

**Preliminary announcement & call for papers**

## **International Symposium on Earthen Structures (ISES-2018)**

[www.astra.iisc.ernet.in/ises2018](http://www.astra.iisc.ernet.in/ises2018)

**22 – 24 August 2018**

**Bangalore, INDIA**

*Jointly organised by*

Centre for Sustainable Technologies (CST) &  
Department of Civil Engineering  
Indian Institute of Science (IISc)  
Bangalore, INDIA

Department of Architecture and Civil  
Engineering, University of Bath, U. K.

Centre for Low Impact Buildings  
Coventry University, UK

Department of Engineering  
University of Durham, UK

Ecole Nationale des Travaux Publics De L'Etat  
(ENTPE), Lyon, France

Dachverband Lehm e.V., Germany



**Venue:**  
**Indian Institute of Science**  
**Bangalore, INDIA**

### **Introduction**

Globally earthen structures house a significant proportion of humanity. Using time-tested building techniques, they are affordable, easily procurable and more responsive to the local environmental conditions. In our current pursuit of Sustainable Development, amidst climate change, earthen structures hold enormous potential as solutions for low-energy/eco dwellings, energy efficiency, thermal-comfort, climate responsiveness, affordability, and end-of-life recyclability.

However, increasing modernisation of lifestyles and rapid urbanisation have seen a steep decline in the acceptance and adoption of traditional or vernacular earthen structures. Buildings today are not climatically responsive and excessively use energy intensive building materials. Not only are *standard* modern building materials and techniques unsuited to local diversity in climate and culture, they place heavy demands on energy in their operation. Locally available earth is a viable alternative.

Fortunately, in many countries interest in traditional and modern methods of earth buildings has been steadily growing as more sustainable and healthier buildings are sought. Even the global climate change panel IPCC recommends scientific validation of indigenous material to lower resource footprint of dwellings. The introduction and development of new affordable solutions to combat critical housing shortages, using earth-based materials, such as compressed earth blocks, rammed earth, cob, adobe blocks, etc. remain a primary focus for modern buildings. Recent developments include wide adoption of compressed earth blocks and rammed earth constructions.

Earth building offers many advantages, including opportunity to use locally (diverse) materials, low environmental impact, improved health and thermal comfort, and favourable whole-building environmental performance. Challenges include lack of proper engineering design methodologies, poor seismic resistance of vernacular construction, limited data/codes on performance, uncertified products, and inadequate education/training and regulatory mechanisms.

### **Objectives**

The symposium will provide an International Forum for information dissemination and exchange, discussions and debates on research and sustainable practice in the broad field of earthen structures, including materials, building techniques, climate responsive architecture, building-comfort, energy in buildings, climate-change mitigation and emission reduction.

The symposium aims to bring together practicing professionals (engineers and architects), manufacturers, building professionals, designers, academics, researchers and students keenly interested and engaged in the theory and practice of 'earthen structures' for sustainability.

### **Themes**

**The following themes can include case-studies, research and innovations in earthen structures**

1. Earthen materials and technology (adobe, rammed earth, stabilised earth, cob, etc.)
2. Energy & Environmental performance
3. Structural performance and durability
4. Architecture/ design
5. Heritage: conservation, repair & reuse
6. Indoor Air Quality
7. Codes and design guidelines
8. Climate-change mitigation
9. Seismic performance and design

## Key dates

Submission of abstract: 30 September 2017  
Notification of Acceptance: 30 November 2017  
Submission of paper: 28 February 2018  
Notification of paper Acceptance  
(including revisions): 30 April 2018

## Language

The official symposium language is English

## Accommodation

Only limited accommodation is available for authors/delegates inside the Institute campus in Bangalore, on 'first come first serve basis'. Details of hotels nearby the venue would be available on the conference website.

## Registration Fees

The registration fees are as follows:

|                              |          |
|------------------------------|----------|
| Author/Delegate from abroad: | US \$300 |
| Accompanying Spouse:         | US \$100 |
| Author/Delegate from India:  | Rs. 6000 |
| Accompanying Spouse:         | Rs. 2500 |
| Students from abroad:        | US \$150 |
| Students from India:         | Rs. 2500 |

## Travel/Visa Arrangements

Prospective symposium participants are strongly advised to follow up early with the Indian Embassy/High Commission on the travel/visa requirements. The conference organizers would inform the Ministry of External Affairs, Government of India on the event.

## Liability

The registration fee is solely for academic participation and covers cost of registration, conference kit, proceedings (soft copy), tea/snacks and lunch, and any banquet or cultural event organised as part of the event. It does not cover for insurance of participants against

personal injury, sickness, theft or any unforeseen eventuality in conjunction with academic symposium. Participants and accompanying persons are advised to arrange for insurance they consider necessary. The Symposium Organising Committee, the secretariat, sponsors and agents acting on behalf of the symposium do not assume responsibility for loss, injury or damage to persons or belongings.

## Enquiries to:

Enquiries concerning the symposium should be mailed to the following address:  
[ises2018@gmail.com](mailto:ises2018@gmail.com)

Queries may also be addressed to:

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## Keynote speakers

The symposium will have keynote lectures by eminent academic/professionals specialised in various themes connected with earthen structures

## Technical Review Committee

Prof. Andrew Heath, University of Bath (UK)  
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Dr. Yogananda, M. R., Mrinmayee (India)

## Conference Chairs

- Prof. B.V. Venkatarama Reddy  
Indian Institute of Science
- Prof. Peter Walker  
University of Bath, UK

## Conference Convener

- Prof. Monto Mani  
Indian Institute of Science

## Conference Local Organising Committee (IISc)

Prof. Ananth Ramaswamy  
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Prof. Monto Mani  
Prof. G. L. Sivakumar Babu  
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