THE HINDU
https://www.thehindu.com/education/how-to-transform-academic-libraries-into-innovation-hubs/article70698263.ece#

How to transform academic libraries into innovation hubs

Premium

Besides lending books, libraries can allow students to borrow electronic components, sensors, basic instruments and prototyping kits

Updated - March 10, 2026 10:59 am IST

KOTESWARARAO ANNE

The word 'library' immediately brings images of an academic setting with long shelves of books, rows of desks, and an atmosphere of quiet concentration. Libraries are sanctuaries for reading, research and reflection. Despite being integral to campus life, they have seen little structural change, evolving primarily through the addition of new and specialised books.

While this traditional role remains important, it no longer tells the whole story. With ever-growing demands of the market, students are not only expected to understand concepts but also to use them creatively and practically. This shift has pushed universities to rethink where and how learning happens.

Widening scope

An interesting development is the growing role of libraries. Apart from supporting the academic journey, they also support experiential learning. Along with lending books, libraries have now begun lending equipment and technical tools.

Unlike other major changes that require structure and process, the idea remains simple here. Libraries allow students to borrow electronic components, sensors, basic instruments or prototyping kits. This gives students the freedom to experiment, make mistakes and refine their ideas outside the scheduled laboratory hours. This approach is especially valuable in Engineering, Technology and Applied Sciences, where learning by doing is essential.

Concepts that appear straightforward in lectures often reveal their complexity only when students attempt to implement them. When access to tools is limited to short lab sessions, experimentation can feel rushed and incomplete. By contrast, when students can take equipment with them, learning becomes more flexible and self-paced. They can test ideas late at night, revisit designs multiple times and engage with the problem at hand.

Accessibility

Another important benefit of library-based equipment lending is inclusivity. Not all students can afford personal kits or devices. Even institutions cannot offer unlimited access to laboratories. However, libraries have always functioned on a simple and familiar system. They lend for a specific time frame and hold students accountable in case of loss. This can be extended to the lending of tools and equipment so that students no longer have to worry about spending money on multiple kits or devices to complete their coursework. Their ideas gain the space to develop, they can refine their experiments, try better techniques and understand how innovations work in real life. Libraries also become more than just a quiet study area. Students from different majors can connect share ideas. This is exactly how unique perspectives create tech-led innovations.

Faculty members also stand to gain from this shift. Multiple courses require project-based or problem-based learning. At times, it is difficult to showcase the experiment explained in theory. With such an integration, teachers and professors can have readily available resources. Final-year projects as well as research initiatives reduce their dependency on departmental labs allowing teachers to focus on mentoring students, rather than solving logistical challenges.

Deeper shift

The National Education Policy 2020 stresses experiential learning, research orientation and skill development. With such a library, the criteria are met in the existing infrastructure. This model does not ask for dramatic shifts or expensive buildings. Libraries only have to continue what they have been doing; cataloguing, circulation, user training and accountability. With thoughtful planning, even modest collections of tools can make a meaningful difference.

Ultimately, the changing role of the academic library reflects a deeper shift in education itself. Learning is no longer confined to absorbing information; it is about applying knowledge and solving problems. By opening their shelves to tools as well as books, libraries acknowledge this reality.

Innovation in education does not always begin with grand announcements. Sometimes, it has to start quietly. When a student checks out a sensor instead of a textbook, he or she builds something with their own hands and discovers that learning can be as much about making as it is about reading.

The writer is Dean, SVKM's NMIMS Mukesh Patel School of Technology Management and Engineering (MPSTME).