Architectural Design, Low Energy, and Isolation Materials to Have Sustainable Buildings in Iran

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Abstract : Nowadays according to increasing the population all around the world, consuming of fossil fuels increased dramatically. Many believe that most of the atmospheric pollution comes by using fossil fuels. The process of natural sources entering cities shows one of the large challenges in consumption sources management. Nowadays, everyone considers the consumption of fossil fuels and also reduction of consumption civil energy in megacities as playing a key role in solving serious problems such as air pollution, producing greenhouse gasses, global warming, and damage ozone layer. In the construction industry, we should use the materials with the lowest need to energy for making and carrying them, and also the materials which need the lowest energy and expenses to recycling. In this way, the kind of usage material, the way of processing, regional materials, and the adoption to the environment is critical. Otherwise, the isolation should be use and mention in the long term. Accordingly, in this article, we investigate the new ways in order to reduce environmental pollution and save more energy by using materials that are not harmful to the environment, fully insulated materials in buildings, sustainable and diversified buildings, suitable urban design and using solar energy more efficiently in order to reduce energy consumption. **Keywords :** building design, construction masonry, insulation, sustainable construction

Conference Title : ICBSE 2015 : International Conference on Building Science and Engineering

Conference Location : Paris, France

Conference Dates : February 23-24, 2015