

Preface

The 2021 3rd International Conference on Civil Architecture and Energy Science (CAES 2021), hosted by Changchun Institute of Technology was held on March 19-21, 2021 as a virtual conference due to the growing concerns over the coronavirus outbreak (COVID-19), and in order to protect the well-being of our attendees, partners, and staff as our number one priority. The primary goal of the conference is to bring together innovative academics and industrial experts in the field of Civil Architecture and Energy Science to a common forum. The conference will be held every year to make it an ideal platform for people to share views and experiences in civil architecture and energy science and related areas. A key aspect of this conference is the strong mixture of academia and industry. This allows for the free exchange of ideas and challenges faced by these two key stakeholders and encourage future collaboration between members of these groups.

This scientific event brings together more than 180 national and international researchers in civil architecture and energy science. On top of the local participants coming from different national universities, international participants are also registered from different countries, namely Spain, Turkey, Australia. During the conference, the conference model was divided into three sessions, including oral presentations, keynote speeches, and online Q&A discussion. In the first part, some scholars, whose submissions were selected as the excellent papers, were given about 5-10 minutes to perform their oral presentations one by one. Then in the second part, keynote speakers were each allocated 30-45 minutes to hold their speeches.

In the second part, we invited four professors as our keynote speakers. Prof. Liying Wang, from Changchun Institute of Technology, China. She devoted herself to research and design of building energy-saving technologies, architectural design and urban and rural construction planning. And then we had Prof. Hongwen Jin from Changchun Institute of Technology, China. He devoted in HVAC energy-saving technology; renewable energy utilization technology area. Prof. Law Teik Hua, from Henan University of Science and Technology, China. His research mainly focuses on Transportation; Road Safety; Traffic User Behavior Analysis. Their insightful speeches had triggered heated discussion in the third session of the conference. Every participant praised this conference for disseminating useful and insightful knowledge.

The proceedings are a compilation of the accepted papers and represent an interesting outcome of the conference. Topics include but are not limited to the following areas: Civil construction, Water conservancy projects, Traffic engineering, Materials science and engineering, Energy engineering and energy technology and more related topics. All the papers have been through rigorous review and process to meet the requirements of International publication standard.

We would like to acknowledge all of those who supported CAES 2021. The help and contribution of each individual and institution was instrumental in the success of the conference. In particular, we would like to thank the organizing committee for its valuable inputs in shaping the conference program and reviewing the submitted papers.

The Committee of CAES 2021

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