



# SUDSnet International Conference 2018

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

## Programme. Day 1- Thursday 30<sup>th</sup> Aug 2018

9.00 - 10.00 Registration

10.00 - 10.10 Introduction and conference welcome

10.10 - 10.40 KEYNOTE SPEAKER – ROSEMARY JENKINSON (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.	<i>Mitch McTough<sup>1</sup>, Andrew Adam-Bradford<sup>2</sup> and Sue Charlesworth<sup>2</sup></i>  <sup>1</sup> Human Relief Foundation <sup>2</sup> Centre for Agroecology, Water and Resilience
11.00	Innovative Drainage Techniques for Surface Water Management in African Refugee Camps	<i>Oluwatoyin Opeyemi Ajibade<sup>1</sup> &amp; Kiran Tota-Maharaj<sup>2</sup></i>  <sup>1</sup> University of Greenwich. <sup>2</sup> University of West of England
11.20	Arbuscular mycorrhizal colonisation of biofiltration cells at Franschoek, South Africa	<i>Liz Trenchard, Sue Charlesworth &amp; Stephen Coupe</i>  Coventry University
11.40	The Interplay of Green Infrastructure on Urban Heat Stresses and Stormwater Management: Southeast Asia's Urban Future	<i>K. Tota-Maharaj<sup>1</sup> and M. Gómez<sup>2</sup></i>  <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	<i>R. Lewis, S. Charlesworth, M. Blackett, F. Warwick</i>  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?	<i>Siti Nur Hannah Ismail, Ross W. F. Cameron and Virginia Stovin</i>  University of Sheffield
1.40	Ecological enhancement from wildlife habitat on constructed green roofs.	<i>Sophie Barron-West<sup>1</sup>, Stephen Coupe<sup>1</sup>, Liz Trenchard<sup>1</sup> &amp; Ben Shuttleworth<sup>2</sup></i>  <sup>1</sup> Coventry University. <sup>2</sup> SEL Environmental Limited
2.00	Seasonal variations in green roof hydrology	<i>Simon De-Ville<sup>1</sup> &amp; Virginia Stovin<sup>2</sup></i>  <sup>1</sup> Loughborough University <sup>2</sup> Sheffield University
2.20	Reduction of CSO discharges and improved surface water runoff quality through the use of rainwater planters	<i>Alex Stephenson<sup>1,2</sup> &amp; Lorna Davis<sup>2,3</sup></i>  <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	<i>Wade, R.<sup>1</sup>, Travers, J.<sup>2</sup> Berwick N,<sup>1</sup> &amp; Peter, R.<sup>1</sup></i>  <sup>1</sup> Abertay University <sup>2</sup> Lovell Homes

3.00 - 3.20 Break

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## 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.	<i>Janine Robinson, Fay Couceiro, Joy Watts and John Williams</i> University of Portsmouth
3.40	Pollutant removal efficacies of permeable pavements comprising recycled concrete aggregates	<i>J. Monrose<sup>1,2</sup> K. Tota-Maharaj<sup>1</sup> and A. Mwasha<sup>3</sup></i> <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	<i>A.M. Duffy<sup>1</sup>, D. Bowie J<sup>2</sup>. Dalrymple<sup>2</sup>, J. Akunna<sup>1</sup></i> <sup>1</sup> Abertay University <sup>2</sup> GreenBlue URBAN

4.00 - 4.20 BREAK

## Session 4 – SuDS Education and Articulation

TIME	TITLE	AUTHOR(S)
4.20	Articulation of Stormwater in Cities	<i>Bruce Ferguson</i> Pennsylvania, USA
4.40	SuDS and Raingarden Education in Schools	<i>Rebecca Wade<sup>1</sup>, Alison Duffy<sup>1</sup>, Neil Berwick<sup>1</sup>, James Travers, Patricia Dello Sterpaio</i> <sup>1</sup> Abertay University
5.00	Inspiring the New Generations: Introducing SuDS at Undergraduate and Postgraduate Studies	<i>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></i> <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](http://www.stmarysguildhall.co.uk)



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## Programme. Day 2 - Friday 31<sup>st</sup> 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	<b>Natasa Tziampou<sup>1</sup></b> , 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	<b>Luis A. Sañudo-Fontaneda<sup>1,4</sup></b> , 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	<b>Jo Bradley</b>  SDS Ltd
11.00	Porous and Permeable Pavements with Low-Carbon Manufactured Carbonated Aggregates: Environmental and Economic Perspectives	<b>Colin D Hills<sup>1,2</sup></b> , John Monroe <sup>3,4</sup> , Kiran Tota-Maharaj <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)
11.40	Stormwater management in United Kingdom, Denmark, Poland, Germany, Sweden and Netherlands: A comparative study of legislation, methods and systems utilised.	<b>Lukasz Koziel &amp; Sara Egemose</b>  SDU (University of Southern Denmark)
12.00	A catchment scale analysis of green roofs retrofit potential to mitigate hydrological risk in a Mediterranean environment	<b>Mirka Mobilia &amp; Antonia 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	<b>Beatriz I. Mendez-Fernandez<sup>1</sup></b> , Cristina Allende-Prieto <sup>2</sup> , <b>Susanne M. Charlesworth<sup>3</sup></b> , <b>Luis A. Sañudo-Fontaneda<sup>1,3</sup></b>  <sup>1&amp;2</sup> University of Oviedo. <sup>3</sup> Coventry University

12.40 -2.00 LUNCH

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## 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	<i>T. Lavers, Charlesworth S, Fried J., Warwick F. &amp; Lashford C.</i>  <i>Coventry University</i>
2.20	Investigating the role of tree planting on sub-catchment level runoff in Warwickshire, England	<i>Craig Lashford &amp; Thomas Lavers</i>  <i>Coventry University</i>
2.40	Developing a Design and Build Guidance for Rural SuDS	<i>A. Duffy<sup>1</sup>, S. Moir<sup>2</sup>, N. Berwick<sup>1</sup>, J. Shabashow<sup>1</sup>, B. D'Arcy<sup>1</sup>, R. Wade<sup>1</sup>, &amp; D. Blackwood<sup>1</sup></i>  <i><sup>1</sup>Abertay University</i> <i><sup>2</sup>Moir Environmental Ltd,</i>
3.00	Rural Sustainable Drainage Systems: Experience in the Field so Far	<i>Stewart Moir</i>  <i>Moir Environmental Ltd</i>

3.00 - 3.20 BREAK

## Session 8 – SuDS and Stakeholder Engagement

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

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

5.00pm Depart



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## POSTERS:

<p><b>HYDROLOGICAL IMPACT OF EXPANDED CLAY MATERIAL INTRODUCED IN DIFFERENT SUDS: A LABORATORY-BASED ASSESSMENT</b></p>	<p><i>Carlos Costales-Campa<sup>1</sup>, Felipe P. Alvarez-Rabanal<sup>1</sup>, Luis A. Sañudo-Fontaneda<sup>1,2</sup></i></p> <p><i><sup>1</sup>University Of Oviedo. <sup>2</sup>Coventry University</i></p>	<p><b>ASSESSMENT OF THE POTENTIAL IMPLEMENTATION OF PERMEABLE PAVEMENT SYSTEMS IN THE SAN FRANCISCO PARK OF THE HISTORICAL CITY OF OVIEDO, NW SPAIN</b></p>	<p><i><sup>1</sup>Lucía Pérez-Martínez, <sup>1</sup>Almudena Ordoñez, <sup>2,3</sup>Luis A. Sañudo-Fontaneda, <sup>1</sup>Rodrigo Álvarez</i></p> <p><i><sup>1</sup>Department of Mining, University of Oviedo, Spain <sup>2</sup>Department of Construction and Manufacturing Engineering, University of Oviedo, Spain <sup>3</sup>Centre for Agroecology, Water and Resilience (CAWR), Coventry University</i></p>
<p><b>RETROFITTING THE HISTORICAL CITY OF OVIEDO, SPAIN: THE POTENTIAL ROLE OF SUDS IN SANTUYANO'S BOULEVARD AND "EL CAMPO DE SAN FRANCISCO"</b></p>	<p><i>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></i></p> <p><i><sup>1&amp;2</sup> University of Oviedo. <sup>3</sup>Coventry University</i></p>	<p><b>DEX – 20 YEARS OF OBSERVATIONS OF A MATURING RESIDENTIAL SUDS SYSTEM IN DUNDEE SCOTLAND (TITLE TO BE CONFIRMED)</b></p>	<p><i>Alison Duffy UWTC, Abertay University</i></p>
<p><b>SOUTH AFRICAN BIOFILTERS (TITLE TO BE CONFIRMED)</b></p>	<p><i>Sue Charlesworth Coventry University</i></p>	<p><b>SUDS, GREEN INFRASTRUCTURE AND PUBLIC HEALTH</b></p>	<p><i>Rebecca Wade Abertay University</i></p>
		<p><b>SUDSNET – CELEBRATING 15 YEARS OF THE NETWORK</b></p>	<p><i>SUDSnet</i></p>

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