

NAVIGATING OUR FUTURE WITH PLYMOUTH UNIVERSITY



RESEARCH
WITH
PLYMOUTH
UNIVERSITY
SUSTAINABLE
EARTH INSTITUTE



## **Theme contents**

Health and Wellbeing Biodiversity and Conservation Cities and Communities	3
Water Energy Responsible Consumption and Production	21
Climate Change Resources	
Education	38

This booklet has been compiled from the abstracts which will be presented at the marketplace sessions at Sustainable Earth 2016.

Sustainable Earth 2016 takes place on 23 and 24 June at Plymouth University, and is an event for researchers, businesses, community groups and individuals to come together for two days of inspirational speakers, networking opportunities and creative workshops designed to spark and encourage collaborations for a sustainable Earth.







## **SUSTAINABLE EARTH 2016 | ABSTRACTS**

**Author: Dr Satish Basavapatna Kumaraswamy** 

Organisation: School of Architecture, Plymouth University

Additional authors or affiliations: None

**Abstract theme:** 

Health and Wellbeing | Biodiversity and Conservation | Cities and Communities

## **ABSTRACT**

Harmonising homeowners aspirations towards sustainable housing: An examination using the multiple sorting task

The emerging world has empowered large and powerful consumer oriented demographics, which are aspirational and aimed at achieving western living standard and moving away from a traditional communitarian social model. In the domain of sustainable housing, it is critical to understand the social and cultural values, which enable us to propose a bottom up and localised solution for the sustainable housing strategies. This research focus on testing homeowners' preferences on one aspect of the housing, threshold or boundary condition, which is qualified by an multiple sorting task (MST) analysis. The MST enables the participants to sort representation of the building as simulation of the real environment and sorting allows researchers to conduct surveys without preconception, which will otherwise influence the judgement of the respondents. This analysis was further triangulated with study-model performance tested by sophisticated environmental simulation and fieldwork studies to help propose sustainable housing strategies. The methodology adopted has been critical to supporting the architectural response to the cultural and economic condition on one hand (social methods) and the climate responsive, traditional design and simulation models (environmental design methods) on the other. Different sets of fieldwork were conducted that involved archival searches and detailed interaction with architects, builders and homeowners. In total, 240 respondents answered a questionnaire survey and 146 semi-structured interviews were conducted. This research demonstrates how MST can be used as a research tool in understanding the social perception and economic aspirations of the homeowners, which have direct bearing on the acceptability of sustainable design and construction strategies.



