



National Research Conference & Kerala Higher Education Expo 2026

Policy Conclave on Research and
Innovation in Higher Education

Kerala Research & Development Vision for Higher Education

(Universities and Colleges:
Towards 2031 and Beyond)

(Draft For Discussion)



The Kerala State Higher Education Council

2026

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1. Context and Rationale

The Government of Kerala recognises Research and Development (R&D) as a central pillar of higher education reform, knowledge creation, and long-term socio-economic transformation. Over the last decade—and particularly during the last five years—the State has consciously shifted from a predominantly teaching-centric higher education model to one that places **research, innovation, and knowledge translation** at its core. This transition is grounded in the belief that universities and colleges must function not only as centres of learning, but also as engines of discovery, innovation, policy support, and local problem-solving.

Research in the contemporary world is no longer confined to academic outputs alone. Globally, leading knowledge economies integrate research with public policy, industry, entrepreneurship, and societal development. Kerala's R&D policy therefore aims to align the State's higher education system with **internationally benchmarked research ecosystems**, while remaining rooted in Kerala's social priorities, developmental needs, and inclusive values.

2. Major Public Investments and Institutional Foundations

The first Pinarayi Vijayan Government initiated a transformative phase in higher education research by announcing **30 Inter-University Centres of Excellence** across the State with support from **KIIFB funding**. These centres were envisioned as shared, high-quality research hubs capable of transcending institutional silos and promoting interdisciplinary collaboration.

Alongside infrastructure creation, the Government invested directly in human capital through **500 Chief Minister's Nava Kerala Fellowships**, designed to strengthen the quality and scale of research talent in Kerala. During the tenure of the present Government, **176 Chief Minister's NavaKerala Post-Doctoral Fellowships (CMNPFs)** have been awarded, reinforcing post-doctoral research capacity and retaining advanced researchers within the State. The fellowships were awarded in 10 knowledge domains related to 'rebuild Kerala' theme.

To recognise excellence and impact, the Government instituted the **Kairali Research Awards**, covering thematic areas such as Physical Sciences, Chemical Sciences, Biological

Sciences, Arts and Humanities, and Social Sciences. **Forty-five Kairali Research Awards** have already been conferred, signalling the State's commitment to recognising research that contributes meaningfully to knowledge advancement and societal progress.

3. Establishment of a Comprehensive Network of Centres of Excellence

Moving beyond isolated interventions, the Government—through the Kerala State Higher Education Council (KSHEC)—is systematically establishing a **thematically diversified network of Centres of Excellence** to support advanced research, innovation, and policy development.

Key institutions under this framework include:

- The **Kerala Institute of Science, Technology and Innovation (KISTI)**, envisioned as a national-level centre for frontier research and innovation in science and technology, drawing inspiration from institutions such as JNCASR, Bengaluru.
- The **Kerala Institute of Advanced Studies (KIAS), Munnar**, conceived as a national and international institute of advanced scholarship, comparable to the Indian Institute of Advanced Study, Shimla.
- The **Kerala Language Network (KLN)** to advance high-level research in languages, literature, and knowledge traditions.
- The **Kerala Institute of Gender Equity (KIGE)** to strengthen gender-focused research and policy interventions.
- The **Centre for Indigenous Peoples' Education (CIPE)** to promote research grounded in indigenous people education and community-based learning.
- The **Centre for Teaching, Learning and Training (CTLT)** to lead curriculum innovation, advanced pedagogy, and academic capacity building.
- The **Kerala Institute of Policy Studies (KIPS)** to provide research-driven support for evidence-based policymaking in higher education.
- The **Centre for Analytical Services (CAS)** to meet advanced analytical and testing needs of universities, industries, and startups.
- The **Kerala Knowledge Consortium (KKC)** to conduct mission-oriented research focused on local and regional challenges and develop scalable solutions.

Together, these institutions form the backbone of Kerala's emerging **knowledge and innovation ecosystem**.

4. KNRSHE and the Statewide Research Support Architecture

To ensure equitable access to research support across institutions, the Government has established the **Kerala Network for Research Support in Higher Education (KNRSHE)** as a Centre of Excellence under KSHEC. KNRSHE operates through sub-centres across the State, with centres already functioning at **Government College for Women, Thiruvananthapuram**, and **Kannur University, Payyannur Campus**, and additional centres to be operationalised shortly.

KNRSHE's mandate is to provide **end-to-end research support** to scholars and faculty across universities and colleges. Core components include:

- Creation of a **statewide shared network of research facilities**
- Establishment of **Central Instrumentation and Research Laboratories** with high-end equipment as common facilities
- Provision of **maintenance and AMC support** for sophisticated instruments in institutions willing to share facilities
- **Research seed money schemes** and **patent filing support**
- Facilitation of inter-institutional collaboration and mobility

This model ensures optimal resource utilisation while democratising access to advanced research infrastructure.

5 Translational Research and Innovation

Translational Research and Innovation will be a cornerstone of Kerala's higher education ecosystem by 2031, ensuring that basic research is systematically converted into societal, industrial, and economic impact. Universities in the state have already begun establishing dedicated translational research platforms, including the Translational Research and Innovation Centre (TRIC) at University of Kerala, the Centre for Translational Research at Cochin University of Science and Technology, and emerging facilities at Kerala Veterinary and Animal Sciences University, focusing on healthcare, life sciences, materials, agri-biotechnology, diagnostics, and advanced technologies such as AI and sensors. In addition, the Inter-University Centre for Biomedical Research at Mahatma Gandhi University is strengthening capabilities in regenerative medicine, disease modelling, and nanotechnology-enabled therapeutics. With strategic support from the Kerala Infrastructure Investment Fund Board (KIIFB), which has allocated dedicated funding for translational research infrastructure, Kerala aims to institutionalise a pipeline linking laboratories to clinics, farms, industries, and communities. Complementing these efforts, campus-based industrial and innovation parks will be promoted across universities to host startups, MSMEs, pilot manufacturing units, and R&D-driven enterprises, generating high-quality employment opportunities for graduates and positioning higher education institutions as engines of regional economic growth.

6. Research infrastructure Development

Over the past decade, Kerala has made sustained public investments to strengthen research infrastructure across universities and colleges, combining RUSA allocations with state plan funding and other state-supported schemes. Under RUSA, Kerala has made large-scale infrastructure and quality interventions—covering infrastructure grants to

colleges and universities and a dedicated component for research, innovation and quality improvement—with state-wide approvals in the order of hundreds of crores

Parallel to RUSA, Kerala has also used state plan resources and state-level agencies to modernise laboratories and acquire advanced equipment in university departments and colleges. A long-running example is the KSCSTE “Selective Augmentation of Research and Development (SARD)” / R&D Infrastructure Development support, which explicitly targets modernisation of laboratories through essential equipment and facility upgradation—complementing campus infrastructure created.

In recent years, Kerala has further accelerated infrastructure creation through large development projects in higher education and KIIFB-supported investments—including advanced research facilities and mission-mode initiatives—helping institutions move from incremental upgrades to state-of-the-art laboratories, shared research facilities, and translational/innovation infrastructure

7. Financing Research: Budgetary Commitments and Dedicated Funds

Kerala’s commitment to research is strongly reflected in the **Kerala Budget 2026–27**, which allocates **₹4,745.4 crore** towards R&D, approximately **0.29% of the State’s GSDP**. Notably, the education sector receives the **highest share—46.32% of total R&D allocation**.

Key budgetary priorities include:

- ₹851.46 crore for higher education reforms and implementation of the **Four-Year Undergraduate Programme (FYUGP)**
- Enhanced **research fellowships**, including ₹15,000 per month for full-time PhD scholars
- ₹295 crore for technical education and digital university management.
- Expanded funding for **Centres of Excellence**, research infrastructure, and science popularisation
- Strengthening **industry–academia collaboration** in emerging technology areas

The introduction of the **Kerala Higher Education Fund** and the **Kerala Research and Innovation Fund** further institutionalises this commitment. While the former focuses on infrastructure development, the latter exclusively supports research through **major and minor projects** targeted at early-career, mid-career, and senior researchers.

8. Academic Pathway Reforms and Research Talent Pipeline

Kerala has already implemented the **Four-Year Undergraduate Programme**, with **Honours with Research** as a structured pathway to integrate students into research at an early stage. This is complemented by proposals for **PG-by-Research programmes**, strengthening the transition from undergraduate learning to advanced research.

By embedding research within curricula, internships, and credit frameworks, the State aims to make research an aspirational and accessible career option for students across disciplines.

9. Research Networking, MoUs, and Global Mobility

Recognising that contemporary research ecosystems thrive on collaboration and mobility, Kerala has prioritised institutional networking at national and international levels. The State has already entered into Memoranda of Understanding (MoUs) with leading universities and higher education institutions within India and abroad. Notably, an MoU has been executed with the University of Hyderabad, enabling academic collaboration, faculty exchange, joint research, and shared access to research facilities.

Building on this foundation, similar MoUs will be systematically developed and operationalised through the Kerala Network for Research Support in Higher Education (KNRSHE) in the coming years. These partnerships with national and international institutions will ensure seamless mobility, resource sharing, joint supervision, and collaborative research opportunities for researchers in Kerala across globally reputed institutions.

To further internationalise Kerala's research ecosystem, the Government has introduced programmes such as Brain Gain and Erudite Scholar, through which eminent professors and researchers from world-leading universities are invited to Kerala's universities and colleges for academic exchange, mentoring, collaborative research, and capacity building. These initiatives aim to expose local researchers and students to global best practices while strengthening Kerala's international academic visibility.

In addition, KSHEC is developing "Scholar Connect", a dedicated digital platform to systematically leverage the expertise of diaspora scholars and global Malayali academics. This platform will enable structured engagement through mentoring, virtual lectures, collaborative research, joint supervision, and policy advisory roles, thereby transforming Kerala's global academic diaspora into an active intellectual resource for the State.

10. Global Benchmarks and Strategic Research Directions

International experience demonstrates that strong research ecosystems are built around **mission-mode, grand-challenge research**, differentiated institutional roles, and close integration with society and industry. Kerala's R&D policy therefore prioritises:

- Mission-oriented research addressing climate resilience, health, sustainability, digital governance, and social transformation
- A **differentiated but networked system**, where research-intensive universities coexist with applied-research-oriented colleges
- Early integration of **undergraduate research** as a defining feature of higher education
- Competitive doctoral and post-doctoral ecosystems with mobility and career pathways
- Promotion of **open science, research integrity, and data infrastructure**
- Deep **industry–academia–startup integration**, aligned with technology readiness and innovation outcomes

11. Vision 2031 and Beyond

By 2031 and beyond, the Government of Kerala envisions a higher education research ecosystem that is **inclusive, globally connected, socially relevant, and innovation-driven**, positioning Kerala as a leading hub in the emerging global knowledge economy.

The State envisages a system in which **every deserving research scholar receives assured financial, infrastructural, and mentoring support**, enabling talent to flourish across all universities and colleges. Research in Kerala will be increasingly **guided by social relevance, public needs, and developmental priorities**, with strong emphasis on impact, applicability, and ethical responsibility. As technological and societal challenges become more complex, **interdisciplinary and transdisciplinary approaches** will be central to innovation. Universities will evolve into collaborative research hubs that integrate sciences, social sciences, humanities, technology, and policy to address local, national, and global challenges.

Research infrastructure across the State will operate as a **shared, sustainable, and globally competitive system**, optimising public investment while ensuring equitable access. Universities and colleges will function as **innovation anchors for regional and community development**, supporting local industries, startups, public institutions, and civil society through applied research, testing, validation, and knowledge services.

Strong **national and international research collaborations** will be institutionalised through long-term partnerships, structured mobility frameworks, joint programmes, and shared facilities. Researchers and students from Kerala will experience seamless academic mobility across leading institutions in India and abroad, firmly embedding the State within global research networks.

Research will be seamlessly integrated with **education, employment, entrepreneurship, and public policy**. Academic programmes will be closely aligned with research activity, skill development, and innovation pathways, ensuring that graduates are prepared for emerging careers while contributing meaningfully to knowledge creation and societal

progress. Universities will increasingly support technology transfer, startup incubation, and policy advisory roles, strengthening the link between research and real-world outcomes.

The long-term aspiration is that **laboratories in Kerala's universities and colleges evolve into micro-innovation, prototyping, and solution-development units**, capable of supporting startups, industries, government agencies, and local communities. These laboratories will serve not only as sites of discovery, but also as platforms for socially responsive innovation.

Looking beyond 2031 towards 2040, Kerala anticipates a global higher education and research ecosystem that is **decentralised, digital-first, and deeply integrated with society**. Emerging economies—particularly India—will play a defining role in shaping this landscape. Artificial intelligence, advanced digital platforms, and personalised research and learning environments will transform how knowledge is produced and applied. In this future, Kerala seeks to position itself not merely as a participant, but as a **leader in inclusive, socially relevant, technology-enabled, and impact-oriented research and innovation**.

Conclusion

Kerala stands at a pivotal moment in shaping the future of its higher education and research ecosystem. Building on the strong foundations created through sustained public investment, institutional reform, shared infrastructure, and global partnerships, the State now moves towards a research system that is inclusive, socially relevant, interdisciplinary, and globally connected. By ensuring equitable support for every deserving scholar, strengthening national and international collaboration, integrating research with education, employment, entrepreneurship, and public policy, and leveraging digital and emerging technologies, Kerala envisions universities and colleges as collaborative research hubs and innovation anchors for regional and societal development. As laboratories evolve into micro-innovation and solution-development units addressing real-world challenges, Kerala aspires to emerge as a global hub for socially responsive, technology-enabled, and impact-oriented research and advanced learning, reaffirming its commitment to knowledge as a driver of equity, sustainability, and shared prosperity.



Organised by
Dept. of Higher Education
& The Kerala State Higher Education Council



NATIONAL RESEARCH CONFERENCE & KERALA HIGHER EDUCATION EXPO 2026

09-11
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