



PLEA 2017 EDINBURGH

Design to Thrive

COOL CITIES AND URBAN HEAT ISLAND (UHI) FORUM

Royal Society of Edinburgh (RSE) Building: Welcome East
July 4th

TIME min

10.00 - 11:00 Key Issues in UHI research

Chair: Rohinton Emmanuel

1	10	394	Evyatar	Errell	Is "Urban Heat Island mitigation" a worthy practical objective?
2	10	409	Hu	Du	A novel approach to predict real-time urban heat island effects and indoor overheating
3	10	123	Chao	Yuan	A Modelling-Mapping Approach for Fine-Scale Natural Ventilation Evaluation in High Density Cities
4	10	1513	Gerald	Mills	Using WUDAPT to explore the urban heat island in selected cities
5	10	1526	Jason	Ching	Environmental modeling using WUDAPT for addressing climate change issues impacting urban areas
6	10	1407	Julia	Hidalgo	Architectural Archetypes Database Propositions for WUDAPT

11.00 - 12:00 WUDAPT Workshop/Debate

Moderators: E Ng & R Emmanuel

Panelists: J Hidalgo; G Mills; J Ching; C Ren

12.30 - 13:30 Design approaches I

Chair: David PEARLMUTTER

7	5	265	Rohinton	Emmanuel	Disentangling the influences of atmospheric stability, vegetation and building geometry on local cooling in a high latitude city: evidence from Glasgow
8	5	295	Angeliki	Chatzidimitriou	Evaluation of a sustainable urban redevelopment project in terms of microclimate improvement
9	5	348	Shuhei	Ota	Cooling load mapping by using the summer temperature and humidity distributions in Hiroshima
10	5	515	Mohammad	Taleghani	The impact of increasing surface albedo on pedestrians' thermal comfort
11	5	526	Mireya	Rosas	Green spaces and climate improvement in tropical cities.
		563	Jeff	Fahed	Simulation and comparison of urban heat island mitigation strategies under Mediterranean climate: the case of Dora district, Beirut, Lebanon.
12	5				Microclimate on outdoor spaces in the context of tropical climate: a case study in Brasilia - Brazil
13	5	991	Daniela	Werneck	Mitigation of Urban Heat Island in a Central Business Area of Dhaka: An Analysis through Envi-Met Simulation
14	5	1341	Tasneem	Tariq	Awareness trends of urban thermal environment during summer based on tweets and photos
15	5	408	Koujiro	Takeda	Density and Environmental Performance: Analysing Diverse Characteristics of Outdoor Thermal Environment in Urban Villages, Shenzhen
		802	Wenjian	Pan	Urban vegetation as a strategy to reduce heat island effects in the Mediterranean Climate context, Lisbon - Portugal.
16	5				
17	5	1136	Caio Frederico	Silva	
Ds					DISCUSSION + Q&A

13.30 - 14:30 Design approaches II

Chair: Chao REN

18	5	576	Jill	Schroth	Environmental Densification Approaches for Berlin. <i>Mitigating the Urban Heat Island Effect.</i>
19	5	592	Mary Myla	Andamon	Rethinking a classic technique of assessing the success of small outdoor spaces
20	5	623	Lea	Souza	Applying urban indexes to predict urban air temperatures: an integration of ANN models and GIS
		790	Anne	Hanrahan	Do small scale green spaces function as "cool islands" within the urban heat island? Characteristics and performance of selected green spaces in central London.
21	5				The influence of bioclimatic urban redevelopment on outdoor thermal comfort
22	5	904	Ioannis	Karakounos	Urban water bodies cooling effect and related microclimate parameter: A scale model study
23	5	910	Nedyomukti	Imam Syafii	Diamond Bazaars in Mumbai - User adaptability and comfort in urban outdoor spaces in a hot and humid climate
24	5	927	Saachi	Padubidri	Park design and pedestrian thermal stress: evaluating the effects of shade and ground surface materials
25	5	944	David	Pearlmutter	Mapping Local Climate Zones for São Paulo, Brazil.
26	5	951	Luciana	Ferreira	Urban Greenery as a Tool for City Cooling: The Israeli Experience in a Variety of Climatic Zones
27	5	964	Oded	Potchter	Urban Geometry Design Guidelines for Heat Mitigation and Airflow in Bangkok
28	5	1019	Pattaranan	Takkanon	Vegetation Cover and Surface Temperature in Urban Areas: An Analysis Using Remote Sensing in the City of Salvador, Bahia, Brazil
		1257	Telma	Andrade	
29	5				
Ds					DISCUSSION + Q&A

15.00 - 16:00 Wind, Shade and Modeling

Chair: Evyatar ERELL

30	10	1560	Eduardo	Kruger	Impact of Solar Access on visitors' Behavior in an Urban Square in a Subtropical Location
31	10	1032	Delphine	Ramon	Comparison of high-resolution climate model data with a Test Reference Year for building simulations
		487	Mark	DeKay	Urban Wind Patterns in High-Rise Residential Super-blocks: assessing pedestrian comfort, air quality and building ventilation potential
32	10				Applying WUDAPT Product into the Spatial-Temporal Analysis of Land Use Change in the Pearl River Delta Region from 1988 to 2009
33	10	845	Ran	Wang	Mapping urban ventilation potential in London
34	10	1129	Zhiwen	Luo	China's Urban Wind Corridor Plan: The Story behind Climate Change Adaptation and Eco-Planning in Chinese Cities
35	10	288	Chao	Ren	
Ds					DISCUSSION + Q&A

16.00 - 17:00 Planning and Mitigation

Chair: Eduardo KRÜGER

36	5	1052	Érico	Masiero	Urban Climate and Guidelines for Land Use Scenarios
37	5	1054	Georgios-Evryst	Kyriakodis	Eco-district design and decision process through building energy and local microclimate assessment
38	5	1074	Abel	Tablada	The influence of angular road orientations on high-density urban ventilation at pedestrian level
39	5	1101	Makoto	Yokoyama	Making Climatic Zoning Maps in Yokohama - Comparison between WRF model and MSSG model-
40	5	1135	Marjolein	Pijpers-van Esch	Cooling the city of Delft - a park design aiming for a minimization of heat stress
41	5	1162	Emmanuel	Bozonnet	Cool roof and natural ventilation for UHI mitigation and indoor comfort - cooling indicators for a commercial building
		1188	Narein	Perera	Sensitivity analysis of 'Local Climate Zone' based urban morphology parameters for Outdoor Thermal Comfort in the Tropics
42	5				
43	5	1323	Telma	Andrade	Salvador Urban Planning based on urban climate investigations
		1500	Suhendri	Suhendri	A computational approach in the wind distribution to evaluate the pedestrian comfort through the effect of roof garden placement
44	5				
45	5	1516	Ahmed	Yousuf	Impact of Urban green open space/playfield in the street level microclimate of residential area at Dhaka, Bangladesh
46	5	1565	Abu Taib	Shahjahan	Potentials of Enhancing Urban Cooling through Differential Riparian Shading of Wetlands through Advection: <i>Findings of field measurements and simulation study</i>
Ds					DISCUSSION + Q&A