

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 their 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:

Prof. B. V. Venkatarama Reddy  
Dept. of Civil Engineering,  
Indian Institute of Science,  
Bangalore 560 012, India,  
Tel: +91 080 22933126,  
Fax: +91 80 23600404/23601683,  
Email: [venkat@civil.iisc.ernet.in](mailto:venkat@civil.iisc.ernet.in)

### 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)  
Dr. Antonin Fabbri, ENTPE, University of Lyon (France)  
Prof. Bilge Isik, Istanbul Aydın University (Turkey)  
Dr. Bruce King, Green Building Press (USA)  
Prof. Charles Augarde, Durham University (UK)  
Prof. Chintha Jayasinghe, University of Moratuwa (Sri Lanka)  
Dr. Chris Beckett, University of Edinburgh (UK)  
Mr. David Easton, Watershed Materials (USA)  
Dr. Daniel Maskell, University of Bath (UK)

Prof. Daniel Torrealva, Catholic University of Peru  
Prof. Daniela Ciancio, Univ. of Western Australia  
Prof. Fabio Matta, University of South Carolina (USA)  
Prof. Guillaume Habert, ETH Zurich (Switzerland)  
Mr. Hugh Morris, University of Auckland (NZ)  
Dr. Horst Schroeder, Dachverband Lehm, (Germany)  
Prof. Jean-Claude Morel, Coventry University (UK)  
Prof. Jagadish, K. S., (India)  
Prof. John Kinuthia, University of South Wales (UK)  
Prof. Kristopher Dick, Univ. of Manitoba (Canada)  
Mr. Kiran Vaghela, Hunnarshala (India)  
Prof. Matthew Hall, Univ. of Nottingham (UK)  
Prof. Monto Mani, Indian Institute of Science  
Dr. Nanjunda Rao, K. S., Indian Institute of Science  
Prof. Paulina Faria, NOVA University of Lisbon (Portugal)  
Prof. Peter Walker, University of Bath (UK)  
Dr. Quoc-Bao Bui, Ton Duc Thang University (Vietnam)  
Mr. Stephan Jörchel, Dachverband Lehm, (Germany)  
Prof. Venkatarama Reddy, B. V., Indian Institute of Science  
Dr. Yogananda, M. R., Mrinmayee (India)

### Conference Chairs

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

### Conference Convener

- **Prof. Monto Mani**  
Indian Institute of Science, India

### Conference Local Organising Committee (IISc)

Prof. Ananth Ramaswamy  
Prof. J. M. Chandra Kishen  
Prof. Monto Mani  
Prof. G. L. Sivakumar Babu  
Prof. B.V. Venkatarama Reddy  
Dr. S. N. Ullas

### Preliminary announcement & call for papers

## INTERNATIONAL SYMPOSIUM ON EARTHEN STRUCTURES (ISES-2018)

[est.iisc.ac.in/ises2018](http://est.iisc.ac.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