Futuristic Taiwan tower to have floating observatories

November 19 2010, by Lin Edwards

Image credit: DSBA

(PhysOrg.com) -- A futuristic tower called "Floating Observatories," which resembles a tree trunk with eight floating elevator observatories shaped like leaves, will soon become a major landmark in Taichung, Taiwan's third largest city.

The conceptual design of the tower was made by a team from the

companies Dorin Stefan Birou Arhitectura (DSBA), Upgrade.Studio, and Mihai Cracium, and led by DSBA principal architect Stefan Dorin from Romania. The tower design won first prize in the recent Taiwan Tower Conceptual International Competition. Dorin explained the design represented a "technological tree," with elevator observatories shaped like the island of Taiwan, which is leaf-shaped.

The tower, standing over 300 meters high, will include an information center, museum, office tower, conference venue, fixed and floating observation decks, restaurants, and an urban park.

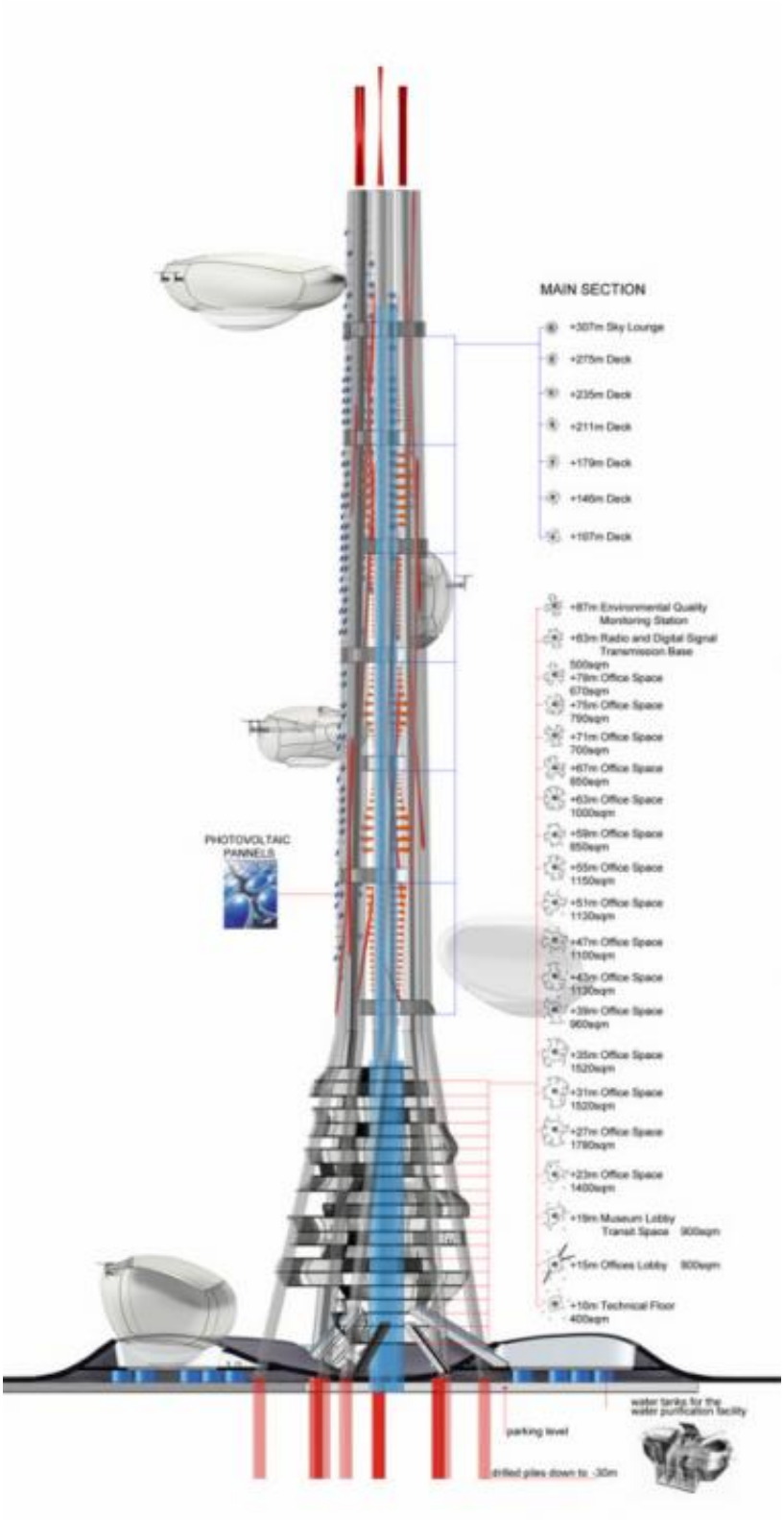

Image credit: DSBA

The floating elevator observatories can take up to 80 people and are built from lightweight materials developed by the space industries, and covered by a new generation membrane of polytetrafluoroethylene (PTFE). Their design was influenced by science fiction computer games. They move up and down on a vertical track positioned within a strong electromagnetic field and are “self-sustained” by helium balloons. The observatories provide the key exhibit of the museum for the visitors — the city itself — and when nested they are themselves exhibits.

The design’s “green” features include a small footprint, natural ventilation through the “chimney” effect, turbines and solar cells to generate power for the building, a fiber optics dome to light basement areas and museum spaces, and rainwater collection and purification. There is also a geothermal power plant in the basement for heating in winter and for heating water.

Image credit: DSBA

The Taiwan Tower will be the tallest building in Taichung, but is much shorter than the tallest building in Taiwan, the Taipei 101 skyscraper. The design was chosen from 237 entrants from 25 countries and gives Dorin a prize of around $130,000 as well as the chance to have the tower built to his design. Building of the tower on the one hectare site within sight of the Taiwan Strait is expected to begin in 2012 and take two years to complete.

The competition was held to celebrate the centenary of the founding of Taiwan and to commemorate the merger of Taichung County and Taichung City. The government of Taiwan will fund the building.

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More information: www.dsba.ro/mainEN.php?lang=EN&news=1