



重慶大學  
CHONGQING UNIVERSITY

The 1<sup>st</sup> International Conference On:  
**Climate Change and  
Environmental Sustainability**  
(CCES)

09 - 11 NOV 2021  VIDEO CONFERENCE



## Conference Program

### Introduction:

Due to the uncertainties and restrictions inflicted by the #COVID19 pandemic, and for everyone's safety following the Health Organization's recommendations, it is in everyone's interest to host the conference online. As pioneers of this movement, IEREK is proud to be hosting this conference online. IEREK believes that rather than giving in to this disease and stopping our progress, pushing forward is of utmost importance. So, how can participating in an international Video Conference boost your career, future potentials, and experience?

- Obtain an internationally accredited certification of participation, which could boost your future academic career opportunities.
- Discuss your research paper online with professors, stakeholders, and other authors (Online Oral Presentation).
- Make sure that your paper will get the maximum exposure in front of a relevant audience, as we share samples of publications within our weekly newsletter and online platforms.
- Publish your paper with Springer in the [ASTI Book Series](#).
- Save costs of travel & accommodation.

### About the CCES 1st Edition:

The CCES conference is a step towards empowering decision-makers and energy stakeholders to join forces and proactively address the challenges of climate change so that actual progress can be achieved. By bringing together researchers who are working on topics relevant to climate change and environmental sustainability to share their latest accomplishments and research findings, voices can be amplified and actions towards a more resilient, liveable, sustainable future taken. This conference will serve as an important resource to inform people and provide them with a comprehensive understanding of the possible opportunities for environmental sustainability to address climate change.

The motivation behind this conference is to contribute to international and national goals of addressing climate change challenges by:

- Measuring climate change and assessing environmental, economic and social impacts
- Exploring mechanisms for effective environmental planning and sustainable resource management
- Advancing strategies and techniques for climate change mitigation and adaptation
- Enhancing the involvement and integration of different stakeholders across international, national, state, city, and community level for environmental sustainability
- Reporting pilot cases and exemplars that can help address climate change issues.

## Day 1: Tuesday 09 November 2021

(Venue: Online Conference)

(Time Zone: GMT +2, Egypt)

07:30 – 8:00 | **Online Registration/ Web Login**

Delivery of Information and Networking

08:00 | **Opening Ceremony**

Greetings and Communications by institution and Welcoming word by Chair

08:00 – 08:10 | **IEREK Presentation, Who We Are and What We Do.**

08:10 – 08:15 | **Research. Prof. Baojie He**, Conference Chair & School of Architecture and Urban Planning, Chongqing University, China.

08:15 – 08:20 | **Ass. Prof. Ayyoob Sharifi**, Conference Co-Chair & Graduate School of Humanities and Social Sciences, Hiroshima University, Japan.

08:20 – 08:25 | **Research. Prof. Chi Feng**, Conference Co-Chair & School of Architecture and Urban Planning, Chongqing University, China.

08:25 – 08:30 | **Prof. Jun Yang**, Conference Co-Chair & Jangho Architecture Collage, Northeastern University, China.

8:30 | **Plenary Session**

Introducing the Keynotes

| **Mattheos Santamouris**, Anita Lawrence Professor of High Performance Architecture in the University of New South Wales in Australia.

| **Deo Prasad**, Officer of the Order of Australia by the Governor General of Australia and Fellow of the Australian Academy of Technological Sciences and Engineering.

| **Marta Olazabal**, Research Fellow at the Basque Centre for Climate Change (BC3) and Head of the Adaptation Research Group.

Keynote 1:

08:30 – 9:10 | **Mattheos Santamouris**, Anita Lawrence Professor of High Performance Architecture in the University of New South Wales in Australia.

*“Recent Advances in Urban Mitigation Technologies”*

Keynote 2:

9:10 – 9:50 | **Marta Olazabal**, Research Fellow at the Basque Centre for Climate Change (BC3) and Head of the Adaptation Research Group.

*“Is urban climate adaptation in a deadlock?”*

*Day 1 Virtual Group Photo*

**Session 1: Climate Change Mitigation and Adaptation**

| Moderated by  | <b>Dr. Huimin Liu</b> , <i>Institute of Space and Earth Information Science, The Chinese University of Hong Kong, China</i><br><b>Wanlu Ouyang</b> , <i>School of Architecture, The Chinese University of Hong Kong, China</i> |
|---------------|--|
| 9:50 – 10:05  | The Optimal Power Control Grid-connected Solar Farm with Battery Bank System: A Case Study of Kampong Speu Solar Farm, Cambodia<br><b>Oum Socheat, Ayyoob Sharifi</b>  |
| 10:10 – 10:25 | The cooling effect of a large river to surrounding urban areas in summer season: A preliminary study<br><b>Wanlu Ouyang , Yasha Wang</b>   |
| 10:30 – 10:45 | Towards mitigating climate change by pipeline integrity management: Resilient pipelines<br><b>Guojin Qin</b>   |
| 10:50 – 11:05 | Research Progress and Hotspot Analysis of Carbon Capture, Utilization and Storage (CCUS): A Visual Analysis Using CiteSpace<br><b>Qin Li , Yijun Liu , Wenlong Li , Yongqiang Yan , Zhonghao Wu</b>                            |
| 11:10 – 11:25 | Mechanisms Governing the Strong Surface Winds in a Bow-shaped Squall Line over Southern China<br><b>Ping Jiang, Guixing CHEN</b>   |
| 11:30 – 11:45 | The stationarity bias in research on the determinants of urban temperature variation<br><b>Huimin Liu</b>  |
| 11:50 – 12:05 | Using air2water model to predict the water temperature of Lake Fuxian<br><b>Tingfang Jia, Yi Luo, Shanshan Xu, Linfeng Tang</b>  |
| 12:10 – 12:25 | Impact of urban park allocation on local geothermal environment: Case study of Chaoyang, China<br><b>Ziqi ZHAO</b>   |
| 12:30 – 12:45 | <i>Short Break</i>   |



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| 12:50 – 13:05   | Characteristics of LST and frontal area index based on local climate zones in Shenyang, northeastern China<br><b>Liguang Li</b>  |
| 13:10 – 13:25   | Power Purchase Agreements in China – An economic Analysis of the regulatory Status Quo<br><b>Steffen Hundt</b>   |
| 13:30 – 13:45   | Building a Deposit-Refund Scheme for Closed Loop Recycling of Water Bottles in UAE<br><b>Wisam Abu Jadayil, Rahaf Ajaj, Shaza Hammoud</b>  |
| 13:50 – 14:05   | Will Rural Households in Africa and Asia Switch from Fuelwood to Clean Energy for Cooking? A Literature Survey<br><b>Gyinadu Abubakar</b>  |
| 14:10 – 14:25   | Assessment of Above Ground Biomass, Carbon Accumulation of <i>Dendrocalamus strictus</i> and <i>Thyrsostachys oliveri</i><br><b>Neha Devi</b>  |
| 14:30 – 14:45   | Mitigating the Impacts of Drought via Wastewater Conversion to Energy, Nutrients, Raw Materials, Food, Potable Water<br><b>Simrat Kaur, Fatema Diwan, Brad Reddersen</b>   |
| 14:50 – 15:05   | Illegal log transportation & trade how impacts to climate change<br><b>Maria Chatzigeorgiou</b>  |
| 15: 10 – 15:30  | Impact mitigation of Climate Change Variability on Resource Base Carrying Capacity<br><b>Costantinos Costantinos</b>   |
| <i>End of Day 1</i>   |  |
| <b>Day 2: Wednesday 10 November 2021</b>  |  |
| Keynote 3:<br>08:00 –08:40   <b>Deo Prasad</b> , Officer of the Order of Australia by the Governor General of Australia and Fellow of the Australian Academy of Technological Sciences and Engineering. |  |
| <i>“Delivering Net Zero Carbon Buildings”</i>   |  |
| <i>Day 2 Virtual group Photo</i>  |  |
| <b>Session 1: Climate Change Mitigation and Adaptation</b>  |  |
| <b>Moderated by</b>   | <b>Dr. Huimin Liu</b> , <i>Institute of Space and Earth Information Science, The Chinese University of Hong Kong, China</i><br><b>Wanlu Ouyang</b> , <i>School of Architecture, The Chinese University of Hong Kong, China</i> |
| 08:40 – 08:55   | Natural Wetland Evolution In China: A Review<br><b>Lingyan Wang, Liang Ma, Lianxi Sheng, Shuying Zang, Hanxi Wang</b>  |

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| 09:00 – 9:15        | Impact Of Urban Overheating On Critical Infrastructure<br><b>Simei Wu , Xiaojun Liu, Bao-Jie He</b>  |
| 09:20– 09:35        | Dynamic Impact Of Urban Land Expansion On Carbon Emissions In China's Urban Agglomeration<br><b>Guoen Wei</b>  |
| 09:40 – 09:55       | Optimization Design Of Greening Layout Based On Alleviating The High Temperature Of Urban Parks In Summer—A Case Study Of Mianyang Talent Park<br><b>Yanli Yan</b>                                     |
| 10:00 – 10:15       | Characteristics Of LST And Frontal Area Index Based On Local Climate Zones In Shenyang, Northeastern China<br><b>Li-Guang LI ,Zi-Qi ZHAO, Hong-Bo WANG, Ning-Wei LIU</b>                               |
| 10:20 – 10:35       | Research On CO2 Emission Reduction Mechanism Of Digital Inclusive Financial Development -- A Quantitative Analysis Based On China's Provinces<br><b>Shuangshuang Fan</b>                               |
| 10:40 – 10:55       | Is Climate Finance Helping Achieve Sustainable Development Goal 2-End Hunger?: A Look At Landlocked And Non-Landlocked Countries In Sub-Saharan Africa<br><b>Isaac Doku</b>                            |
| 11:00 – 11:15       | <i>Short Break</i>   |
|                     | <b>2. Sustainable Urban-Rural Planning and Design</b>  |
| <b>Moderated by</b> | <b><i>Chuan shang, Associate professor Chongqing university, China</i></b>   |
| 11:15 – 11:30       | Simulating the Impact of Urban Morphology on microclimate and Energy Demand of urban blocks: Case Study of residential blocks in Nanjing, China<br><b>Chuan Shang</b>                                  |
| 11:35 – 11:50       | Tree Canopy Characteristics affect Street-canyon's Microclimate Conditions and Human Thermal Comfort in Hot-humid Climate<br><b>Yatian Cheng, Zhuodi Huang, Yayun Guo, Weijin Cheng, Changguang Wu</b> |
| 11:55 – 12:10       | Research on space resilience assessment and space optimization of old community in city<br><b>Qin Li, Wenlong Li, Yijun Liu, Zongyu Dai, Tianchang E</b>   |
| 12:15 – 12:30       | From mobility to sustainability: the pedestrianization of Jie Fangbei in Chongqing, China, 1979–2019<br><b>Min Jiang</b>   |
| 12:35 – 12:50       | Ecological environment response analysis based on land use /cover change<br><b>Linghua Duo</b>   |
| 12:55 – 13:10       | Trends in Incentive Policies of Green Roof: A Review<br><b>Gaochuan Zhang, Qian Wu, Zhengguang Li, Jiang Lu , Bao-Jie He</b>   |
| 13:15 – 13:30       | A Graph Theory-Based Model Of Urban Region Cascade Energy Plan System<br><b>Dachuan Wang</b>   |

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| 13:35 – 13:50  | Intensive evaluation and redevelopment of enterprise land use under the concept of high-quality development<br><b>Chenxi Lii</b>  |
| 13:55 – 14:10  | Evaluation and prediction of the spatial and temporal evolution of landscape patterns and habitat quality: A case study of Nanchang, China<br><b>Yanan Lee</b>                      |
| 14:15 – 14:30  | Evaluation of residents' overall satisfaction in urban villages under urban micro-renewal policy in Chengdu<br><b>Yun Yang</b>  |
| 14:35 – 14:50  | Research on the spatial-temporal matching of ecological space and typical elements of economic development based on Poyang Lake region<br><b>Sheng Xiao</b>                         |
| 14:55 – 15:10  | Spatial effects of foreign direct investment on urban air quality in China<br><b>Ranran Lee</b>   |
| 15:15 – 15:30  | Study the correlation between building configuration and micro heat island effect in Bondi Junction, Sydney, Australia<br><b>Mona Rashidi</b>                                       |
| 15:35 – 15:50  | Sustainable and unsustainable practices in the IDP camps, the case study: IDP camps in north-west Syria<br><b>Azalden HOSSIN</b>  |
| 15:55 – 16:15  | Sustainability and local cultures in the construction of Intercultural Universities in Mexico<br><b>Dalia Islas</b>   |
| <i>End of Day 2</i>  |   |
| <b>Day 3: Thursday 11 November 2020</b>  |   |
| 08:00 – 8:30   <i>Online Registration/ Web Login</i><br>Delivery of Information and Networking |   |
| <b>2. Sustainable Urban-Rural Planning and Design</b>  |   |
| <b>Moderated by</b>  | <i>Xuan Ma , Department of Architecture, Chang'an University, China</i>   |
| 08:30 – 08:45  | Multi-scale Features of Regional Poverty and the Impact of Geographic Capital: A Case Study of Yanbian Korean Autonomous Prefecture in Jinlin Province, China<br><b>Binyan Wang</b> |
| 08:50 – 09:05  | Process and mechanism of transition in regional land use function guided by policy: A case study from Northeast China<br><b>Binyan Wang, Junfeng Tian, Shijun Wang</b>              |

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| 09:10 – 09:25 | The improvement of thermal environment based on the NBS during the urban generation<br><b>Gengzhe Wang</b>   |
| 09:30 – 09:45 | A study on the strategies of Park City construction of Chengdu: Based on urban heat island mitigation<br><b>Lichen Wang, Kangkang Gu, Dong dong</b>                      |
| 09:50 – 10:10 | The outdoor pedestrian thermal comfort and behavior in a traditional residential settlement-A case study of the cave dwellings in cold winter of China<br><b>Xuan Ma</b> |
|               | <i>Day 3 Virtual Group Photo</i>   |
|               | <b>Session 3: Decarbonisation of Built Environment</b>   |
| Moderated by  | <i><b>Gloria Pignatta</b>, School of the Built Environment, Faculty of Arts, Design &amp; Architecture (FADA),<br/>University of South Wales, Australia.</i>             |
|               | <i><b>Federica Rosso</b>, Department of civil, construction and environmental engineering (DICEA),<br/>Sapienza University of Rome, Italy</i>                            |
| 10:15 – 10:30 | The Practice of Bridging the Belt and Road Initiative and the 2030 Sustainable Development Goals - The Case of SDG11 Sustainable Cities<br><b>Yang Zhao</b>              |
| 10:35 – 10:50 | Research on Low-Carbon Campus Design Strategies of Universities in Moderate Areas Based on Carbon Balance Accounting<br><b>Siyi Huu</b>                                  |
| 11:55 – 11:10 | Study and application on thermal comfort design strategies of the new rural residences based on climate responsiveness in South China<br><b>Jley lee</b>                 |
| 11:15 – 11:30 | The Role of Buildings Envelope Renovation to improve the Visual Image for Existing Buildings towards Ecological Balance<br><b>Amal Ismail, Haby Hosney</b>               |
| 11:35 – 11:55 | Optimization of wall infilled pattern for minimizing carbon footprints: A method that integrates parametric design tool with FEA analysis engine<br><b>Hanmo wang</b>    |
| 11:55 – 12:10 | <i>Short Break</i>   |
|               | <b>Session 4: Climate-related Governance and Challenges</b>  |
| Moderated by  | <i>TBA</i>   |
| 12:10 – 12:25 | Study on carbon emission reduction effect of carbon emission right pilot policy<br><b>Lipeng Liu</b>   |



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| 12:30 – 12:45 | Environmental Kuznets Curve: A New Functional Form in the Case of Low-Income Countries<br><b>Yara Elsehaimy, Dina M. Yousri</b>   |
| 12:50 – 13:05 | A Discovery of The True Relationship Between Biodiversity and Economic Growth in Light of COVID-19<br><b>Sara Taha, Dina Yousri, Christian Richter</b>  |
| 13:10 – 13:25 | Devastating Impacts of Climate Change Threatening Egyptian Outputs: An Empirical Analysis since 1900s<br><b>Dina M. Yousri</b>  |
| 13:30 – 13:45 | Global Human Induced Degraded Environment and its Restoration Measures for Sustainable Life<br><b>Tariq Qamar Baloch</b>  |
| 13:50– 14:05  | Impact of Social Ecology Problems on The Ecological System of A City<br><b>Mahtab Ahmadikabir</b>   |
| 14:10– 14:25  | Preschool Children’s Environmental Knowledge and The Application of Multimedia Learning for Environmental Education<br><b>Athirah Binti Mohamed Zaini, Ong Tee Chuan, Sean Calvin Yong Shin Ching</b> |
| 14:30 – 14:45 | Green architecture for sustainability development in Algeria: limitations and visions<br><b>Ibrahim Z. Kaddour, Tarek Teba</b>  |
| 14:50 – 15:00 | Closing Ceremony: Panel Discussion, Final Remarks, Recommendations & Feedback   |
| 15:00 – 15:05 | Best Presentation Award Announcement  |

*End of Day 3*