



PROGRAMME

MONDAY, 4 DECEMBER 2023

9:00 | WELCOME

9:05 | OPENING ADDRESS (Speakers TBA)

9:45 | KEYNOTE Professor Mat Santamouris, *University of New South Wales, Australia*

10:30 | MORNING TEA

11:00 | PARALLEL SESSIONS

UHI and building performance-energy consumption and indoor comfort Chair: Veronica Soebarto, <i>University of Adelaide, Australia</i>	Cool materials, roof, pavement and advance materials developments and characteristics Chair: Ronnen Levinson, <i>Lawrence Berkeley National Laboratory, United States</i>	Modelling and forecasting urban climate and weather Chair: Mat Santamouris, <i>University of New South Wales, Australia</i>
<i>Building 80, Level 7, Room 6</i>	<i>Building 80, Level 7, Room 9</i>	<i>Building 80, Level 7, Room 7</i>
11:00 Multi-scale pathways for reducing urban heat and building-scale energy inequities across cities Lauren E Excell, <i>Stanford University, United States</i> [310]	11:00 Numerical analysis of effects of windows with near-infrared rays retro-reflective film on outdoor thermal environment in a cubic cavity-type street canyon Shinji Yoshida, <i>Nara Women's University, Japan</i> [312]	11:00 A simplified method to calculate atmospheric CO2 equivalency for changing surface albedo Hashem Akbari, <i>Concordia University, Canada</i> [273]
11:20 Heterogeneity of building cooling and heating energy consumption of various urban heat islands Qianhui Long, <i>Ziyu Tong, Nanjing University, China</i> [328]	11:20 The potential of building facade materials to alleviate climate change in residential areas under different local climate zones Zhe Gao, <i>Xi'an Jiaotong University, China</i> [355]	11:20 Implementation of Numerical Techniques for Estimation and Investigation of Photovoltaic Heat Island (PVHI) Steve Kardinal Jusuf, <i>Singapore Institute of Technology, Singapore</i> [293]
11:40 Effect of Urban Heat Islands on the Air-Conditioning of an Operating Room Francesco Tariello, <i>University of Molise, Italy</i> [347]	11:40 Retro-reflection, thermochromism, and photoluminescence: smart solar reflection in multilayered adaptive skins for the built environments Claudia Fabiani, <i>University of Perugia, Italy</i> [370]	11:40 Mitigating Heat Islands and Simulating Efficacy in Future Climate Scenarios Veda Baliga, <i>Virtual Climate Ltd., United Kingdom</i> [300]
12:00 Impact of retro-reflective windowpanes on building energy demand and pedestrian thermal comfort under various neighbourhood settlements Evrystheas M. Kyriakodis, <i>CSTB, France</i> [382]	12:00 Spectral correlation between solar reflectance laboratory measurements and remote sensing of urban surfaces Francesca Despini, <i>University of Modena and Reggio Emilia, Italy</i> [372]	12:00 The identification of high-risk areas of heat stroke in urban areas using mean radiation temperature for the proposals for adaptation to the heat environment Soshi Fujihara, <i>Kansai University, Japan</i> [303]
12:20 Outdoor thermal environment mitigation and air conditioning energy conservation of retroreflective window films evaluated by an urban canopy model considering diffuse reflection/specular reflection/retroreflection Tomihiko Ihara, <i>The University of Tokyo, Japan</i> [387]	12:20 Satellite albedo measurement: a novel procedure Federico Rossi, <i>University of Perugia, Italy</i> [1352]	12:20 Development of Integrated Environmental Modeller (IEM) for Creating Highly Liveable Residential Town in Singapore Hee Joo Poh, <i>Institute of High Performance Computing, A*STAR, Singapore</i> [315]
12:40 Summer thermal performance of high-rise social housing in Melbourne Felipe Esteban Jara Baeza, <i>RMIT University, Australia</i> [399]	12:40 Development of an experimental laboratory method to study biofouling process on cool surfaces Giulia Santunione, <i>University of Modena and Reggio Emilia, Italy</i> [1383]	12:40 An Urban Climate Simulation Model with Climate Change Scenarios Dongwoo Lee, <i>Hanyang University, South Korea</i> [380]

13:00 | LUNCH



MONDAY, 4 DECEMBER 2023		
13:40 WELCOME		
13:45 Keynote Professor Edward Ng, Chinese University of Hong Kong		
14:30 PARALLEL SESSIONS		
UHI and building performance-energy consumption and indoor comfort Chair: Federico Rossi, University of Perugia	Cool Roof Workshop Sarah Schneider, Cool Roof Rating Council	Relationship between UHI and urban and city planning Chair: Joe Hurley, RMIT University, Australia
Building 80, Level 7, Room 6	Building 80, Level 7, Room 9	Building 80, Level 7, Room 7
14:30 The heat emission-considered building design criterion in the early design process: Expert Survey Mansour Mohammed Alhazmi, King Fahd, Arizona State University, US [289]	Workshop Description: This workshop will provide an overview of how cool roofs and walls work to keep buildings and communities cooler; how these materials help reduce energy use; how these materials are evaluated and labeled; how the materials are tested and aged and how that information is incorporated into the product's radiative performance rating; and the important role of third-party product ratings in supporting the development and implementation of policies and programs that require or promote the use of cool roofs and walls as energy efficiency, heat mitigation, and heat equity strategies. Examples of what is being done at the U.S. federal, state, and local levels to promote the use of cool roofs and walls through codes and programs will also be provided. This workshop will also provide an overview of how to establish a third-party rating system and ratings organization, such as the Cool Roof Rating Council, the first ratings body for cool roofs and walls in the world. The CRRC will share best practices and insight into how the organization was created; how it has been integral to the deployment of cool roofs in the U.S.; challenges that were overcome throughout its 25-year existence; and an overview of technical and educational resources.	14:30 Effects of high rise on urban microclimate in tropical cities: a literature review Ricardo Victor Rodrigues Barbosa, Federal University of Alagoas, Brazil [294]
14:50 Evaluation of a microclimate simulation tool on an experimental mock-up and passive cooling strategies assessment Alexandre Bryk, CSTB / La Rochelle Université, France [326]		14:50 The effect of Climate and Urban Form on Building Energy Performance Arunim Anand, Indian Institute of Technology Bombay, India [356]
15:10 Responsive envelope components in climates requiring intensive heating and cooling: applicability and performance in retrofitting designs Teresa Lovane, Università degli Studi di Napoli Federico II, Italy [333]		15:10 The effects from urban park planning on urban climate change – A case from Xi'an, China, Minye Zhang, Xi'an Jiaotong University, China [354]
15:30 Electricity consumption in highly populated areas increases non-linearly due to climate change but this can be halved by zero-emission buildings Yuya Takane, National Institute of Advanced Industrial Science and Technology, Japan [200]		15:30 Study and Analysis of Land Cover Types in Open Spaces for mitigating the Urban Heat Island Effect (UHI) Dhanashree Mohan Fulsundar, Dr.B.N.College of Architecture, India [368]
15:50 AFTERNOON TEA		
16:20 PARALLEL SESSIONS		
UHI and building performance-energy consumption and indoor comfort Chair: Hideki Takebayashi, Kobe University, Japan	Cooling effect of natural resources (vegetation, lakes, rivers, ground) Chair: Melanie Davern, RMIT University, Australia	Relationship between UHI and urban and city planning Chair: Edward Ng, Chinese University of Hong Kong
Building 80, Level 7, Room 6	Building 80, Level 7, Room 9	Building 80, Level 7, Room 7
16:20 Comparing the energy performance of spectral-dependent radiative cooling materials through building dynamic simulation Anna Laura Pisello, University of Perugia, Italy [359]	16:20 Examining the impact of Green Infrastructure Types (GITs) on outdoor thermal comfort: The case of City of Adelaide Carlos Bartesaghi-Koc, University of Adelaide, Australia [302]	16:20 Characterizing Thermal Behavior of Pervious All-Road class All-weather Multilayered paver blocks Tanay Sanjay Gham, Indian Institute of Technology Tirupati, India [371]
16:40 Evaluation of Indoor Thermal Environment of Air Well Double Story Terraced House in Malaysia Sheikh Ahmad Zaki, Universiti Teknologi Malaysia Kuala Lumpur, Malaysia [1373]	16:40 Cooling potential and thermal comfort improvement of a semi-enclosed cooling shelter equipped with several thermal mitigation solutions Michele Zinzi, ENEA National Agency for New Technologies, Italy [338]	16:40 Parametric Analysis of Urban Form Variations with City growth and Its Impact on Surface Heat Island Surabhi Mehrotra, Maulana Azad National Institute of Technology Bhopal, India [1384]
17:00 Longitudinal study of summertime overheating in UK social housing dwellings with heat pumps Rajat Gupta, Oxford Brookes University, United Kingdom [402]	17:00 Park Cool Island Effects at Sydney Olympic Park, Australia Sebastian Pfautsch, Western Sydney University, Australia [339]	17:00 Street albedos repartition's effects on urban heat island and outdoor thermal comfort, Matteo Migliari, Ecole des Ponts ParisTech, France [1385]
17:20 Urban Climate and Radiation Conditions for BIPV and Nearly Zero Energy District Design Christophe Menezo, Université Savoie Mont Blanc, France [406]	17:20 Urban Planning Characteristics to Mitigate Climate Change in context of Urban Heat Island Effect in the city of Bangalore, India Minni Sastry, R V College of Architecture, India [1393]	17:20 Design Strategies for Podium Gardens and Street-Level Microclimate Improvement in High-Density Urban Areas Zheng Tan, The Hong Kong Polytechnic University, Hong Kong [386]



TUESDAY, 5 DECEMBER 2023

09:00 | WELCOME

09:05 | Keynote Professor David Karoly, *Climate Council, Australia*
Keynote Professor Anna Laura Pisello, *University of Perugia, Italy*

10:30 | MORNING TEA

11:00 | PARALLEL SESSIONS

Resilient design of buildings in response to climate change Chair: <i>Mary Myla Andamon, RMIT University, Australia</i>	Cool materials, roof, pavement and advance materials developments and characteristics. Chair: <i>Chayn Sun, RMIT University, Australia</i>	Anthropogenic heat and urban pollution/Social and economic dimensions: UHI, Economy, health and well-being Chair: <i>Trivess Moore, RMIT University</i>
<i>Building 80, Level 7, Room 6</i>	<i>Building 80, Level 7, Room 9</i>	<i>Building 80, Level 7, Room 7</i>
11:00 Outdoor human thermal comfort along bike paths in Balneário Camboriú/SC, Brazil: A case study in the summer of 2022 <i>Cassio Arthur Wollmann, University of Santa Maria, Brazil [1280]</i>	11:00 Experimental Investigation of Cool Roof Technology in Buildings: A Case Study of Affordable Housing in Andhra Pradesh <i>Vishal Garg, Plaksha University, India [1277]</i>	11:00 The effect of district heating and cooling on anthropogenic heat mitigation in the Tokyo metropolitan area <i>Takahiro Ueno, Waseda University, Japan [1287]</i>
11:20 The Modern Adaptation of Traditional Passive Cooling System in Hot Area of China <i>Yige Li, Southeast University, China [286]</i>	11:20 Research and development attempt of a new type of glass bead retro-reflective material that can reduce the downward reflection for UHI mitigation <i>Jihui Yuan, Osaka Metropolitan University, Japan [282]</i>	11:20 Impact of increased ambient temperatures due to climate change in human health: evidence from 4 European countries <i>Sofia Tsemekidi, Technical University of Crete, Greece [1316]</i>
11:40 The impact of albedo on outdoor thermal comfort in contemporary courtyards during summer and winter <i>Shafaat Ali, Shahid Beheshti University, Iran [309]</i>	11:40 Natural weathering rack for assessment of solar reflectance degradation of external building coatings <i>Kelen Almada Dornelles, Universidade de São Carlos, Brazil [1297]</i>	11:40 Developing a fine scale heat health vulnerability index in Australia <i>Hao Chen, AURIN, Australia [320]</i>
12:00 New climatic stress indices and curves to assess building energy demand, retrofit potentials and resilience <i>Giuseppe Aruta, Università degli Studi del Sannio, Italy [322]</i>	12:00 Clothing Strategies on Thermal Adaptation for Outdoor Summer Heat <i>Yasuhiro Shimazaki, Toyohashi University of Technology, Japan [314]</i>	12:00 Cost Benefit Analysis of Various Countermeasures against Urban Heat Island – Evaluation of the Effect on Energy Consumption and Human Health in Osaka Prefecture, Japan <i>Daisuke Narumi, Okayama University, Japan [376]</i>
12:20 Cool envelope benefits in future typical weather and heatwave conditions for single-family homes in Los Angeles <i>Ronnen Levinson, Lawrence Berkeley National Laboratory, California, United States [1331]</i>	12:20 Experimental test of measurement-based procedure for CO2 compensation by albedo <i>Federico Rossi, University of Perugia, Italy [349]</i>	Workshop -Google Earth Engine Dr. Chayn Sun, RMIT University in collaboration with AURIN Australia Participants will delve into the cloud-based open-source iGEE tool, a Software as a Service (SaaS) package. This platform will be deployed, enabling users to seamlessly extract Land Surface Temperature (LST) and Land Use/Land Cover (LULC) data from a wealth of satellite imagery on Google Earth Engine. The user-friendly interface requires no coding skills and supports data derivation for large areas at finely-grained scales, with the capability to export results in various formats.
12:40 On the Role of Historical Transitional Spaces in Counteracting Urban Heat Island Effect, <i>Barbara Gherri, University of Parma, Italy [1341]</i>	12:40 Optimal Retro Reflector Acceptance Angles for Application to Building Skins as a Heat Island Countermeasure Based on Climate Data for Japanese Cities <i>Craig Edward Farnham, Osaka Metropolitan University, Japan [361]</i>	

13:00 | LUNCH



TUESDAY, 5 DECEMBER 2023		
13:40 WELCOME		
13:45 Keynote Associate Professor Joe Hurley, RMIT University, Melbourne		
14:30 PARALLEL SESSIONS		
Cooling effect of natural resources (vegetation, lakes, rivers, ground) Chair: Marco Amati, RMIT University, Australia	Industry Workshop – Urban Policy for Placemaking Associate Professor Joe Hurley, RMIT University, Melbourne	Machine learning and remote sensing of cities and urban climates Chair: Andrew Carre RMIT University, Australia
<i>Building 80, Level 7, Room 6</i>	<i>Building 80, Level 7, Room 9</i>	<i>Building 80, Level 7, Room 7</i>
14:30 Experimental study of street canyon aspect ratios on the thermal environment and thermal comfort during heat waves using an ideal scale model Hongjie Zhang, Chongqing University, China [272]	Renaë Walton , City of Port Phillip, Australia Amanda Dodd , Whittlesea City Council, Australia Rion Casey , Victoria Planning Authority, Australia Krista Milne & Tiffany Crawford , City of Melbourne, Australia	14:30 Towards High Spatial-Temporal Resolution of Land Surface and Air Temperature Using Machine Learning and GIS Chayn Sun, RMIT University, Australia [1281]
14:50 Georeferenced fix and mobile environmental data to assess microclimate change in complex urban areas toward resilient planning, Claudia Fabiani, University of Perugia, Italy [323]		14:50 Evaluating Pedestrian Thermal Comfort using Random Forest algorithm in Nagpur city Meenal Surawar, Visvesvaraya National Institute of Technology, Nagpur, India [1410]
15:10 Impact of Urban Heat Island on the sustainability of Bangalore and Hyderabad cities in India, Arunab Santhosh Karayil, National Institute of Technology, Trichy, India [324]		15:10 A Time Series Analysis To Explore The Dynamics Of Urban Heat Island Using Earth Observation Data On Google Earth Engine For The Surat Metropolitan Area Pooja Bhavesh Shah, Sardar Vallabhbhai National Institute of Technology, India [292]
15:30 Evaluating the impact of urban green spaces with the 3-30-300 rule on ambient air quality of Pune city, Sonali Kulkarni, BNCA, India [1337]		15:30 Long term monitoring of urban conditions over Navi Mumbai from thermal infrared remote sensing Anusha Roy, Indian Institute of Technology, Bombay, India [296]
15:50 AFTERNOON TEA		
16:00 - 17:00 NETWORKING		
18:30 -23:00 CONFERENCE DINNER, The Terrace, Royal Botanic Gardens, Melbourne		



WEDNESDAY, 6 DECEMBER 2023		
9:00 WELCOME		
9:05 Keynote Dr Ronnen Levinson, Lawrence Berkley National Laboratory, California Keynote Gavin Ashley, HIP V HYPE, Melbourne		
10:30 MORNING TEA		
11:00 PARALLEL SESSIONS		
Program development, policy, and evaluation of UHI mitigation and adaptation Chair: Hashem Akbari, Concordia University, Canada	Relationship between UHI and urban and city planning Chair: Sebastian Pfautsch, Western Sydney University	Simulation and analysis of UHI and its effects across scale Chair: Steve Kardinal Jusuf, Singapore Institute of Technology
<i>Building 80, Level 7, Room 6</i>	<i>Building 80, Level 7, Room 9</i>	<i>Building 80, Level 7, Room 7</i>
11:00 Study on the Thermal Environment in Outdoor Public Space with Mist Spraying Hideki Takebayashi, Kobe University, Japan [1283]	11:00 Improve building heat evacuation by urban form optimization: the case from Xi'an, China, Juejun Ge, Xi'an Jiaotong University, China [299]	11:00 Coupling of Urban Microclimate and Building Energy Simulations: Review of the Recent Literature Liangzhu Leon Wang, Concordia University, Canada [1334]
11:20 A plan to accelerate the climate-appropriate deployment of cool roofs and walls across the United States Ronnen Levinson, Lawrence Berkely National Laboratory, California [295]	11:20 Classification of Urban Extreme Heat Zones(UHZs) for Spatial Planning Kim Hyunsu, Hanyang University, Korea [360]	11:20 Evolutionary design and morphological optimization of urban canyons as a mitigation strategy for urban heat island Nayeli Montserrat Castrejon-Esparza, Universidad Autonoma de Baja California, Mexico [389]
11:40 Urban heat island mitigation in the Global Covenant of Mayors: insights from over 7500 local actions Giulia Ulpiani, Joint Research Centre European Commission, Italy [305]	11:40 The impact of urban morphological parameters on the vertical air temperatures in the tropics: a case study in Singapore Ruohan Xu, National University of Singapore, Singapore [1363]	11:40 Multi-scale modelling at various spatial scales for the assessment of the potential of adaptation measures to mitigate urban heat in future climate conditions Anastasios Polydoros, National and Kapodistrian University of Athens, Greece [390]
12:00 Public responses to mitigation strategies for urban heat island in Shanghai, China Wei Yang, The University of Melbourne, Australia [1330]	12:00 An Urban Plug-in Evaporative Cooling Systems to Improve Urban Microclimatic Conditions in Rome Alessandra Battisti, University of Rome Sapienza, Italy [367]	12:00 Spatial distribution of urban heat islands in the Metropolitan Area of the City of Toluca, Mexico, Jenny Lizeth Flores Zuñiga, Universidad Autónoma del Estado de México, Mexico [1391]
12:20 Meta-National Database of Buildings in France. Integration of heat-related indicators of French administrative areas Georgios-Evrystheas M. Kyriakodis, CSTB, France [342]	12:20 Mitigating urban heat through spatial data, good communications, trees and building capacity of local and state government in Adelaide Sarah White, Department for Environment & Water, Green Adelaide, Australia [377]	12:20 Investigating the aerodynamic role of building geometry towards urban heat island effect in Melbourne's CBD Cheuk Yin Wai, Victoria University, Australia [1404]
12:40 Development of a Labeling System for Outdoor Cool Spots in Urbanized Areas: A study based on the thermal environment measurement results at bus stops in station squares Yukina Takayanagi, Osaka Metropolitan University, Japan [346]	12:40 Night-time Natural Ventilation of Internal Thermal Mass to Minimise Daytime Overheating Hours in School Buildings Wentao Wu, University of Canterbury, New Zealand [344]	12:40 Evaluation of mortality risk reduction potentials of UHI countermeasures considering time-of-day impacts Kazuki Yamaguchi, Tokyo Electric Power Company Holdings, Inc., Japan [127]
13:00 LUNCH		



WEDNESDAY, 6 DECEMBER 2023		
13:40 WELCOME		
13:45 Keynote Beth Keddie, <i>Pollination, Melbourne</i>		
14:30 PARALLEL SESSIONS		
Modelling and forecasting urban climate and weather Chair: Vishal Garg, <i>Plaksha University, India</i>	Cooling effect of natural resources (vegetation, lakes, rivers, ground) Chair: Marcos Eduardo Gonzalez Trevizo, <i>Universidad Autonoma de Baja California, Mexico</i>	Industry Workshop – Global Dilemma, local industry-based solutions Professor Marco Amati, <i>RMIT University, Melbourne</i>
<i>Building 80, Level 7, Room 6</i>	<i>Building 80, Level 7, Room 9</i>	<i>Building 80, Level 7, Room 7</i>
14:30 Development of the Urban Thermal Simulator and its Validation Yasunobu Ashie, <i>Building Research Institute, Japan</i> [1325]	14:30 Native trees: A green coolers to mitigate heat stress in Chennai City Parisutha Rajan, <i>ECOTONE, India</i> [1276]	Franco Cabrera, Ministry of Climate Change of the Province of Misiones, Argentina Mio Nemoto, University of Tokyo, Japan Siyu Yu, Texas A&M University, United States Lannie McLennen, Texas Tree Foundation, United States
14:50 Application of an urban building energy modelling framework to study the effects of urban heat island in an Indian city Arunim Anand, <i>Indian Institute of Technology Bombay, India</i> [1332]	14:50 Impact of Crops on the Microclimate and PV System Performance Steve Kardinal Jusuf, <i>Singapore Institute of Technology, Singapore</i> [398]	
15:10 Summer overheating in Mediterranean cities: cooling strategies at the building and urban scale Margherita Mastellone, <i>University of Naples Federico II, Italy</i> [340]	15:10 A Multi-criteria Framework for Climate Change Resilient Street Trees Ehsan Sharifi, <i>The University of Adelaide, Australia</i> [375]	
15:30 Green parking - Mitigating surface urban heat island effect of open parking lots: A simulation study in Thalawathugoda, Sri Lanka Umesha Mathugama, <i>University of Moratuwa, Sri Lanka</i> [343]	15:30 Cooling arid environments: urban street trees and aspect ratio (H/W) Gladys Adriana Acosta Fernández, <i>Universidad Autonoma de Baja California, Mexico</i> [388]	
15:50 AFTERNOON TEA		
16:20 PARALLEL SESSIONS		
Machine learning and remote sensing of cities and urban climates Chair: Andrew Carre, <i>RMIT University</i>	Social and economic dimensions: UHI, Economy, health and well-being Chair: Chair: Michele Zinzi, <i>ENEA National Agency for New Technologies, Italy</i>	Modelling and forecasting urban climate and weather Chair: Hee Joo Poh, <i>Institute of High Performance Computing, A*STAR, Singapore</i>
<i>Building 80, Level 7, Room 6</i>	<i>Building 80, Level 7, Room 9</i>	<i>Building 80, Level 7, Room 7</i>
16:20 Quantifying the Spatiotemporal Land Surface and Air Temperature Relationship of Greater London using Thermal Earth Observation Stuart Barr, <i>Newcastle University, United Kingdom</i> [318]	16:20 Evaluation of effect of wearing a mask in hot environment on physiological responses during walking, Atsumasa Yoshida, <i>Osaka Metropolitan University, Japan</i> [267]	16:20 Outdoor Thermal Comfort conditions in streets of an urban neighborhood: Evaluating micro-scale model in tropical- composite climate city Surabhi Mehrotra, <i>Maulan Azad National Institute of Technology, India</i> [1357]
16:40 Exploring the spatial heterogeneity of urban heat island effect and its relationship to urban morphology supported by multi-source data for Xi'an, China Yiquan Wang, <i>Xi'an Jiaotong University, China</i> [319]	16:40 A Comparison of Disadvantage and Urban Heat Island Effect In Melbourne, Australia Ben Latham, <i>Victorian Council of Social Service, Australia</i> [288]	16:40 Urban surface characteristics and daytime surface urban heat island effect: new assessment method on the influences of land use patterns and land surface temperature in high-density urban environments, Maoping Wang, <i>The Hongkong Polytechnic University, Hong Kong</i> [1381]
17:00 Novel application of spatial land cover signatures as a predictor of surface temperatures in Perth, Western Australia Bryan Boruff, <i>University of Western Australia, Australia</i> [400]	17:00 Are urban practitioners considering the social and economic dimensions of urban heat islands: a perspective from South Asia Aveek Ghosh, <i>Visvesvaraya National Institute of Technology, India</i> [291]	17:00 Temperature Derating and Photovoltaic Efficiency in Urban Climates: A Case Study of Sydney Metropolitan Region Christophe Menezo, <i>Université Savoie Mont Blanc, France</i> [407]



THURSDAY, 7 DECEMBER 2023

9:00 | WELCOME

9:05 | Keynote Candace Jordan, *City of Melbourne*
Keynote Professor Hashem Akbari, *Concordia University, Canada*

10:30 | MORNING TEA

11:00 | PARALLEL SESSIONS

Machine learning and remote sensing of cities and urban climates Chair: Priya Rajagopalan, <i>RMIT University, Australia</i>	Cool materials, roof, pavement and advance materials developments and characteristics Chair: Elmira Jamei, <i>Victoria University, Australia</i>	Relationship between UHI and urban and city planning Chair: Nicola Willand, <i>RMIT University, Australia</i>
<i>Building 80, Level 7, Room 6</i>	<i>Building 80, Level 7, Room 9</i>	<i>Building 80, Level 7, Room 7</i>
11:00 How land development activities alter the intensity of urban heat islands in Greater Melbourne? An investigation through the lens of local climate zones James Bennie, <i>RMIT University, Australia</i> [1321]	11:00 Development and experimental investigation of photovoltaic-thermal collector design, Miso Jurcevic, <i>University of Split, Croatia</i> [304]	11:00 Measuring the instantaneous cooling effect of turf irrigation in Melbourne, Australia Pui Kwan Cheung, <i>The University of Melbourne, Australia</i> [311]
11:20 Green volume or horizontal area, which is more effective in environmental mitigation? Kenta Iki, <i>Kansai University, Japan</i> [1329]	11:20 The Utilisation of Products with Recycled Content in Construction Projects to Combat Urban Heat Island Effects Salman Shooshtarian, <i>RMIT University, Australia</i> [306]	11:20 Investigation of the effect of heat on people's movement in Tokyo during summer using mobile phone location data Eiko Kumakura, <i>National Institute for Land and Infrastructure Management, Japan</i> [1313]
11:40 The impact of urban land use on the spatio-temporal characteristics of urban heat islands and machine learning prediction: the case of Xi'an City Zhechen Yu, <i>Xi'an Jiaotong University, China</i> [336]	11:40 Design and testing of adapters for Solar Spectrum reflectometer (ASTM 2 C1549 standard test method) for profiled samples Alberto Muscio, <i>University of Modena and Reggio Emilia, Italy</i> [1374]	11:40 Towards the development of a knowledge graph-based decision support framework for Green Building Neighborhoods Nikos Kampelis, <i>Technical University of Crete, Greece</i> [317]
12:00 Investigating Effects of Land Use/Land Cover Patterns on Land Surface Temperature using GIS and Google Earth Engine in Honiara, Solomon Islands Chayn Sun, <i>RMIT University, Australia</i> [1345]	12:00 Prototyping and Testing of an Active Modulating Radiative System with a Bilayer Daytime Radiative Cooler Djordje Krajcic, <i>University of Sydney, Australia</i> [353]	12:00 Prediction Method Development for Microclimate with the Combined Effects from Urban Morphology and Building Heat Emissions Yuan Chen, <i>Xi'an Jiaotong University, China</i> [335]
12:20 Spatio-temporal inter-comparison of atmospheric and surface urban heat island Effects over Jaipur City using in-situ and remotely sensed data Aneesh Mathew, <i>National Institute of Technology, Trichy, India</i> [1358]	12:20 Development and testing of novel cool evaporative materials to reduce building cooling loads Samira Garshasbi, <i>ARUP, Sydney, Australia</i> [398]	12:40 The relationship between urban microclimate and user behavior of an urban park in the city of São Carlos/SP – Brazil Kelen Almada Dornelles, <i>University of São Carlos, Brazil</i> [1378]
12:40 UHI Mapping and Assessment for Indian Districts Chirag Deb, <i>University of Sydney, Australia</i> [1379]	12:40 Development and preliminary testing of self-cleaning cool materials for building and urban applications Michele Zinzi, <i>ENEA National Agency for New Technologies, Italy</i> [401]	12:40 Analysis on the effects of spatial pattern of Community Park green space on the double reduction of PM2.5 and CO2 concentration in Xi'an, China Mengyao Wang, <i>Chang'an University, China</i> [350]

13:00 | CLOSING

13:30 | LUNCH

14:30 - 16:30 PM | TOUR, CITY OF MELBOURNE