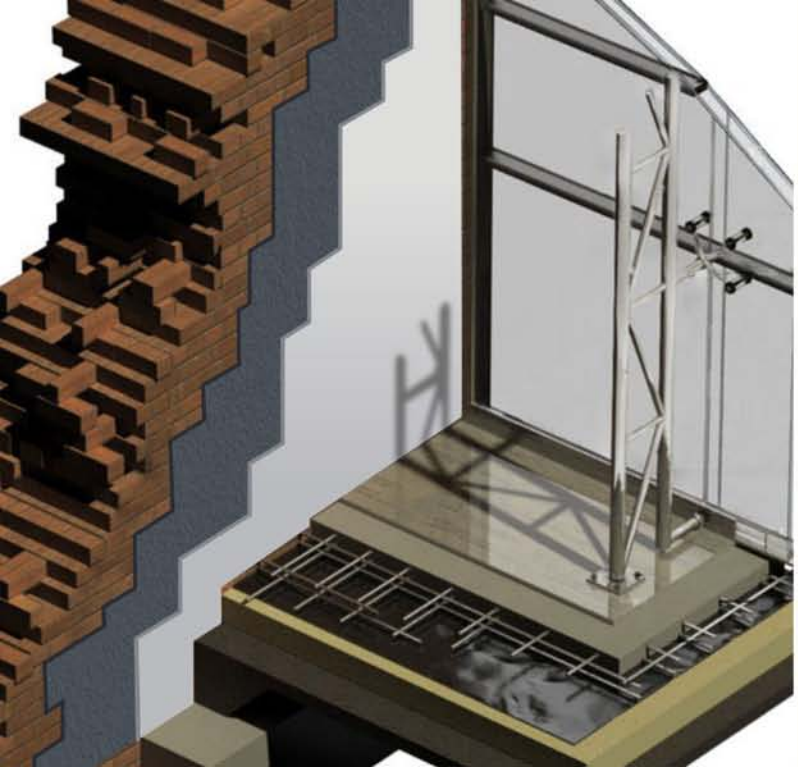
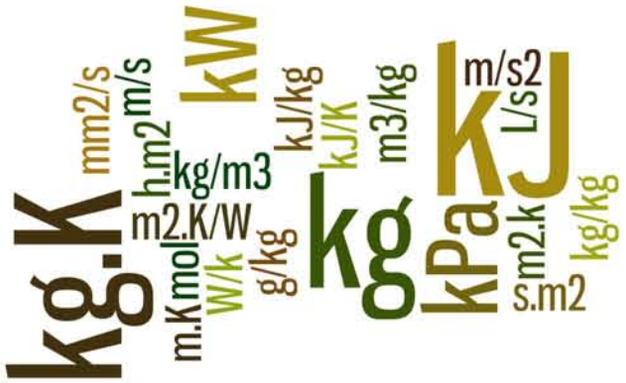


Building Material Characterization And **Construction Assemblies**

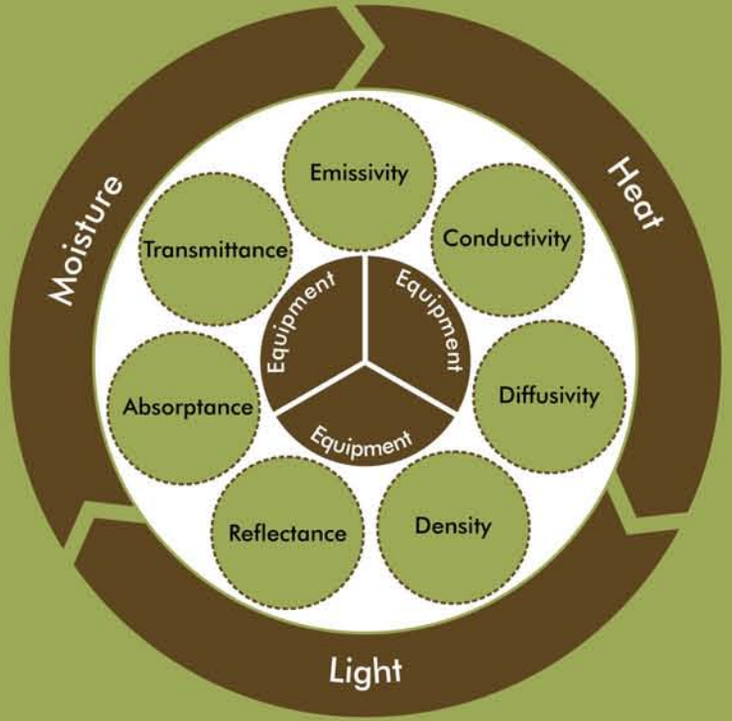
Background

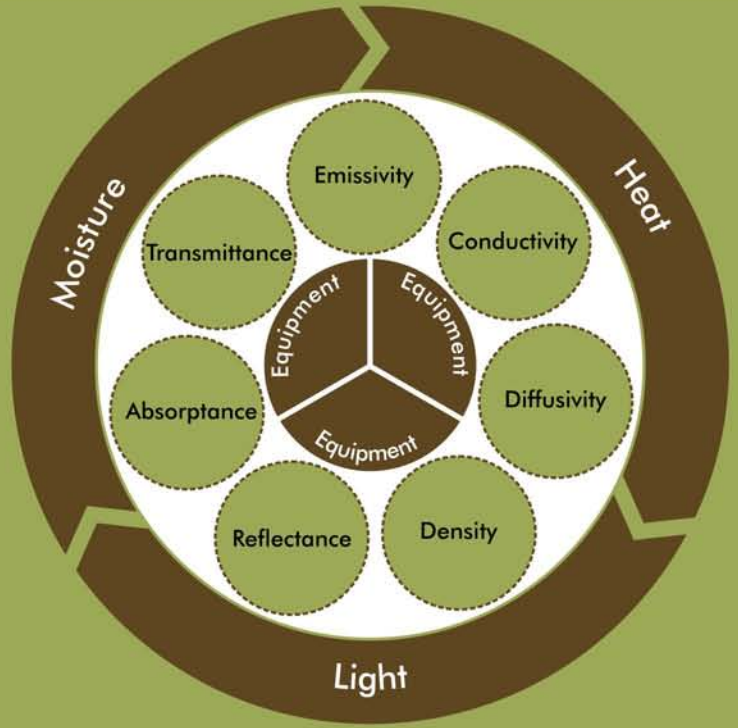
India is experiencing tremendous expansion in Building Construction Industry. Influx of new material has increased in last decade. Building Energy Efficiency and Integration of Renewable Energy Sources has become imperative to meet the global challenges. Building Materials play major role in achieving energy efficiency with the built environment. Number of computer models have been developed and are practiced across the country, which help professionals in envisaging future energy demand within and outside buildings.

However, thermo-physical-optical property of locally available building materials is very limited and at the same time, the characterization of newly developed building material is also not very much in public domain.



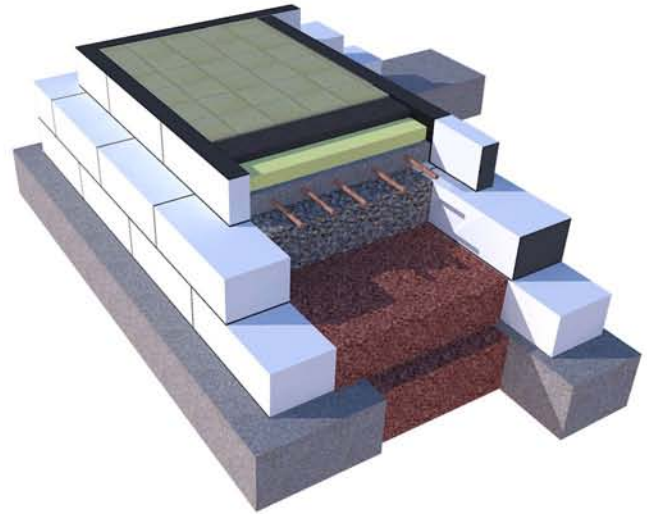
To enhance performance of building material and construction assembly, it is very essential that such knowledge gets created and gets disseminated to all stakeholders.





About Project

Exercise will develop extensive data of thermo-physical-optical property of building materials, building components and construction assemblies. State of the art material testing facilities will be used to characterize materials. Opaque building materials such as clay bricks, gypsum, stones, cement and RCC will be characterized for its thermal conductivity, thermal diffusivity, specific heat, density etc. Transparent – translucent materials such as glass, acrylics will be characterized for transmittance, absorptance and reflectance. Subsequent to data base for material, database for construction assemblies such as walls, roofs and components such as windows, skylights and doors will be developed. Online web tool will be developed to facilitate the use of acquired knowledge.



This study is an effort initiated by Centre of Excellence in Solar passive Architecture and green building technology, Centre for Sustainable Environment and Energy (CSEE) at CEPT University and is supported by Ministry of New and Renewable Energy, Govt. of India. CSEE is also partnering with local Indian academic and research institutes to accomplish this exercise.

About CEPT University

CEPT University sponsored by Centre for Environmental Planning and Technology Trust, is a primer institute in India that offers various academic and research programs.

Centre for Sustainable Environment and Energy (CSEE) at CEPT University aims to providing an impetus for research in energy efficiency in built environment & energy - resource management at large.

CSEE has been awarded a status of a "Regional Energy Efficiency Centre on building energy efficiency" by USAID ECOIII program and "Centre for Excellence in Solar Passive Architecture & Green Building Technologies" by Ministry of New and Renewable Energy, Government of India.

For further information

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