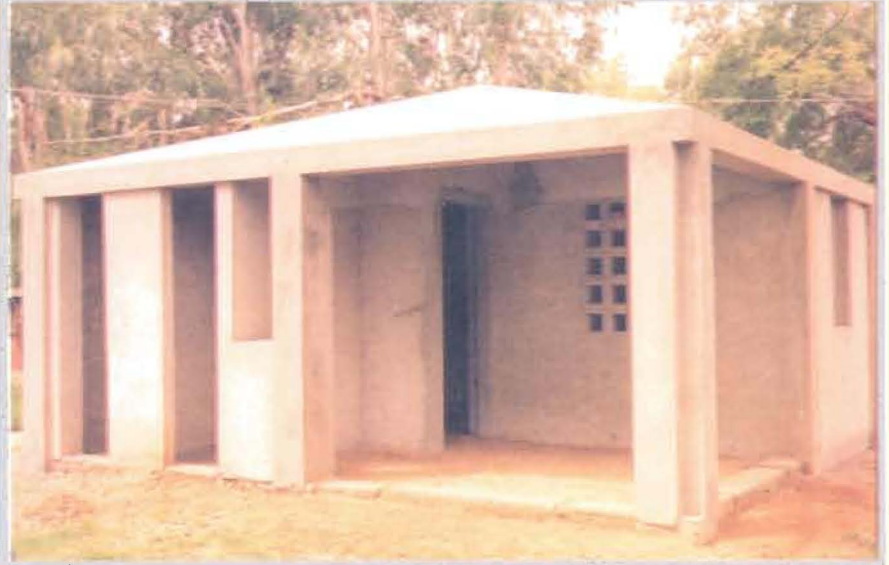




Central Building Research Institute Roorkee

Unreinforced Pyramidal Brick Roofs



Application/Uses:

Most suitable for low cost houses in cyclone affected and other coastal areas.

Salient Technical Features:

Corrosion of reinforcement was found to be the major cause of failure of RCC structures in coastal areas. A pyramidal roof with brick and cement concrete without reinforcement was therefore developed. The roof is provided with peripheral RCC ring beam. The beam is supported on brick columns of walls and is cast as integral part of the pyramidal roof using suitable shuttering.

Environmental Aspects:

Environment friendly.

Level/Scale of Development

Roof was tested and analyzed by 3-D FEM and found safe. Proto-type roofs have been constructed at different places in coastal areas of Andhra Pradesh for testing under field conditions and their performance is found satisfactory.

Status of Commercialisation: Technology is being widely adopted.

Major Components/ Raw Materials

Bricks, cement, sand, stone aggregate and reinforcing steel.

Major Plant Equipment and Machinery

No major equipment is required.

Techno-Economics:

The technology developed eliminates the chances of corrosion and enhances the life of roof. Due to its slope, chances of upliftment and collapse of roof by cyclonic winds are eliminated. The roof is economical in comparison to RCC roof.

Technology Package:

Complete design and construction package.

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