HE MATTERS

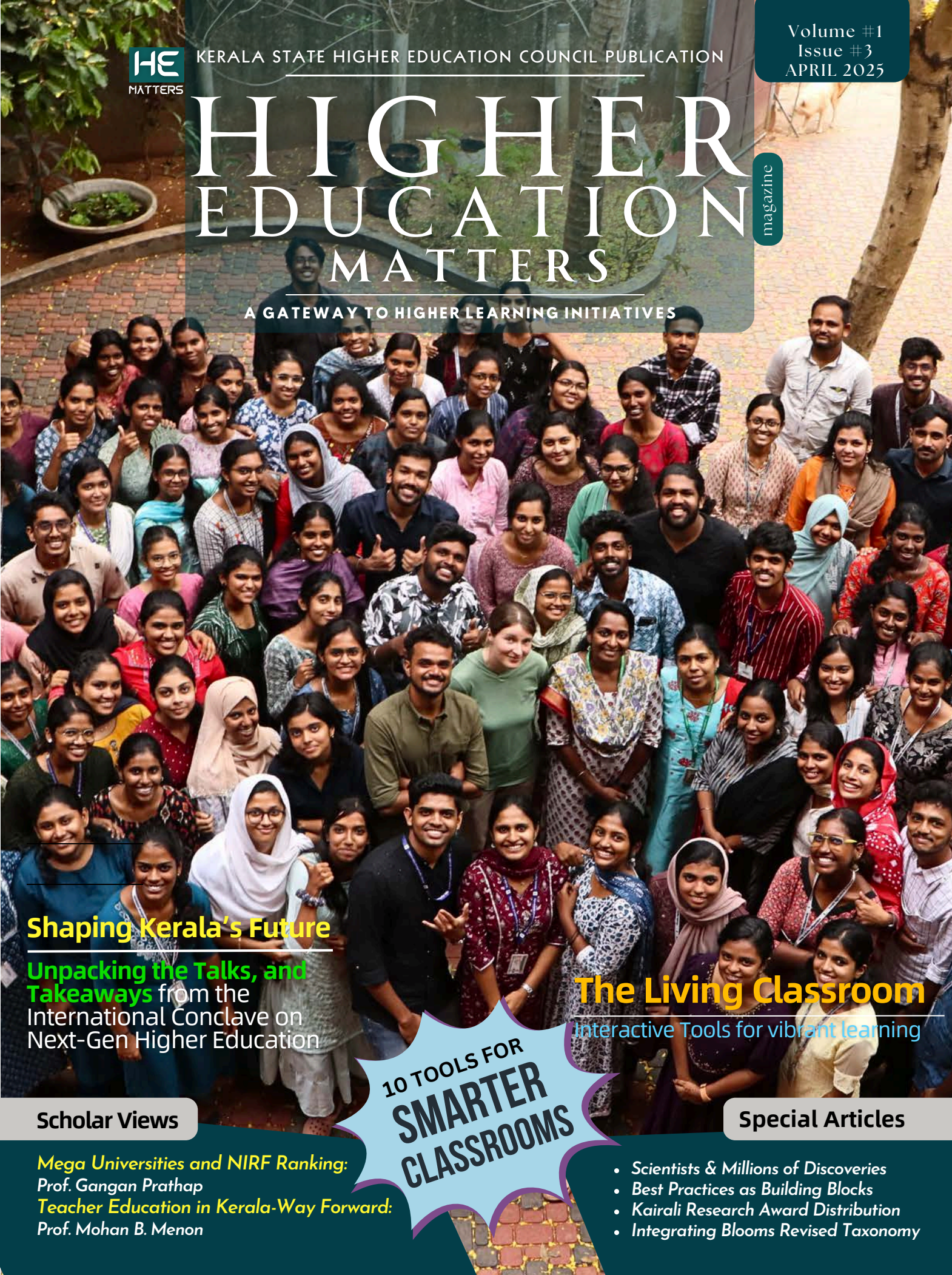
KERALA STATE HIGHER EDUCATION COUNCIL PUBLICATION

Volume #1
Issue #3
APRIL 2025

HIGHER EDUCATION MATTERS

magazine

A GATEWAY TO HIGHER LEARNING INITIATIVES



Shaping Kerala's Future

Unpacking the Talks, and Takeaways from the International Conclave on Next-Gen Higher Education

The Living Classroom

Interactive Tools for vibrant learning

10 TOOLS FOR SMARTER CLASSROOMS

Scholar Views

Mega Universities and NIRF Ranking:
Prof. Gangan Prathap
Teacher Education in Kerala-Way Forward:
Prof. Mohan B. Menon

Special Articles

- *Scientists & Millions of Discoveries*
- *Best Practices as Building Blocks*
- *Kairali Research Award Distribution*
- *Integrating Blooms Revised Taxonomy*

EduAssess

SOFTWARE FOR ASSESSMENT AND ACCREDITATION

One platform, complete assessment and accreditation management

Raintels Technologies
Your Digital Transformation Partner
www.raintels.com
+91-7561005236

EduAssess proudly powers the All Kerala Higher Education survey and Kerala SAAC for the prestigious Kerala State Higher Education Council

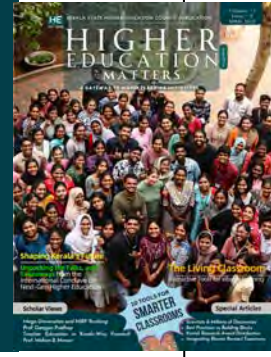
Whether you're managing institutional accreditation, program assessment, or performance analytics, your evaluation strategy deserves a comprehensive platform that puts control in your hands.

- Fully configurable Key Indicators and Metrics created by users
- Custom weightage assignment for precise evaluation Frameworks
- User-defined benchmarks and aspect ratios for meaningful comparison
- Real-time analytics and comprehensive reporting tools
- Streamlined workflow from self-assessment to final accreditation.

KERALA STATE HIGHER EDUCATION COUNCIL PUBLICATION

HIGHER EDUCATION MATTERS

A GATEWAY TO HIGHER LEARNING INITIATIVES



Publisher: The Kerala State Higher Education Council

Editor in Chief: **Rajan Gurukkal** Vice Chairman
Kerala State Higher Education Council

Managing Editor: **Rajan Varughese** Member Secretary
Kerala State Higher Education Council

Executive Editor: **Manulal P. Ram**

Editor: **Deepika Lakshman**

Address: Higher Education Matters, Kerala State Higher Education Council, Science and Technology Museum Campus, Vikas Bhavan P.O. Thiruvananthapuram-695033, Kerala State, India

Advertising & Sales Enquiries: contact.hematters@gmail.com
Customer Enquiries: contact.hematters@gmail.com

7561018708, 9446787902, 9846589662

Design & Lay Out: Kerala State Higher Education Council

Cover Photo & Photography: Canva Pro. Prashobh & Arun

HE MATTERS **Volume 1-Issue 3: April 2025: 68 pages**

Our aim is to serve students, teachers, administrators and other stakeholders by providing valuable insights into the educational scenario, innovations in teaching and learning, policy changes, and career opportunities. Whether you're navigating the challenges of administration, teaching the next generation, preparing for your future career, or thinking of transforming your educational landscape, this magazine is your first hand information and expert perspectives for your journey.

Questions & Comments may be sent to: contact.hematters@gmail.com

Opening Note | Editor in Chief

Dear Readers,

Welcome to the third issue of Higher Education Matters! In this edition, we delve into the key discussions from the International Conclave on Next-Gen Higher Education, held in Kochi in January 2025. This conclave has laid the groundwork for a strategic action plan to shape the future of higher education in Kerala. The invaluable insights shared by both national and international experts have inspired a vision for a more inclusive, technologically-driven, and future-ready education system in the state. We examine the main takeaways from the conclave and the ongoing efforts to implement its recommendations across Kerala's institutions.

As we continue to adapt to the evolving educational landscape, we also explore the transformation of traditional classrooms into dynamic learning environments. In this issue, we highlight simple yet effective digital tools and pedagogies that foster equitable participation and engagement among students.

Additionally, we feature insightful analyses from scholars like Prof. Gangan Prathap, who examines the dynamics of mega universities and India's NIRF rankings, and Prof. Mohan B. Menon, who shares his perspectives on the ongoing transformations in teacher education pogrammes across India.

As always, Higher Education Matters remains dedicated to providing timely updates and fostering meaningful dialogue in the field of higher education, helping to shape the future of learning in Kerala and beyond.

Happy Reading!

Warmly,
The Editor-in-Chief

CONTENTS

CONTENTS

Cover Photo:
Krishi Bhavan Attachment of B.Sc. Hons. Agriculture final year students of College of Agriculture,Vellayani at Kottukaal Grama Panchayat.

REGULAR UPDATES

HE MATTERS

Published by the Kerala State Higher Education Council, Science and Technology Museum Campus, Vikas Bhavan P.O. Thiruvananthapuram, Kerala, India-695033 | Represented by the Registrar, The Kerala State Higher Education Council, Thiruvananthapuram kshec@kerala.gov.in. Managing Editor: Member Secretary, Kerala State Higher Education Council. website: www.kshec.kerala.gov.in | Printed at Orange Printers Pvt. Ltd. Reg. Office: TC 25/1993 | Gandhari Ammancovil Jn.| Thiruvananthapuram- 1 .

UPCOMING EVENTS

ETEducation Annual Education Summit

19-20 June 2025 at Delhi

A premier 2-day summit held on June 19–20, 2025 at The Leela Ambience Convention Hotel, Delhi. Organized by The Economic Times' ETEducation, it convenes policymakers, educators, and EdTech industry leaders to shape the future of India's education economy. The 2025 theme centers on "Fueling the Education Economy with AI: The India Story," highlighting how AI and digital innovation can drive inclusive, future-ready education. The event features high-level panels, an expo of tech solutions, and an awards ceremony recognizing excellence in education

International Conference on Advancements in Power, Communication, and Intelligent Systems

27-28 June 2025 at Kannur Kerala

Co-organized by GCE Kannur in association with APJ Abdul Kalam Technological University and the Kerala Department of Technical Education (with technical co-sponsorship by IEEE), APCI 2025 brings together academicians, researchers, and industry experts. Its focus is on the latest developments in power electronics, communication technology, and intelligent systems (AI/ML), providing a forum to share cutting-edge research. The conference features multiple technical tracks (e.g. renewable energy, IoT, signal processing), keynote lectures, paper presentations, and exhibitions, facilitating collaboration between researchers and practitioners

Research Conference for Children

13-15 June 2025 at Mumbai

International Research Conference for Children 2025 (Mumbai) – A unique 3-day research conference for school students Mumbai, hosted by Vidyadhiraja High School & Junior College in collaboration with STEM4Girls and the Global Young Researchers' Academy, IRCC 2025 invites students from Grade 1 to 12 worldwide to present their research projects. The conference features keynotes by internationally renowned scientists and poster presentations by children, fostering an inclusive, "barrier-free" platform where young learners (including those with disabilities) engage with and learn from experienced researchers. This event emphasizes early research skills and global collaboration in K-12 education.

13th International Conference on Ethics Education

June 12–14, 2025, St. John's National Academy of Health Sciences, Bangalore

The conference will focus on the imperative of ethics education for future generations. It will welcome abstracts under various areas, including interdisciplinary ethics, health professional education, children's ethics, media ethics, and more.

The Paris Conference on Education (PCE2025)

June 10–14, 2025, Sorbonne University International Conference Center, Paris, France

Held from June 10–14 at Sorbonne University International Conference Center in Paris, PCE2025, organized by IAFOR and Osaka University, offers a platform for educators and researchers to discuss global education challenges and innovations.

The Future of Education – 15th Edition

June 26–27, 2025 Grand Hotel Mediterraneo Congress Center, Florence, Italy

Taking place on June 26–27 at the Grand Hotel Mediterraneo in Florence, Italy, this conference focuses on innovative teaching methodologies and educational practices. It provides opportunities for educators and researchers to share insights and collaborate on shaping the future of education.

EDULEARN25 – 17th Annual International Conference

June 30–July 2 in Palma, Spain

Scheduled for June 30–July 2 in Palma, Spain, EDULEARN25 is one of Europe's largest education conferences. It brings together professionals, researchers, and technologists to discuss new learning technologies and educational practices. The event includes oral and poster sessions, workshops, and keynote speeches

9th International Conference on New Trends in Teaching and Education

June 20–22 at Nice, France

Set for June 20–22 at Université Côte d'Azur in Nice, France, NTTECONF 2025 is a leading event focusing on the latest developments in teaching and education. It offers opportunities for networking and collaboration among educators and researchers.

3rd Global Conference on Innovations in Education (EDUGLOBALCONF 2025)

June 20–22, 2025 Singapore

The conference will be Held from June 20–22 at Nanyang Technological University in Singapore, EDUGLOBALCONF 2025 aims to bring together educators, researchers, and innovators to discuss and showcase new ideas and practices in education

9th International Conference on New Trends in Teaching and Education (NTTECONF 2025)

June 20–22 at Université Côte d'Azur in Nice, France

Set for June 20–22 at Université Côte d'Azur in Nice, France, NTTECONF 2025 is a leading event focusing on the latest developments in teaching and education. It offers opportunities for networking and collaboration among educators and researchers.

NAFSA 2025 Annual Conference & Expo

27–30 May 2025 at San Diego, USA

A flagship international education conference and expo, bringing together thousands of higher education professionals from 100+ countries. Billed as "the most diverse, comprehensive, and exciting international education conference," it offers networking, training, and best-practice sharing for international educators, centered on the theme "Purpose, Place, and Partnership". Organized by NAFSA: Association of International Educators (the world's largest association dedicated to international education and exchange).

Mega Universities in India and their NIRF Ranking

An In-depth Analysis of NIRF 2024 Rankings: Examining How Scale, Expenditure, and Efficiency Define India's Leading Higher Education Institutions

Gangan Prathap*

We have seen the emergence of Higher Educational Institutions (HEI) which are much larger than the traditional high performing Government funded institutions like the Indian Institute of Science (IISc) and the IITs. Let us take a look at the performance of the top five mega universities in NIRF 2024 and compare them with the top five engineering institutions (all IITs) and the top five state public universities. We look particularly at how NIRF scores for these comparator institutions vary with total expenditure and cost per student.

The National Institutional Ranking Framework (NIRF) was launched in 2015 by the Ministry of Human Resource Development (MHRD), and the first NIRF rank list appeared in 2016. When the second NIRF rank list came out in 2017, there were seven mega universities in the private sector but it was the established government financed institutions which largely dominated the rankings. At that time, the Indian Institute of Science (IISc) had 447 faculty members and a Total Expenditure of 1287 crores of rupees during the three-year period 2013-16. This must be viewed against the expectation that a world-class Higher educational institution (HEI) should have up to 2500 faculty members and an annual budget up to USD 2 billion, having an institution like Harvard University in mind. This translates to a three-year expenditure then of approximately forty-thousand crores of rupees.

Clearly IISc, like other leading HEIs in India, all of which are Government funded or aided, is far too small in size, scale and expenditure to compete with giants like Harvard University

Clearly IISc, like other leading HEIs in India, all of which are Government funded or aided, is far too small in size, scale and expenditure to compete with giants like Harvard University.

In the latest ranking (NIRF 2024) state public universities have been separately categorized. Now, there are a few centrally funded institutions and some in the private sector that can be separated out from the rest by size alone: typically having 1500 or more faculty members and 25,000 or more students, with total expenditures to match. Table 1 curates a list of the top 5 mega universities according to NIRF scores and compare them with the top 5 in two other categories: Engineering (where the top 5 IITs are found), and the top 5 state universities. There is a noticeable range in size, of an order of magnitude. Indian Institute of Technology Madras (IITM) has a cost per student per year of 18.71 lakhs and a cost per faculty per year of 254.98 lakhs whereas the Vellore Institute of Technology has corresponding figures of Rs. 0.99 lakhs per year and 16.74 lakhs per year.

Table 1. The Top 5 from each of three categories in the NIRF 2024.

Category	Name of the institution	Tot Exp in Crores	Students UG + PG + PhD	Faculty	Cost per student per year in lakhs	Cost per faculty per year in lakhs	NIRF Score
Engineering	Indian Institute of Technology Madras	5155.60	9186	674	18.71	254.98	89.46
	Indian Institute of Technology Delhi	3751.47	12103	658	10.33	190.04	86.66
	Indian Institute of Technology Bombay	2858.18	12518	734	7.61	129.80	83.09
	Indian Institute of Technology Kanpur	2620.71	8180	624	10.68	140.00	82.79
	Indian Institute of Technology Kharagpur	2931.21	14727	900	6.63	108.56	76.88
	Top 5 Total/ Average	17317.17	56714	3590	10.18	160.79	83.78
State Public University	Anna University	1052.00	12912	941	2.72	37.27	78.14
	Jadavpur University	1104.39	12818	907	2.87	40.59	77.74
	Savitribai Phule Pune University	903.66	7393	801	4.07	37.61	70.26
	Calcutta University	959.11	16123	1219	1.98	26.23	68.96
	Panjab University	1942.46	19584	969	3.31	66.82	67.43
	Top 5 Total/ Average	5961.63	68830	4837	2.89	41.08	72.51
Mega-Universities	Manipal Academy of Higher Education, Manipal	5291.55	26764	2854	6.59	61.80	67.18
	Banaras Hindu University	5611.88	32686	1829	5.72	102.28	66.05
	University of Delhi	3211.32	26396	1402	4.06	76.35	65.90
	Amrita Vishwa Vidyapeetham	3363.46	26307	1928	4.26	58.15	65.73
	Vellore Institute of Technology	1670.79	56150	3326	0.99	16.74	64.79
	Top 5 Total/ Average	19149.00	168303	11339	3.79	56.29	65.93

Figure 1 shows how the NIRF Scores for the Top 5 from each of Engineering, State Public Universities and Mega-Universities, is dispersed according to Total Expenditure in Rs. Crores for the three year period from 2020-2023. Figure 2 shows for the same comparator institutions how NIRF Score is dispersed according to Cost outlay per student in Rs. Lakhs per year for the same three year period. We see of course that the top 5 Indian Institutes of Technology are generously funded and this translates to high NIRF scores. The State Public Universities belong to a different league and the separate categorization by NIRF is justified. However, the Mega-Universities have still not lived up to the prospects and promises anticipated for institutions of that size.

**Prof. Gangan Prathap is a Scholar at Large, Kerala State Higher Education Council, Thiruvananthapuram, Kerala, India 695033. e-mail: gangan_prathap@hotmail.com*

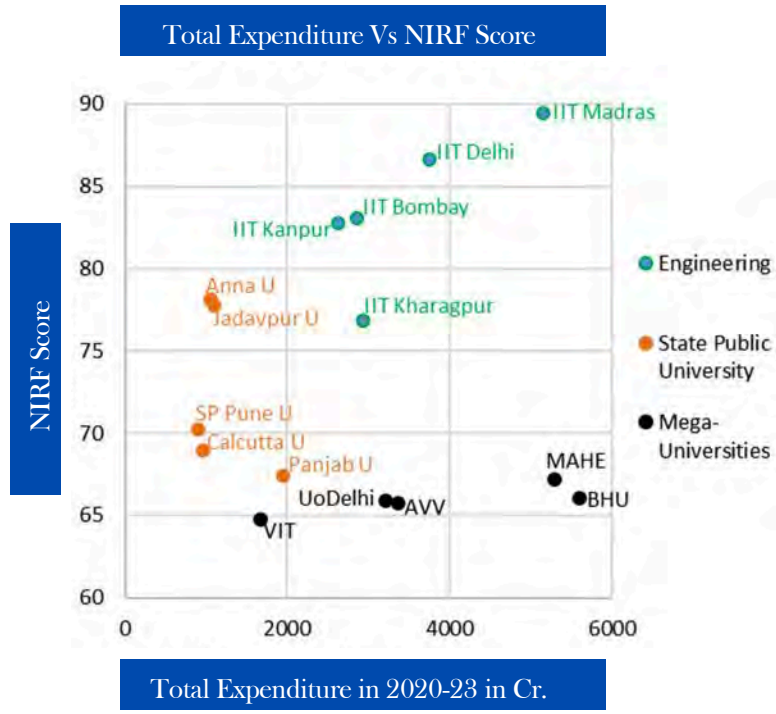


Figure 1. For the Top 5 from each of Engineering, State Public Universities and Mega-Universities, how NIRF Score is dispersed according to Total Expenditure in Rs. Crores for the three year period from 2020-2023.

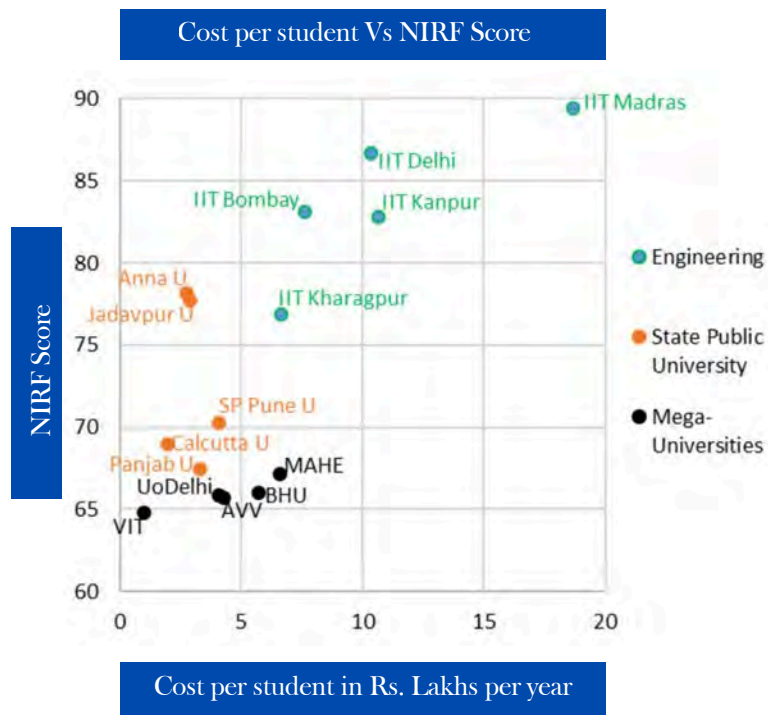


Figure 2. For the Top 5 from each of Engineering, State Public Universities and Mega-Universities, how NIRF Score is dispersed according to Cost outlay per student in Rs. Lakhs per year for the three year period from 2020-2023.

Shaping Kerala's Future

Unpacking the Talks, and Takeaways of the International Conclave on Next-Gen Higher Education

The International Conclave on Next-Gen Higher Education, held on 14-15 January 2025 in Kochi, featured critical discussions on shaping the future of higher education in Kerala. National and international experts, policy-makers, and educators shared their insights and visions on adapting higher education to global changes. Key discussions focused on the urgent need for interdisciplinarity in academic and research programs, fostering innovation, and ensuring contextual relevance. A strong emphasis was placed on integrating artificial intelligence ethically, promoting digital equity, and preparing faculty for future growth. Financial sustainability, balancing autonomy, access, and accountability, was another central theme.

The conclave highlighted the importance of international collaboration for capacity building and global benchmarking. Participants stressed the need to redefine assessment practices, moving beyond traditional exams to emphasize holistic student development and real-world competencies. The event culminated in a call to action, urging education leaders to prioritize inclusive, future-ready models for the state's higher education system. Recommendations from the conclave are now under review for phased implementation across Kerala's institutions. The Hon. Minister for Higher Education concluded the event by announcing the "Kochi Declaration," a strategic roadmap for future reforms. This article highlights key insights and actionable steps derived from the conclave, guiding Kerala's higher education towards a more inclusive and sustainable future.

At the inauguration of the International Conclave on Next-Gen Higher Education held at CUSAT, Kochi, on January 14, 2025, the Hon. Chief Minister of Kerala Shri. Pinarayi Vijayan unveiled a forward-looking vision for the state's academic landscape. Emphasizing Kerala's aspiration to become a global hub for higher education, the Chief Minister outlined a dual strategy: equipping students with employable skills through curriculum reforms and enhancing research to foster innovation.

The Chief Minister has highlighted the government's commitment to inclusivity, aiming to ensure access to quality education for all, including learners with diverse challenges. He introduced initiatives such as graduate tracking systems to monitor alumni progress and the development of campus-based industrial and skill parks to strengthen industry-academia linkages.

Shri Pinarayi Vijayan also stressed the need to internationalize Kerala's higher education ecosystem. Plans were announced to attract both national and international students and faculty, as well as to involve the global Malayali academic diaspora in building a competitive knowledge society.

"Kerala will lead the way in creating a socially connected, globally competent, and future-ready education system," he stated. His address underlined a holistic approach blending accessibility, employability, and innovation, positioning Kerala at the forefront of educational transformation in India.

'Kerala will lead the way in creating a socially connected, globally competent, and future-ready education system'

Kochi Declaration

Resolutions of the International Conclave on Next-Gen Higher Education, January 2025

It is with a re-invigorated mind and a satiated heart that I stand here to address all of you in this fine evening. We are drawing to the close of the two day International Conclave on Next-Gen Higher Education with the tag line Towards a New Episteme and the stated objective of preparing Higher Education for Shaping Kerala's Future. The plenaries and the parallel sessions have contributed greatly to the general spirit of forward looking reforms the government has already initiated.

The following are the major resolutions based on the outcomes of the deliberations of the two-day International Conclave:

- The Conclave has been a highly rewarding and inspiring experience. We have decided to conduct the conclave every year. We look forward to more enthusiastic and insightful intervention from the global academia.
- We have also resolved to conduct post-conclave sessions on each of the themes discussed here to convert them into action plans and implementation schemes.
- The intellectual capacity and contributions of the Kerala academic diaspora will be tapped, and a comprehensive network of academic diaspora will be established soon. Their significant support in knowledge transfer, research, capacity building, and academic collaboration will be instrumental in shaping the state's policy initiatives in higher education.
- We will formulate and establish a permanent platform for industry-academia engagement facilitating collaborations, industry participation in curriculum development and transaction, industry mentoring, internships and industry experience that can be credited as part of the academic programmes.
- We will strengthen the Centres for Skill Development Courses and Career Planning already established in Higher Education institutions and expand the activities of the centres to meet demands of the industries and services for specific skills in the students.
- We will equip the higher education institutions to develop critical competencies in our students.·We will devise ways to promote lifelong learning and self-learning and establish instruments to enable increased opportunity for potential learners.
- We will focus on twinning programmes with international higher education institutions facilitating student and faculty transfer and credit transfer. We will expect and tap the help of the Malayalee diaspora in realizing it.
- We will organize an Alumni Conclave to increase alumni participation in the state's higher education through direct engagement and knowledge transfer. Pre-conclave sessions will strive to bring notable alumni to improve perception and aid the networking opportunities higher education institutions must engage in. Their expertise in respective fields will be tapped to enhance curricular development and transaction.
- There will be a series of faculty training programmes to reorient and equip the faculty to face the challenges of the reforms.

Digital Learning **Revolution**

The Digital Learning Revolution is unraveling the boundaries of traditional education, empowering minds across the globe with limitless knowledge at their fingertips

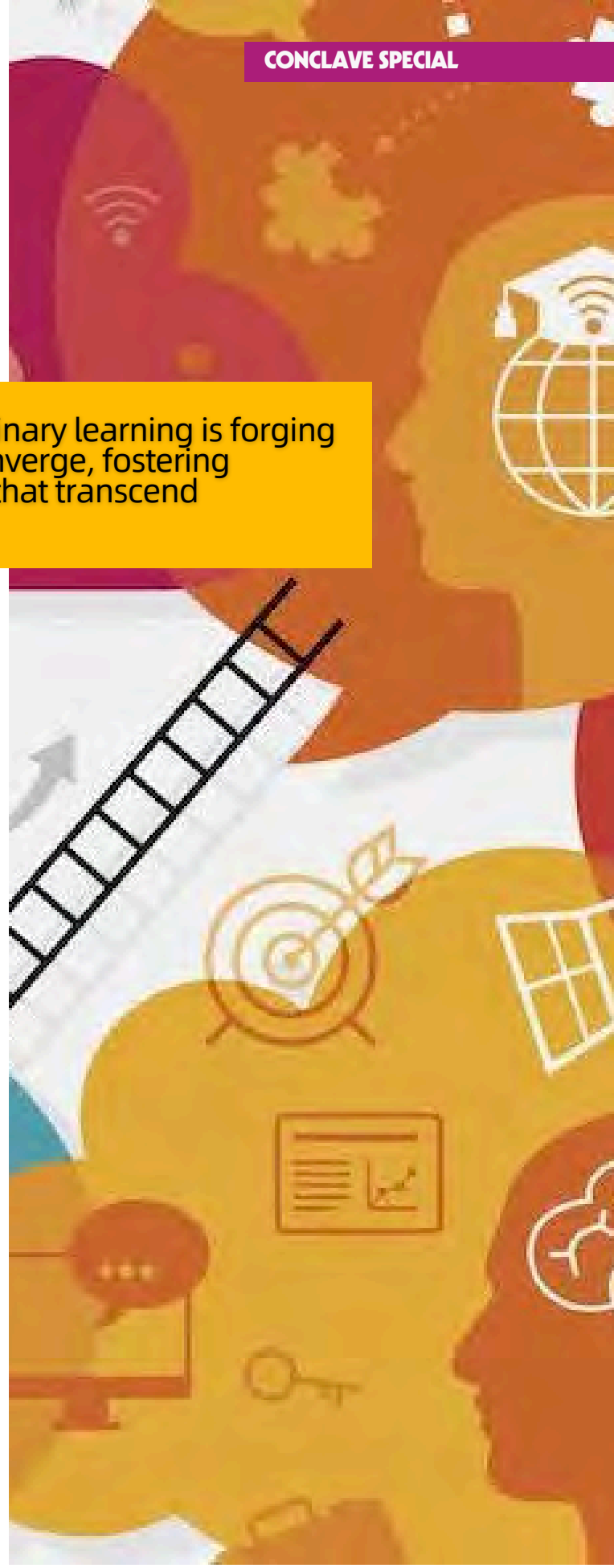
Emerging from the Conclave discussions was a resounding call for a Digital Learning Revolution in Kerala's higher education landscape. Stakeholders—ranging from policymakers and educators to EdTech innovators—unanimously emphasized the pressing need to integrate advanced digital technologies into the educational ecosystem. This vision extends beyond mere digitization of content; it advocates for a transformative shift toward AI-powered learning platforms, adaptive content delivery, and interactive virtual classrooms that cater to individual learning styles and paces.

Participants stressed that such a revolution is not just a technological upgrade, but a moral imperative—one that seeks to democratize access to digitally enabled quality education. With the right investments, digital tools can break down traditional barriers, enabling students from rural, remote, or marginalized communities to access the same facilities of education as their urban peers.

Moreover, the conclave recognized that EdTech has a pivotal role in shaping future-ready graduates by aligning learning outcomes with evolving industry demands. A major takeaway was the commitment to build a digitally empowered education system—one that is inclusive, scalable, and resilient. This approach ensures no learner is left behind, reinforcing Kerala's aspiration to be a national leader in equitable, future-focused higher education.

Breaking Silos: **Interdisciplinary Learning**

Breaking silos through interdisciplinary learning is forging a new era where diverse fields converge, fostering innovative thinking and solutions that transcend traditional boundaries



The Conclave ignited a passionate and forward-thinking debate on how best to reimagine academic curricula for the 21st century, reflecting the evolving demands of the modern world. Delegates emphasized the importance of fostering cross-disciplinary collaboration, arguing that a siloed approach to education is no longer sufficient in addressing the complex challenges society faces today. To this end, they advocated for integrating emerging fields, such as AI ethics, sustainability, and disaster management, into the core of academic pogrammes across all disciplines. These areas, they suggested, are vital for preparing students to navigate and solve pressing global issues.

Additionally, the conclave highlighted the need for greater flexibility in education. Delegates proposed the implementation of stackable credentials and modular degree structures, which would allow students to design their own educational pathways tailored to their unique interests and career aspirations. This model, they argued, would not only promote lifelong learning but also help students develop a broader skill set that transcends traditional academic boundaries.

The overarching message from the conclave was clear: to equip students with the tools necessary for the future, institutions must evolve. The shift towards more adaptable and interconnected educational models is essential for nurturing agile, innovative thinkers capable of tackling the increasingly complex and interconnected challenges of the global landscape.

Global Classrooms: **Gateway to Excellence**

Global classrooms serve as a gateway to excellence, connecting diverse cultures and perspectives, and creating a vibrant learning ecosystem that nurtures the leaders of tomorrow.

At the Conclave, a bold vision for Global Classrooms took center stage, presenting a comprehensive strategy for integrating Kerala into the global higher education ecosystem. Experts emphasized the importance of establishing seamless connections between Kerala's institutions and top universities around the world. One of the key recommendations was the development of frameworks for credit transfer, enabling students to seamlessly study across borders without academic barriers. Additionally, the conclave advocated for joint degree programs, allowing students to earn qualifications from both Kerala-based and international universities, thereby enhancing the global recognition of their degrees.

Strategic alliances with prestigious global institutions were also highlighted as a critical step in positioning Kerala as a key player on the international higher education map. These partnerships would facilitate collaborative research, student exchanges, and faculty development, further enriching the academic experience. Moreover, the conclave emphasized the importance of student mobility initiatives, providing students with opportunities to gain global exposure and diverse perspectives.

In line with this vision, the conclave called for efforts to achieve global accreditation for Kerala's higher education programs. This would significantly elevate the credibility and recognition of Kerala's degrees, ensuring that graduates are well-equipped to compete in a globalized workforce and contribute to the international academic community.

Financial Sustainability: **Securing the Future of Higher Education**

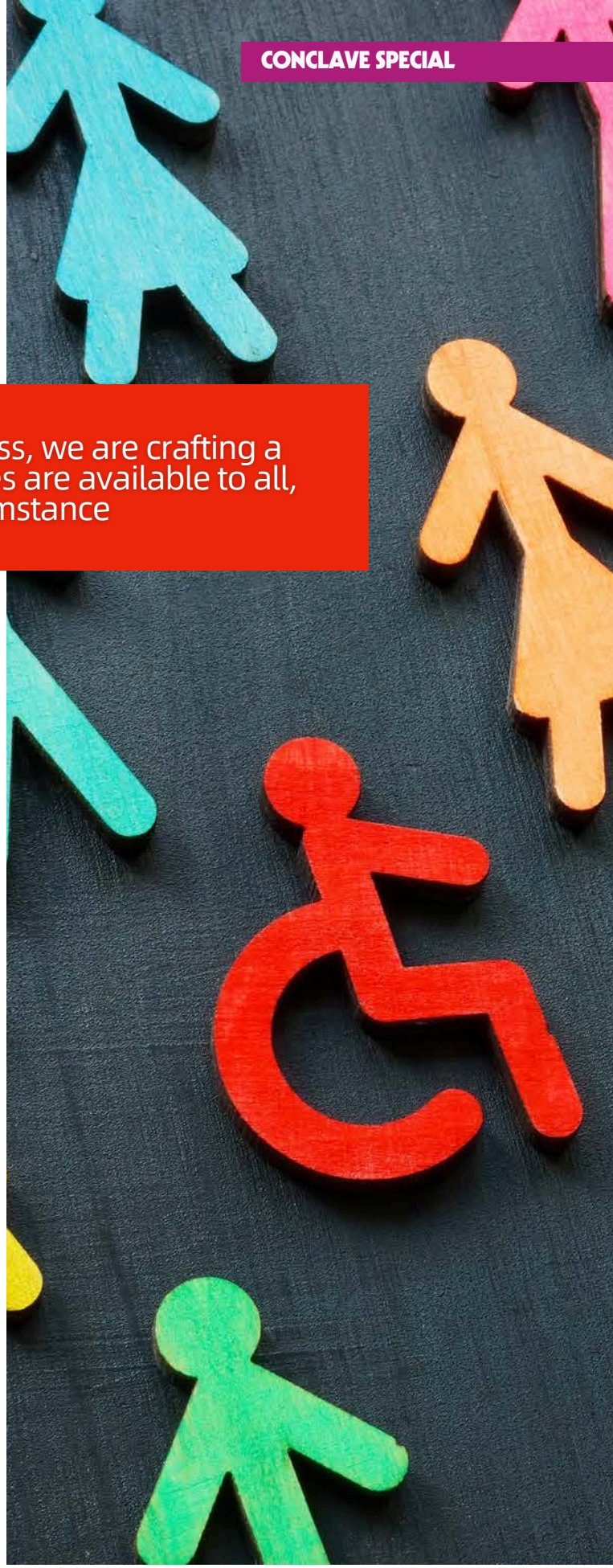
Financial sustainability is the cornerstone of securing the future of higher education, ensuring that institutions can adapt, innovate, and thrive while providing accessible opportunities for generations to come

The Conclave's financial sustainability session generated a dynamic exchange of innovative ideas aimed at securing the future of Kerala's higher education. Participants emphasized the need for hybrid funding models that combine government support with private investment. This approach, they argued, would provide a more resilient financial foundation, ensuring that institutions are not solely reliant on public funds. A key proposal was the introduction of performance-based funding, which would link financial support to measurable institutional outcomes, such as academic achievement, research output, and student success, creating an incentive for continuous improvement.

Other ideas included the establishment of university endowments, allowing institutions to build long-term financial security through investments and donations. Public-private partnerships were also highlighted as a crucial strategy for enhancing funding and resource-sharing. The session explored the potential of revenue-generating online platforms, where universities could offer specialized courses, certifications, and pogrammes to a global audience, expanding their reach and income streams.

Additionally, strengthening alumni networks and fostering ties with industry were seen as essential for creating sustainable financial pathways. The conclave also identified international student recruitment as a critical avenue for growth, not only boosting financial resources but also fostering cultural diversity and global collaboration in Kerala's academic institutions.

Equity in Action: **Shaping the Future of Inclusive Education**



By championing fairness and access, we are crafting a future where learning opportunities are available to all, regardless of background or circumstance

At the conclave, equity in education emerged as a central and non-negotiable priority, with a powerful consensus among participants on the need to ensure that all students, regardless of their background, have equal access to high-quality education. Proposals put forth included expanding scholarships and financial aid pogrammes aimed at supporting marginalized groups, including low-income students, women, and individuals from rural or underrepresented communities. These financial interventions were seen as crucial to breaking down barriers and providing opportunities for all students to pursue higher education.

In addition to financial support, delegates emphasized the importance of designing inclusive curricula that celebrate diversity, promote cultural awareness, and integrate diverse perspectives into academic content. This approach would not only enrich the learning experience but also ensure that all students feel valued and represented in their educational journeys.

Technology was hailed as a transformative tool for achieving equity in education, with calls to harness digital platforms and resources to bridge the gap in access to learning. Digital tools were seen as powerful equalizers, providing students in remote or underserved areas with access to world-class educational content, resources, and opportunities. The conclave concluded that by leveraging technology, institutions can break down geographic, social, and economic barriers, ensuring a more equitable and inclusive future for all learners.

Higher Education Kerala: Innovation Hub

With its rich academic heritage and forward-thinking approach, higher education in Kerala is emerging as a global hub for innovation, fostering creativity and excellence on the world stage

The conclave set an ambitious agenda to transform Kerala into a leading hub for research and innovation, with a vision to make it a global powerhouse in addressing contemporary challenges. Delegates urged the establishment of specialized research clusters focused on emerging fields such as Artificial Intelligence (AI), climate change, and biotechnology. These clusters would serve as hotbeds for cutting-edge research, fostering interdisciplinary collaboration and innovation. To jumpstart these initiatives, participants called for seed funding aimed at supporting startups, encouraging new ventures to tackle critical problems through innovative technologies and solutions.

A key aspect of the conclave's vision was the emphasis on strong industry-academia partnerships. By connecting universities with industries, the region could create an ecosystem where academic research directly informs and benefits real-world applications, creating a cycle of continuous innovation. This partnership would help bridge the gap between theoretical research and practical, commercialized solutions, accelerating the region’s economic growth and global competitiveness.

Additionally, a standout proposal was to align research efforts with both local and global challenges, such as improving healthcare and advancing sustainability. By focusing on actionable solutions that directly address pressing issues like climate change and public health, Kerala would not only contribute to global knowledge but also improve the quality of life for its people, making the research outcomes both impactful and relevant.

Future-proof skills: **Bridging Education and Employment**

Future-proof skills are the bridge between education and employment, equipping individuals with the tools needed to thrive in an ever-evolving job market

At the conclave, vocational education was thrust into the spotlight, with participants stressing its critical role in preparing a skilled workforce for the future. There was a strong consensus on the need for industry-integrated skill training and apprenticeship-driven learning, ensuring that educational pogrammes are aligned with the evolving needs of the job market. Delegates advocated for closer collaboration between educational institutions and industries to develop vocational centers that cater to specific sector needs, offering students hands-on experience and practical skills directly relevant to their chosen fields. This approach would equip learners with not only theoretical knowledge but also the practical expertise demanded by employers.

The conclave also emphasized the growing importance of micro-credentials as a way to offer specialized, bite-sized certifications in skills that are in high demand, such as digital marketing, data analytics, and sustainable practices. These credentials would allow individuals to gain qualifications that are directly applicable to their career paths, fostering a more flexible and responsive education system.

Additionally, lifelong learning pogrammes were proposed to ensure that workers could continuously update their skills throughout their careers. As industries rapidly evolve, it is essential to provide opportunities for workers to reskill and upskill, helping them stay competitive in an ever-changing job market.

Academic libraries: **Digital Frontiers of Knowledge**

Academic libraries are the digital frontiers of knowledge, unlocking vast resources and transforming how information is accessed, shared, and utilized in the modern learning landscape

At the conclave, the future of academic libraries was a key topic of discussion, with participants advocating for a transformative vision that positions libraries as dynamic digital hubs. As technology reshapes the landscape of education, there was a collective agreement on the need for libraries to evolve beyond traditional book repositories to become essential centers of digital learning and resources. A central recommendation was the development of mobile-friendly platforms that would allow users to access a wealth of academic resources, research materials, and library services anytime, anywhere, from their mobile devices. This would ensure that learning is not confined to physical spaces and can be seamlessly integrated into the daily lives of students and researchers.

Moreover, delegates emphasized the importance of open-access policies, which would promote the free sharing of knowledge and academic content. Open access would not only democratize information but also encourage collaboration and innovation across global academic communities.

To support this shift, the conclave also highlighted the need to up-skill librarians, equipping them with the necessary digital competencies and technological tools to navigate and manage these evolving platforms effectively. Librarians must be prepared to guide users in accessing, evaluating, and utilizing digital resources, ensuring they remain integral in fostering academic success in the digital age.

Tracking Success: **Graduate Tracking System**

Tracking success through a Graduate Tracking System offers invaluable insights into career trajectories, helping institutions refine pogrammes and ensure that graduates thrive in an ever-changing world

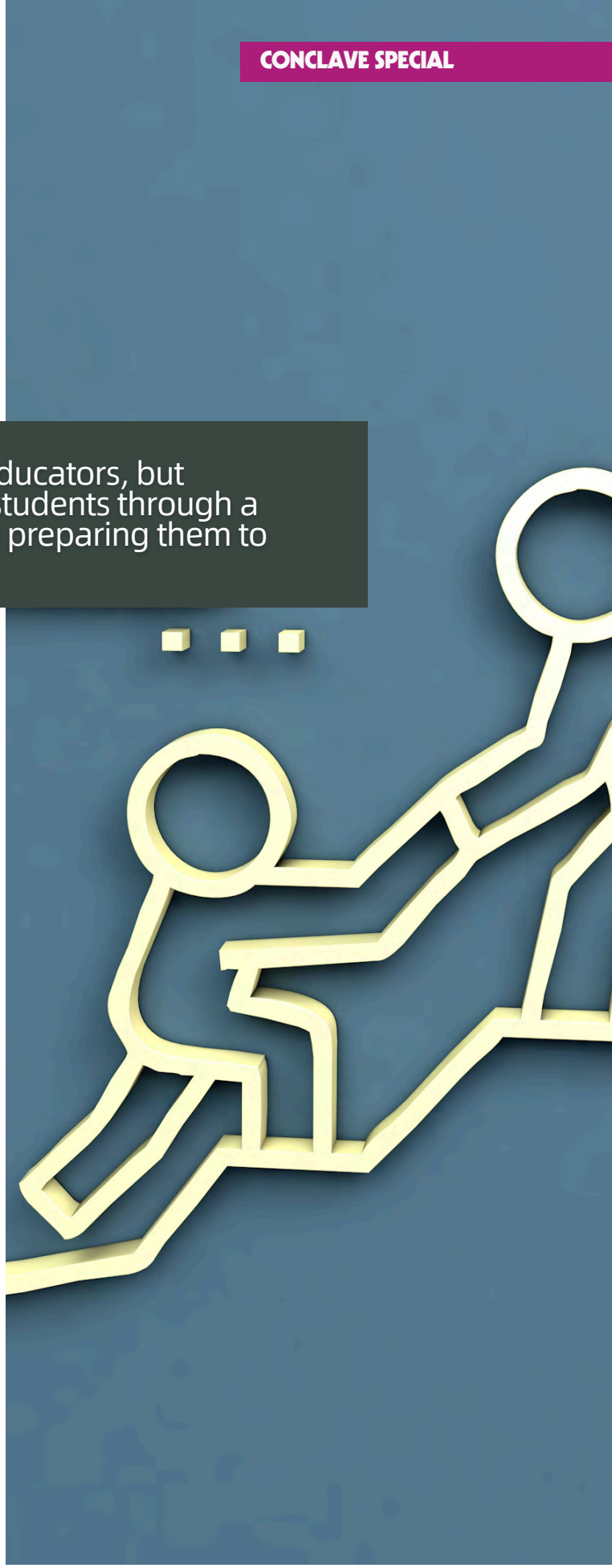
Inspired by successful global models like Malaysia's, the conclave proposed the implementation of a Graduate Tracking System (GTS) to better understand and map student outcomes, with the goal of enhancing the alignment between education and the evolving needs of the job market. The GTS would utilize both forward and backward tracing methods to track students' academic journeys and career progression. By looking at past data, the system would provide valuable insights into the factors contributing to successful career outcomes, while forward tracing would predict future trends, helping institutions align curricula with emerging industry demands.

A critical component of the proposed system was its use of data-driven skill forecasting. By analyzing labor market trends and identifying the skills that are in high demand, the GTS would enable educational institutions to adjust pogrammes and training to prepare graduates with the specific skills that employers are seeking. This would not only improve graduate employability but also help bridge the gap between academia and industry.

Additionally, the GTS would provide real-time feedback to institutions, employers, and students, ensuring that education remains agile and responsive. Ultimately, the system aims to create a more efficient and transparent connection between education, skill development, and employment, helping both students and industries thrive in a rapidly changing global economy.

Teachers of the Future: **Multidisciplinary Mentors**

Teachers of the future are not just educators, but multidisciplinary mentors, guiding students through a complex, interconnected world and preparing them to excel across diverse fields



At the conclave, teacher training reforms emerged as a key priority, with a strong emphasis on preparing educators for tomorrow's dynamic classrooms. A central theme was the shift toward multidisciplinary pedagogy—training teachers to work across subjects and integrate diverse fields of knowledge. This approach aims to develop students' critical thinking, adaptability, and problem-solving skills while fostering collaboration among educators.

Participants also highlighted the urgent need to integrate technology into teacher training. In today's digital age, educators must be proficient in using digital tools, both for delivering content and enhancing student engagement. This includes utilizing platforms for online and blended learning, as well as adopting educational technologies that support personalized learning experiences.

Equally important is the focus on continuous professional development. Teachers should have ongoing access to training, resources, and support systems that keep them updated on evolving teaching practices, curriculum updates, and emerging trends. Such consistent upskilling is essential to maintaining teaching quality and relevance.

The conclave concluded that investing in robust, future-oriented teacher training is vital to building resilient education systems. Well-trained educators are crucial for nurturing lifelong learners and adapting to the ever-evolving demands of the modern educational landscape.

Data Driven Future: **Evidence-Based and Inclusive Learning**

A data-driven future paves the way for evidence-based and inclusive learning, where insights from analytics shape personalized education, ensuring every learner's needs are met with precision and care

At the conclave, a powerful and urgent call was made to safeguard education from political interference, emphasizing the importance of maintaining academic integrity and independence. Delegates recognized that political influence can often shape curricula and teaching methods, potentially undermining the objectivity and neutrality of educational systems. As a result, the conclave advocated for education to be driven by evidence-based approaches and grounded in facts rather than ideological or partisan agendas.

A central theme of the discussion was the need to foster inclusive narratives that reflect diverse perspectives and encourage critical thinking among students. Instead of promoting one-sided views or dogmatic teachings, education should provide students with the tools to think critically, analyze complex issues, and form their own informed opinions. By prioritizing an inclusive, evidence-based approach, educational systems can ensure that students are exposed to a wide range of viewpoints and are encouraged to question, explore, and engage with different ideas.

Protecting the autonomy of educational institutions from external political influence is essential for nurturing future generations who are capable of making informed, unbiased decisions in a rapidly changing world.

Strength of Collaboration: **Industry-Academia Synergy**

Dynamic synergy between industry and academia, where shared knowledge and resources drive innovation, bridge gaps, and shape the future of both sectors

At the conclave, significant attention was given to enhancing both STEM and non-STEM education to align more closely with the evolving needs of industry. For STEM disciplines, the spotlight was on the commercialization of research and development (R&D). Delegates emphasized the importance of translating academic innovations into practical, marketable solutions and called for stronger collaborations between universities and industries. Such partnerships would bridge the gap between theoretical research and real-world application, driving technological advancement and economic growth. To support this, it was proposed that universities offer more flexible academic schedules for students engaged in industry-linked projects, enabling experiential learning without hindering academic progress.

In the case of non-STEM fields, the conclave urged institutions to revise curricula in line with the service sector's demands—particularly in areas such as finance, tourism, and hospitality. The development of essential soft skills, including communication, critical thinking, teamwork, and problem-solving, was strongly recommended. These are vital in today's collaborative and customer-oriented work environments. Additionally, immersive exposure through internships, live projects, and industry engagement was encouraged to give students practical insights, enhance employability, and better prepare them for future career challenges.

Kerala's Vision for Transformative Higher Education: Embracing Digital Revolution, Global Collaboration, and Inclusive, Future-Ready Learning

The discussions at the conclave have charted an ambitious and transformative vision for Kerala's higher education sector. The call for a Digital Learning Revolution, leveraging advanced technologies such as AI and adaptive learning platforms, aims to democratize access to education. Emphasizing cross-disciplinary collaboration, fostering industry-academia partnerships, and integrating emerging fields into academic curricula, Kerala's educational framework is poised to meet global demands and establish itself as a leader in innovative, future-ready learning.

The conclave's focus on financial sustainability and equity highlights the importance of creating a robust, diverse funding ecosystem, while also ensuring that all students, regardless of their background, have equal access to high-quality education. By leveraging technology, fostering industry ties, and promoting lifelong learning, Kerala can bridge the gap between education and employment, ensuring that graduates are not only well-equipped with relevant skills but are also empowered to contribute meaningfully to global challenges.

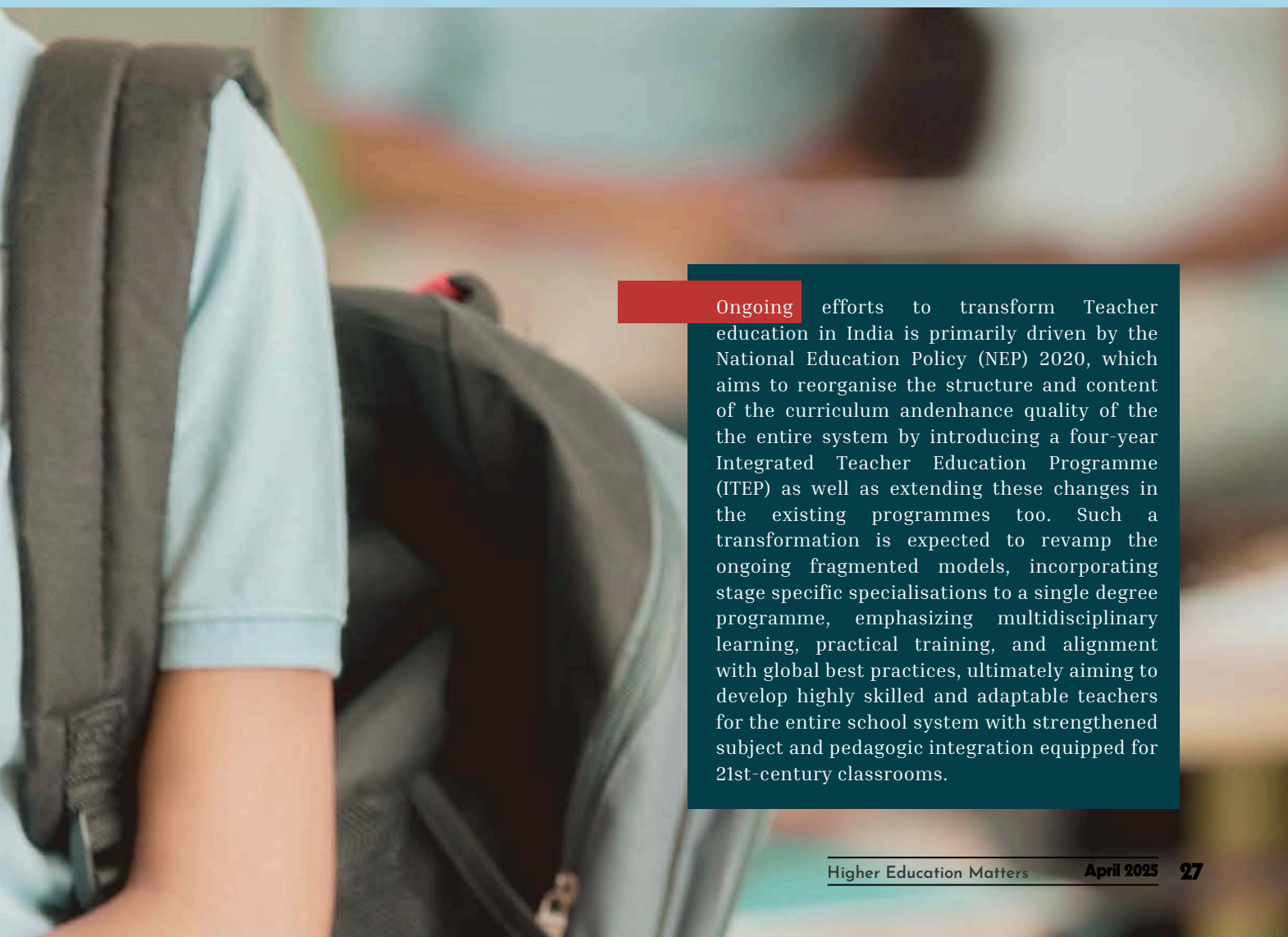
Furthermore, the conclave's vision of establishing Kerala as a global hub for research and innovation, coupled with international collaborations, will significantly enhance the credibility and reach of the state's higher education programs. This commitment to a globally connected, research-driven, and inclusive educational landscape will position Kerala at the forefront of transformative education, benefiting not only the state but also the world at large.

Ultimately, the call for educational reform—through innovative curricula, teacher training, digital platforms, and strong global partnerships—offers Kerala a unique opportunity to redefine higher education, ensuring that it remains adaptable, inclusive, and in tune with the ever-evolving demands of the modern world. This collective commitment marks the beginning of a bold new chapter for Kerala, as it embraces the future with open arms and an unwavering dedication to excellence.

Teacher Education in Kerala: **Way Forward**

Kerala developed a contextualised curriculum and strategic roadmap for transforming teacher education institutions through collaborative stakeholder consultations.

Mohan B. Menon*



Ongoing efforts to transform Teacher education in India is primarily driven by the National Education Policy (NEP) 2020, which aims to reorganise the structure and content of the curriculum andenhance quality of the the entire system by introducing a four-year Integrated Teacher Education Programme (ITEP) as well as extending these changes in the existing programmes too. Such a transformation is expected to revamp the ongoing fragmented models, incorporating stage specific specialisations to a single degree programme, emphasizing multidisciplinary learning, practical training, and alignment with global best practices, ultimately aiming to develop highly skilled and adaptable teachers for the entire school system with strengthened subject and pedagogic integration equipped for 21st-century classrooms.

The Kerala State Higher Education Council initiated discussion and proactive actions to consider the adoption of the ITEP Curriculum Framework notified by the National Council for Teacher Education in 2023 within the contextual reality existing in the state by constituting a ITEP Curriculum Committee in December 2023. The Committee had extensive deliberations with all groups of stakeholders and curriculum experts involved with teacher education and the school system across all stages of pre-service teacher training,

The final Report of the Committee submitted to the Government of Kerala in November 2024 formulated a contextualised curriculum content and framework as well as mapped out alternative strategies for transforming stand alone teacher education institutions (STEIs) to multidisciplinary higher education institutions (HEIs) based on the guidelines of UGC (2022). While the Committee found that the proposed transformation raised a number of challenges to teacher education institutions and systems in Kerala it also provided certain opportunities to enhance quality with relevance and attain consolidation in the fast growing sector. A sector which has undergone a number of incremental and transitional changes is now undergoing a transformative change for the first time in a larger scale in the country. It considered both short-term and long-term implications related to curriculum and implementation, and gave recommendations to all stakeholders regarding how to move forward in this transformation process in the State. The report was formally communicated to NCTE for its information and suitable consideration and action.

Kerala is the only state to have taken such a prompt and preemptive step. Some of the recommendations and concerns raised in the Kerala ITEP Report seem to have been taken positively by the NCTE while formulating the revised regulations which was notified in February 2025 as Draft NCTE (Recognition Norms and Procedures) Regulations, 2025. These regulations are of utmost significance to institutions while transitioning to the multidisciplinary HEIs which is obligatory to all institutions offering all pre-service teacher education programmes.The head-start that Kerala got in the transformation process will have to be followed up by very systematic and strategic actions by different stakeholders.

The final Report of the Committee submitted to the Government of Kerala in November 2024 formulated a contextualised curriculum content and framework as well as mapped out alternative strategies for transforming stand alone teacher education institutions (STEIs) to multidisciplinary higher education institutions (HEIs) based on the guidelines of UGC (2022)

TE institutions are getting more and more aware of the upcoming changes expected to happen in the system and its inevitability due to the consequence of NCTEs revised norms and regulations. There have been several offline and online discussions organized by teacher education associations on the revised draft regulations with from Kerala as well as other states. All expressed theirs observations and concerns about the changed regulations related to ITEP general and specialised programmes and other new programmes including B.Ed (one year two years) and M.Ed.(1 year and two years part time) programmes. All TEIs offering B.Ed. 2-Year Programme shall be eligible to continue and transition to new B.Ed. and M.Ed. programmes, provided such institutions transform into multidisciplinary institutions and shall run ITEP (B.A. B.Ed./ B.Sc. B.Ed./ B.Com. B.Ed.) by 2030.

Some of the recommendations and concerns raised in the Kerala ITEP Report seem to have been taken positively by the NCTE while formulating the revised regulations which was notified in February 2025 as Draft NCTE (Recognition Norms and Procedures) Regulations, 2025.

NCTE had formally notified for receiving feedback on the draft within a stipulated time with an intention that the final document will be modified appropriately. Some organisations in Kerala have promptly communicated their feedback to NCTE expressing their concerns and suggestions for changes in the revised regulations. It is expected that revised norms and regulations will be applicable in the Guidelines on Application for all teacher education programmes 2026-27 which should be open in the NCTE portal from April-May 2025 for receiving applications. Some of the multidisciplinary HEIs may already satisfy the requirements in the new regulations and be eligible to apply for ITEP this year so that they could admit the first batch of students in any of the ITEP programmes from the year 2026-27. It is not expected that such institutions would be of large numbers, it is crucial that all interested TEIs should initiate actions towards transformation thereby satisfying the eligibility norms for starting or transitioning to new TE programmes by 2028.

The way forward for TEIs in Kerala is to initiate appropriate actions at institutional level with required support from the state government and the affiliating universities. Each institution or cluster of institutions should work towards preparing short-term and long-term strategic plans through the process of formulating Institutional Development Plans (IDPs) considering their changed vision and mission and strategic objectives. A systematic exercise with active engagement of all internal and external stakeholders should be carried out to navigate the institution through the transformative process. A SWOT analysis is to be done identifying the strength and weakness of the institution and opportunities and threats (challenges) faced from outside.

The new regulations of NCTE has surely posed a number of serious challenges to TEIs which have to be addressed. Some opportunities have also emerged which should be utilized to rejuvenate the institutional effectiveness and efficiency, diversify and improve the quality and relevance of each institution. While all teacher education programmes have to meticulously follow the requirements of the NCTE norms and regulations there are a number of programmes that could be initiated in sub-disciplines of Education as well as certain interdisciplinary areas which may not come within the regulatory control of NCTE.

Each institution or cluster of institutions should work towards preparing short-term and long-term strategic plans through the process of formulating Institutional Development Plans (IDPs) considering their changed vision and mission and strategic objectives.

An institutional transformation can be possible only when the challenges and opportunities have to be considered together, and thereby new and out of the box cost-effective solutions can emmege. Establishing additional subject departments in TEIs in relevant subjects will help in supporting the teacher education programmes, specially in the teaching of subject courses. These departments individually or in collaboration with other departments could offer a number of interdisciplinary programmes in Education which will not require NCTE accreditation but need to follow only UGC regulations. This will help TEIs to be transformed as HEIs and also come out of their historical narrow perspective of focussing only on teacher education programmes such as ITEP, B.Ed and M.Ed. and move towards offering programmes in other sub-disciplines and interdisciplinary areas within the broad discipline of Education. The opportunities for flexible education provided by UGC regulations related to Open Distance Education (2020), recent UGC notification on ODL (2025), and Guidelines for recognition for prior learning (2025) can be appropriately incorporated to teacher education and other education programmes as provided in the NEP 2020.

Existing TEIs and HEIs preparing for transforming to a multidisciplinary environment through short term and long term strategic plans will require expert support and conducive state level policy decisions.

Existing TEIs and HEIs preparing for transforming to a multidisciplinary environment through short term and long term strategic plans will require expert support and conducive state level policy decisions. The state government, KSHEC and the affiliating universities are required to play a catalytic role in building adequate capacity in the institutions in the next few months so that they can forge inter institutional linkages if needed, adapt their organisational structure, build the required infrastructure and deploy the minimum required additional staff and become eligible to apply for starting ITEP ortransitioning to new shorter TE programmes by 2026-27 or latest by 2027-28.

Prof. Mohan B. Menon is the former Deputy Vice Chancellor, Wawasan Open University, Malaysia. He has served as the Chairman of the Committee constituted by the Kerala State Higehr Education Council to study the Implementation of ITEP in Kerala.

References:

- *UGC (ODL Programmes and OL Programmes) Regulations, 2020*
- *Guidelines for Transforming Higher Education Institutions (HEIs) into Multidisciplinary Institutions, University Grants Commission, September, 2022*
- *Draft NCTE (Recognition Norms and Procedure) Regulations, 2025*
- *UGC public notice regarding: Invitation of application from eligible HEIs for recognition to offer programmes under Open and Distance Learning (ODL) mode and/or Online mode for academic year 2025-26, academic session beginning July-August, 2025 and onwards.*
- *UGC, Guidelines for the Recognition of Prior Learning in Higher Education, 2025*
- *KSHEC-ITEP Curriculum Committee Report, 2024.*

The Living Classroom: Reimagining Learning Through Interactive Tools

10 TOOLS FOR SMARTER CLASSROOMS

In an age of digital distraction, interactive platforms like Mentimeter, Slido, and others are transforming classrooms into vibrant, participatory spaces where students engage, express, and evolve—anytime, anywhere

In the evolving landscape of education, the classroom is no longer confined by four walls—it has become a dynamic, living ecosystem where ideas flow freely, curiosity is kindled, and young minds are actively shaped. It is a space that should inspire dialogue, invite exploration, and nurture critical thinking. However, in an age marked by fleeting attention spans and constant digital distractions, educators face a profound challenge: how do we breathe life into our classrooms and truly engage the modern learner?

The answer lies not in louder lectures or stricter discipline, but in rethinking the very structure of classroom interaction. Today's teaching calls for energy, adaptability, and tools that transform passive listening into active participation. The classroom must evolve into a space that is vibrant, responsive, and deeply connected—and that's where digital engagement platforms come into play.

To energize a classroom is not just to entertain—it is to awaken the learner's spirit, to foster participation, and to build an inclusive loop of feedback and reflection. This vision calls for more than content delivery; it demands interactive ecosystems where students are not passive recipients but active co-creators of knowledge. Digital engagement tools play a vital role in this shift. These platforms act as bridges between pedagogy and technology, transforming teaching into an interactive, participatory, and data-informed process.

A vibrant classroom is vital for maintaining student engagement and promoting active learning. Studies suggest that student attention during lectures begins to decline significantly after just 10–20 minutes (Bradbury, 2016). In such scenarios, simply delivering content is not enough—educators must create dynamic, interactive environments that refresh focus and stimulate curiosity. Incorporating digital tools, discussions, and real-time feedback can re-engage learners and improve retention. A lively classroom isn't defined by noise or color, but by energy, inclusion, and active participation. When students feel involved and valued, their ability to absorb, process, and apply knowledge improves dramatically.
Following section is a curated list of powerful platforms that are reshaping modern teaching practices:

Mentimeter

1. Mentimeter
Mentimeter is an interactive presentation platform that enables educators to engage students through real-time polls, quizzes, word clouds, and open-ended questions. Students respond using their own devices, allowing for anonymous participation and encouraging honest input—especially from shy or hesitant learners. Responses are instantly visualized, sparking discussion, reflection, and group collaboration. Mentimeter supports a variety of question formats and integrates easily with existing slide presentations, making it a flexible tool for any teaching style. It not only enhances classroom interactivity but also helps teachers assess understanding on the spot. By shifting the focus from passive listening to active involvement, Mentimeter transforms traditional lectures into dynamic, co-created learning experiences that give every student a voice.

Studies suggest that student attention during lectures begins to decline significantly after just 10–20 minutes

2. Slido

Slido is an interactive Q&A and polling tool that empowers students to actively participate during lessons, webinars, and workshops. It allows learners to submit questions in real-time and upvote the ones they find most relevant, giving educators a clear view of common concerns and interests. This promotes a more inclusive and transparent classroom environment, especially in large or virtual settings. Slido supports various formats such as open-ended questions, polls, rankings, and multiple-choice, enabling instant feedback and lively engagement. Its built-in analytics help teachers monitor participation and assess understanding, making it an effective tool for formative assessment. By amplifying student voice and encouraging interaction, Slido turns passive audiences into active contributors in the learning process.

3. Kahoot

Kahoot is a game-based learning platform that transforms traditional assessments into exciting, fast-paced quizzes students can play using their own devices. It promotes friendly competition, immediate feedback, and active participation, making learning both effective and fun. Educators can use Kahoot! to review lessons, launch ice-breakers, or gather quick opinions from the class. The platform supports live games for real-time engagement as well as self-paced challenges, giving students the flexibility to learn anytime. With its vibrant visuals, music, and interactive features, Kahoot! appeals to all age groups and keeps learners motivated. It fosters not only knowledge retention but also a sense of enthusiasm, curiosity, and ownership over the learning process.

Did you know?

Students retain 25% to 60% more material when learning online compared to traditional classroom settings, according to a study by the World Economic Forum. This is largely due to self-paced learning, interactive content, and the ability to revisit materials anytime.

4. Quizizz

Quizizz is a gamified learning platform that offers quizzes, interactive lessons, and instant feedback in a self-paced format. Unlike Kahoot!, it allows students to complete activities asynchronously or live in class, making it ideal for both in-person and remote learning. Teachers can personalize quizzes with memes, explanations, and visual themes, creating a fun and engaging experience. Quizizz provides detailed performance reports, helping educators track progress, identify learning gaps, and adapt instruction accordingly. With a vast library of teacher-created content across subjects and grade levels, it supports personalized learning and ongoing student engagement. Quizizz makes assessments feel like games while maintaining academic rigor, helping students stay motivated and confident in their learning journey.

5. Padlet

Padlet is a digital bulletin board platform that enables students and teachers to post text, images, videos, and links in a shared, visually organized space. It fosters creativity, collaboration, and critical thinking by supporting open-ended, multimedia responses. Ideal for brainstorming sessions, project work, reflections, or group discussions, Padlet encourages inclusive participation from all learners. Its flexible format makes it well-suited for both in-class activities and asynchronous learning, making it a powerful tool in blended or flipped classroom models. Teachers can moderate content and guide discussion while students contribute ideas and build on each other's input. Padlet turns passive viewing into active contribution, helping build community, encourage expression, and extend learning beyond the physical classroom.

To keep students attentive and involved, divide your lecture into 15–20 minute segments. Between each, add a quick interactive activity—like a live poll, quiz, or open question using tools like Mentimeter or Slido. These micro-engagements re-energize learners, reset their focus, and make your class feel more like a conversation than a monologue.

6. Nearpod

NNearpod transforms traditional lessons into interactive, media-rich learning experiences. Educators can embed quizzes, polls, videos, simulations, and even virtual reality (VR) field trips directly into their presentations. Students participate using their own devices, following the lesson in real time for a fully synchronized and immersive experience. Nearpod supports live teaching and student-paced modes, making it flexible for different classroom settings. It also integrates easily with platforms like Google Classroom and provides real-time assessment tools to check for understanding throughout the lesson. With its ability to scaffold content and engage students actively at every stage, Nearpod helps create dynamic, student-centered lessons that deepen learning and encourage ongoing participation.

7. Poll Every where

Poll Every where is an interactive online tool that enables real-time polling, quizzes, and feedback collection. It allows presenters, educators, and event organizers to engage audiences by asking questions and displaying live results. Participants can respond via mobile devices, laptops, or tablets, making it accessible and inclusive. The platform supports various question types such as multiple-choice, open-ended, and ranking. It integrates seamlessly with PowerPoint, Google Slides, and Keynote for easy use during presentations. Poll Everywhere is widely used in education, business meetings, and conferences, offering features like data export, audience engagement, and instant feedback collection.

8. Socrative

Socrative is an interactive classroom app designed for real-time formative assessments. It allows teachers to create quizzes, polls, and exit tickets to gauge student understanding instantly. With features like multiple-choice, true/false, and short-answer questions, Socrative enables personalized feedback for each student. Teachers can track progress through reports and adjust lessons accordingly. It supports live, student-paced, and even homework-based assessments, making it versatile for various teaching styles. Socrative integrates well with mobile devices and desktops, offering an engaging learning experience. It's widely used in classrooms to encourage participation, provide instant feedback, and improve learning outcomes.

9. Flipgrid

Flipgrid is a video-based discussion platform that encourages students and participants to respond to prompts with short videos. It's widely used in educational settings to foster engagement, collaboration, and reflection. Teachers can create topics or questions, and students record video responses using their webcams or mobile devices. The platform allows for peer feedback, as students can reply to each other's videos, creating a dynamic learning environment. Flipgrid promotes creativity, communication, and critical thinking while helping students express their thoughts more effectively.

The platform is simple to use, with features like video moderation, customizations, and privacy settings that ensure a safe learning space. It also integrates with tools like Google Classroom and Microsoft Teams, making it easy to incorporate into existing workflows. Flipgrid is widely adopted in K-12 education but has also found use in higher education and corporate training, promoting interactive learning and community building.

While many of these platforms center around real-time quizzes, polls, and surveys, Flipgrid emphasizes fostering deeper engagement through short video discussions. This tool is more focused on creating a collaborative, video-based learning environment, making it a unique tool compared to traditional polling and quiz platforms

10. Wooclap

Wooclap is an interactive platform designed to enhance audience engagement through live polls, quizzes, and Q&A sessions. It allows educators, event organizers, and corporate trainers to create interactive presentations, encouraging real-time participation from attendees. Users can ask multiple-choice questions, open-ended queries, or conduct surveys, with results displayed instantly. Wooclap supports a variety of question types and integrates with popular presentation tools like PowerPoint and Google Slides. It's accessible on smartphones, tablets, and computers, making it user-friendly. With its focus on engagement and instant feedback, Wooclap is ideal for classrooms, conferences, and workshops, promoting active learning and discussion.

User-friendly, interactive platforms thrive in India's education and corporate sectors, offering polls, quizzes, and local language support for engagement.

Usage in India

Many platforms offer free versions with limited features, making them accessible to a broad audience. Paid plans typically cater to larger groups or offer advanced features like analytics and customization. Pricing ranges widely, with some platforms charging monthly fees, while others have annual plans, making them suitable for different budget sizes.

Platforms are increasingly popular in both educational and corporate sectors. In education, platforms that focus on quizzes, interactive lessons, and gamified learning experiences have seen widespread adoption, especially in K-12 settings. Corporate environments favor tools that allow real-time polling, audience engagement, and feedback during webinars and events.

The majority of platforms are designed to be user-friendly, with intuitive interfaces that require minimal training. They focus on simplicity, ensuring that both educators and corporate users can quickly set up and run interactive sessions without requiring technical expertise.

Most platforms are versatile, offering a range of interactive features such as polls, quizzes, live Q&A, video-based responses, and collaborative boards. This flexibility allows them to cater to various settings, including classrooms, corporate meetings, and virtual events.

The availability of these platforms in India is on the rise, particularly in the education sector. While some platforms are more established, others are gradually gaining popularity. Many platforms support local languages and regional needs, making them increasingly accessible to Indian users.

By fostering continuous dialogue between teacher and student, they help create an active "learning loop" where feedback drives improvement and reflection. As a result, classrooms become more adaptive and inclusive, empowering students to take ownership of their learning.

Shaping the Future

The landscape of education is evolving rapidly, and with it, the role of the teacher is undergoing a fundamental transformation. No longer is the teacher solely a transmitter of knowledge; today, they are facilitators of experience, inquiry, and collaboration. In modern classrooms, the traditional lecture model is giving way to dynamic, student-centered environments where active participation and meaningful interaction are central to the learning process.

Students learn best when they are engaged—when their questions are welcomed, their ideas are explored, and their contributions are valued. Digital platforms such as Mentimeter, Slido, and Kahoot! are playing a pivotal role in this shift. Far from being just supplemental tools, they are becoming core components of effective pedagogy, helping educators turn passive classrooms into vibrant spaces of shared discovery.

These platforms offer more than just convenience—they enable real-time participation, foster inclusivity, and provide instant feedback. Whether it's through a live poll, a collaborative word cloud, or a quiz-based challenge, every student has an opportunity to contribute. This not only boosts engagement but also helps teachers quickly gauge understanding and tailor their instruction accordingly.

Importantly, these tools promote a shift toward more personalized and responsive teaching. By fostering continuous dialogue between teacher and student, they help create an active "learning loop" where feedback drives improvement and reflection. As a result, classrooms become more adaptive and inclusive, empowering students to take ownership of their learning.

Ultimately, the integration of these digital tools signifies a broader movement toward participatory learning. Teachers guide rather than dictate, students engage rather than absorb, and learning becomes a shared, interactive experience. In this future-facing model, every voice matters, every moment has potential, and every lesson becomes an opportunity for growth—for both student and teacher.

Dr. Manulal P. Ram
manulal.kshec@gmail.com

Scientists around the world report millions of new discoveries every year

but this explosive research growth wasn't what experts predicted

Millions of scientific papers are published globally every year. These papers in science, technology, engineering, mathematics and medicine present discoveries that range from the mundane to the profound.

Since 1900, the number of published scientific articles has doubled about every 10 to 15 years; since 1980, about 8% to 9% annually. This acceleration reflects the immense and ever-growing scope of research across countless topics, from the farthest reaches of the cosmos to the intricacies of life on Earth and human nature.

Yet, this extraordinary expansion was once thought to be unsustainable. In his influential 1963 book, "Little Science, Big Science… And Beyond," the founder of scientometrics – or data informetrics related to scientific publications – Derek de Solla Price famously predicted limits to scientific growth.

Price warned that the world would soon deplete its resources and talent pool for research. He imagined this would lead to a decline in new discoveries and potential crises in medicine, technology and the economy. At the time, scholars widely accepted his prediction of an impending slowdown in scientific progress.

Faulty predictions

In fact, science has spectacularly defied Price's dire forecast. Instead of stagnation, the world now experiences "global mega-science" – a vast, ever-growing network of scientific discovery. This explosion of scientific production made Price's prediction of collapse perhaps the most stunningly incorrect forecast in the study of science.

Unfortunately, Price died in 1983, too early to realize his mistake. So, what explains the world's sustained and dramatically increasing capacity for scientific research?

The Explosion of Global Science

Scientific production has seen a massive surge since 1980, with an annual growth rate of 8-9%, defying predictions of stagnation

We are sociologists who study higher education and science. Our new book, "Global Mega-Science: Universities, Research Collaborations, and Knowledge Production," published on the 60th anniversary of Price's fateful prediction, offers explanations for this rapid and sustained scientific growth. It traces the history of scientific discovery globally.

Factors such as economic growth, warfare, space races and geopolitical competition have undoubtedly spurred research capacity. But these factors alone cannot account for the immense scale of today's scientific enterprise.

The education revolution: Science's secret engine

In many ways, the world's scientific capacity has been built upon the educational aspirations of young adults pursuing higher education. Over the past 125 years, increasing demand for and access to higher education has sparked a global education revolution. Now, more than two-fifths of the world's young people ages 19-23, although with huge regional differences, are enrolled in higher education. This revolution is the engine driving scientific research capacity.

Education Revolution as Science's Engine

Increasing access to higher education globally has fueled scientific research. More than 38,000 universities contribute 80-90% of global scientific discoveries.

Today, more than 38,000 universities and other higher-education institutions worldwide play a crucial role in scientific discovery. The educational mission, both publicly and privately funded, subsidizes the research mission, with a big part of students' tuition money going toward supporting faculty.

These faculty scientists balance their teaching with conducting extensive research. University-based scientists contribute 80% to 90% of the discoveries published each year in millions of papers.

External research funding is still essential for specialized equipment, supplies and additional support for research time. But the day-to-day research capacity of universities, especially academics working in teams, forms the foundation of global scientific progress.

Even the most generous national science and commercial research and development budgets cannot fully sustain the basic infrastructure and staffing needed for ongoing scientific discovery.

Likewise, government labs and independent research institutes, such as the U.S. National Institutes of Health or Germany's Max Planck Institutes, could not replace the production capacity that universities provide.

Education Revolution as Science's Engine

Increasing access to higher education globally has fueled scientific research. More than 38,000 universities contribute 80-90% of global scientific discoveries.

Collaboration benefits science and society

The past few decades have also seen a surge in global scientific collaborations. These arrangements leverage diverse talent from around the world to enhance the quality of research.

International collaborations have led to millions of co-authored papers. International research partnerships were relatively rare before 1980, accounting for just over 7,000 papers, or about 2% of the global output that year. But by 2010 that number had surged to 440,000 papers, meaning 22% of the world's scientific publications resulted from international collaborations.

This growth, building on the "collaboration dividend," continues today and has been shown to produce the highest-impact research. Universities tend to share academic goals with other universities and have wide networks and a culture of openness, which makes these collaborations relatively easy.

Today, universities also play a key role in international supercollaborations involving teams of hundreds or even thousands of scientists. In these huge collaborations, researchers can tackle major questions they wouldn't be able to in smaller groups with fewer resources.

Global Hubs Driving Scientific Innovation

Regional research hubs, especially in North America, Europe, and Southeast Asia, have linked scientists across borders to tackle global challenges, such as the rapid development of COVID-19 vaccines

Supercollaborations have facilitated breakthroughs in understanding the intricate physics of the universe and the synthesis of evolution and genetics that scientists in a single country could never achieve alone.

The Power of Collaboration

Global scientific collaborations have soared, with international partnerships now accounting for 22% of the world's scientific publications, producing the highest-impact research

The role of global hubs

Hubs made up of universities from around the world have made scientific research thoroughly global. The first of these global hubs, consisting of dozens of North American research universities, began in the 1970s. They expanded to Europe in the 1980s and most recently to Southeast Asia.

These regional hubs and alliances of universities link scientists from hundreds of universities to pursue collaborative research projects.

Scientists at these universities have often transcended geopolitical boundaries, with Iranian researchers publishing papers with Americans, Germans collaborating with Russians and Ukrainians, and Chinese scientists working with their Japanese and Korean counterparts.

The COVID-19 pandemic clearly demonstrated the immense scale of international collaboration in global megascience. Within just six months of the start of the pandemic, the world's scientists had already published 23,000 scientific studies on the virus. These studies contributed to the rapid development of effective vaccines.

With universities' expanding global networks, the collaborations can spread through key research hubs to every part of the world.

Is global megascience sustainable?

But despite the impressive growth of scientific output, this brand of highly collaborative and transnational megascience does face challenges.

On the one hand, birthrates in many countries that produce a lot of science are declining. On the other, many youth around the world, particularly those in low-income countries, have less access to higher education, although there is some recent progress in the Global South.

Sustaining these global collaborations and this high rate of scientific output will mean expanding access to higher education. That's because the funds from higher education subsidize research costs, and higher education trains the next generation of scientists.

De Solla Price couldn't have predicted how integral universities would be in driving global science. For better or worse, the future of scientific production is linked to the future of these institutions.

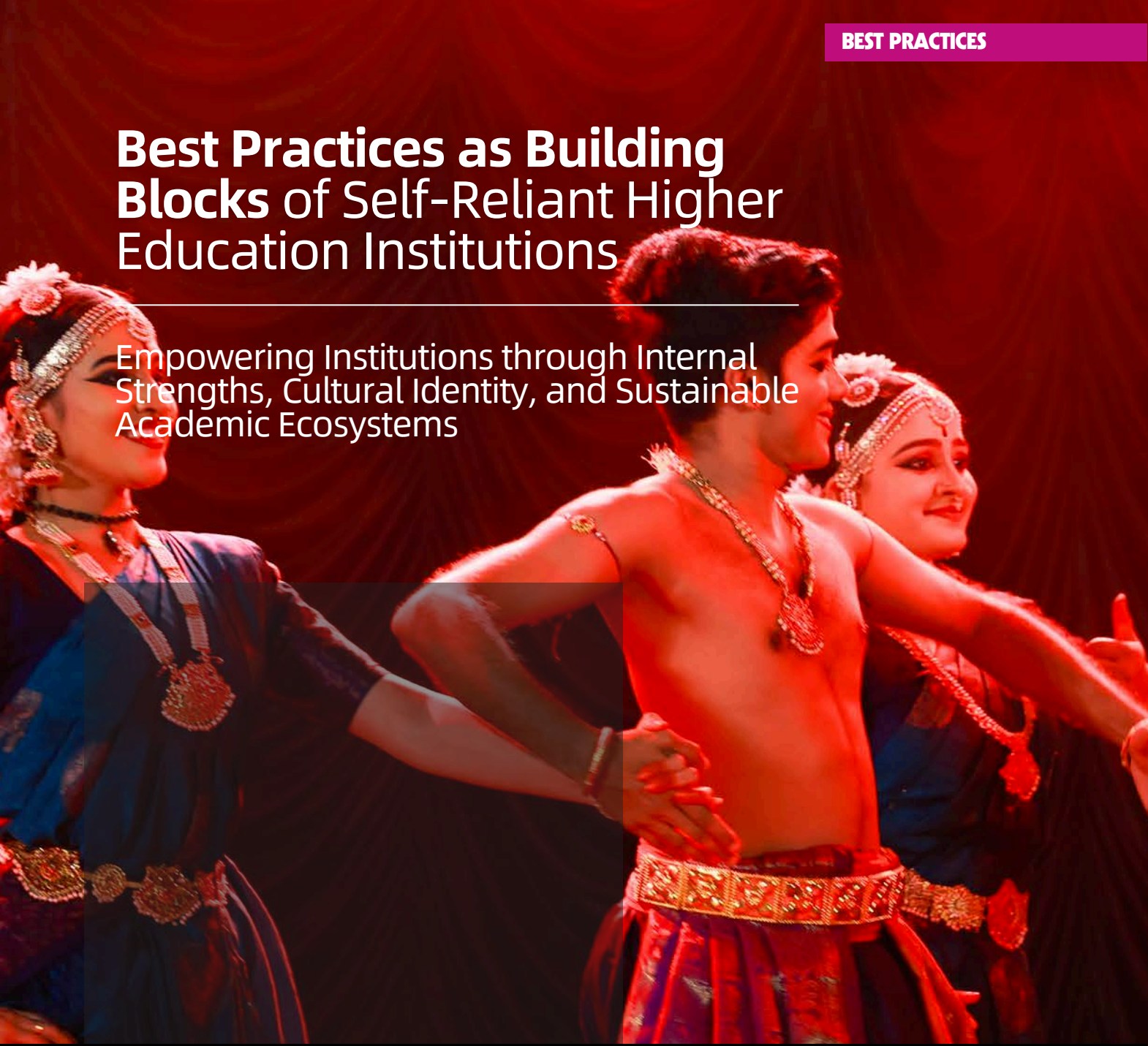
David P. Baker, Professor of Sociology, Education and Demography, Penn State

Justin J.W. Powell, Professor of Sociology of Education, University of Luxembourg

Source: This article was originally published on The Conversation.

Best Practices as Building Blocks of Self-Reliant Higher Education Institutions

Empowering Institutions through Internal Strengths, Cultural Identity, and Sustainable Academic Ecosystems



In an increasingly complex and competitive higher education environment, institutions must go beyond conventional roles of teaching and credentialing. The need of the hour is to cultivate meaningful and innovative best practices that drive academic excellence, promote institutional identity, and ensure long-term sustainability. These best practices—ranging from academic rigor, interdisciplinary research, and social outreach to student collectives, digital innovation, and faculty-led initiatives—form the cornerstone of an institution's core competencies.

When nurtured systematically, these competencies empower institutions to become self-reliant, positioning them as resilient and responsive entities capable of shaping their own futures. Self-reliance in this context refers not only to financial sustainability but also to academic autonomy, creative expression, and the ability to adapt and lead amidst evolving global challenges. Institutions that identify, systematize, and scale their internal strengths can reduce dependency, enhance credibility, and stand apart in the national and international academic community.

Institutions that identify, systematize, and scale their internal strengths can reduce dependency, enhance credibility, and stand apart in the national and international academic community.

These practices also translate into experiential learning for students, equipping them with real-world knowledge, critical thinking skills, and entrepreneurial capabilities. Through participation in such environments, students gain confidence and insight to pursue meaningful careers and social innovation. This is how best practices transform into living systems that benefit both the institution and its wider ecosystem.

An exemplary model of such a practice is the cultural initiative "**Bhavayamai**", conceptualized and performed by the faculty and students of RLV College of Fine Arts, Thripunithura. A rich confluence of classical art forms woven into an epic narrative, the performance was a celebration of creative synergy and academic expression. Bhavayamai was featured during the cultural segment of the International Conclave held in January 2025 and captivated audiences with its sophistication, collaboration, and cultural depth.

This initiative illustrates how institutional uniqueness can be amplified through well-crafted practices that bring visibility, value, and voice to both the institution and its community. Cultural programmes like Bhavayamai are not just aesthetic achievements but reflections of a larger vision—where academic institutions serve as self-sustaining ecosystems of knowledge, creativity, and social commitment.

By identifying and celebrating such best practices, institutions pave the way for a future grounded in excellence, identity, and resilience. More than just success stories, these practices serve as replicable models of self-reliance and inspiration for the larger academic landscape.

Kairali Research Awards 2024: **Honouring Excellence**

Reaffirming Commitment to Authentic Research in the Face of Growing Pseudoscientific Trends

The Kairali Research Awards for 2024 were officially presented in Thiruvananthapuram on March 26, 2024. The awards, which included categories such as the Global Lifetime Achievement Prize, Lifetime Achievement Prize, Gaveshana Puraskaram, and Gaveshaka Puraskaram, were conferred by the Honorable Chief Minister. The event was presided over by Dr. R. Bindu, the Honorable Minister for Higher Education and Social Justice.

In his address, the Chief Minister underscored the critical importance of maintaining the integrity of scientific research and expressed concern over the current trend of undermining research quality in favor of sensationalized interpretations based on epic narratives. He emphasized that the state of Kerala remains steadfast in its commitment to promoting research through sufficient funding and support for scientific initiatives.

Additionally, the Chief Minister criticized the central government for fostering pseudoscience and for glorifying mythological and religious texts as scientific facts. He stressed that the true purpose of research should be grounded in evidence-based inquiry rather than the distortion of scientific methods in favor of ideological beliefs. The Chief Minister's remarks highlighted the necessity for continued vigilance in upholding the credibility of scientific research in the face of growing challenges from non-scientific influences, both within and outside the country.

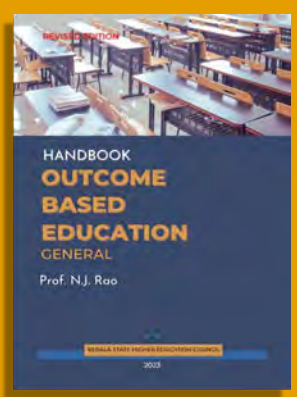
'The true purpose of research should be grounded in evidence-based inquiry rather than the distortion of scientific methods in favour of ideological beliefs'

HANDS-ON-TRAINING

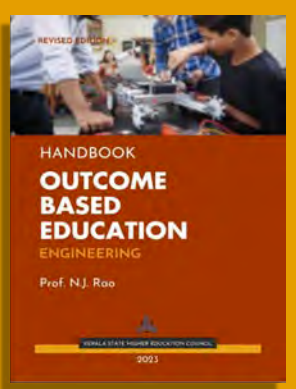
OUTCOME BASED EDUCATION (OBE)

All Higher education Institutions in the country are advised to implement OBE in curriculum design and practice by stating the learning outcomes of programmes and their courses including the Graduate Attributes. A specially designed scheme of OBE by Prof. N.J. Rao is being offered through training/workshops by the Council. It includes, Blooms taxonomy, three-level Outcome scheme, assessment and evaluation methods, attainment of outcomes.

- **Kerala State Higehr Education Council organises Training for the Institutions and Faculty**
- **Published Handbook of OBE & Computation of Attainment published for Engineering and General Education programmes etc.**
- **Handbook for Question bank for FYUGP under OBE scheme etc.**



Kerala State Higher Education Council
Science and Technology Museum Campus,
Vikas Bhavan P.O., Thiruvananthapuram-695033,
Kerala State, India
www.kshec.kerala.gov.in



Outcome Based Education Part-III

Integrating **Revised Bloom's Taxonomy** in Kerala's Higher Education Framework

A Structured Approach to Enhancing Learning Outcomes, Curriculum Design, and Assessment Practices across Universities

The taxonomy of learning refers to a structured classification of the processes involved in acquiring knowledge, skills, and attitudes. It offers educators a framework to design, deliver, and assess instruction in a systematic and meaningful way. Various educational theorists and researchers have proposed taxonomies to understand how learning occurs and how it can be enhanced. These taxonomies are grounded in observed learning behaviors and cognitive functions, aiming to provide structure and clarity to the learning process. Among the many taxonomies that exist are those developed by Bloom, SOLO, Fink, Gagné, Marzano, Kendall, and Simpson, each contributing uniquely to the field of education. Krathwohl (2001), which is commonly used to structure learning outcomes, instruction, and assessment in modern educational settings.

Bloom's Taxonomy, perhaps the most widely recognized, focuses on the cognitive domain, emphasizing the development of intellectual skills and knowledge. It presents a hierarchy of learning objectives, from basic recall to higher-order thinking like analysis, evaluation, and creation. An important adaptation of this model is the Revised Bloom's Taxonomy by Anderson and Krathwohl (2001), which is commonly used to structure learning outcomes, instruction, and assessment in modern educational settings.

The SOLO (Structure of Observed Learning Outcomes) taxonomy also addresses the cognitive domain but focuses specifically on the complexity of understanding. It categorizes learning outcomes based on the depth of understanding demonstrated by learners, progressing from simple to more integrated levels of comprehension.

Fink's Taxonomy provides a comprehensive approach by encompassing all three domains of learning—cognitive, affective, and psychomotor. It promotes significant learning experiences by integrating diverse dimensions of learning, including foundational knowledge, application, integration, and human dimension.

Gagné's Taxonomy also spans across cognitive, affective, and psychomotor domains, with an emphasis on the internal processes of learning. It outlines nine instructional events that align with various types of learning outcomes, offering a step-by-step model for effective instruction.

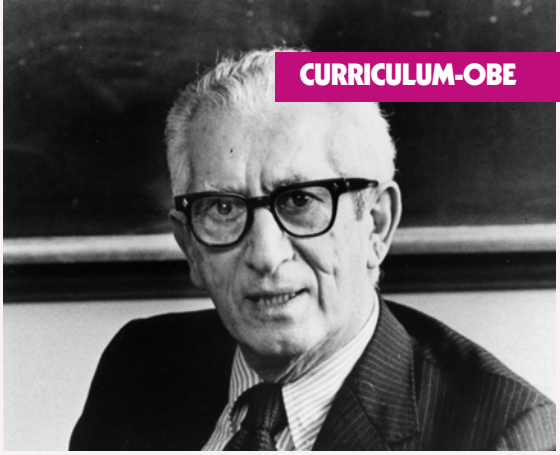
Marzano's Taxonomy emphasizes educational objectives within the cognitive, metacognitive, and psychomotor domains. It seeks to move beyond basic content mastery to help students develop self-awareness and control over their own learning processes.

Similarly, **Kendall's Taxonomy** addresses learning levels across cognitive, affective, and psychomotor domains, helping educators structure learning experiences that are balanced and developmentally appropriate.

Lastly, **Simpson's Taxonomy** is dedicated to the psychomotor domain, with a focus on the development of physical skills and motor abilities. It is particularly valuable in disciplines that involve hands-on learning and skill-based tasks.

At the course level, these taxonomies are instrumental in aligning three essential aspects of education: (1) Course Outcomes, (2) Instruction, and (3) Assessment. By aligning these components with a suitable learning taxonomy, educators can ensure that their teaching is targeted, effective, and responsive to the diverse needs of learners. Overall, the taxonomy of learning serves as a vital tool in designing educational experiences that promote deeper understanding and meaningful learning. Additionally, taxonomies help in identifying and distinguishing the varying levels of difficulty across course components. This, in turn, aids in categorizing courses and their corresponding learning outcomes into different levels—such as foundation, intermediate, or advanced—particularly in undergraduate programmes.

Graduates have three primary pathways —higher education and research, employment, or entrepreneurship—each requiring adaptability, skills, and a proactive mindset to achieve success



Blooms Taxonomy

In 1956, Benjamin Bloom headed a group of educational psychologists who developed a classification of intellectual behavior levels important in learning, which became a taxonomy including three overlapping domains: the cognitive, psychomotor, and affective. Cognitive learning is demonstrated by knowledge recall and intellectual skills: comprehending information, organizing ideas, analyzing and synthesizing data, applying knowledge, choosing among alternatives in problem-solving, and evaluating ideas or actions. This domain on the acquisition and use of knowledge is predominant in the majority of courses. Bloom identified six levels within the cognitive domain, from the simple recall or recognition of facts, as the lowest level, through increasingly complex and abstract mental levels, to the highest order, classified as evaluation. The six progressive stages of cognitive thinking are identified as knowledge (recall), comprehension, application, analysis, synthesis, and evaluation. Bloom's initial work was followed up with research that resulted in a list of Action Verbs representing intellectual activity on each cognitive domain's respective level.

Emergence of Revised Taxonomy

Krothwhol (1964) took the lead to produce a parallel taxonomy explaining the development of attitudes, principles, codes, and human values. Affective learning is demonstrated by behaviors indicating attitudes of awareness, interest, attention, concern, responsibility, ability to listen and respond in interactions with others, and the ability to demonstrate those attitudinal characteristics or values appropriate to the test situation and the field of study. This domain relates to emotions, attitudes, appreciations, and values, such as enjoying, conserving, respecting, and supporting. Six progressive stages constitute personal growth in the affective domain: affective perceiving, reacting, conforming, validating, affective judging, and affective creating. Verbs applicable to the affective domain include accept, attempt, defend, dispute, join, judge, praise, question, share, support, and volunteer.

Taxonomies: Focusing on Revised Bloom's

Together, these taxonomies for cognitive learning, social interaction, and physical development are the recognized building blocks for creating measurable learning outcomes, planning instruction, and measuring the attainment of outcomes.

Bloom's taxonomy has been revisited several times by educational psychologists, and several variants of the original taxonomy were proposed. L.W. Anderson, D.R. Krathwohl, and others presented a revision of Bloom's taxonomy of educational objectives in 2001. They re-established the relevance of the ideas in Handbook (1956) and incorporated new knowledge and thought that had been produced since 1956. The revised framework was intended to broaden the typical set of learning outcomes that promote 'retention' and 'transfer.' This framework consists of six cognitive processes.

There exist several other taxonomies: SOLO, Fink, Gagne, and Marazano & Kendall. All taxonomies are attempts to structure the processes involved in learning based on observations of learning behaviors and the limited understanding of how the brain functions. Our focus will be on Revised Bloom Taxonomy, also referred to as Revised Bloom's Taxonomy.

Together, these taxonomies for cognitive learning, social interaction, and physical development are the recognized building blocks for creating measurable learning outcomes, planning instruction, and measuring the attainment of outcomes.

Bloom's taxonomy has been revisited several times by educational psychologists, and several variants of the original taxonomy were proposed. L.W. Anderson, D.R. Krathwohl, and others presented a revision of Bloom's taxonomy of educational objectives in 2001. They re-established the relevance of the ideas in Handbook (1956) and incorporated new knowledge and thought that had been produced since 1956. The revised framework was intended to broaden the typical set of learning outcomes that promote 'retention' and 'transfer.' This framework consists of six cognitive processes.

As there are several other taxonomies like SOLO, Fink, Gagne, and Marazano & Kendall, all taxonomies are attempts to structure the processes involved in learning based on observations of learning behaviors and the limited understanding of how the brain functions. Our focus will be on Revised Bloom Taxonomy, also referred to as Revised Bloom's Taxonomy.

Revised Taxonomy in Use

In Kerala, the Revised Bloom's Taxonomy (RBT) has become an integral framework for shaping the educational landscape, particularly within the context of the Four-Year Undergraduate Programme (FYUGP). The Kerala State Higher Education Council (KSHEC) emphasizes the significance of RBT in defining, structuring, and assessing learning outcomes across the state's universities. The "Handbook for Master Trainers" issued by KSHEC encourages educators to utilize RBT to establish measurable cognitive and skill development objectives. This approach is embedded in Kerala's "Higher Education Curriculum Framework," which aligns with national educational policies and mandates such as those from the University Grants Commission (UGC). The framework advocates for the adoption of structured taxonomies to ensure coherent and assessable learning experiences.

All of the multidisciplinary universities in Kerala, have actively incorporated RBT into their curriculum development and assessment procedures. Syllabus of all courses (papers) of the four year undergraduate programmes (FYUGP) in these universities fix the levels of courses for the foundation courses to the advance courses have been designed with RBT's cognitive levels—Remember, Understand, Apply—to structure course outcomes effectively. This allows for a clear alignment between course objectives and measurable cognitive skills. Similarly, Mahatma Gandhi University has focused on adapting its curriculum to emphasize the higher-order cognitive processes described in RBT, while also refining assessment practices to better evaluate students' intellectual growth. Furthermore, the University of Calicut has introduced initiatives to analyze exam papers using the RBT framework to ensure a balanced distribution of cognitive levels, promoting critical thinking and problem-solving among students.

These concerted efforts by Kerala's higher education institutions reflect a broader commitment to the implementation of globally recognized taxonomies for educational outcomes. By integrating RBT into curriculum design, assessment practices, and learning evaluations, the universities in Kerala are aligning with national educational reforms aimed at fostering critical thinking, innovation, and transferable knowledge among students, ensuring that learning remains measurable, progressive, and relevant in a rapidly evolving educational landscape.

All of the multidisciplinary universities in Kerala, have actively incorporated RBT into their curriculum development and assessment procedures. Syllabus of all courses (papers) of the four year undergraduate programmes (FYUGP) in these universities fix the levels of courses for the foundation courses to the advance courses have been designed with RBT's cognitive levels—Remember, Understand, Apply—to structure course outcomes effectively.

Did you know?

According to a study by the OECD, 45% of college graduates across member countries report being in jobs that do not require a university degree, highlighting the challenges of aligning education with the labor market.

Enrolment in Higher Education: Global Lessons for Kerala

The Kerala State Higher Education Council (KSHEC), in association with Cochin University of Science and Technology (CUSAT), organised a distinguished lecture by international higher education policy expert Jonathan Williams on 6 May 2025 at the Senate Hall of CUSAT. The event brought together academics, policymakers, and administrators to explore the implications of declining enrolment in higher education, a challenge increasingly relevant to Kerala. In his address, Mr.Williams contextualised Kerala's situation within a broader global landscape, pointing out that countries such as Germany, France, Spain, Poland, the UK, the US, Japan, South Korea, and Taiwan are also grappling with similar demographic shifts. He stressed the need for higher education systems to respond strategically rather than reactively.

Mr. Williams presented two broad categories of response: mitigation and adaptation. Mitigation efforts involve increasing participation rates and attracting students from other states and countries; while adaptation includes facilitating institutional shifts, enabling consolidation of institutions, and offering new pathways for higher studies through internationalisation. He cautioned against relying solely on rescuing public providers and instead advocated for considering well-planned mergers and system-wide reforms.

A key message of the lecture was the importance of maintaining academic quality. Mr.Williams warned against "placebo higher education," where institutions provide credentials without ensuring that students acquire meaningful, higher-level skills. Quality assurance, he argued, must remain a top priority even amidst demographic pressures.

The programme commenced with a welcome address by Dr. Arun A.U., Registrar of CUSAT, followed by the presidential address from Vice-Chancellor Professor M. Junaid Bushiri. Dr. Rajan Varughese, Member Secretary of KSHEC, delivered the theme-setting keynote address, and Dr. Hareesh Ramanathan, Director, International Relations of CUSAT proposed the vote of thanks.

Research Priorities in Kerala

Mapping Kerala's Scientific Strengths Through Global Research Database Insights

Kerala's research ecosystem is primarily anchored in its state universities and other research institutions, which form the backbone of the region's academic and scientific innovation. These institutions are actively engaged across a spectrum of disciplines, consistently contributing to both fundamental research and its application in solving regional and global challenges.

The Web of Science (WoS) is a globally recognized database curated by Clarivate Analytics which has a standardized classification system that groups publications covering wide range of subject areas. WoS indexes scholarly articles from over 21,000 journals across more than 250 disciplines and categorizes research outputs to reveal thematic strengths at institutional and regional levels. Based on analytics drawn from the WoS, the research priorities of Kerala exhibit a distinctive pattern shaped by both academic excellence and socio-economic relevance.

A treemap visualization of the top 25 Web of Science categories offers a clear snapshot of Kerala's core research focus areas, with outputs systematically organized by discipline using this structured framework. Dominating the landscape is Materials Science Multidisciplinary, with 5,795 publications, signaling a strong emphasis on advanced materials, polymers, and nanotechnology. This prominence suggests a strategic alignment with industrial applications and emerging technologies.

Kerala's universities and institutions lead interdisciplinary research in materials, chemistry, environment, and health, aligned with regional and global priorities.

Closely following are key subfields within Chemistry, including Physical Chemistry (3,654), Multidisciplinary Chemistry (3,532), Organic Chemistry (1,284), and Applied Chemistry (1,287). These figures point to Kerala's consistent investment in both theoretical and applied chemical sciences. Additionally, Polymer Science (2,916) and Applied Physics (2,842) further establish the state's focus on physical sciences and engineering-related domains.

Environmental and ecological research also features prominently, aligning with Kerala's unique biodiversity and natural resources. Fields such as Environmental Sciences (2,531), Plant Sciences (2,138), Geosciences Multidisciplinary (1,382), and Meteorology & Atmospheric Sciences (1,323) illustrate the state's academic commitment to sustainability, agriculture, and climate-related challenges.

Biomedical and health sciences constitute another significant component of Kerala's research output. Notable categories include Biochemistry & Molecular Biology (2,460), Clinical Neurology (1,717), Oncology (1,648), Pharmacology & Pharmacy (1,497), and Neurosciences (1,329). These reflect not only academic focus but also Kerala's robust healthcare infrastructure that facilitates medical research and innovation

Smaller yet notable contributions appear in fields such as Food Science & Technology (1,407), Engineering (Electrical, Electronic, and Chemical), Energy Fuels, and Astronomy & Astrophysics, showcasing the breadth of interdisciplinary engagement within the state.

Clarifying Assumptions

The categorization and volume of publications suggest that Kerala's research priorities are guided by a mix of natural resource-based relevance, industrial and technological applicability, and public health imperatives. The high representation in materials science, polymers, and chemistry aligns with national R&D missions and industrial collaborations. Environmental sciences reflect Kerala's rich natural ecosystems and ongoing ecological concerns, while the health sciences focus corresponds with the state's strong public health system and interest in clinical and pharmaceutical research. The government of Kerala promotes research in these sectors which directly impacts the state's developmental priorities.

The WoS-based analysis offers a comprehensive picture of Kerala's research strengths. With leading contributions in materials science, chemistry, life sciences, environmental studies, and health-related disciplines, Kerala demonstrates a well-rounded, interdisciplinary research profile. These priorities reflect a balanced strategy that addresses both global scientific challenges and region-specific socio-economic needs, firmly positioning Kerala as a significant contributor to India's academic and research advancement.

Dr. Deepika Lakshman
deepikakshec@gmail.com

Source: Web of Science

UGC's 2025 Move to Simplify Foreign Degree Recognition

UGC's 2025 regulation aims for fair recognition of foreign qualifications in India but faces challenges and exclusions that need addressing

The University Grants Commission (Recognition and Grant of Equivalence to Qualifications Obtained From Foreign Educational Institutions) Regulations, 2025, was issued on April 4, 2025, to address the growing need for a clear framework to recognize foreign academic qualifications in India. This move aligns with the broader objectives of the National Education Policy (NEP) 2020, which suggested global academic collaboration and student mobility. With an increasing number of Indian students studying abroad, the regulation partially tries to ensure a standardized and fair system for determining the equivalence of their qualifications within India's higher education and employment sectors.

Currently, Indian students returning from abroad often faced delays and uncertainty in getting their international qualifications recognized, which hindered their academic and professional pursuits. Previously, the Association of Indian Universities (AIU) was responsible for issuing equivalence certificates, but the process was often criticized for being time-consuming and lacking transparency.

Relevance to Beneficiaries:

This regulation primarily benefits students with foreign academic credentials who seek to continue their education or pursue professional opportunities in India. It offers a formal, accessible procedure through an online portal, allowing applicants to apply for equivalence certificates. The regulation lays out certain criteria for recognition based on academic standards, curriculum, credits, and institutional authenticity. For students, this provides a sense of clarity and direction when returning to India for higher education or employment. Institutions also benefit from having a consistent basis for evaluating international qualifications.

> However, professional degrees—such as those in medicine, law, pharmacy, nursing, and architecture—are excluded from this framework and remain under the jurisdiction of their respective regulatory councils. This reform aligns with the National Education Policy 2020's vision to ease integration of foreign-qualified individuals into India's academic and professional systems.

While the UGC's notification marks a significant step in easing access to higher education and employment for foreign-qualified individuals in the country, it troubles a major group of foreign students in professional programmes since it notably excludes professional degrees such as medicine, law, pharmacy, and architecture, which remain under their respective regulatory councils

In this context, the Washington Accord becomes particularly relevant for engineering degrees—it allows India to automatically recognize undergraduate engineering qualifications from signatory countries, thanks to mutual accreditation standards upheld by the National Board of Accreditation (NBA). Thus, while the UGC's reforms address general academic degree recognition, the Washington Accord complements this by facilitating smooth recognition of engineering degrees, collectively advancing India's efforts to integrate international education with national academic and employment frameworks.

Challenges:

While the regulation is a step toward better integration of international academic systems, a few aspects could pose challenges:

- Exclusions of Certain Fields: The exclusion of disciplines like Medicine, Law, and Architecture is understandable due to statutory body regulations, but it might create confusion among applicants unfamiliar with such distinctions.
- Franchised Institutions Clause: Qualifications obtained through franchised campuses of foreign institutions are not eligible for recognition. While this aims to maintain quality, students enrolled in legitimate programmes abroad through such arrangements may find themselves disadvantaged.
- Documentation Requirements: The regulation requires English translations for non-English documents, which could introduce logistical delays for some applicants.
- Process Complexity for Some Cases: Although a clear structure is provided, the process may still feel complex for applicants without prior guidance, especially when additional information or reviews are requested.

Some fine-tuning—such as more student-friendly communication, support in documentation, and awareness of exclusions—can make the system even more effective and inclusive

The regulation is a timely initiative that addresses a genuine need in the Indian education system. It seeks to build a fair mechanism to integrate international qualifications into domestic academic and professional pathways. While not without its limitations, the framework introduces much-needed clarity and structure. Some fine-tuning—such as more student-friendly communication, support in documentation, and awareness of exclusions—can make the system even more effective and inclusive.

Higher Education for the Future is a bi-annual peer-reviewed multi-disciplinary journal that is designed to shape the new generation of higher education based on national and international experience. It seeks to address a wide spectrum of issues including policy, pedagogy, and research in higher education.

TOP
SCOPUS QUARTILE 1 RANKING

READ LATEST RESEARCH

Higher Education for the Future (HEF) is published by the Kerala State Higher Education Council in collaboration with SAGE Publication

subscribe now

KSHEC IN MARCH '25
kerala state higher education council

Faculty Development Programme (FDP)

March 17-21, 2025

One Week Faculty Development Programmes (FDP) on 17-21 March 2025 and 5-9 May 2025 in Thiruvananthapuram. Organized by the Centre of Excellence for Teaching, Learning, and Training (CETLT) and the Faculty Development Centre (FDC) of the Kerala State Higher Education Council, this programme aimed at enhancing curriculum and promoting techno-pedagogy among teachers of higher education institutions. The FDP focused on curricular reforms and the integration of technology in teaching.

The training covered a comprehensive range of topics crucial for modernizing teaching methodologies and aligning them with technological advancements in education. The sessions focused on Industry 4.0 and 5.0, highlighting the future skills needed for students, and Optimizing Teaching Outcomes through Outcome-Based Education (OBE), emphasizing effective teaching strategies. Other important topics included Emerging Technologies, Big Data Fundamentals, and the integration of Skill Education to empower students for real-world challenges. The programme also explored the evolving Curriculum Framework, with sessions on adapting syllabi and introducing AI-based assessment tools, such as Question Bank Preparation.

Kairali Research Awards Distribution Ceremony

March 26, 2025

Chief Minister Pinarayi Vijayan distributed the prestigious Kairali Research Awards at a ceremony held here on 26th March at Thiruvananthapuram. The Kairali Global Lifetime Achievement Prize for Researchers was awarded to polyglot Chathanath Achuthanunni, scientist P.P. Divakaran and scholar K.P. Mohanan, representing the domains of arts and humanities, science and social science respectively. Similarily, Writer B. Rajeevan, theoretical chemist K.L. Sebastian and historian Kesavan Veluthat were chosen for the Kairali Lifetime Achievement Prize for Researchers for Arts and Humanities, Science & Social Science respectively. The Kairali Gaveshaka Puraskaram for post-doctoral research and the Kairali Gaveshana Puraskaram for teachers undertaking research were also presented on the occasion.

Postgraduate Curriculum Reforms

April 2, 2025

A one-day workshop on postgraduate curriculum was organized by the Kerala State Higher Education Council at the Cochin University of Science and Technology (CUSAT) on Wednesday. Members of the committee formed by the Higher Education Council to recommend reformation measures for the postgraduate curriculum across the state's universities participated in the workshop.

The committee's goal is to focus on innovation in the higher education sector, with an emphasis on skill development. Recommendations were made to introduce course work, internships, apprenticeships, and research options, as well as industry-driven courses aimed at skill development and credit allocation based on work experience.

The workshop was inaugurated by CUSAT Vice-Chancellor Dr. M. Junaiid Bushiri. Dr. Rajan Varghese, Member Secretary of the Higher Education Council, chaired the session. Prof. Rajan Gurukkal, Vice Chairman of the Council, delivered the keynote address. Prof. Saji Gopinath, Prof. Suresh Das, Dr. Sudheendran, Dr. S.M. Sunoj (Dean of the Science Faculty at CUSAT), Dr. A.U. Arun (Registrar), and Dr. Sam Thomas (Director, IQAC) also spoke during the event.

Workshop for University Syndicate Members

April 29-30, 2025

The Kerala State Higher Education Council has organised a two day workshop on "Higher Education Transformation & Governance" for the syndicate members of the State Universities in Kerala during 29th & 30th April 2025 at Thiruvananthapuram. Workshop focused on various topics of transforming sectors of higher education like curricular framework, academic governance, university statutes, outcome based education, new initiatives of the State etc. Hon. Minister for Higher Education Dr. R. Bindu inaugurated the programme and involved in detailed discussions with he members and scholars who participated in the programme.

UNIVERSITIES IN MARCH '25
universities in Kerala

University of Kerala

Overall Championship in 38th National inter University Youth Festival:

- University of Kerala won the overall Championship at the 38th National inter University Youth Festival held at Amity University, Noida, Uttar Pradesh. This is the first time a university from Kerala has won the overall championship

Kairali Research Awards-2024:

- Dr. Subodh G, Assistant Professor, Dept. of Physics, University of Kerala (physical science) received the 'Kairali Gaveshana Puraskaram' from the Hon'ble Chief Minister of Kerala for researchers among regular faculty in the state, to undertake projects with financial support of up to Rs 25 lakh.

The International Women's Day celebration 2025:

- The Centre for Women's Studies and the Kerala University Department Union jointly conducted various programmes and activities as envisioned by this year's theme, 'Accelerate action'. A women's self-defence walk in training programme 'Jwala 3.0' with the support of police personnel was also conducted.

International Conference 2025:

- Kerala University Research Students' Union in association with IQAC conducted International Conference 2025 on Rethinking Research.

One Day Workshop on Unlocking Innovations via Patent Strategies:

- Translational Research & Innovation Centre (TRIC-KU) in association with Research Students' Union organized the workshop lead by Dr. K.T. Varughese (IP Counsel & Patent Agent Exam Trainer), Dr. Sakshi Gupta (IP Lead USA-KRISHI New Delhi) and other eminent faculties.

Drone/UAS Allied Technologies Bootcamp:

- Kerala University Business Innovation and Incubation Centre (KUBIIC) and Legacy - Innovation and Entrepreneurship Development Centre (IEDC), University College of Engineering hosted a fully-funded Boot Camp in collaboration with NIELIT Calicut.

United Nations Replica 2025:

- Department of Political Science in association with Centre for Latin American Studies conducted Model Conference of UN Security Council. Sri T.P. Sreenivasan, Former Ambassador attended the programme.

Cheruthukalude Cheruthunilpp" (resistance of the minusclue):

- As an initiative to revive traditional games and handicraft making of our state, the Department of Kerala Studies conducted a 3 day programme which was inaugurated by renowned actor-cum-director Sri. Madhupal.

"Save our fresh water Fish" - An interactive session with representatives from SHOAL Conservation:

- Conducted exclusive interactive session with Georgie Bull and Michael Edmonstone from SHOAL Conservation, focusing on the importance of freshwater fish conservation and the challenges faced in aquatic ecosystems.

National Workshop on Plant Genome Analysis:

- Conducted 5 day workshop about understanding the plant genome sequences: challenges and opportunities and national workshop on plant genome analysis.

Kannur University

Workshop on Disaster Management & Climate Change

- The Malabar Multi-Disciplinary Training Centre (MMTTC) at Kannur University conducted an online workshop focusing on disaster preparedness and the impacts of climate change. Participants from various disciplines engaged in discussions and training sessions aimed at enhancing resilience strategies.

Video Making Competition for National Science Day

- K-In celebration of National Science Day, the Department of Molecular Biology organized a video-making competition for undergraduate and postgraduate students in Kannur district. Participants created videos highlighting scientific concepts, with submissions accepted through early March.

Expressions of Interest for PM USHA-MERU Projects

- Kannur University invited expressions of interest from accredited agencies for project management consultancy services related to construction and renovation projects across multiple campuses. This initiative aimed to enhance the university's infrastructure to support multidisciplinary education and research

Mahatma Gandhi University

Indo-French Workshop on Functional Materials

- Mahatma Gandhi University jointly hosted an Indo-French Workshop on Functional Materials for Emerging Applications from 16 to 18 April 2025. Organized in partnership with the University of Technology of Troyes (France) and supported by the Indo-French Centre for the Promotion of Advanced Research (CEFIPRA), the event aimed to foster scientific collaboration between Indian and French researchers in advanced functional materials. The workshop featured discussions on recent advancements in functional materials for energy storage, water purification, optoelectronics, and biomedical technologies. Experts from academia and industry led plenary sessions and panel discussions, strengthening international research partnerships in the field

International Child Rights Practicum 2025

- Mahatma Gandhi University hosted the International Child Rights Practicum 2025, a ten-day event held from 19 to 28 April 2025. Inaugurated by the Vice-Chancellor, this initiative was designed to enhance awareness and advocacy for child rights,bringing together renowned experts, policymakers, legal professionals, and volunteers from India and abroad.The programme featured distinguished speakers in its opening sessions. Jointly organized by MGU's School of Pedagogical Sciences and various child rights organizations, the practicum focused on child protection laws, best practices in child welfare, and the role of education – complemented by hands-on training and field visits

International Conference on Polymers and Nanomaterials

- Mahatma Gandhi University hosted the International Conference on Polymers and Nanomaterials (ICPN 2025) from 23 to 25 April 2025.Jointly organized by the Inter-University Centre for Nanoscience and Nanotechnology (IIUCNN) along with the School of Energy Materials and the School of Nanoscience & Nanotechnology, the conference attracted over 250 delegates from around the world. It served as a platform to discuss the latest developments in polymer science, composites, and nanomaterials, with keynote lectures, plenary sessions, invited talks, and panel discussions.Poster presentations were evaluated by an international jury, and the event fostered collaboration by exploring global funding opportunities for interdisciplinary research

University of Calicut

National Conference on Computational Intelligence and Data Analytics

- The Department of Computer Science hosted the Fourth National Conference on Computational Intelligence and Data Analytics (CIDA 2025) from March 3–5, 2025. This national conference, held at the EMS Seminar Complex on campus, aimed to bring together leading academic scientists, researchers, and industry experts to share cutting-edge advances in computational intelligence and big data analytics. CIDA 2025 featured keynote lectures by eminent experts, technical paper presentations, and discussion sessions to showcase pioneering research and foster collaborations in these fields. The event also included a hands-on pre-conference workshop on March 3rd focusing on deep learning techniques (image and text analysis) as a primer for participants, preceding the main conference sessions on March 4–5

Symposium on New Methodologies in Animal Experimentation

- The Department of Zoology organized a National Symposium and Workshop on New Approach Methodologies (NAMs) in Animal Experimentation – 2025, conducted from February 27 to March 7, 2025. In collaboration with the university's Centre for Advances in Molecular Biology (CAMB) and the Central Sophisticated Instrumentation Facility, this pogramme provided hands-on training in modern alternatives to animal testing, including cell culture techniques, flow cytometry (FACS), 3D bioprinting, and advanced microscopy/imaging methods. The workshop was held under the auspices of the Society for Alternatives to Animal Experiments (SAAE-India), reflecting a commitment to ethical research practices and equipping young researchers with interdisciplinary skills. Participants – ranging from faculty and researchers to postgraduate students – engaged with experts in learning how to conduct research using novel model organisms and plan projects that reduce reliance on animal experiments.

Sree Sankaracharya University of Sanskrit (SSUS)

INCLUZIA '25 – Rethinking Ability & Inclusion

- On March 14, 2025, SSUS hosted this national conference focusing on redefining inclusion through diverse perspectives and intersectional approaches to empowerment. The event aimed to foster discussions on embracing diversity and promoting inclusive practices

National University of Advanced Legal Studies (NUALS)

Memorandum of Understanding (MoU)

- Memorandum of Understanding (MoU) with Central University of Tamil Nadu (CUTN): On March 11, 2025, NUALS signed an MoU with CUTN to promote academic excellence through joint research projects, student internships, and collaborative workshops and seminars. This partnership aims to enhance legal education and research by introducing new elective and certificate courses, thereby enriching the academic experiences of students at both institutions

International Alternative Dispute Resolution (ADR)

- On March 14, 2025, NUALS hosted an International ADR Seminar focusing on the transformative potential of ADR in addressing global challenges and technological advancements in dispute resolution. The seminar featured discussions on integrating Artificial Intelligence (AI) in ADR, cross-border arbitration challenges, and evolving frameworks in public policy. It provided a platform for academicians, practitioners, and students to engage with contemporary issues in ADR

Cochin University of Science and Technology (CUSAT)

International Conference on Climate Adaptation and Resilience

- Department of Atmospheric Sciences (DAS) & Advanced Centre for Atmospheric Radar Research (ACARR), CUSAT (with IMS Cochin Chapter organised two-day international conference from March 24–25, 2025 , which brought together climate scientists, meteorologists, and policy experts to discuss innovative strategies for climate adaptation and resilience. Conference titled “Bridging Science, Innovation, and Communities,” CARE-25 served as a global academic platform to share cutting-edge research on climate change impacts and community-based adaptation solutions. Key sessions focused on scientific understanding of climate dynamics, technological innovations for resilience, and engaging local communities with adaptive knowledge. The event facilitated valuable research exchanges and collaborations in the field of climate science.

Launch of 'Photonics News' Newsletter

- The International School of Photonics at CUSAT released the inaugural edition of 'Photonics News' in April 2025. This newsletter features cutting-edge technologies and recent breakthroughs in photonics, optics, and related areas, highlighting the department's research activities and fostering knowledge dissemination within the scientific community.

Instrumentation Industry Conclave

- The Instrumentation Industry Conclave was a collaborative event organized by the Department of Instrumentation at Cochin University of Science and Technology (CUSAT) and the Centre for Innovation, Entrepreneurship & Incubation (ICEI) at the National Institute of Technology Calicut (NIT Calicut). The conclave took place from March 12 to 13, 2025, at the CUSAT campus. This two-day event served as a platform for academia and industry professionals to discuss advancements, challenges, and opportunities in the field of instrumentation. It featured keynote addresses, panel discussions, and technical sessions focusing on the latest trends and innovations in instrumentation technology. The conclave aimed to foster collaboration between educational institutions and the industry, facilitating knowledge exchange and exploring potential partnerships.

Kerala University of Digital Sciences, Innovation and Technology

INNOVATEX 2025

- Digital University Kerala (DUK) hosted INNOVATEX 2025, an AI-focused hackathon organized by the Centre for Intelligent Government. This event provided participants with opportunities to work on real-world challenges in areas like Natural Language Processing. While this initiative fostered innovation and practical AI applications, specific major research findings or developments from DUK's research departments during this period are not detailed in the available sources

MoU with C-DAC

- Memorandum of Understanding signed on March 6, 2025 to foster collaboration in research, development, and skill enhancement in cutting-edge technologies. This partnership focuses on high-performance computing, AI, cybersecurity, digital forensics, e-governance and other ICT domains, leveraging C-DAC’s expertise in these areas. Joint R&D projects in emerging technologies, knowledge exchange programs, faculty/staff collaborations (e.g. expert talks), student projects & internships for hands-on industry exposure, and shared use of research facilities. The aim is to align with DUK’s vision of driving digital innovation and giving students and researchers real-world experience in advanced computing domains

Research Exchange and Future Collaborations

- Building on prior MoUs (e.g. with institutions like ICAR-CTCRI for agri-tech research and international universities for nanotechnology and AI), DUK in April 2025 has been laying groundwork to activate student and faculty exchange programs. These include recognizing external research centers for joint PhDs and planning Centers of Excellence in areas like graphene and sustainability – outcomes of earlier agreements

Kerala University of Digital Sciences, Innovation and Technology

INNOVATEX 2025

- Digital University Kerala (DUK) hosted INNOVATEX 2025, an AI-focused hackathon organized by the Centre for Intelligent Government. This event provided participants with opportunities to work on real-world challenges in areas like Natural Language Processing. While this initiative fostered innovation and practical AI applications, specific major research findings or developments from DUK's research departments during this period are not detailed in the available sources

MoU with C-DAC

- Memorandum of Understanding signed on March 6, 2025 to foster collaboration in research, development, and skill enhancement in cutting-edge technologies. This partnership focuses on high-performance computing, AI, cybersecurity, digital forensics, e-governance and other ICT domains, leveraging C-DAC's expertise in these areas. Areas of Focus: Joint R&D projects in emerging technologies, knowledge exchange programs, faculty/staff collaborations (e.g. expert talks), student projects & internships for hands-on industry exposure, and shared use of research facilities. The aim is to align with DUK's vision of driving digital innovation and giving students and researchers real-world experience in advanced computing domains

Thunchath Ezhuthachan Malayalam University

Samskriti Cultural Fest 2025:

- Samskriti, 2025 was held on March 11th, 12th and 13 th at Aksharam campus, Malayalam University highlighting the diversity of Kerala culture, heritage, practices, and perspectives. The three-day heritage conference hosted by the School of Cultural Heritage Studies encourages critical thinking and explore the dynamics of culture, cultural exchange and diverse perspectives on cultural studies and interdisciplinary fields. Expert talks, discussions, live interactions. art-cultural performances and exhibitions were also a part of the cultural fest.

Workshop on 'Research Writing and Publication':

- Writing and Publication': The School of Development Studies organized a one-day workshop to enhance participants' skills in academic writing, research methodology and publication ethics providing valuable insights in to structuring research papers., selecting appropriate journals and navigating the publication process.

Kerala Veterinary & Animal Science University (KVASU)

New MoU for One Health Research:

- KVASU signed a Memorandum of Understanding (MoU) with Jubilee Mission Medical College & Research Institute, Thrissur to promote collaborative research under the One Health initiative. The focus of this partnership is on developing joint research projects integrating animal, human, and environmental health – reflecting the One Health concept. This MoU opens avenues for interdisciplinary research and knowledge exchange between veterinary and medical scientists.

Lady Vet's Day 2025" Celebration:

- KVASU's Pookode campus hosted a special pogramme on March 5, 2025 to mark Lady Vet's Day 2025, celebrating the contributions of women in veterinary science. The event – organized by the Indian Veterinary Association (IVA) Pookode chapter

Kerala Agricultural University

German collaboration:

- Department of Agricultural Extension Education, College of Agriculture, Vellayani, Kerala Agricultural University (KAU) – Justus Liebig University Giessen, Germany collaboration – The project entitled, "Assessing vulnerability to flood and drought hazards using machine learning" under The Scheme for Promotion of Academic and Research Collaboration, a MoE, GOVERNMENT OF INDIA. The kickoff event, hosted by the Department of Agricultural Extension Education, CoA Vellayani, KAU, marked the beginning of this impactful journey in a hybrid mode, uniting the national and international partners. The national Principal Investigator (PI) is KAU and National Co-PI's are CUSAT and the Indian Institute of Technology, Roorkee. The International PI is JLU, Giessen and International Co-PI is University of Hohenheim, Stuttgart, Germany.

K-AgTech LaunchPad Inauguration

- On March 14, 2025, the College of Agriculture in Vellayani, in collaboration with NABARD and Western Sydney University, inaugurated the K-AgTech LaunchPad. This Rural Business Incubation Centre aims to support AgriTech startups and rural entrepreneurs by providing structured incubation, market linkages, technology access, and business acceleration services. Kerala's Agriculture Minister, P. Prasad, inaugurated the K-AgTech LaunchPad.

Kerala University of Fisheries and Ocean Studies

International Training Collaboration with Norway

- In April 2025, KUFOS embarked on a notable international collaboration to bolster its research in fisheries science. A cohort of ten KUFOS Ph.D. scholars, along with a faculty mentor, traveled to Norway for a three-month intensive training programme at Nofima – Norway's premier institute for fisheries and aquaculture research. This exchange programme is part of a strategic Indo-Norwegian partnership conceptualized during the Kerala Chief Minister's 2022 visit to Norway, aimed at knowledge transfer and capacity building in the fisheries sector. The KUFOS scholars will gain hands-on experience with advanced Norwegian practices in fish biology, aquatic disease management, and sustainable fisheries, which they can later apply to benefit Kerala's fisheries industry. This March saw the formal send-off for the team, marking a milestone in KUFOS's international research engagements and promising to enhance the university's expertise through global collaboration

Antarctic Microplastic Pollution Research Expedition

- Researchers associated with KUFOS have been contributing to cutting-edge environmental research in extreme ecosystems. Notably, faculty from the Department of Aquatic Environment Management at KUFOS played a key role in a scientific expedition to Antarctica that spanned through April 2025. As part of India's 44th Antarctic Expedition, KUFOS professor Dr. Anu Gopinath (in collaboration with Dr. Femi A. Thomas of U.C. College, Aluva) led research on microplastic pollution and "plastisphere" microbial communities in Antarctic environments. This project, approved by India's National Centre for Polar and Ocean Research, investigates the presence and impacts of microplastics in one of Earth's most pristine ecosystems.

Capacity-Building programme in Aquatic Animal Health

- KUFOS also demonstrated its commitment to community outreach and applied technology by training stakeholders in the fisheries sector. During April 2025, the university organized a three-day capacity-building program on aquatic animal disease diagnosis and management for local fish farmers and aquaculture promoters. This program, led by experts in fish pathology and health management, aimed to educate farmers on disease prevention, biosecurity, and modern diagnostic techniques to reduce losses in aquaculture. According to official updates, the training workshop was well received and enhanced participants' skills in maintaining healthier aquaculture systems. Such extension initiatives are a key part of KUFOS's mandate – translating research and technology into practical solutions for the fisheries community. This March event served as a notable example of how KUFOS is bridging academic research with field-level impact, empowering farmers with knowledge to improve aquatic animal health and productivity.

APJ Abdul Kalam Technological University

Centre for Engineering Research and Development (CERD)

- On March 10, 2025, the Higher Education Department sanctioned the release of the second installment of grant-in-aid to KTU's Centre for Engineering Research and Development (CERD). This funding aims to bolster research initiatives and technological advancements within the university.

International Conference on Novel and Smart Technologies for Sustainability

- Scheduled for March 27–29, 2025, at Amal Jyothi College of Engineering, Kanjirappally, this conference focuses on integrating novel and smart technologies for sustainability across various sectors of science, engineering, and technology. It serves as a platform for academicians, researchers, and professionals to share groundbreaking ideas and collaborate on emerging technologies.

Intelligent Reflecting Surface Assisted Millimetre Wave Communication

- The Department of Electronics and Communication Engineering of Mar Baselios College of Engineering and Technology collaborated with Universiti Teknologi Malaysia on a project titled "Intelligent Reflecting Surface Assisted Millimetre Wave Communication for 6G." This two-year project involves faculty members from both institutions and focuses on advancing communication technologies for future networks.

Kerala Kalamandalam Deemed University

Introduction of Traditional Art Forms as Scholarly Content Globally

- On March 17, 2025, Kerala Kalamandalam announced plans to present Kerala's classical art forms as academic disciplines to international audiences, particularly within university settings. This initiative aims to reframe performances like Kathakali, Kuchipudi, Mohiniyattam, and Bharatanatyam as sophisticated art forms rich in knowledge and tradition, moving beyond their portrayal as exotic spectacles

Kalamandalam Festivals across US

- Kalamandalam Festivals across the United States in August 2025, featuring performances, training programs, and discussions to engage the academic community. Collaborations with institutions such as the University of Michigan and City University of New York are being explored to facilitate these cultural exchanges

Northeastern University's AI Collaboration

Northeastern University has partnered with Anthropic, an AI company, to introduce an innovative AI-driven tool for students. Claude, the AI assistant, will be made available to approximately 49,000 students across 13 campuses. This collaboration will allow students to use Claude to generate study guides, quizzes, and other educational resources, improving their learning experience. It reflects Northeastern's commitment to integrating cutting-edge technologies into higher education to enhance accessibility and support academic success. The initiative is part of a growing trend of universities experimenting with AI to personalize and streamline education

Image Source: www.northeastern.edu

OpenAI's Free AI Access for Students

OpenAI has extended its AI tools to U.S. and Canadian college students, offering them free access to ChatGPT Plus through April 2025. This initiative aims to enhance the learning experience by providing advanced AI-driven tools to assist with academic tasks. Additionally, OpenAI has committed $50 million in research funding to 15 universities to support AI-driven innovation. This move highlights OpenAI's efforts to make AI accessible and beneficial to higher education institutions, helping students explore AI's potential in academic research and beyond. The initiative also emphasizes OpenAI's commitment to advancing AI research in education

Image Source: www.hecitylife.org

University of Missouri's Research Milestone

The University of Missouri recently surpassed a historic milestone by securing over $500 million in research funding for 2024, marking a significant increase in research activity since 2013. This funding supports a wide range of groundbreaking work in fields like agriculture, artificial intelligence, and medicine. The university's research strategy focuses on enhancing its impact and fostering interdisciplinary collaboration across various sectors. This achievement underscores the importance of research in driving innovation and addressing real-world challenges. The University of Missouri continues to position itself as a leader in research, advancing knowledge and technology

Image Source: www.appily.com

High Point University's Educational Tech Conference

High Point University recently hosted the North Carolina Technology in Education Society (NCTIES) Conference, showcasing the institution's focus on integrating technology in education. Students presented their work on using robotics as a tool for teaching elementary school students, highlighting how technology can enhance learning and engagement. The conference provided a platform for educators and students to explore new technologies and methodologies in education. High Point's commitment to integrating innovative educational technologies aligns with broader trends in higher education, where universities are increasingly adopting digital tools to improve teaching and student outcomes.

Image Source: www.usnews.com

VCU's Research Weeks Celebration

Virginia Commonwealth University (VCU) is celebrating its annual Research Weeks, a month-long event that showcases its contributions to scientific discovery and academic excellence. During this period, VCU emphasizes its commitment to innovation across multiple disciplines, including health sciences, engineering, and the arts. The event highlights cutting-edge research initiatives and provides a platform for students, faculty, and staff to share their findings with the broader academic community. The celebration underscores VCU's role as a hub of knowledge and research, fostering an environment of collaboration and creativity

Image Source: canvapro.com

BharatGen's AI Model for India

IIT Bombay has launched BharatGen, an open-source, multimodal, multilingual AI model designed to address the country's unique challenges. BharatGen focuses on local languages and cultural contexts, aiming to reduce reliance on foreign AI models and enhance technology's relevance to Indian society. This initiative seeks to improve accessibility, education, and digital inclusion by providing an AI model better suited to the Indian population's needs. It also emphasizes the importance of developing indigenous AI technologies that cater to specific regional requirements and contribute to the global AI landscape.

Image Source: www.iisc.ac.in

International Branch Campuses of Foreign Universities

Several foreign universities have expanded their presence in India by opening branch campuses to address financial challenges and cater to India's growing demand for quality higher education. For instance, the University of Southampton inaugurated its first campus in Gurgaon, Delhi, making it the first UK university to establish a full-fledged campus in India. Other institutions, such as Newcastle, Surrey, and Coventry universities, are planning similar expansions. These campuses offer a more affordable alternative to studying abroad while maintaining the academic standards of the parent institutions, thus enhancing access to international education in India

Image Source: economictimes.indiatimes.com

IISc's Flexible Semiconductor Material

Many institutions have increasingly focused on promoting Indian Knowledge Systems (IKS) through academic pogrammes and collaborations. IIT Roorkee and IIT Bhilai, have signed MoUs to integrate IKS into their curricula. IIT Mandi introduced MS and PhD pogrammes in Music and Musopathy, studying the therapeutic effects of Indian classical music. Additionally, universities in Madhya Pradesh have incorporated ancient political concepts from Indian texts into their courses. This push aims to preserve and integrate traditional knowledge with modern science and technology, providing students with a more holistic understanding of India's rich cultural and intellectual heritage

Image Source: www.iitr.ac.in

MOOC (Massive Open Online Courses)

MOOC (Massive Open Online Courses) are online educational pogrammes designed to accommodate a large number of participants, often provided by universities or institutions. They are typically open to anyone with an internet connection and are accessible worldwide, making education more inclusive and flexible. MOOCs cover a wide range of subjects, from technology and business to the arts and humanities, and are often offered for free or at a low cost. They typically consist of video lectures, reading materials, quizzes, assignments, and discussion forums to engage students. While MOOCs are designed for large-scale participation, they maintain interactive elements to foster learning and community-building.

Many MOOCs offer certificates upon completion, which can be used for professional development or educational credit. The rise of MOOCs has been a significant step toward democratizing education, providing opportunities for self-paced learning and access to quality content without the barriers of traditional in-person education.

Blended Learning

Blended Learning is an educational approach that combines traditional face-to-face classroom instruction with online learning. This hybrid model allows students to access course materials and engage in activities outside of class, providing greater flexibility. The in-person component promotes direct interaction with instructors and peer collaboration, while the online element offers personalized, self-paced learning.

Blended learning can take various forms, such as flipped classrooms, where students learn new content online and participate in hands-on activities during in-person sessions. Other forms include live virtual classes, recorded lectures, and online discussions. This approach caters to different learning styles, allowing students to revisit materials and learn at their own pace. The benefits include improved access to education, cost efficiency, and personalized learning experiences. Blended learning also helps students develop digital literacy and prepares them for the evolving demands of the workforce. As higher education adopts this model, it enhances how education is delivered and consumed.

Tertiary Education

Tertiary education refers to the level of education pursued after the completion of secondary schooling, typically at universities, colleges, vocational schools, and other post-secondary institutions. It includes undergraduate pogrammes (such as bachelor's degrees), postgraduate pogrammes (such as master's and doctoral degrees), diplomas, and professional certifications. Tertiary education plays a crucial role in developing specialized knowledge, skills, and competencies in various fields, such as engineering, medicine, business, and the arts.

Beyond academic development, tertiary education fosters critical thinking, problem-solving, and research skills, preparing students for the workforce and contributing to personal and professional growth. It also enhances social mobility, as access to higher education opens doors to better job opportunities and improved living standards. Tertiary education is essential for economic development, driving innovation and technological progress. As the global economy evolves, access to quality tertiary education becomes even more critical for individuals and societies to adapt to changing job markets and contribute to long-term prosperity.

University of Kerala
General Enquiry: 9188526671
Email: helpdesk@keralauniversity.ac.in
Helpdesk (WhatsApp only): 8547330240
Examination Helpdesk:
9188526674 / 9188526670 / 9188526675
Registrar's Office:
0471-2305631
registrar@keralauniversity.ac.in
Controller of Examinations:
0471-2305946
ku.controller@keralauniversity.ac.in
Finance Officer:
0471-2300750
Computer Centre:
0471-2305801
kucc@keralauniversity.ac.in
School of Distance Education:
0471-2991173
sde@keralauniversity.ac.in

University of Calicut
General Enquiry (SUVEGA):
0494 2660600
Email: suvega@uoc.ac.in
Vice Chancellor's Office:
0494 2407102
vcoffice@uoc.ac.in
Registrar's Office:
0494 2407104
reg@uoc.ac.in
Pro Vice Chancellor's Office:
0494 2407103
pvc@uoc.ac.in
Pareeksha Bhavan:
0494 2407200
ce@uoc.ac.in
Public Relations Office:
0494 2407227
pro@uoc.ac.in
Directorate of Admissions:
0494 2407016 / 0494 2407017
doa@uoc.ac.in
Centre for Distance and Online Education:
0494 2407356 / 0494 2400288
sde@uoc.ac.in
Dean of Students' Welfare:
0494 2407353
dswoffice@uoc.ac.in
Calicut University Computer Centre:
0494 2407527
dcucc@uoc.ac.in

Kerala University of Fisheries and Ocean Studies (KUFOS)
General Enquiries: 0484-2701085
Email: utypanangad@kufos.ac.in
Admissions Office:
0484-2701085 / 0484-2700598
admissions@kufos.ac.in
Registrar's Office:
0484-2703782
registrar@kufos.ac.in
Vice Chancellor's Office:
0484-2700964
vc@kufos.ac.in
Controller of Examinations:
0484-2703782
coe@kufos.ac.in
Public Relations Office:
0484-2703782
pro@kufos.ac.in
Directorate of Research:
0484-2703782
research@kufos.ac.in
Directorate of Extension:
0484-2703782
extension@kufos.ac.in
Library:
0484-2703782
library@kufos.ac.in
IT Cell:
0484-2703782
itcell@kufos.ac.in

Digital University Kerala
General Enquiries:
+91-471-2788000
Email: info@duk.ac.in
Admissions Office:
admissions@duk.ac.in
Registrar's Office:
registrar@duk.ac.in
Controller of Examinations:
coe@duk.ac.in
Public Relations Office:
pro@duk.ac.in
Technical Support:
support@duk.ac.in
Vice Chancellor:
+91-471-2788000
vc@duk.ac.in

Kannur University
General Enquiry: 0497 2715185
WhatsApp: 8547016185
Email: enquiry@kannuruniv.ac.in
Registrar's Office:
0497 2715331
registrar@kannuruniv.ac.in
Controller of Examinations:
0497 2715351
ce@kannuruniv.ac.in
Academic Branch:
0497 2715221
academic@kannuruniv.ac.in
School of Distance Education:
0497 2715251
sde@kannuruniv.ac.in
Research Directorate:
0497 2715208
research@kannuruniv.ac.in
IT Centre:
0497 2715375
itcentre@kannuruniv.ac.in

Sree Sankaracharya University of Sanskrit (SSUS), Kalady
General Enquiry: 0484 269 9731
Helpline: 8301853380
Email: reg@ssus.ac.in
Vice Chancellor's Office:
0484 2463580 (Office)
09744631327
vc@ssus.ac.in
Registrar's Office:
0484 2463480 (Office) / 9446061639
reg@ssus.ac.in
Public Relations Office:
0484 2463380 / 9447123075
Dean of Students' Welfare:
9446762054
dss@ssus.ac.in
Computer Centre:
+91 484 2463380

Cochin University of Science and Technology (CUSAT)
General Enquiry:
0484 2577290 / 0484 2862281
Public Relations:
0484 2577550
Directorate of Admissions:
0484 2577100 / 0484 2577159
admissions@cusat.ac.in
Office of International Relations:
0484 2862255
oir@cusat.ac.in
Controller of Examinations:
0484 2576623 / 0484 2577109 / 0484 2862240
controlex@cusat.ac.in
Academic Matters:
0484 2576623
Service Matters:
0484 2575181
registrar@cusat.ac.in
Planning:
0484 2576419
Security Office (24 Hours):
0484 2575101

Mahatma Gandhi University, Kottayam
University Front Office (Enquiry):
0481 2733375 / 2733505 / 2733516 / 2733580 / 2733626
Email: frontoffice@mgu.ac.in
Vice Chancellor's Office:
0481 2731001
vc@mgu.ac.in
Registrar's Office:
0481 2731006
registrar@mgu.ac.in
Controller of Examinations:
0481 2733333
ce@mgu.ac.in
Public Relations Officer (PRO):
0481 2733370
pro@mgu.ac.in
Online Equivalency/ Eligibility Certificates:
0481 2733503
mgucerthelp@mgu.ac.in
E-Payment Assistance:
epayhelp@mgu.ac.in

Kerala Veterinary and Animal Sciences University (KVASU)
General Enquiries:
04936-209220
Vice Chancellor's Office:
04936-209209
vc@kvasu.ac.in
Registrar's Office:
04936-209220
registrar@kvasu.ac.in
Public Relations Officer:
04936-209230
Directorate of Academics and Research:
04936-260263
officedar@kvasu.ac.in

Kerala Agricultural University (KAU)
General Enquiries: 0487-2438011
Email: info@kau.in
Vice Chancellor's Office:
0487-2438001
vc@kau.in
Registrar's Office:
0487-2438011
registrar@kau.in
Controller of Examinations:
0487-2438106
ce@kau.in
Director of Research:
0487-2438101
dr@kau.in
Director of Extension:
0487-2438131
de@kau.in
Comptroller:
comptroller@kau.in
Public Relations Officer:
0487-2438182
pro@kau.in
IT Cell:
0487-2438188

Kerala Kalamandalam – Deemed University for Art & Culture
General Enquiries:
+91 4884 262418
Email: info@kalamandalam.ac.in
Vice Chancellor:
+91 4884 262418
Registrar::
+91 4884 262562
Public Relations / Tourism & Publications:
+91 4884 262305
Nila Campus:
+91 4884 262485
Heritage Visit Inquiries:
heritagevisit@kalamandalam.ac.in

Kerala University of Health Sciences (KUHS)
General Contact Numbers
Phone: 0487 2207650, 0487 2207664,
Email Support:
General Helpdesk:
helpdesk@kuhs.ac.in
Finance Office: fo@kuhs.ac.in
Student Registration Queries:
contact1@kuhs.ac.in
Vice Chancellor
Phone: 9847138211
Email: vc@kuhs.ac.in
Registrar: 0487 2207651
Controller of Examinations:
0487 2207660
Public Relations Office:
0487 2207652
Library: 0487 2207653
Official Websites:
www.kuhs.ac.in

APJ Abdul Kalam Technological University (APJAKTU)
General Enquiries: 0471-2598122
Email: university@ktu.edu.in
Technical Support:
0471-2593120 / 2593128 / 2590029
support@ktu.edu.in
Vice Chancellor's Office:
0471-2598222
Registrar's Office:
0471-2598722 / 2785615
Controller of Examinations:
0471-2785617
Dean (Research):
0471-2785626
Dean (Academics):
0471-2785638
Finance Officer:
0471-2785624

National University of Advanced Legal Studies (NUALS), Kochi
H.M.T. Colony P.O., Kalamassery, Ernakulam, Kerala – 683503
General Enquiries: +91 94468 99006 / +91 94468 99035
Email: registrar@nuals.ac.in
Vice Chancellor (Acting): Justice S. Siri Jagan (Retd.)
vc@nuals.ac.in
Registrar: Dr. Lina Acca Mathew
registrar@nuals.ac.in
Controller of Examinations: Dr. Asha G.
controllerofexaminations@nuals.ac.in
Finance Officer: Sri. Arun Kumar S.
fo@nuals.ac.in
Public Relations Officer
+91 94468 99062
pro@nuals.ac.in

Thunchath Ezhuthachan Malayalam University, Tirur
General Enquiries: 0494-2631230 / +91 91880 23237
Email: info@temu.ac.in
Vice Chancellor:
0494-2631230
vc@temu.ac.in
Registrar:
0494-2631230
registrar@temu.ac.in
Controller of Examinations:
0494-2631230
ce@temu.ac.in
Finance Officer:
0494-2631230
fo@temu.ac.in
Library:
library@temu.ac.in
Publications Division:
publication@temu.ac.in

KERALA STATE HIGHER EDUCATION COUNCIL PUBLICATION

HIGHER EDUCATION MATTERS

A GATEWAY TO HIGHER LEARNING INITIATIVES

upto

SUBSCRIPTION

20% OFF

Print Edition

Rs. 1000/- only

ANNUAL SUBSCRIPTION

- High print quality
- Laminated cover
- 170 & 100 GSM
- High Resolution
- Worth on your table
- Digital version on offer
- 12 ISSUES
- Best updates of higher education

worth for collection

ADVERTISEMENT TARIFF

SIZE	TYPE	RATE (₹)
Full Page (Back cover)	colour/black & white	20000
Full Page (inner side of front & back covers)	colour/black & white	15000
Full Page (Inside pages)	colour/black & white	10000
Half Page (Inside pages)	colour/black & white	5000
Quarter Page (Inside pages)	colour/black & white	2500

SUBSCRIPTION FORM

SUBSCRIBE **NOW TO**

'HIGHER EDUCATION MATTERS' **AND GAIN ACCESS TO THE PRINT EDITION**

Name: _____

Designation: _____

Address: _____

_____

City_____District_____State_____

PIN code (Mandatory):_____Mobile No.:_____

Landline No. _____Email ID:_____

PAYMENT DETAILS

Cheque No./ Draft.No._____Bank_____ _____

Date: _____Amount: Rs_____

Payable to '***The Kerala State Higher Education Council***'

Name of Bank: **Union Bank of India** A/c No: **336302010139637** IFSC: **UBIN0533637** Branch: **Trivandrum Main**

If UPI payment, mention UTR No. _____Date_____

Send to **contact.hematters@gmail.com** contact no.9446787902, 7561018708

The Kerala State Higher Education Council, Science and Technology Museum Campus Vikas Bhavan P.O., Thiruvananthapuram-695033, Kerala, India Phone: 0471 2301292 Fax: 0471 2301290 Email: heckerala@gmail.com

www.etome.in

Etome eNotes

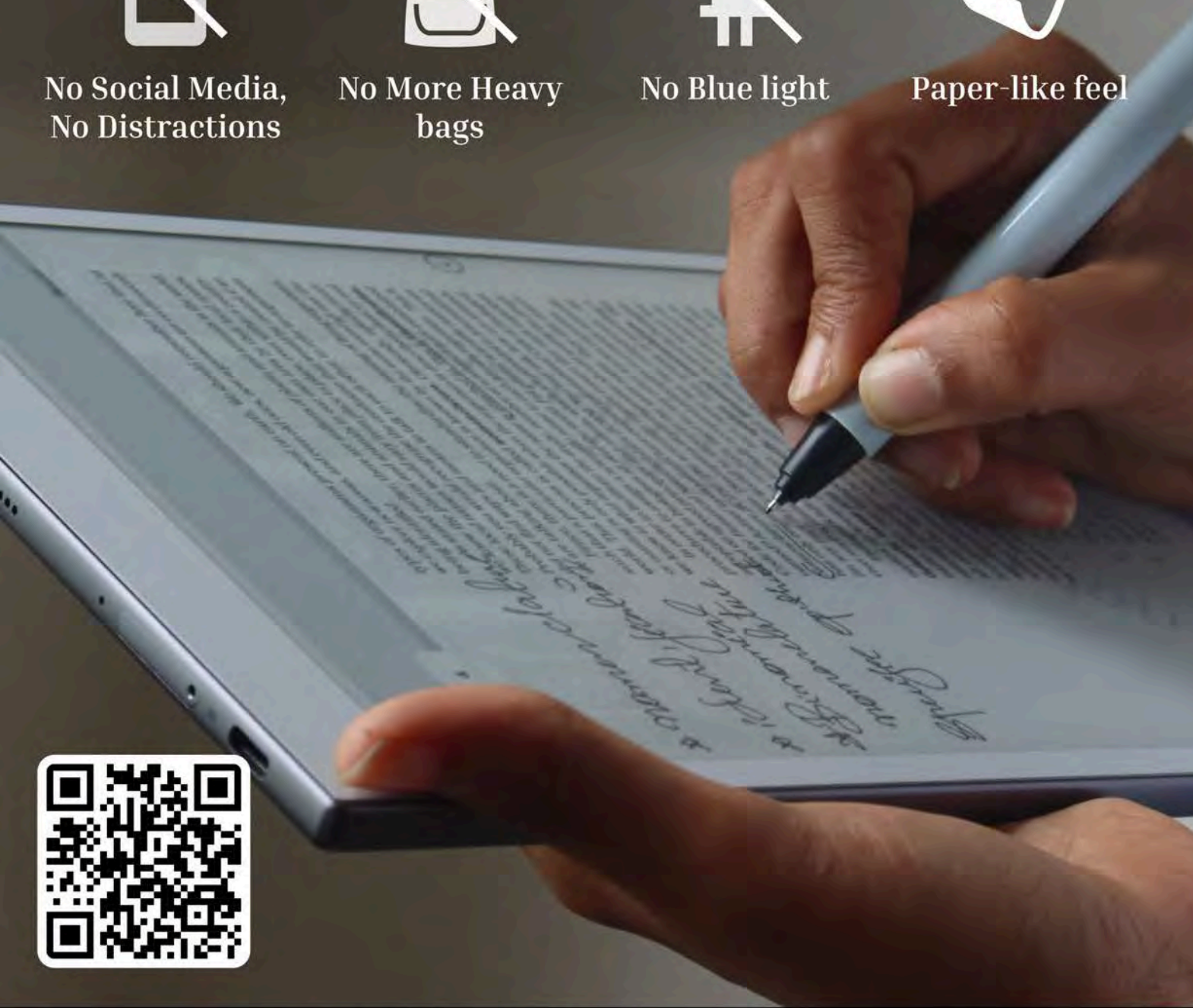
Your New Learning Companion is Here

No Social Media, No Distractions

No More Heavy bags

No Blue light

Paper-like feel



EtomeIndia | 73068 23514 / 80898 90333 | etome_india | Resolute India