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# structures



**T**he broad theme of structures is about setting up environments to serve a purpose, and one is naturally led to looking at natural and man-made ingenious designs to optimize various aspects like utility, economy, robustness, aesthetics and such.

Where does one begin? It is very illuminating to look at the myriad forms of nature which have evolved time-tested solutions that have effectively met many of these aspects. Nature continues to amaze humans, and it is no wonder that it has inspired them to mimic and model their structures: The Khalifa tower in Dubai would invariably remind one of an anthill and the Olympic stadium in Munich or the elaborate portals in the mod-

ern day airports would bring to focus the picture of spider webs. For anyone of any age group, it is hard to ignore the beauty of flowers, leaves, trees, the corals, sea-shells, butterflies, insects, their ornate dwellings - the list goes on and on. It has fascinated poets, musicians, artists, artisans, scientists and mathematicians alike.

Some of the exhibits under this theme are inspired by a couple of illuminating examples, like spider webs and honeycomb, and intend to showcase some of their structural wonders. They focus mainly on the following aspects of these structures: tensegrity, stress-distribution, as well as optimization.