# Send the completed Registration form to:

Mr. H. Hemanth Kumar

Technology **Council for Science &** Bangalore 560 012, INDIA Indian Institute of Science Karnataka State



Telephone: 09845707380, 080-23314396 E-mail: hemanth.h.kumar@gmail.com

# Websites:

www.kscst.org.in; www.civil.iisc.ernet.in; www.astra.iisc.ernet.in

# **Co-ordinators:**

**Prof. B. V. Venkatarama Reddy** Department of Civil Engineering and Centre for Sustainable Technologies Indian Institute of Science, Bangalore

**Dr. Monto Mani** Centre for Sustainable Technologies Indian Institute of Science Bangalore

Mr. H. Hemanth Kumar Karnataka State Council for Science and Technology (KSCST), Indian Institute of Science, Bangalore Workshop duration: 6 days

# **Course fee:**

Rs. 6,000 for Indian delegates US\$ 250 for foreign delegates (Course fee excludes lodging/guest house Charges)

Maximum number of participants is limited to 30. Registration closes after reaching 30 confirmations on first come first serve basis. In any case, registration closes on 10 June, 2014.

# Who can apply:

Graduate/Diploma in Engineering or Architecture, Practicing Construction Professionals, Final year Engineering or Architecture Students



Seventh Workshop under the



"Low Carbon Materials and Building Systems"

# 23 – 28 JUNE 2014

Venue: Centre for Sustainable Technologies Indian Institute of Science Bangalore 560 012, INDIA



#### Jointly organised by

Centre for Sustainable Technologies Department of Civil Engineering, and Karnataka State Council for Science & Technology **Indian Institute of Science Bangalore 560 012, INDIA** 



# "Low Carbon Materials and Building Systems"

Natural materials are processed using energy for the manufacture of construction materials and building products. Construction industry is associated with two problems; consumption of huge quantities of unsustainably extracted mined raw materials and the associated carbon emissions. Indian construction industry is the largest in terms of volume of materials produced and is responsible for nearly 30% of green house gas (GHG) emissions. Energy in buildings comprises of embodied energy and energy for maintenance during its life cycle. Maintenance energy in buildings greatly depends upon the local climatic conditions. There is a need for reducing energy in buildings in order to contain GHG emissions. Department of Civil Engineering, Centre for Sustainable Technologies and Karnataka State Council for Science & Technology, the Indian Institute of Science are involved in developing and disseminating large number of low carbon building materials since the last three decades. More than a dozen energy efficient building technologies have been developed and disseminated. Large numbers of buildings have been built using these new materials. Such buildings are energy efficient and result in at least 50% reduction in carbon emissions. There is a demand for the knowledge on low carbon building materials and systems. The workshop is aimed at disseminating this knowledge to the architects, engineers and construction professionals focused on the promotion of green building projects.

## **Details of the workshop**

Workshop comprises of lectures, hands-on training and demonstration of construction techniques. Broad topics covered include Energy in buildings, Green building concepts, low carbon building materials (stabilised soil blocks, rammed earth, fly ash bricks, soil based building products, materials from solid wastes, etc.), alternative roofing systems, masonry vaults and domes, Bi-PV and climate responsive architecture. In addition, the afternoon sessions will be on hands on training and demonstration classes on the production of stabilised soil blocks, fly ash blocks and rammed earth elements, masonry bonding, masonry domes, precast elements, etc. and field visits.

#### **Resource persons**

Faculty from the Department of Civil Engineering, Centre for Sustainable Technologies, Karnataka State Council for Science and Technology, and other invited experts.



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Seventh Workshop under the

#### **Energy Efficient Buildings Workshop Series on** "Low Carbon Materials and Building Systems"

## 23 – 28 JUNE 2014

Venue:			
Centre for Sustainable Technologies			
Indian Institute of Science, Bangalore 560 012			

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	*Bank draft/Pay order only should be drawn in favour of "Secretary, Karnataka State Council for Science &			
1	Technology" and payable at Bangalore.			
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