

## **HOSPITALS OF TOMORROW**

Day: Saturday

Date: May 2nd, 2015

Time: 12:15 p.m. to 1:15 p.m.

Venue: Auditorium, Symbiosis International University, Lavale campus, Pune

Speakers: Dr. Vivek Desai

Dr. Vivek Desai began the session with a quote by Winston Churchill: “We shape our buildings, and afterwards, our buildings shape us”. This was in reference to the hospital buildings that have been constructed by his company Hosmac India Pvt. Ltd.

Dr. Desai defined quality as “doing the right things right—the first time”. He said that for healthcare organizations, decision-making processes need to be right, and that the organizations need to be sensitive to the cost of care to the patient.

Dr. Desai mentioned that the costs of establishing a hospital is projected to be between 75 lakhs and 1 crore, on an average. More than 50% of the cost of hospital project goes into the building itself. Developing nations lack the understanding of the minimum standards for hospital engineering. He gave an insight into the nuances of hospital engineering, stating that “form should follow function”.

Dr. Desai explained the Grid Matrix method, which is about the standard requirements for the measurement of the basic infrastructure. He briefed the audience about electrical design (lighting, calibration routes, and building automation system).

Dr. Desai elaborated on HVAC (heating, ventilation, and air conditioning) design, which is an integral part of hospital. He referred to ASHRAE standards for critical care areas, explaining indoor air quality, zoning of hospitals, HEPA filters, and laminar air flow. He also explained plumbing design, touching on topics such as requirement of water and RO plant for dialysis units. He stressed on the need for rain water harvesting.

Dr. Desai introduced the audience to the concept of pre-engineered buildings and related the example of Dr. Ram Manohar Lohia Hospital, one of his company’s projects in Delhi, which is based on the concept of pre-engineered building. This model is expensive, but the payback on investment is quicker and projects can be commissioned in half the time, thereby generating early cash flows. He briefly mentioned some operational aspects of dry wall systems and energy efficient green hospitals.

He gave an insight into the technical aspects of running a hospital in a cost-effective manner, such as the use of medical technology in providing superior quality images, minimising time for reports, filmless/paperless hospital, and the emergence of telemedicine and its application in cost effectiveness. Further, he explained the infrastructural measurements and requirements of OT's, ICU's and super specialty areas. He said that the role of a hospital architect should evolve around patient safety and staff convenience, focussing on standardized models that are modular, present, and modern. He concluded with a quote by Mies Van Der Rohe to describe the essence of hospital design: "Less is more".