

## Overview of Parallel Technical Sessions

02 December	Room: Himalaya -101	Room: Himalaya -102	Room: Himalaya -103	Room: Himalaya -104
<b>Parallel Session – 1</b>				
<b>02:00pm to 03:30pm</b>	Analysis of UHI and its Effect across Scales-1	Urban Vegetation and Greenery-1	Remote Sensing of Cities and Urban Climates-1	Cool Materials Development & Characteristics-1
<b>Parallel Session – 2</b>				
<b>04:00pm to 05:30pm</b>	Outdoor Comfort and Health in the Urban Environment-1	Policies, Rating & Labeling Programs with UHI mitigation strategies	Urban Economy-1	Analysis of UHI and its Effect across Scales-2

03 December	Room: Himalaya -101	Room: Himalaya -102	Room: Himalaya -103	Room: Himalaya -104
<b>Parallel Session – 3</b>				
<b>11.30am to 01.00pm</b>	Analysis of UHI and its Effect across Scales-3	Resilient Design of Buildings in Response to Changing Climates	Measurement Techniques and Standards-1	Modeling and Forecasting Urban Climate and Weather-1
<b>Parallel Session – 4</b>				
<b>02:00pm to 03:30pm</b>	Urban Vegetation and Greenery-2	Outdoor Comfort and Health in the Urban Environment-2	Implementation of Urban Heat Mitigation Strategies-1	Case Study Presentations

04 December	Room: Himalaya -101	Room: Himalaya -102	Room: Himalaya -103	Room: Himalaya -104
<b>Parallel Session – 5</b>				
<b>11.30am to 01.00pm</b>	Cool Materials Development & Characteristics-2	Implementation of Urban Heat Mitigation Strategies-2	Outdoor Comfort and Health in the Urban Environment-3	Analysis of UHI and its Effect across Scales-4

## Schedule of Parallel Technical Sessions

**Day-1 (December 2, 2019)**

**Parallel Session – 1**

**Time: 02:00 pm to 03:30 pm**

<b>Analysis of UHI and its effect across scales – 1</b>		<b>Room: Himalaya-101</b>
<b>Paper ID</b>	<b>Paper Title</b>	<b>Presenting Author</b>
32	Effects of Heat Island Mitigation on Heat-Related Mortality in Montreal during Heat Wave Periods of 2005, 2011 and 2018	Hashem Akbari
63	Evaluation of momentum fluxes in developing internal boundary layers over an urban canopy	Afshin Afshari
161	Monitoring the urban heat island effect and the efficacy of future countermeasures in the Los Angeles Basin	Ronnen Levinson
238	Heat Vulnerability Index for Urban Heat wave Risk Adaptation for Indian Cities: A Case Study of Akola	Rajashree Kotharkar
256	Extent vs Impact: A modelling study of Targeted Heat Mitigation Strategies	David Sailor
<b>Urban Vegetation and Greenery-1</b>		<b>Room: Himalaya-102</b>
<b>Paper ID</b>	<b>Paper Title</b>	<b>Presenting Author</b>
47	Influence of urban green on human thermal bio climate – Application of thermal indices and micro scale models	Andreas Matzarakis
89	The seasonal thermal environment in urban park and surrounding urban spaces: A case study in Xi'an, China	Yupeng Wang
111	Study of the thermal behaviour of unplanted extensive green roof sample according to the nature of the substrate	Maxime Chaumont
128	Surface Temperature Reduction by Tree Shade: Influence of Tree Characteristics	Andrew Speak
165	Sustainable Landscaping Initiatives in Three Educational Institutions in India	Mohan Kotamrazu
<b>Remote Sensing of Cities and Urban Climates-1</b>		<b>Room: Himalaya-103</b>
<b>Paper ID</b>	<b>Paper Title</b>	<b>Presenting Author</b>
66	Downscale Land Surface Temperature based on Three Models to Analyze Urban Heat Island: A Case Study of Hangzhou	Rui Wang
170	Urban surfaces identification and characterization with remote sensing data and evaluation of possible mitigation alternatives	Giulia Santunione
189	Relationship Between Urban Land Use Dynamics and Land Surface Temperature: Current and Future Scenario Modelling	Nimish Gupta
220	Land surface temperature responses to land use dynamics across the agro-climatic zones of Karnataka	Madhumita Dey
241	Spatial and Temporal Nature of Urban Heat Island in Roorkee	Siva Ram Edupuganti
<b>Cool Materials Development &amp; Characteristics-1</b>		<b>Room: Himalaya-104</b>
<b>Paper ID</b>	<b>Paper Title</b>	<b>Presenting Author</b>
35	Quantum Dots: A New Generation of Fluorescent Materials for UHI Mitigation	Samira Garshasbi
102	Development of heterogeneous directionally reflective materials for building facades and measurements of their reflective properties	Riccardo Paolini
223	In Situ Assessment of the Cooling Effects of Pavement-Watering: Application to Cool & Low Noise Asphalt Roads	Sophie Parison
290	Cool Roof initiatives in India: An evaluation of the existing conditions and lessons to be learnt from global best practices	Hema Sree Rallapalli
295	Development of an online calculator for cool roof and green roof	Shanmukh Dontu

## Schedule of Parallel Technical Sessions

**Day-1 (December 2, 2019)**

**Parallel Session – 2**

**Time: 04:00 pm to 05:30 pm**

<b>Outdoor Comfort and Health in the Urban Environment-1</b>		<b>Room: Himalaya-101</b>
<b>Paper ID</b>	<b>Paper Title</b>	<b>Presenting Author</b>
51	Thermal Sensation and Thermal Load of Human Body in Irradiated Hot Environment	Atsumasa Yoshida
90	Quantitative Outdoor Thermal Comfort Assessment of Street: A case in warm and humid climate	Naga Brinda Deevi
107	Urban Micro-climate and Spatial Promotion for Creating the Historical Streets' Sustainability	Man Li
182	Local scale climate change assessment for preservation of cultural heritage sites and their resilience, the case study of Gubbio medieval city in Italy	Anna Laura Pisello
294	Summertime Thermal Comfort Assessment for Compact Local Climate Zone	Shweta Deshmukh
<b>Policies, Rating &amp; Labeling Program with UHI Mitigation Strategies</b>		<b>Room: Himalaya-102</b>
<b>Paper ID</b>	<b>Paper Title</b>	<b>Presenting Author</b>
162	Solar-reflective "cool" walls: benefits, technologies, and implementation	Ronnen Levinson
237	Review of heat wave studies & related urban policies: Case of South Asia	Rajashree Kotharkar
261	A Big Picture of Urban Heat Island Mitigation Strategies and Recommendation	Vaibhav Rai Khare
14	Effect and Development of Cool Roofs: A Review	Meng Zhen
15	Outdoor Thermal Sensation and Thermal Comfort in Xi'an	Meng Zhen
<b>Urban Economy-1</b>		<b>Room: Himalaya-103</b>
<b>Paper ID</b>	<b>Paper Title</b>	<b>Presenting Author</b>
13	Health and energy benefits of urban overheating mitigation counteracting climate change	Riccardo Paolini
57	Use Urban Green as a Mitigation Strategy to Combat Urban Heat Island Effect: A Case of Puri-Cuttack Road, Bhubaneswar, Odisha	Sukanya Dasgupta
94	Spatiotemporal Characteristics of Anthropogenic Heat and Its Impact on Outdoor Thermal Environment in a University in Chongqing	Zhongyu Hao
198	Climate-Informed Decision-Making for Urban Design: Assessing the Impact of Urban Morphology on Urban Heat Island	Gloria Pignatta
248	Assessing the benefits of UHI mitigation for indoor heat exposure during concurrent heat wave and blackout events in Phoenix, Arizona	Brian Stone Jr.
<b>Analysis of UHI and its Effect across Scales-2</b>		<b>Room: Himalaya-104</b>
<b>Paper ID</b>	<b>Paper Title</b>	<b>Presenting Author</b>
68	Assessment of surface urban heat island and urban cooling effect based on downscaling LST, a case study of Fukuoka prefecture, Japan	Wangchongyu Peng
110	Urban features at neighbourhood scale to assess and mitigate the heat island in arid Mendoza, Argentina	Michele Zinzi
132	Development and Application of "Shadow Ratio" for Evaluating Urban Thermal and Wind Environment - Take a Site of Xi 'an West Street as an Example	Dian Zhou
187	Impact Analysis of Deep Static Blue space on Urban Heat Island: Case of Chandigarh	Aditya Rahul
291	Satellite based observations for Surface level Urban Heat Island over Bhubaneswar: A case study	Dudam Bharath Kumar

## Schedule of Parallel Technical Sessions

**Day-2 (December 3, 2019)**

**Parallel Session – 3**

**Time: 11:30 am to 01:00 pm**

Analysis of UHI and its Effect across Scales-3		Room: Himalaya-101
Paper ID	Paper Title	Presenting Author
48	Evaluation Urban heat island and bio climate studies in Freiburg, Germany	Andreas Matzarakis
284	Characteristics of micro weather stations distributions for urban heat island monitoring and corresponding thermal mapping	Tzu-Ping Lin
152	Thermal Studies of Mid-latitude Urban Environment	Roger Clay
270	Conceptual Framework for Environmental City Planning Tool with an Intelligent System based on BIM and GIS Technology	Shinji Yamamura
287	Assessment of variation in Intra Canopy Layer Urban Heat Island Intensity in Residential areas --- A case study of Nagpur City	Sujata Godbole
Resilient Design of Buildings in Response to Changing Climates		Room: Himalaya-102
Paper ID	Paper Title	Presenting Author
23	Study of Adaptive City by Osaka Heat Island Countermeasure Technology Consortium	Hideki Takebayashi
99	"Cradle to Gate" Assessment Of Material Related Embodied Carbon: A Design Stage Stratagem For Sustainable Housing	Ashan Jayawardana
130	The resilient design for traditional residential building in Northern Shaanxi of China	Yupeng Wang
131	The Resilient Design for Small Commercial Building – A Case in City Center of Gifu, Japan of micro weather stations distributions for urban heat island monitoring and corresponding thermal mapping	Dian Zhou
239	Assessing resilience to summertime overheating in modern low energy flats in UK	Rajat Gupta
Measurement Techniques and Standards-1		Room: Himalaya-103
Paper ID	Paper Title	Presenting Author
77	Impact Zonation and Mitigation of UHI (through remote sensing & development of Blue-Green Infrastructure Network)	Atul Kumar
183	Microclimate analysis of UHI affected areas through wearable monitoring systems: the case study of New York City	Ilaria Pigliautile
232	Local Climate Zone Classification and Seasonal Variation by using Land Surface Temperature: A case of National Capital Territory, Delhi, India	Manoj Panwar
278	"Inverted" Surface UHI: An artefact of relying solely on Satellite Remote Sensing data for measuring the Urban Heat Island Phenomenon	Prasad Pathak
180	Green Infrastructure Strategies as Countermeasures to Urban Heat Islands with particular reference to the Bangalore Metropolitan Region	Reshmi MK
CS-1	Evaluation of countermeasures for thermal environment in Delhi by urban canopy-building energy coupled simulation	Takaharu Ota
Modelling and Forecasting Urban Climate and Weather-1		Room: Himalaya-104
Paper ID	Paper Title	Presenting Author
64	Improving the Accuracy of Simplified Urban Models Using Actual Radiation Parameters	Afshin Afshari
121	Urban Heat Island Minimisation, Local Climate Zones and Parametric Optimisation: A "Grasshopper" Based Model	Dilushan M. Kodikara
153	Modelling potential air temperature reductions yielded by cool roofs and urban irrigation in the Kansas City Metropolitan Area	Ronnen Levinson
208	Envelope heat load characteristics of the building cluster considering radiate heat exchange process in an urban district	Yasunobu Ashie
245	Minimizing the inconsistencies of urban building energy simulations through strong microclimate coupling	Georgios-E Kryakodis

## Schedule of Parallel Technical Sessions

**Day-2 (December 3, 2019)**

**Parallel Session – 4**

**Time: 02:00 pm to 03:30 pm**

<b>Urban Vegetation and Greenery-2</b>		<b>Room: Himalaya-101</b>
<b>Paper ID</b>	<b>Paper Title</b>	<b>Presenting Author</b>
50	Assessment of Terrace Gardens as Modifiers of Building Microclimate	Pranjali Varshney
114	Study of Urban Morphology and Its Impact on Microclimate of Surrounding Area Case Study – SB Road, Pune	Sujata Karve
125	A study on Park Cooling Island Effect on Surrounding Urban Area, in Urban Design Perspective	Shuowen Chi
214	High albedo plant selection for mitigation of the urban heat island	Giulia Santunione
279	A Comparative empirical assessment of native deciduous and evergreen trees on carbon stock potential for regulating ecosystem services in tropical dry evergreen forest, Coromandel coast, Tamil Nadu, India	Parisutha Rajan
<b>Outdoor Comfort and Health in the Urban Environment-2</b>		<b>Room: Himalaya-102</b>
<b>Paper ID</b>	<b>Paper Title</b>	<b>Presenting Author</b>
54	Comprehensive evaluation of the influence of outdoor temperature change on health around the urban area	Daisuke Narumi
92	Outdoor Thermal Comfort Implications of Planning and Building Regulation Induced Canyon Geometry	Jeny Hepsheba Jeyakumar
147	Analysis of urban parameters to improve outdoor thermal comfort in Singapore new high rise developments	Juan A. Acero
185	Effectiveness of UHI mitigation strategies for outdoor thermal comfort enhancement	Ilaria Pigliatile
297	Effect of urban morphology on urban microclimate: A case of Vijayawada	Madhavan G R Yadav
<b>Implementation of Urban Heat Mitigation Strategies-1</b>		<b>Room: Himalaya-103</b>
<b>Paper ID</b>	<b>Paper Title</b>	<b>Presenting Author</b>
33	Effects of Albedo Enhancement on Air Temperature and Ozone Concentration in Four Cities over North America: Sacramento, Houston, Chicago and Montreal during the 2011 Heat Wave Period	Hashem Akbari
43	Urban and peri-urban agriculture in Goiânia: searching for solutions for mitigation and urban adaptation in a context of global climate change	Karla Emmanuela R. Hora
171	Materials for outdoor curtains and awnings as a solution for improving thermal comfort and mitigating urban heat island	Andrea Nicolini
224	Physical and geographic analysis of the urban cooling potential	Maxime Chaumont
226	Linkages between built form and open spaces and its impact on thermal comfort: A case of Mumbai, India	Surabhi Mehrotra
<b>Case Study Presentations</b>		<b>Room: Himalaya-104</b>
<b>Paper ID</b>	<b>Paper Title</b>	<b>Presenting Author</b>
CS-2	Vulnerability to Heat Stress A Case Study of Yavatmal, Maharashtra	Premsagar Tasgaonkar
CS-3	Evaluation of the surface urban heat island intensity with respect to the different local climatic zones	Judit Bartholy
CS-4	Development of Education Materials for Awareness of Junior Generation on Urban Heat Island Counteraction	Toshiaki Ichinose
CS-5	Truth in Architecture	Tushar Parikh
CS-6	Urban Climate Adaptation Strategy for Tropical Megacities Utilizing Energy Efficient Technologies	Kazuki Yamaguchi

## Schedule of Parallel Technical Sessions

**Day-3 (December 4, 2019)**

**Parallel Session – 5**

**Time: 11:30 am to 01:00 pm**

<b>Cool Materials Development &amp; Characteristics-2</b>		<b>Room: Himalaya-101</b>
<b>Paper ID</b>	<b>Paper Title</b>	<b>Presenting Author</b>
76	The evaporative cooling and its impact on the urban climate: study of the influence of road covering materials	Sophie Parison
138	Potential of switching cool materials to optimize the thermal response of residential buildings in the Mediterranean region	Michele Zinzi
173	Black Titanium Dioxide: An Innovative Material to minimize the Urban Heat Island Effects in Walled city of Jaipur	Prasanna Bhangdia
253	Numerical Analysis of Human Thermal Load Affected by Solar Reflection Characteristics of Vertical Wall in Street Space	Shinichi Kinoshita
274	Harnessing Benefits of Pervious Concrete Pavements: A Novel UHI Mitigation Strategy	Poornachandra Vaddy
<b>Implementation of Urban Heat Mitigation Strategies-2</b>		<b>Room: Himalaya-102</b>
<b>Paper ID</b>	<b>Paper Title</b>	<b>Presenting Author</b>
44	A pavement-watering thermal model validation for SOLENE-microclimate: application to the Buirestreet	Auline Rodler
126	The Oasis Project: UHI mitigation strategies applied to Parisian schoolyards	Ghid Karam
129	Impact of Urban Heat Island formation on electricity consumption over Delhi region	Priyanka Kumari
293	Effect of UHI and Building Geometry on Pollution Dispersion in an Urban Street Canyon	Udayraj
299	Controlled experiment for estimating the energy-saving potential and indoor thermal comfort improvement by the use of high albedo surfaces on pitched concrete roofs	Aviruch Bhatia
<b>Outdoor Comfort and Health in the Urban Environment-3</b>		<b>Room: Himalaya-103</b>
<b>Paper ID</b>	<b>Paper Title</b>	<b>Presenting Author</b>
46	Heat Health Warning System in Germany – Implementation of city issues	Andreas Matzarakis
81	The effects of commuter travel behaviour on transportation heat and pollution emissions	Man Li
96	Study on the Microclimate Effect of Water Body Form in Urban Square	Ziyu Tong
172	Experimental evaluation of thermal comfort improvement due to innovative solutions for tensile structures	Federico Rossi
207	Effects of the Green Façade on Thermal Comfort in the Transitional Spaces: Field Measurements in Munich, Germany	Hankun Lin
<b>Analysis of UHI and its Effect across Scales-3</b>		<b>Room: Himalaya-104</b>
<b>Paper ID</b>	<b>Paper Title</b>	<b>Presenting Author</b>
191	Evaluating urban heat island due to built morphology in Pune city	Sujata Karve
302	Evaluation of sleep disorder caused by urban heat island based on the Pittsburgh Sleep Quality Index	Tomohiko Ihara
303	Evaluation of the Daily Cycle of UHI using Multi-site Measurements in a Central European Capital City	Rita Pongracz
49	Study on Appropriate Ground Cover Configuration of Open Spaces to Mitigate Urban Heat Island Effect	Yuvraj Mesharam
300	Land surface temperature variations: Case study Bhopal (MP)	Arka Kanungo