Monday, December 8, 2025
CHENNAI

THE HINDU

EDUCATIONPLUS

GET THE EDGE Follow us facebook.com/thehindu twitter.com/the_hindu instagram.com/the_hindu

GETTY IMAGES/ISTOCKPHOTO

Protection, not surveillance

Why it is important to teach digital dignity in educational institutions

Pavithra M.B.

Rights do not retire at the campus gate; they accompany every citizen into every space where power operates, even the digital ones. Today's education is mediated by machines. Attendance is marked by facial recognition, learning apps track keystrokes, and CCTV cameras watch with eyes that never tire.

Dignity is the life-breath of liberty. Once, dignity in education meant freedom from ridicule and discrimination. Today, it also means freedom from invisible eyes, silent profiling, and digital footprints. A student's daily life is observed, recorded, and stored. When dignity migrates to the digital world, so must its protection. Dignity shrinks when a human being becomes a data point, and shrivels entirely when they become a product.

Dignity and privacy

Digital dignity ensures that the student remains a human being first and not just data. It demands respect for autonomy in online interactions, fairness in algorithmic decisions, and transparency in institutional digital systems. It insists that no learner should feel embarrassed, profiled, monitored, or manipulated simply because learning has shifted to screens and apps. In short, digital dignity is the guarantee that technology will not diminish the learner's worth.

Data privacy is the legal architecture that upholds digital dignity. It gives every student the right to know what information is collected, for what purpose, how securely it is stored, and whether it is shared with third parties. Privacy does not hide wrongdoing; it protects personhood. A photograph, voice clip, Aadhaar number, or keystrokes must not become commercial commodities. Privacy, in its digital form, is not a technical privilege; it is a human right.

Though linked, they are not identical. Digital dignity is the principle; the moral claim to respect in online spaces. Data privacy is the mechanism; the enforceable safeguard that ensures this respect translates into practice. Dignity defines who the student is; privacy defines what may be done with their information. Together, they guard the child both as a person and as a data subject.

In school and college

In schools, digital dignity begins with simple lessons on consent, helping children understand what it means to say "yes" or "no" to sharing. Students must learn to recognise unsafe online behaviour, including cyber bullying and manipulative messaging. Teachers can use examples such as classroom WhatsApp groups to show how easily information spreads. Explaining digital footprints – how data travels and rarely disappears – gives younger learners a sense of responsibility and caution.

In colleges, digital education must move beyond technical skills to deeper ethical awareness. Courses across disciplines should integrate AI ethics, informed consent, transparency, accountability and the constitutional values behind privacy rights. Classroom discussions must also address deepfakes, misinformation, targeted advertising and how data-driven profiling can shape opportunities or discrimination. The goal is not to fear technology but to humanise it.

The NCERT's Digital Wellness Curriculum introduces responsible digital behaviour at the school level, and the UGC's draft guidelines emphasise cyber hygiene and ethical technology use across higher education. The DPDP Act provides statutory grounding for informational privacy.

The Union Government's recent move to mandate Sanchar Saathi as a pre-installed smart phone app designed to help users verify mobile connections and block stolen phones ignited national debate and drew criticism from digital rights experts who warned that any tool with deep device access must operate within constitutional safeguards. Their concern was simple: digital safety cannot be separated from digital autonomy.

Protection cannot demand the surrender of control. Safety tools must empower users; not overpower them. A student cannot be truly safe if they cannot know what data is collected, decide what to share, opt out, uninstall a tool, or understand how a system works. Safety without autonomy becomes surveillance, not protection. Thus, digital dignity and privacy are not only academic concepts; they are constitutional expectations.

Build awareness

Awareness of data rights is still low among students, teachers and parents. Many institutions rely excessively on CCTV networks, biometric scanners, and behaviour-tracking apps, normalising surveillance rather than safety. Unequal access to devices and connectivity deepens old social inequities under a new digital mask. Algorithmic bias continues to influence admissions, evaluations, and opportunities, often invisibly. Adding to this is the rising commercialisation of student data by edtech platforms that treat learning profiles as marketable commodities rather than protected personal information.

Educational institutions must adopt mandatory Digital Dignity Codes and ensure every digital tool used on campus is built with privacy-by-design. Let there be "digital drills" in educational institutions to train students to spot manipulative permissions, detect misinformation, and exercise their right to opt out. Institutions should designate a student digital ombudsman, to ensure that grievances about tech misuse are heard impartially. In a world where a young person's first footprint is often digital, the protection of that footprint becomes a sacred educational duty.

Digital dignity is not the luxury of the future; it is the discipline of the present. In teaching it, we do not merely modernise our classrooms; we moralise our future.

Views expressed are personal

The writer is an Associate Professor, PG Department of Human Rights and Duties Education, Ethiraj College for Women, Chennai

SCHOLARSHIPS

University of Otago International Academic Excellence Scholarship
Offered by the University of Otago, New Zealand.
Eligibility: International fee-paying students, who have completed their high school or studied at an institution granting University Entrance overseas and are enrolled in full-time on campus UG degree programme.
Rewards: $35,000 (NZ)
Application: Online
Deadline: December 31
www.b4s.in/edge/UOIE1

International Excellence Scholarship (PG)
Offered by the University of Surrey, the U.K.
Eligibility: Overseas fee-paying students with an offer to study a full-time Master's programme and are not sponsored or recipients of other scholarships.
Rewards: £5,000 waiver
Application: Online
Deadline: January 9
www.b4s.in/edge/IESP1

GSK Scholars Programme
Offered by GSK Pharma
Eligibility: Indian students enrolled in the first year of MBBS with at least 65% in Class 12 and an annual family income of less than ₹600,000.
Rewards: Up to ₹ 100,000
Application: Online
Deadline: January 11
www.b4s.in/edge/GSKP6

Courtesy: buddy4study.com

OFF THE EDGE
Nandini Raman

Keep your options open

Uncertain about your career options? Low on self-confidence? This column may help

I am in Class 12, and doing a diploma in ECE. I want a career in the intelligence field. What should my strategy be? Shivaram

A career in the intelligence field isn't about clearing a single exam but building a profile over time. For now, focus on creating an impeccable academic and personal profile. Academic excellence is non-negotiable, and your diploma in ECE is an excellent asset. Your degree must align with your skills and the needs of the intelligence community, so consider a B.Tech in ECE or CSE (with lateral entry into the second year due to your diploma) or a B.Sc in Physics, Maths, or Computer Science. Learn a foreign language like Mandarin, Arabic, Farsi ... rare skills that are highly valued.

Intelligence work demands unique skills. Build your analytical ability, communication and digital literacy skills. Stay physically and mentally fit, build stamina and resilience, and stay observant.

The UPSC Civil Services Exam is the most structured path into the Intelligence Bureau (IB) and the Research & Analysis Wing (RAW). A high rank can get you into IPS or IRS, from where officers are deputed to intelligence agencies. IB and RAW also recruit directly for certain roles. Watch their official portals. You can also enter Military Intelligence by clearing NDA after Class 12 or CDS after graduation and then opting for intelligence roles as a commissioned officer.

I have a degree in Arts and a PG Diploma in Airport Operations. I am now working in the cargo section. I wish to study further in the aviation sector. Are there any good courses in India or abroad? Lakshmi

Dear Lakshmi,

Aim to move into a specialised management role in aviation. There are several specialised programmes that are cost-effective and have strong industry connections. An MBA with specialisation in Aviation will require valid scores in entrance exams such as CAT, MAT, XAT, or CMAT. You can also consider an M.Sc. Aviation which focuses more on operational and safety aspects rather than the business side. Advanced PG Diplomas and certifications, such as in Aviation Safety & Security, Air Cargo and Logistics Management, and Airlines and Airport Management, are ideal for upskilling without committing to a two-year programme. Look for IATA-authorised programmes.

If you want to study abroad, you can consider programmes such as a Master's in Aviation Management or Air Transport Management in the U.K., the Netherlands, France, Australia, and Singapore. Many of these programmes have strong ties with global airlines, airports, and aircraft manufacturers. Research the universities and connect with their alumni on LinkedIn to find out more about career outcomes. Also, start preparing for entrance exams for both India and foreign countries.

I am uncertain about my higher secondary studies. I believe I have strong leadership skills, the ability to influence people, and excellent public speaking, listening and conversational skills. What would be a good career option? Nevin

Dear Nevin,

Potential paths you could consider are Law and Public Policy, which involves persuasion, argumentation, and influencing outcomes. You could be a lawyer or advocate, a policy analyst, or join the foreign services as a Diplomat/Foreign Service Officer. You can consider subjects such as Political Science, History, Economics or Commerce (for corporate law). If you are interested in business, management and entrepreneurship, you could look at roles such as marketing or brand manager, a human resources manager, sales manager and so on. Commerce with Maths and Business Studies or Science (if you have an aptitude for it) will offer diverse options. You can also consider media and public relations with roles such as corporate communications manager, journalist, news anchor, radio jockey, and social media manager. Here, programmes in Mass Media or Psychology would be relevant. If you would like to be a political strategist or a social entrepreneur, or work with an NGO, opt for Sociology, Political Science and Psychology.

I have a B.Tech. in Mechanical Engineering and interested in pursuing a law degree. But the NLUs, which are said to be the best, are quite expensive. Are there other affordable options? Vinay

Dear Vinay,

While the NLUs are expensive, the high cost is often seen as an investment in the future. However, this does not negate the financial barrier. But not all NLUs are equally expensive. The newer (slightly lower-ranked one) has significantly lower fee structures but still provides a solid brand name and a competitive environment. State Government Law Universities are excellent and affordable options, and many brilliant lawyers and judges have graduated from these institutions. Many central universities also have excellent law departments that are very affordable.

As a B.Tech graduate, you can do a three-year LL.B. (Bachelor of Laws) programme. You will need to take the CUET PG entrance exam for central and state universities. Some state universities and law colleges conduct their own specific entrance tests. Some NLUs also offer a three-year LL.B. programme, which you can enter through their specific entrance (like the AIBE, but please check). Your career with B.Tech + LL.B. can offer roles such as patent attorney, or a corporate lawyer or working in cyber laws and data privacy or legal roles in engineering or IT companies.

Disclaimer: This column is merely a guiding voice and provides advice and suggestions on education and careers.

The writer is a practising counsellor and a trainer. Send your questions to eduplus.thehindu@gmail.com with the subject line Off the Edge.

More to read?
For more articles, columns and news on admissions, and new courses, visit www.thehindu.com/education

A vital interface

Why collaboration between industry and academia in the form of structured MoUs is crucial

S. Alfred Cecil Raj

The synergy between Industry 4.0 and Education 4.0 represents a fundamental shift toward intelligent, interconnected systems in both industrial and learning environments for which a Memorandum of Understanding (MoU) serves as the bridge between institutions, industries, and other stakeholders through formal partnerships. MoUs act as catalysts for dynamic, flexible, and industry-aligned curricula, promoting experiential learning, research orientation and global exposure, transforming students from passive learners to future-ready professionals.

Benefits

MoUs have become crucial in contemporary education due to several factors. The rapid pace of technological advancement means that educational institutions must constantly update their curricula and resources to remain relevant. Thus, MoUs enable institutions to align their curriculum with current industry demands and emerging global trends. They help introduce skill-based and application-oriented courses, improving student employability. They also enable students to gain exposure to actual workplace environments through internships, joint projects and mentorship programmes that are formalised through these agreements.

Research collaborations through MoUs encourage project-based learning and innovation-driven coursework. Furthermore, globalisation has made collaboration with no boundaries essential for educational excellence. They provide the legal and operational framework for international partnerships, global exposure through student exchanges, joint research initiatives and shared degree or semester abroad programmes that enhance global competitiveness.

GETTY IMAGES/ISTOCKPHOTO

The institute-industry interface serves as a vital platform to foster quality enhancement and skill-oriented education through meaningful industry-academia collaborations. To ensure the effective implementation of MoUs, institutions must prioritise outcome-oriented partnerships with a systematic and structured approach. This involves defining clear objectives that focus on curriculum modernisation, faculty capacity building, student internships and placements, and collaborative research opportunities.

What needs to be done

Proper documentation, maintaining detailed records of activities such as student participation, industry-linked projects, faculty exchanges, and professional skill development programmes is crucial. Institutions should also establish regular monitoring and evaluation mechanisms to assess the effectiveness of the implementation. This includes tracking key performance indicators such as student employment rates, industry feedback on graduate competencies, joint research publications and technology transfer initiatives. Assessing agencies / organisations expect evidence-based reporting, so institutions should maintain comprehensive databases of MoU-related activities and their impact on educational quality.

By adopting a performance-based approach, institutions can create a vibrant academic environment where industry partnerships actively contribute to academic excellence, practical learning and professional readiness.

Integrating MoUs into academic sessions often faces challenges such as mismatched academic and industry schedules, which can be addressed by introducing flexible modules and advance planning. Regular faculty development programmes and industrial training are essential to ensure that the faculty get the necessary exposure.

Successfully implementing MoUs along with the regular academic activities requires strategic planning and flexible execution. The key factor is integration rather than addition. MoU activities should complement and enhance existing programmes rather than competing with them for time and resources. To boost student engagement, institutions should integrate MoU activities into credit-bearing courses and offer practical incentives like certifications.

Time management can be optimised by scheduling industry interactions through seminars, workshops, internship, and projects that don't disrupt core academic schedules. Technology can significantly ease implementation challenges. Virtual collaborations, online mentoring sessions and digital project management tools can reduce the logistical burden of coordinating between academic and industry schedules while maintaining meaningful engagement.

Research collaboration through MoUs accelerates innovation by combining academic research capabilities with industrial application needs. Joint research projects can address real industry challenges while advancing theoretical knowledge, creating a feedback loop that benefits both sectors and drives technological advancement.

Thus, the data-driven MoUs, through dedicated cells help ensure active tracking of outcomes and avoid dormant agreements. This creates opportunities for continuous improvement and optimisation. These partnerships ultimately create a more responsive and effective educational ecosystem that produces graduates who are not only knowledgeable but also skilled employees to the organisations, thereby strengthening the foundation for Industry 4.0 implementation and success.

The writer is the Director, Faculty Development Centre, St. Joseph's College (Autonomous), Tiruchi

Create lasting connections

Why business students must be trained to master customer relationships

GETTY IMAGES/ISTOCKPHOTO

Tarun Gangwar

In 2005, Amazon changed the game for customer loyalty. Jeff Bezos introduced Amazon Prime, a $79 annual membership that offered free two-day shipping. Now this sounds fairly simple, but what happened next was anything but. Within just a year, Prime memberships doubled. Fast forward, and Prime is now a thriving billion-dollar ecosystem, bundling shipping, video streaming, exclusive deals, and more. Now, Amazon has built an environment that keeps customers engaged, connected, and committed to the brand.

What made Amazon different wasn't just its ability to acquire customers. It was a focus on building relationships. This approach has become the gold standard because the most successful companies today are the ones that have built trust, loyalty, and community.

Learning by doing

If this is the kind of thinking today's businesses are built on, are future business leaders being trained the same way? The unfortunate answer is no. Most business schools haven't quite caught up. The focus is still tilted towards crafting campaigns, optimising sales funnels, and building brand awareness, with very little emphasis on the actual experience a customer has after they come on board. But if the real challenge today is to sustain customer relationships, what B-schools need to start doing is to encourage experience or 'learning by doing'. Students need to understand what it takes to launch, grow, and sustain a business, which can only happen if they are encouraged to make decisions with real consequences, adapt to challenges, and understand that customer relationships are central to long-term success.

For example, when building a dropshipping business, students pick up the principles of online marketing. When building a SaaS platform, they build real products that actually help their customers, teaching them customer retention through customer support. Similarly, offline brick-and-mortar business building will teach students supply-chain constraints, in turn increasing the understanding of how one can increase footfall rates. This sort of curriculum and pedagogy brings in customer relationships into every aspect of learning.

Moreover, to truly understand Customer Relationship Management, students need to experience the pain of losing a customer – because every founder, at some point, faces the sting of watching a once-loyal customer walk away, taking with them lost revenue, wasted marketing cost, and negative word-of-mouth. Take the example of Netflix. When it hiked subscription prices and separated DVD rentals from streaming in 2011, it lost 800,000 subscribers in a single quarter and its stock price plunged 77%. That's a lesson no case study can teach.

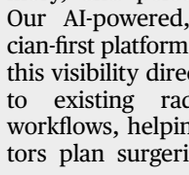
If B-schools encourage hands-on learning where students actually feel the loss first-hand, they will graduate with lessons that stick. Handling negative reviews, navigating service failures, or winning back a lost customer really aren't theoretical exercises, but the backbone of business success. But none of this will happen unless there's a shift in mindset. Schools must start acknowledging that every business leader, whether a founder or an executive, needs to think like a builder. Whether someone is running a startup or managing a Fortune 500 company, the ability to understand customer behaviour, iterate quickly, and build long-term relationships will define success.

So why are project-building semesters the exception instead of the rule? Until schools stop treating hands-on building as an elective, and start treating it as the foundation, we'll keep graduating professionals trained only to manage or market, and not to build. But, today loyalty is earned based on experience built and it is the builders who will win. If the future of business belongs to those who can create lasting connections, then the future of business education belongs to those who teach students how to build them from day one.

The writer is Chief Operating Officer, Tetr College of Business.

Mapping the mind

Dr. Rimjhim Agrawal, Co-founder and CTO, BrainsightAI, on her domain



FUTURE PERFECT
Ananya Ganapathy

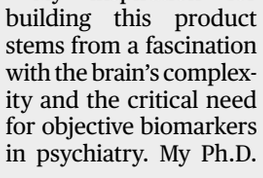
A series featuring conversations with entrepreneurs, technologists and researchers about emerging technologies and what students need to know about these fields

What do you do?

I am the co-founder and CTO of BrainsighAI, a deep-tech neuroimaging startup that makes brain health measurable and predictable. Using advanced AI and neuroscience, we map how different parts of the brain are connected and communicate, like Google Maps for the brain. Our platform, VoxelBox, helps doctors understand each patient's unique brain networks so they can plan surgeries, radiotherapy, and rehabilitation more safely and effectively.

Why is your work important globally?

Around the world, clinicians struggle to see how a patient's brain networks actually function, even though these networks determine speech, movement, memory, and personality. Our AI-powered, clinician-first platform brings this visibility directly into existing radiology workflows, helping doctors plan surgeries, radiotherapy, and rehabilitation with greater precision. Our work is shaping the future of personalised brain healthcare globally.



What is exciting about your work?

The possibility of changing how the world understands the brain excites me. For decades, doctors could see the brain's structure, but not its function – the networks that enable speech, memories, emotions, and identity. We are helping make those invisible pathways visible. Every time a neurosurgeon is able to avoid something that may harm speech, or a patient regains abilities after therapy because of our insights, we see technology directly protecting what makes someone themselves. This impact is what drives me.

Any experiences in college that led you to become an entrepreneur?

My inspiration for building this product stems from a fascination with the brain's complexity and the critical need for objective biomarkers in psychiatry. My Ph.D. research at NIMHANS, Bengaluru, focused on identifying indicators for complex psychiatric disorders. This work provided me with an invaluable understanding of neuroscience and crystallised how machine learning could be a powerful tool to unlock insights from clinical and imaging data. I was driven to apply this to shed more light on the brain's intricate workings and develop a better understanding and treatment.

What should students specifically know about your field: AI in healthcare?

AI in healthcare is about using intelligent computer systems to understand diseases, predict risks, and support better medical decisions. In our field, AI doesn't replace doctors; rather, it gives them superpowers. It can study thousands of scans, patterns, and data points faster than any human, helping detect problems earlier and choose the safest treatment for every patient. To pursue healthcare AI, students need curiosity, compassion, and cross-disciplinary thinking, combining Biology, Maths, Coding, and ethics to directly improve human lives. It is a field where technology meets empathy.

The writer is an avid follower of emerging technologies and their applications.

Factories of the future

Apart from technical proficiency, Mechanical Engineering students must also develop emerging skills aligned with digitisation and sustainability.

Dheeraj Panda

Over the past decade, India has steadily built the capacity to design and manufacture world-class equipment and systems, not only for itself but also for global markets. This quiet transformation of Indian industry carries an important message for today's students: that Mechanical Engineering and manufacturing are not relics of the past. They are the fastest route to shaping India's future.

For years, Computer Science and Information Technology absorbed the lion's share of student interest. Mechanical Engineering and other traditional disciplines were neglected. In 2020-21, enrollment in Mechanical Engineering dropped to 10% of B.Tech intake but, by this year, nearly 19% of engineering students are choosing mechanical disciplines again. The resurgence reflects a new recognition that India's economic destiny will be written as much in factories and design labs as in the digital economy.

Powerful convergence

At the centre of this transformation is a powerful convergence of technology, policy, and resilience. Factories across the country are becoming smart, connected ecosystems. Robotics, artificial intelligence, the Internet of Things, and digital twins are reshaping the way goods are designed and produced. Thus, the engineer of the future will require a dual toolkit. On one side are timeless capabilities such as materials science, mechanics, thermodynamics, and systems thinking. On the other are emerging skills that align with digitisation and sustainability.

FREEPIK

The industry needs a blend of classical strengths (statistics, materials, systems thinking) and digital fluency. Think additive manufacturing (moving from prototyping to production parts), mechatronics and controls, industrial IoT and sensor analytics, digital twins for simulation, and sustainability-driven design (life-cycle thinking and materials circularity). Additionally, the industry readiness also demands soft skills like cross-disciplinary teamwork, project management, and the ability to translate customer problems into producible designs.

This shift calls for a stronger collaboration between academia and industry. Universities cannot remain bound by outdated curricula while companies face an acute skills shortage. A decisive pivot is needed. Longer internships that expose students to real-world manufacturing challenges, joint laboratories co-funded by corporates, and dynamic syllabi guided by industry experts will help create industry-ready graduates. Multidisciplinary capstone projects, where Mechanical, Computer Science, and Management students design manufacturable products together, will help bridge the gap between theory and practice.

Industry's role

Industry, too, must play a more active role in cultivating talent. Paid apprenticeships, rotational trainee programmes, and competitions that simulate the pressures of cost, compliance, and quality will help students prepare for real shop-floor conditions. Corporates can co-fund skill centres, contribute engineers as adjunct faculty, and align more closely with initiatives like Skill India. Such measures are not charity; they are investments in the very pipelines of talent that will sustain growth. Ultimately, strengthening this ecosystem is not just an educational reform; it is a national imperative.

For students weighing their career choices today, the implications are clear. The factories of the future will be smart, sustainable, and globally competitive. They will demand a generation of engineers and technologists who are equally comfortable with thermodynamics and machine learning, with CAD and cloud platforms. Building such hybrid capabilities will open the door to rewarding, future-ready careers. Certifications, hands-on internships, and exposure to cutting-edge industry practices will further sharpen career prospects.

India's manufacturing revival is not just about boosting GDP but also about developing resilience and global leadership. For students, this is an extraordinary opportunity not just to secure meaningful careers, but to participate in the making of India's future. Choosing manufacturing is not choosing the past. It is choosing to be part of the comeback story that will define the nation in the years ahead.

The writer is Managing Director, Ammann India

A bright world

How students can build a career in the field of solar energy

Koneru Lakshman Havish

As the global climate crisis accelerates, the transition to clean energy is no longer a distant goal; it's an urgent imperative. Among the various renewable energy sources, solar power has emerged as one of the most promising and widely adopted technologies. For students looking to build a meaningful career while contributing to a sustainable future, the solar industry offers a wealth of opportunities. But how can students make the leap from college campuses into this dynamic field?

GETTY IMAGES/ISTOCKPHOTO

Internships: The journey often begins here with hands-on exposure to photovoltaic (PV) systems, battery storage, grid integration, and sustainability policy. This allows students to apply their academic knowledge in practical settings, while also gaining insight into the industry's various branches: engineering, installation, project development, policy, and even sales. Internships also offer valuable networking opportunities, connecting students with mentors, professionals, and potential employers. Universities often partner with local solar companies or sustainability organisations to offer such placements, while online job boards and government agencies frequently advertise openings. A well-structured internship not only enhances a student's resume but also helps them identify their interests within the diverse solar landscape.

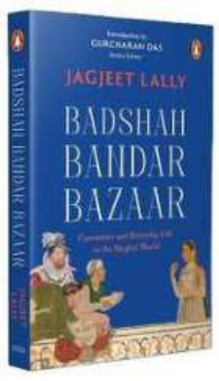
Certifications: Students can significantly boost their career prospects by earning industry-recognised certifications. These credentials demonstrate technical competence and dedication, making graduates more competitive in a rapidly evolving job market. For instance, the North American Board of Certified Energy Practitioners (NABCEP) offers globally accepted certifications. Training programmes from Solar Energy International (SEI) provide in-depth education on PV systems, both on-grid and off-grid, and many of their courses are available online. Safety certifications, such as the OSHA 10 or 30-Hour Construction Safety course, are also valuable, particularly for those interested in installation or construction management. Some students might also consider earning a LEED Green Associate credential. While broader in scope, this reinforces their knowledge of sustainable building practices and complements a solar-focused education. Many colleges now offer specialised courses or even degree programmes in renewable energy, making it easier than ever for students to integrate certification training with their academic studies.

Entrepreneurship: While internships and certifications lay the groundwork, students with a passion for innovation and leadership may choose to explore the entrepreneurial side of solar energy. The solar sector is ripe for new ideas, whether through developing solar-powered products, launching community-based energy projects, or designing software solutions for energy efficiency and grid management. Universities often support such initiatives through innovation labs, business incubators, and startup competitions, providing funding, mentorship, and technical guidance, as do national and international competitions. Importantly, solar entrepreneurship requires interdisciplinary thinking and combining engineering know-how with business acumen, environmental insight, and an understanding of policy frameworks.

Transitioning from the campus to a career in solar energy is not just about building a resume; it's about building a future for yourself and for the planet. The solar industry is growing rapidly, and it needs the energy, creativity, and commitment that students bring. The future of energy is bright and students have the unique opportunity to lead us into it.

The writer is Vice President, KL Deemed to be University.

ON THE SHELF



Badshah, Bandar, Bazaar

Forget the peacock throne, the jewelled diadems and the gossip of courts. If you really want to understand the Mughal Empire, follow the paperwork and find out how the empire was held together by contracts, coins, and the choreography of the *bazaar.* With vivid portraits drawn from sources as diverse as the Sikh gurus, the Jain merchant Banarasidas, and English envoys like Sir Thomas Roe, this book rewrites a familiar past in the language of receipts, reminding us that the empire was notarised in neighborhood courts, priced in copper, silver, and gold, and negotiated daily in *bazaars* whose reputations travelled farther than imperial edicts.

Badshah, Bandar, Bazaar is economic history with a reporter's nose: names, places, denominations; a ledger of who paid what to whom, and why it mattered. Meet *sarrafs* testing coins on touchstones and merchants advancing credit; walk the city that Jahanara Begum built into a brand; and more. The Mughal story, as Lally tells it, is less about crowns and conquest than about the quieter authority of documents and the steady shimmer of silver.

At a moment when India is re-examining the longer arcs of its economic past, this book points out: to see real power, don't look at the throne, look at the *bazaar.*

Author: Jagjeet Lally
Publisher: Penguin Random House
Price: ₹399