneda <sup>1,4</sup> , Valerio C. Andres-Valer <sup>2</sup> , Jorge Rodriguez-Hernandez <sup>3</sup> , Carlos Costales-Campa <sup>1</sup> , Fernando Cadenas-Fernandez <sup>1</sup> <sup>1</sup> University of Oviedo. <sup>2</sup> University Austral of Chile. <sup>3</sup> University of Cantabria, <sup>4</sup> Coventry University
10.40	Filter drains redesigned for the 21 <sup>st</sup> Century	Jo Bradley SDS Ltd
11.00	Porous and Permeable Pavements with Low-Carbon Manufactured Carbonated Aggregates: Environmental and Economic Perspectives	Colin D Hills <sup>1,2</sup> , John Monrose <sup>3,4</sup> , Kiran Tota-Maharaf <sup>2,4</sup> and Paula Carrey <sup>2,5</sup> <sup>1</sup> University of Greenwich, <sup>2</sup> Indo:UK Centre for Environment Research and Innovation. <sup>3</sup> AECOM, West Indies. <sup>4</sup> University of the West of England <sup>5</sup> Carbon8 Systems Ltd.

11.20 -11.40 BREAK

#### Session 6 – International SuDS and Stormwater Case studies

TIME	TITLE	AUTHOR(S)
11 <b>.40</b>	Stormwater management in United Kingdom, Denmark, Poland, Germany, Sweden and Netherlands: A comparative study of legislation, methods and systems utilised.	Lukasz Koziel & Sara Egemose SDU (University of Southern Denmark)
12.00	A catchment scale analysis of green roofs retrofit potential to mitigate hydrological risk in a Mediterranean environment	Mirka Mobilia & <b>Antonia</b> <b>Longobardi</b> University of Salerno, Italy
12.20	A new freely-available geospatial data-based methodology for the implementation and assessment of SUDS: linking GIS tools and SWMM	Beatriz I. Mendez-Fernandez <sup>1</sup> , Cristina Allende-Prieto <sup>2</sup> , Susanne M. Charlesworth <sup>3</sup> , Luis A. Sañudo-Fontaneda <sup>1,3</sup> 182 University of Oviedo. 3 Coventry University

12.40 -2.00 LUNCH







30<sup>th</sup> & 31<sup>st</sup> August 2018. Coventry University, England. UK.

## Session 7 – Natural Flood Management and Rural SuDS

TIME	TITLE	AUTHOR(S)
2.00	An Approach for Identifying Opportunities and Assessing Performance of Natural Flood Risk Management techniques: A case- study in the headwaters of the Warwickshire-Avon	T. Lavers, Charlesworth S, Fried J., Warwick F. & Lashford C.  Coventry University
2. <b>20</b>	Investigating the role of tree planting on sub-catchment level runoff in Warwickshire, England	Craig Lashford & Thomas Lavers Coventry University
2. <b>40</b>	Developing a Design and Build Guidance for Rural SuDS	A. Duffy¹, S. Moir². N. Berwick¹, J. Shabashow ¹, B. D'Arcy¹, R. Wade¹, & D. Blackwood¹ ¹Abertay University ²Moir Environmental Ltd,
3 <b>.00</b>	Rural Sustainable Drainage Systems: Experience in the Field so Far	Stewart Moir  Moir Environmental Ltd

### Session 8 – SuDS and Stakeholder Engagement

TIME	TITLE	AUTHOR(S)
3.40	Potential for retrofitting SUDS at Houston Industrial Estate, Livingston, West Lothian	Vladimir Krivtsov*, Brian J. D'Arcy, Scott Arthur & Chris Semple Heriot Watt University
4.00	A communication tool for Ecosystem Services associated with Sustainable Urban Drainage Systems	Roshni Jose <sup>1</sup> , Rebecca Wade <sup>2</sup> & David Blackwood <sup>2</sup> <sup>1</sup> University of Portsmouth <sup>3</sup> Abertay University
4.20	Green Infrastructure survey on public perception of SuDS and the relationship with the housing market	John Williams, <b>Cletus Moobela,</b> David Hutchinson, Mark Gaterall & Roshni Jose. University of Portsmouth

3.00 - 3.20 BREAK

4.40 - 5.00pm Day 2 Final Discussion and Close of Conference

5.00pm Depart





30<sup>th</sup> & 31<sup>st</sup> August 2018. Coventry University, England. UK.

### **POSTERS:**

HYDROLOGICAL IMPACT OF EXPANDED CLAY MATERIAL INTRODUCED IN DIFFERENT SUDS: A LABORATORY-BASED ASSESSMENT	Carlos Costales-Campa1, Felipe P. Alvarez-Rabanal1, Luis A. Sañudo-Fontaneda1,2 1University Of Oviedo. 2Coventry University
RETROFITTING THE HISTORICAL CITY OF OVIEDO, SPAIN: THE POTENTIAL ROLE OF SUDS IN SANTUYANO'S BOULEVARD AND "EL CAMPO DE SAN FRANCISCO"	Fabio Robleda-Alvarez <sup>1</sup> , Nicolas Vallina-Pita <sup>1</sup> , Ricardo Fernandez-Carrio <sup>1</sup> , Carlos Costales-Campa <sup>1</sup> , Almudena Ordoñez-Alonso <sup>2</sup> , Luis A. Sañudo-Fontaneda <sup>1,3</sup> 182 University of Oviedo. 3 Coventry University
SOUTH AFRICAN BIOFILTERS (TITLE TO BE CONFIRMED)	Sue Charlesworth  Coventry University
USING SPONGE CITY THEORY FOR THE COMPREHENSIVE EVALUATION FOR LID AND SUDS	Katherine Hyde University of Reading

ASSESSMENT OF THE POTENTIAL IMPLEMENTATION OF PERMEABLE PAVEMENT SYSTEMS IN THE SAN FRANCISCO PARK OF THE HISTORICAL CITY OF OVIEDO, NW SPAIN	<sup>1</sup> Lucía Pérez-Martínez, ¹Almudena Ordoñez, <sup>2,3</sup> Luis A. Sañudo-Fontaneda, ¹Rodrigo Álvarez ¹Department of Mining, University of Oviedo, Spain ²Department of Construction and Manufacturing Engineering, University of Oviedo, Spain ³Centre for Agroecology, Water and Resilience (CAWR), Coventry University
DEX PONDS 20 YEARS ON - A LARGE SCALE RESIDENTIAL DEVELOPMENT IN SCOTLAND: CBA; PUBLIC PERCEPTION AND PERFORMANCE OBSERVATIONS	Alison Duffy UWTC, Abertay University
SUDS, GREEN INFRASTRUCTURE AND PUBLIC HEALTH	Rebecca Wade  Abertay University
SUDSNET – CELEBRATING 15 YEARS OF THE NETWORK	SUDSnet







30<sup>th</sup> & 31<sup>st</sup> August 2018. Coventry University, England. UK.



