

4-1. IROAST Symposium

No. (Invitation Program No.)	Symposium Title	Organizer
	Date	
4-1-1 (3-1-15)	The 20th IROAST Symposium ~ Sustainable and Carbon-Neutral Structures and Materials ~	Gaochuang CAI IROAST
	January 8, 2025	

IROAST Symposium Report

No. 3-1-15 (Invitation Program) No. 4-1-1 (Symposium)	20th IROAST Symposium “International Mini-Symposium on Sustainable and Carbon-Neutral Structures and Materials”			
Organizer	Name	Gaochuang CAI		
	Affiliation	IROAST, KU	Title	Associate Professor
Style	Venue: 2F, Engineering Common Meeting Room A, Kurokami South C2 (Faculty of Engineering Bldg.1)			
Time & Date	10:00 – 18:00, January 8, Wednesday, 2025			
Speaker's Name/ Title/Affiliation	<p>Presenters;</p> <ol style="list-style-type: none"> 1) Prof. Yan XIAO, Ph.D. (FACI, FASCE, FIAWS) Qiushi Distinguished Chair Professor, Zhejiang University, China Title: Recent Advances in Bio-Based Materials and Carbon Neutral Development in Civil Engineering 2) Prof. Amir SI LARBI, Ph.D. Full Professor, Ecole Centrale de Lyon, France Title: Recent advances in TRC for civil engineering 3) Prof. Konstantinos Daniel TSAVDARIDIS, Ph.D. (FICE) Full Professor, City, University of London, U.K. Title: Sustainable Steel-Concrete Composite Flooring Systems. 4) Prof. ILIAS (Elias) DIMITRAKOPOULOS Professor, Hong Kong University of Science and Technology, Hong Kong, China Title: Can we build properly engineered structures using bamboo culms? 5) Assoc. Prof. Mauricio Cardenas LAVERDE, Ph.D. Professor, Hong Kong University of Science and Technology, Hong Kong, China Title: Can we build properly engineered structures using bamboo culms? 6) Assoc. Prof. Yuki KUROIWA, Ph.D. Associate Professor, Kumamoto University, Japan Title: Reusable fitting connector for sustainable architecture 7) Dr. P. MALLA, Ph.D. Postdoctoral Researcher, (IROAST), Kumamoto University, Japan Title: Experimental and numerical study of RRC walls under multiple repeated lateral loads 8) Mr. Dan YUAN Master student, Kumamoto University, Japan Title: Computational analysis of seismic capacity of RC columns leveraging AI and data-driven approaches 			
Number of Participants	Total: 18 (Int'l participants: 15) Invitees: 8 (Int'l participants: 7)			

Symposium Overview

Symposium name:

“International Mini-Symposium on Sustainable and Carbon-Neutral Structures and Materials”

Basic info.:

The symposium works as a small beginning of 2nd AMDS3 (Lyon) organized by Dr. Cai 2025, is an annual meeting organized with the intention of being a platform for researchers, engineers, academicians as well as industrial experts from all over the world to present their research results and development activities in Advanced Materials and Design for Structural Safety and Sustainability.

Aims of the symposium:

- provide a communication platform for researchers and engineers to present their advanced research results in advanced and sustainable Infrastructure and Civil Engineering.
- offer scholars crucial opportunities to improve their work and learn from their colleagues.
- serve as a vehicle that strengthens relationships between industry and universities interested in the subject.

Symposium Outcomes

This symposium has invited 8 presentations, among which the topics the submissions involved include seismic engineering, eco materials, high-performance materials, green structures, etc. Three of the presentation were selected to submit in the international Journal of Buildings (IF: 3.3).

Future Plan

The 2nd AMDS3 will be held in France soon. Dr. Cai and his students will attend the conference. One of Cai’s group members will visit the Professors Amir SI LARBI and Konstantinos Daniel TSAVDARIDIS.

Regarding the publications, five publications will be coming soon with co-authorship of some of the professors attended the symposium.



Moderator: Prof. TAKASHIMA,
Director of IROAST



Organizer: Assoc. Prof. CAI



Prof. XIAO



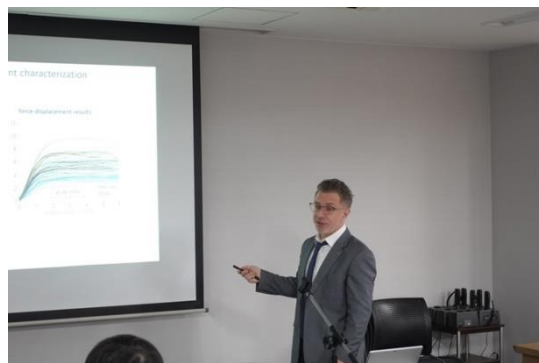
At the venue 1



Prof. LARBI



Prof. TSAVDARIDIS



Prof. DIMITRAKOPOULOS



At the venue 2



Assoc. Prof. LAVERDE



Assoc. Prof. KUROIWA



At the venue 3



Mr. YUAN



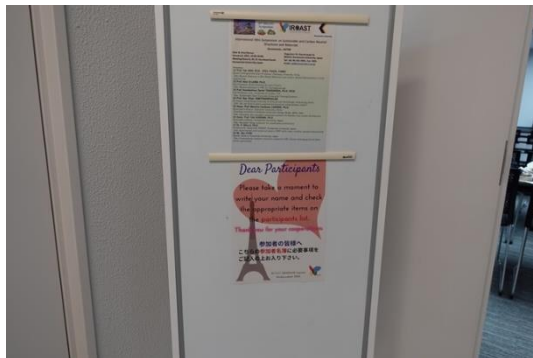
Dr. MALLA



At the venue 4



Group photo



At the door



International Mini-Symposium on Sustainable and Carbon-Neutral Structures and Materials

Kumamoto, JAPAN

Date & time/Venue:

January 8, 2025, 10:00-18:00;

**Meeting Room A, B1-2F. Kurokami South.
Kumamoto University, Japan**

Organizer: Dr. Gaochuang Cai

IROAST, Kumamoto University, Japan

Tel: +81-96-342-3905, Ext. 3905.

Email: cai@kumamoto-u.ac.jp

Presenters:

(1) Prof. Yan XIAO, Ph.D. (FACI, FASCE, FIAWS)

Qiushi Distinguished Chair Professor, Zhejiang University, China

Title: Recent Advances in Bio-Based Materials and Carbon Neutral Development in Civil Engineering

(2) Prof. Amir SI LARBI, Ph.D.

Full Professor, École Centrale de Lyon, France

Title: Recent advances in TRC for civil engineering

(3) Prof. Konstantinos Daniel TSAVDARIDIS, Ph.D. (FICE)

Full Professor, City, University of London, U.K.

Title: Sustainable Steel-Concrete Composite Flooring Systems.

(4) Prof. Ilias (Elias) DIMITRAKOPOULOS

Professor, Hong Kong University of Science and Technology, Hong Kong, China

Title: Can we build properly engineered structures using bamboo culms?

(5) Assoc. Prof. Mauricio Cardenas LAVERDE, Ph.D.

Associate professor, Shenzhen University, China

Founding architect of Cardenas Conscious Design Studio, Milan, Italy

Title: Innovative dry-mounted connection systems for Bamboo low-carbon Architecture

(6) Assoc. Prof. Yuki KUROIWA, Ph.D.

Associate professor, Kumamoto University, Japan

Title: Reusable fitting connector for sustainable architecture

(7) Dr. P. MALLA, Ph.D.

Postdoctoral researcher, IROAST, Kumamoto University, Japan

Title: Experimental and numerical study of RRC walls under multiple repeated lateral loads

(8) Mr. Dan YUAN

Master student, Kumamoto University, Japan

Title: Computational analysis of seismic capacity of RC columns leveraging AI and data-driven approaches