"BIOMIMCRY" - AN INSPIRATION TO INDIAN STRUCTURE

PRAKASH B. NANGARE^a AND PANKAJ R. MODAK^a

^a Department Of Civil Engineering, AISSMS College of Engineering, Pune - 411001, India.

Abstract

The development of science & technology is a continuing quest for improvement in infrastructure of world around us. The structures in nature are great lessons for human study only the most eco-friendly structural forms have survived. Biomimicry (bios-means "life" mimes means to "imitate") is applied principle that seeks sustainable solution to human beings by emulating nature for time testing patterns and strategies. The major issues related to environmental problems can be minimized by applying principles of Biomimicry for effective design of eco- balanced structure. The geographical & topographical features of environment mainly affect the construction parameters. The proper analysis of natural structures around us (e.g. Termite mound is a proper solution to solve ventilation & lighting problems) will be helpful to create imminent solution for Sustainable Development. This study mainly emphasizes on analysis of existing structures such as East gate Zimbabwe & Cactus building Qatar with the principles of Biomimicry for Indian climatic conditions. After analyzing the structure, the study mainly focuses on the implementation of biomimicrial factors of existing structure to the new structures by preparing a model & then comparing the results with optimum eco friendly & sustainable design parameters of newly formed structure.

Keywords: Biomimicry, eco-friendly, Sustainable Development, environment.