



Composite ladybug makes kids feel at home

The children of today will not only be the leaders of tomorrow but also the backbone of the society. Recognizing the importance and significance of the children population to the development of a country, the governments of various nations give a lot of attention to children healthcare today. One example is the new Al Jalila Children's Hospital in Dubai and its new media center built by Affan Innovative Structures using Diab sandwich composite materials.

"Smart" Children's Hospital in Dubai

The Al Jalila Children's Hospital in Dubai is the first hospital especially dedicated to children healthcare in the United Arab Emirates (UAE). It is a state of the art 200-bed hospital that will provide specialized pediatric health services primarily to the residents of Dubai. With four centers of excellence (Heart Center, Cancer Center, Mental Health and Neurology Center), it spans over an area of 76,500 square meters. The 4-storey building has been designed by Studio Altieri International, who are also responsible for the interior décor.

Al Jalila will have 40 incentive care units, 6 dialysis facilities, 20 healing centers, 12 training rooms, 8 operating theatres, 30 clinical and non-clinical departments, over 3,750 biomedical equipment and fixtures, and a multipurpose activities room for children, among others. Well-

connected departments, single bedrooms and a family- centered approach set the hospital apart. In addition to an underground parking for 40 vehicles, Al Jalila will have 430 external parking spaces, adding to the convenience of the visitors.

Pediatrics made interactive

The project has won the “Future Health Projects” award at the prestigious World Architecture Festival in Barcelona, Spain, 2009. In line with the specific brief from the Dubai Health Authority, the aim of Al Jalila is to create an aesthetic, appealing and eco-friendly environment that will appeal to children. The design, architecture and décor elements aim to stimulate the participation and imagination of children through visual aids, interactive touch-surfaces, imaginative shapes, and integrating arts, music and nature.

A very special ladybug

One example is the centerpiece of the new atrium, a 2-storey high ladybug, which is actually an unusually designed media center for the children. It was designed and constructed by Affan Innovative Structures, who have superior competence in composite constructions. Affan were asked to make a seamless double curved external shell complete with skylights and wing effects. The 3D design was approved and the problem of the seamless shell solved using Affan’s advanced engineering and Diab structural core composite materials. The unique features of Diab core composites enabled the construction of a second double curved internal shell finished in natural maple and integrating all necessary mechanical, electrical and a/c services.

The future of construction

“A great advantage of composite materials is that they can be cast in a 3D form without any material straining, and with an excellent smooth outer surface”, says Jacqueline Rufenacht, Production Manager Structural Composite at Affan. “Composites are a dream solution for architects and we are convinced that they will change the future of construction.”

Read more about Affan Innovative Structures in Dubai:

<http://affan-uae.com/home/>