



→ The entrance to the auditorium of Symbiosis Institute of International Business (SIIB) Pune shows impeccable use of indigenous stone work and integration of landscape built features.

Learning curve

Pune-based architect Madhav Hundekar talks about designing trends and ideas for creating vibrant, interactive and eco-friendly educational campuses.

The use of exposed brick cavity walls adds character to the entire Symbiosis International University's Viman nagar campus in Pune.



"An institute's pedagogy always remains the driving parameter in any architectural and interior design solution," says **Madhav Hundekar, Director, Mitimitra Consultants Pvt Ltd (MCPL)**. Hundekar believes that design of learning spaces should become a physical representation of the institution's vision and strategy for learning. **Mitimitra**, which means 'befriending the realms of space', is a syndicate of four architects – **Madhav Hundekar, Makarand Godbole, Madhura Mulay** and **Vikram Hundekar**. Recently awarded ISO 9001:2008 Certification by Det Norske Veritas (DNV) – The Netherlands, the firm has been involved with architectural and urban design, interiors, landscaping and appraisal activities for the last twenty years.

Mitimitra has a wide project portfolio from educational institutions, training and research

institutes, convention centres, offices, residences to health clubs, eco parks, temples, theatre complexes, auditoriums etc. Their forte is, definitely, educational and training institutions. Among their projects-in-progress is the prestigious academic campus for Indian Institute of Technology Gandhinagar (IITG), won by MCPL in a national competition conducted by IITG. Hundekar shares some of his views and experiences with JANAKI KRISHNAMOORTHY...

Q How has architecture and interior designing in Indian educational institutions changed over the years?

With depleting land resources, the emphasis is on optimum utilisation of land. Campuses are going vertical, more so in urban areas.



Architect Madhav Hundekar



↑ The main porch of Symbiosis Vishwabhavan, Pune prudently displays world flags with an integration of diverse components.

PROJECT PORTFOLIO

(SOME MAJOR INSTITUTIONS)

COMPLETED: Academic Building for Symbiosis Institute of Business Management, Symbiosis Institute of Health Sciences, Mechanical Engineering Department for Cummins Engineering College for Women, Vishwa-Bhavan Auditorium and hostel for Symbiosis, Boys' Hostel for the entire Symbiosis campus, Symbiosis Institute of Design, Symbiosis Centre for Management Studies, International Baccalaureate School, International Cultural and Educational Centre for Symbiosis (all in Pune); Universal Knowledge School, Satara, College for Computer Sciences for Deorukh Shikshan Prasarak Mandal (DSPM) in Ratnagiri.

ONGOING: Academic campus for Indian Institute of Technology Gandhinagar, Training Centre at Hivre Bazar, Ahmednagar; Symbiosis Institute of International Business, Pune; Universal Knowledge School Satara, Institute of Driving Training & Research, Institutional building for Gokhale Institute of Politics and Economics, Re-modelling of ladies hostel at Film and Television Institute of India campus, Sarhad Institute for Management Studies (all in Pune) Sharadchandra Pawar Agricultural College, Campus for College of Nursing for Yash Foundation, Architecture college for Maharshi Karve Stree Shikshan Sanstha, College for Computer applications, English Medium School Extension, an academic building at DSPM Campus (all at Ratnagiri).

Self-sustenance is now one of the priorities in campus planning. Recreational areas have assumed more importance and they are being integrated with the academic settings, as against the old trend of segregating them. Learning centres are being developed as resource centres, for integration of technologies, and for creating an image for the campus.

In interior design, focus is shifting from basic functional design to more appealing professional design with considerable thought devoted to comfort and aspects like acoustics, day lighting, thermal comforts etc.

Q | What are the emerging trends in institutional architecture worldwide?

Internationally, the campuses are opting for 'new urbanism' principles, where the academic and residential areas and common facilities are becoming seamless. The new trend of 'interactive integral functional dispositions' is taking over. The classroom concept is changing to a more collaborative

environment with web-enabled conferencing and commonly owned electronic devices etc. Residential universities are planned for 24/7 teaching ambience, where faculty and students live on the campus. All these factors have diametrically changed the space requirements.

To meet rising energy costs and maintenance costs, the trend is to go green in terms of planning features like circulation, orientation and envelope design; alternative techniques for creating comfort environment like passive draught evaporative cooling or night purge cooling are being explored. Selection of fixtures is guided by water, power saving. Creating pedestrian and cycling environments are other emerging trends.

Q What major factors play a key role in arriving at design solutions for educational institutions?

An institute's pedagogy, which varies from institute to institute, always remains the driving parameter in any design solution. It is vital to have functional segregation with suitably placed secondary functions for ease of access and operation. It is also necessary to identify study centres and appropriately organise built and unbuilt spaces around them.

The requirement of each institution is unique. In professional colleges, for example, students work more in laboratories, studios, and libraries; teachers play a dual role, guiding students inside and outside the class rooms. This generates a many-to-many kind of interaction requiring different kinds of spaces.

In IITs, the classroom is designed to be collaborative. The entire campus, including the external spaces, is designed to promote interaction and collaboration. Schools with much younger students require a homely environment with a sense of security and closeness. Here, since learning is more teacher specific, design of classrooms become pivotal.

Q Which is more demanding - creating a totally new institution/campus or building in an already existing campus?

Both have their own challenges. A greenfield project has more opportunities to express architecture in a meaningful, rational and futuristic way. The advantage here is one can think of all service network, sustainability issues and create a campus holistically with future needs in mind.

Meanwhile, designing a building in an existing campus has the availability of

Meet the architect

Madhav Hundekar

FIRM: Mitimitra Consultants, founded in 1989.

FIRM SPECIALISATION: Educational, institutional and industrial architecture.

DESIGN PHILOSOPHY: Creative and innovative designs with all-out efforts for deserving end-users.

FAVOURITE ARCHITECT/DESIGNER: Achyut Kanvinde, Frank Lloyd Wright, Nari Gandhi.

Below
The main porch of SIIB Pune with a forecourt makes an inviting gesture.



context and some design clues from existing development. To develop a design standard and vocabulary which will stand on its own and yet jell with the existing fabric is very challenging.

Q || Of all the projects handled by MCPL, which has been the most challenging one and why?

The Symbiosis International University project at Viman Nagar, Pune was a very challenging project. To create a campus environment in vertical institutes with interactive areas at all levels of the buildings was one of the interesting guidelines laid down by the master planners.

The campus merges various educational streams – design institutes requiring a free and open environment; a management school requiring an indoor disciplined environment; an international school for three- to 18-years olds requiring a safe and secure environment. The architecture also had to fit in with the residential neighbourhood and yet stand out in its own right. To integrate these diverse requirements with common amenities was a big challenge.

Q || Could you tell us about some educational institutions that you consider innovative and user-friendly?

IIT Kanpur is a good example of campus planning in India. In this 400-acre campus, the academic area is spread across 150 acres. It is a campus without departmental barriers, and connectivity based purely on functional aspects. The buildings are user-friendly with no specific back or front, built with simple durable materials and timeless aesthetics. While covered connectivity with all the buildings eases pedestrian movement, outdoor open spaces form the green lungs.

Internationally, the campus for Research Excellence And Technological Enterprise (CREATE), Singapore, is a good example of a new-age campus. Developed by the National University of Singapore, campus living has been made interesting with innovative architectural design features like the academic spine fully integrated with the landscape, outdoor study zones with integrated power supply and Wi-Fi connectivity, recreational spaces doubling up as study and interactive areas, library spaces having separate cubicles for A/V presentations and

The simple and small auditorium of Symbiosis Institute of International Business in Pune is well equipped with state-of-the-art facilities.





discussions etc. The entire campus has been planned around the playground area.

Q || Has sustainable development made any inroads in this sector in India?

Yes, there is a focus on making campuses sustainable. This is more dominant in service areas like zero garbage, rain water harvesting, water recycling, renewable energy like solar and wind energy, innovative methods of sewage and solid waste disposal.

Q || What are the design highlights of IIT Gandhinagar?

We are developing the academic area of phase one of the campus abutting Sabarmati river. We will be extending the master plan definition of 'Campus on Sabarmati' to include an open, free academic campus with a *ghat*-like structure and interface to the river edge. In order to facilitate cross-discipline interaction, there will be no departmental segregation.

The outdoor environment will complement the spirit of IIT, with open space structures

and linkages across the building configuration. Several recreational spaces and informal spaces dotted with amenities are planned as a central spine. The project cost is about Rs 150 crore for the initial phase and it is in the tendering stage.

Q || How do you foresee the future of institutional architecture/interior design in India ?

This decade will be path breaking for institutional architecture in India due to introduction of good educational policies at national level and global exposure. One must develop campuses with Indian roots and values, keeping in mind the context, relevance and climate.

There has, undoubtedly, been a paradigm shift in the design of Indian educational institutions in recent times. Hundekar's work and outlook responds to these dynamics, advocating the creation of learning environments that encourage and enable the students to mould their minds in the best possible atmosphere. **7**

↑ The Mechanical Engineering Department of Cummins Engineering College for Women in Pune is built with skylights for drawing studios at upper levels and special forced ventilation system for effective ventilation in heated laboratories.

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