

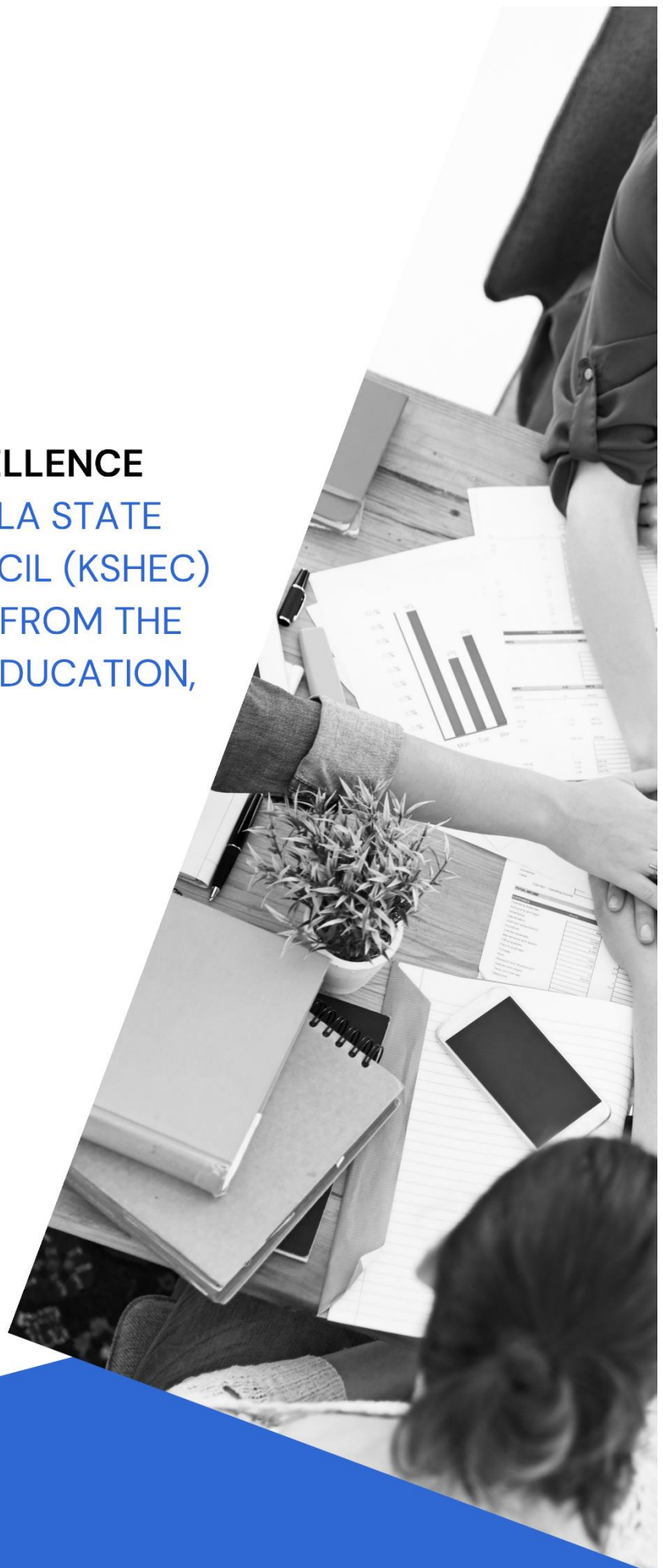
APRIL 2026

# Report

ON THE CENTRES OF EXCELLENCE  
ESTABLISHED BY THE KERALA STATE  
HIGHER EDUCATION COUNCIL (KSHEC)  
WITH FINANCIAL SUPPORT FROM THE  
DEPARTMENT OF HIGHER EDUCATION,  
GOVERNMENT OF KERALA



KERALA STATE HIGHER EDUCATION COUNCIL



THE KERALA STATE HIGHER EDUCATION COUNCIL

**Comprehensive Report on the Centres of Excellence Established by the  
Kerala State Higher Education Council (KSHEC) with Financial  
Support from the Department of Higher Education, Government of  
Kerala**

Documentation Division

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**Centres of Excellence Established by the Department of Higher Education  
through KSHCEC**

Sl No.	Centres of Excellence	Agency/ Location
1	Centre of excellence for Teaching, Learning and Training	Kerala State Higher Education Council, Thiruvananthapuram
2	Kerala Institute for Science, Technology, and Innovation (KISTI)	Mahatma Gandhi University, Kottayam
3	Kerala Institute of Advanced Studies (KIAS)	Munnar Engineering College campus of the Centre for Continuing Education Kerala (CCEK)
4	Kerala Network for Research-Support in Higher Education – (KNRSHE) Sub Centres	Main Centre, Kerala State Higher Education Council, Thiruvananthapuram
	Central Instrumentation Laboratory, TVPM (South)	i. Government Women’s College, Thiruvananthapuram
	Central Instrumentation Laboratory – Kannur (North)	ii. Kannur University, Kannur
	Central Instrumentation Laboratory – Thrissur (Central)	iii. Sree Kerala Varma College, Thrissur
5	Centre for Indigenous People’s Education (CIPE) Institute for Tribal Studies and Research (ITSR) at Chethalayam to be transformed as Centre for Indigenous People	University of Calicut, Kozhikode
6	The Kerala Institute for Gender Equality (KIGE)	Sree Sankaracharya University of Sanskrit, Kalady
7	Kerala Language Network Sub Centre – a. Professional Language Training and Translation Centre, Ponnani b. Professional Language Training and Translation Centre, Kannur c. Professional Language Training and Translation Centre : Irinjalakkuda	Thunchath Ezhuthachan Malayalam University

Sl No.	Centres of Excellence	Agency/ Location
8	Kerala Knowledge Consortium Centers Sub center: Madhava Knowledge Centre in Mathematics (MKCM), Irinjalakuda	KSHEC
9	Kerala Centre for Analytical Services (KCAS)	CUSAT
10	Kerala Institute of Policy Studies (KIPS)	KSHEC

**Centres of Excellence Established Through KIIFB Funding**

1. Centre of Excellence in Ayurvedic Research, Manuscript Museum, Medicinal Plants Garden, Iritty, Kannur
2. School of Mathematics, Kozhikkode
3. Thanu Padmanabhan Centre of Excellence in Astronomy and Astrophysics, university of Kerala
4. Centre of Excellence in Neurodegeneration and Brain Health, CUSAT
5. Centre of Excellence in One Health, Western Ghats Biodiversity, Human-Wildlife Interface and Zoonotic Diseases, KVASU, Wayanad
6. Centre of Excellence in Nanoscience and Nanotechnology, M G University, Kottayam

## **Introduction and Conceptual Framework of the Centres of Excellence (CoE) Project**

### **Introduction**

The Government of Kerala, through the Kerala State Higher Education Council (KSHEC), has initiated the Centres of Excellence (CoE) Project as part of the larger higher education reform, research strengthening, and knowledge development initiatives of the State. The project represents a major policy intervention aimed at transforming Kerala's higher education ecosystem through the establishment of specialized, interdisciplinary, research-oriented, and innovation-driven institutions capable of functioning as hubs of academic excellence, advanced research, policy support, skill development, and knowledge dissemination.

The initiative has been conceptualized in response to the growing need for creating advanced institutional mechanisms capable of supporting cutting-edge research, interdisciplinary collaboration, innovation ecosystems, and globally competitive academic environments within the State. The project also seeks to address several structural challenges faced by higher education institutions, including fragmentation of research efforts, duplication of costly infrastructure, limited access to sophisticated instrumentation facilities, inadequate interdisciplinary collaboration, and the absence of specialized institutional ecosystems for advanced research and innovation.

The Centres of Excellence are envisaged as autonomous and collaborative institutions functioning within identified strategic domains relevant to the developmental priorities of Kerala. The initiative aims to strengthen the overall research ecosystem by creating shared platforms for universities, colleges, researchers, industries, government agencies, and other stakeholders to collaborate in areas of academic research, innovation, training, policy support, and knowledge generation.

The CoE initiative forms an important component of the State's broader efforts to modernize higher education, improve research productivity, strengthen innovation capacity, facilitate international collaboration, and support emerging areas of science, technology, humanities, social sciences, language studies, sustainability, digital education, governance, and policy research.

### **Origin and Evolution of the CoE Project**

The proposal for establishing the Centres of Excellence originated following directions from the Hon'ble Minister for Higher Education during the year 2022 as part of the broader higher education reform initiatives undertaken by the Government of Kerala. Subsequently, the Principal Secretary in charge of Higher Education directed the Kerala State Higher Education Council to prepare a comprehensive framework for the establishment of specialized Centres of Excellence and to

incorporate the initiative along with the Kerala Resources for Educational Administration and Planning (K-REAP) project under the State Plan proposals.

Based on these directions, KSHEC initiated a detailed consultative and planning process involving conceptual discussions, stakeholder interactions, institutional consultations, identification of priority sectors, and preparation of institutional development frameworks for the proposed Centres of Excellence. KSHEC subsequently prepared concept notes, governance models, institutional frameworks, implementation proposals, and Detailed Project Reports (DPRs) for the proposed Centres.

The CoE initiative was conceived not merely as a collection of isolated institutions but as an integrated statewide ecosystem intended to support research, innovation, collaboration, policy development, advanced training, and academic networking across higher education institutions in Kerala. The project was therefore designed with strong emphasis on institutional autonomy, collaborative governance, shared infrastructure, interdisciplinary engagement, and long-term sustainability.

Initially, administrative approval and financial support were provided for limited components of the project. Subsequently, the initiative expanded in phases with the establishment of multiple Centres of Excellence and associated sub-centres across different regions and academic domains in the State. Over time, the CoE project evolved into one of the major institutional reform initiatives coordinated through KSHEC as part of Kerala's efforts to strengthen higher education and research infrastructure.

### **Conceptual Foundation of the CoE Project**

The conceptual framework of the Centres of Excellence was developed by the Kerala State Higher Education Council as part of its efforts to create a robust and future-oriented higher education ecosystem within the State. The framework defines a Centre of Excellence as an autonomous institution established under the Department of Higher Education with the objective of strengthening research ecosystems, improving knowledge management, facilitating innovation, and promoting academic excellence within identified specialized domains.

The CoEs are envisaged as institutional hubs of expertise, innovation, advanced research, and academic collaboration. They are intended to bring together faculty members, researchers, students, industries, professionals, and other stakeholders within a common interdisciplinary platform capable of supporting high-quality research, specialized education, innovation activities, and collaborative knowledge generation.

The conceptual framework recognizes that globally competitive research ecosystems cannot be developed through isolated institutional structures alone. Instead, the framework emphasizes collaborative models that integrate universities, colleges, research institutions, industries, and government agencies within a shared ecosystem of knowledge production, innovation, and resource sharing. The Centres of Excellence are therefore designed as collaborative institutional platforms capable of supporting inter-university networking, interdisciplinary engagement, and statewide research integration.

The framework also emphasizes the importance of aligning the activities of the Centres with the developmental priorities of Kerala. Accordingly, the proposed Centres focus on strategic domains such as advanced research support, language and cultural studies, digital education, policy research, sustainability, innovation ecosystems, governance reforms, academic technology, skill development, research infrastructure, and emerging interdisciplinary areas.

#### **Vision of the Centres of Excellence**

The Centres of Excellence are envisioned as nationally and internationally recognized institutions capable of functioning as centres of advanced research, innovation, academic leadership, and policy support within their respective domains. The CoEs aim to create vibrant academic ecosystems that support high-quality research, specialized training, innovation-driven activities, interdisciplinary collaboration, and societal engagement.

The broader vision of the project is to establish Kerala as a leading knowledge society supported by strong higher education institutions, advanced research infrastructure, collaborative academic networks, and innovation-oriented ecosystems. The CoEs are expected to contribute not only to academic advancement but also to the social, cultural, technological, and economic development of the State.

The Centres are also envisioned as shared academic and research platforms accessible to universities, colleges, researchers, students, and institutions across Kerala. In this regard, the CoEs are expected to function beyond the limitations of individual host institutions and evolve into autonomous institutions serving the wider academic and research community of the State.

#### **Institutional Model of the CoEs**

The institutional model proposed for the Centres of Excellence is based on the principle of collaborative autonomy. While the Centres may initially function within selected host institutions during the formative phase, they are not intended to remain permanent units of the host institution.

Instead, they are expected to gradually evolve into autonomous institutions with independent academic identity, governance mechanisms, and institutional frameworks.

The host institutions are expected to provide the necessary infrastructure, academic support, institutional collaboration, and administrative assistance during the initial stages of development. The CoEs are also expected to draw strength from university departments, research institutions, industries, and external experts through collaborative partnerships and institutional networking.

The institutional model emphasizes flexibility, interdisciplinarity, academic autonomy, and collaborative governance. This approach is intended to create institutions capable of responding dynamically to emerging academic, scientific, technological, and societal challenges.

### **Major Objectives of the CoE Initiative**

The major objectives of the Centres of Excellence include strengthening research ecosystems, promoting interdisciplinary collaboration, developing advanced shared research infrastructure, supporting innovation and entrepreneurship, facilitating specialized education and training, strengthening international academic collaboration, and supporting policy development and societal engagement.

The CoEs are also expected to contribute towards:

- Creation of advanced experimental, computational, observational, and analytical facilities;
- Development of shared instrumentation and digital infrastructure;
- Promotion of collaborative research projects;
- Strengthening undergraduate and postgraduate research;
- Supporting faculty development and academic leadership;
- Enhancing research productivity and innovation output;
- Facilitating industry-academia interaction;
- Supporting knowledge dissemination and public engagement;
- Developing advanced training and skill development programmes; and
- Creating institutional ecosystems capable of attracting national and international collaborations.

The conceptual framework further proposes that the Centres should organize workshops, seminars, conferences, faculty development programmes, research internships, collaborative projects, and outreach initiatives aimed at strengthening the academic and research ecosystem of the State.

### **Research Infrastructure and Knowledge Ecosystem**

An important dimension of the CoE initiative is the creation of advanced research infrastructure and shared knowledge ecosystems. The framework emphasizes the establishment of sophisticated laboratories, instrumentation facilities, computational infrastructure, digital repositories, collaborative platforms, and specialized academic facilities capable of supporting advanced research and innovation activities.

The CoEs are expected to function as centres capable of hosting and maintaining high-end scientific instrumentation and computational infrastructure in a cost-effective and collaborative manner. The framework encourages the development of shared scientific facilities accessible to researchers and institutions across Kerala, thereby reducing duplication of expensive infrastructure and promoting optimal utilization of public investment in research facilities.

The project also recognizes the importance of digital integration, data sharing, multilingual knowledge dissemination, and collaborative academic networking in the development of future-oriented research ecosystems.

### **Human Resource and Academic Ecosystem**

The success of the Centres of Excellence largely depends upon the availability of high-quality human resources capable of carrying out advanced research and academic activities. The framework therefore emphasizes the development of strong multidisciplinary teams consisting of eminent faculty members, research fellows, postdoctoral researchers, technical experts, project staff, and research scholars.

The CoEs are expected to create vibrant academic environments capable of attracting nationally and internationally recognized researchers and experts. The Centres are also expected to promote collaborative mentoring, interdisciplinary engagement, research guidance, and innovation-oriented academic activities.

The Centres of Excellence (CoEs) shall function with a project-based staffing structure in order to ensure flexibility, academic dynamism, and performance-oriented institutional development. All appointments in the CoEs shall be made for fixed terms, ordinarily for a maximum period of five years

at a time, which may be extended based on institutional requirements, availability of funding, and performance evaluation. No permanent positions shall ordinarily be created at any level within the CoEs. Continuation, renewal, or extension of appointments shall be strictly based on performance, contribution to the objectives of the Centre, research output, academic activities, project implementation, and overall institutional requirements. This model is intended to promote academic excellence, accountability, innovation, and efficient utilization of resources while enabling the Centres to attract highly qualified professionals, researchers, technical experts, and academic personnel from diverse domains. The framework additionally recognizes the need for flexible staffing structures, research fellowships, and specialized academic positions capable of supporting long-term institutional growth and research excellence.

### **Governance Philosophy of the CoE Project**

The governance philosophy underlying the CoE project is based on the principles of academic autonomy, institutional accountability, collaborative governance, financial flexibility, and public responsibility. The Centres are envisaged as autonomous institutions functioning under broad policy guidance from the Government and KSHEC while maintaining sufficient flexibility for academic innovation, research planning, infrastructure development, and institutional collaboration.

The governance framework also emphasizes participatory decision-making involving experts from academia, research institutions, industry, and government. The project seeks to establish institutional mechanisms capable of ensuring transparency, academic quality, interdisciplinary coordination, and long-term sustainability.

### **Financial Framework and Budget Support**

The Government of Kerala has extended substantial financial support for the establishment and strengthening of the Centres of Excellence (CoEs) under the Kerala State Higher Education Council (KSHEC). Financial assistance has been provided for the functioning and phased development of the Centres of Excellence as part of the higher education reform and research strengthening initiatives of the State.

As part of the long-term development strategy, it is proposed that each Centre of Excellence shall be supported by KSHEC over a period of five years depending upon the nature, scope, specialization, infrastructure requirements, and strategic importance of the Centre. The financial support is intended to enable the Centres to evolve into nationally and internationally recognised hubs of advanced teaching, research, innovation, training, and knowledge generation.

It is proposed that nearly 50% of the total financial allocation may be utilised for capital asset creation and infrastructure development. This includes establishment of advanced research laboratories, centralized instrumentation facilities, dedicated academic and administrative buildings, libraries, digital infrastructure, innovation and incubation facilities, research support systems, student and researcher amenities, and other essential institutional infrastructure required for the effective functioning of the Centre.

The remaining allocation may be utilised for academic, research, and operational activities including faculty and technical staff support, postdoctoral fellowships, research scholarships, collaborative research projects, training programmes, workshops, internships, field activities, consultancy initiatives, international collaborations, outreach programmes, maintenance of research facilities, and other approved institutional activities.

All Centres of Excellence shall open a Plan Scheme Treasury Savings Bank (PSTSB) Account in a nearby Treasury in the name of the Director/Coordinator of the respective Centre of Excellence functioning in the host institution. The PSTSB account shall function as the designated account for the receipt and utilisation of plan funds released by KSHEC.

The host institutions and Centres of Excellence shall strictly follow the financial procedures and treasury guidelines issued by the Government from time to time. KSHEC shall release plan grants directly to the PSTSB account of the respective Centre of Excellence based on approved annual plans, project proposals, and budgetary provisions.

For the release of grants, the Director/Coordinator of the Centre of Excellence shall submit:

- Annual Plan Proposal and Activity Plan,
- Detailed Budget Proposal,
- Statement of Expenditure,
- Utilisation Certificate,
- Progress Report, and
- Other documents as required by KSHEC and Government.

Each Centre of Excellence shall prepare and submit an Annual Plan Proposal for every financial year indicating the proposed academic activities, infrastructure development plans, research initiatives, training programmes, collaborative projects, and estimated financial requirements. Based on the

approved annual plan and performance assessment, KSHEC shall release the funds for the respective financial year in phases.

The financial framework also emphasizes long-term sustainability of the Centres of Excellence through mobilization of external research funding, national and international grants, industry partnerships, consultancy services, collaborative projects, endowments, training programmes, and revenue-generating academic activities. The Centres are expected to gradually develop self-sustaining academic and research ecosystems while continuing to receive strategic institutional support from KSHEC and the Government of Kerala.

### **Centres of Excellence Established Under KSHEC**

At present, ten Centres of Excellence have been sanctioned under KSHEC. These include:

1. Centre of Excellence for Teaching, Learning and Training (TLT),
2. Kerala Network for Research Support in Higher Education (KNRSHE),
3. Kerala Institute for Science, Technology and Innovation (KISTI),
4. Kerala Institute of Advanced Studies (KIAS),
5. Kerala Institute for Gender Equity (KIGE),
6. Kerala Language Network (KLN),
7. Centre for Indigenous People's Education (CIPE),
8. Kerala Institute of Policy Studies (KIPS),
9. Kerala Centre for Analytical Services (KCAS),
10. Kerala Knowledge Consortium Centres (KKC).

The Centres are strategically distributed across universities and institutions in the State to facilitate regional collaboration and statewide academic engagement. Detailed descriptions of the Vision, Objectives, Activities, Present Status, and Future Directions of the ten Centres of Excellence (CoEs) established under the Kerala State Higher Education Council (KSHEC) are presented in the following sections.

## 1. Centre of Excellence in Teaching, Learning and Training (TLT)

### Vision

The Centre of Excellence in Teaching, Learning and Training (TLT) is envisioned as a transformative academic platform dedicated to improving the quality of higher education in Kerala through curriculum innovation, pedagogical reform, faculty empowerment, and technology-enabled teaching-learning practices. The Centre seeks to develop a future-ready academic ecosystem capable of responding to the changing demands of multidisciplinary education, digital learning, outcome-based education, skill integration, and emerging knowledge systems. TLT aims to function as a statewide hub for academic innovation, collaborative learning, educational research, faculty development, and digital academic transformation.

### Objectives

The major objective of TLT is to strengthen the quality of teaching and learning across universities and colleges in Kerala through academic support, pedagogical innovation, curriculum modernization, and faculty capacity building. The Centre aims to support the implementation of the Four-Year Undergraduate Programme (FYUGP), multidisciplinary education, and outcome-based learning systems within higher education institutions. TLT also seeks to facilitate the integration of digital technologies into higher education, promote innovative teaching-learning methodologies, support curriculum development, and function as a statewide platform for academic collaboration, knowledge sharing, and educational transformation.

The Centre additionally aims to support faculty members, students, academic administrators, curriculum committees, and universities through structured training programmes, academic workshops, educational technology initiatives, and collaborative academic activities. The long-term objective of TLT is to contribute towards the creation of a modern, inclusive, flexible, and globally competitive higher education ecosystem in Kerala.

### Establishment and Present Status

The Centre of Excellence in Teaching, Learning and Training (TLT) has been established by the Government of Kerala under the Kerala State Higher Education Council (KSHEC) as part of the State's higher education reform and academic modernization initiatives. The Centre has been established at Thiruvananthapuram with its headquarters functioning at the premises of KSHEC located within the Science and Technology Museum Campus.

At present, the Centre functions under the administrative, financial, and academic support framework of KSHEC as an interim arrangement until it evolves into an autonomous institutional structure. The establishment of TLT reflects the Government's vision to create a dedicated institutional mechanism for strengthening teaching-learning systems, academic quality, faculty competencies, curriculum reform, and digital integration within higher education institutions across Kerala.

The Centre is currently functioning from the existing KSHEC premises until dedicated infrastructure and independent institutional facilities are developed. Administrative and financial support for the interim functioning of the Centre is presently being provided through KSHEC using the funds allocated under the Centres of Excellence initiative.

### **Governance Structure**

The Government envisages TLT as an autonomous institution incorporated as a charitable society under the Travancore–Cochin Literary, Scientific and Charitable Societies Registration Act, 1955. The proposed governance structure includes a Governing Body consisting of representatives from the Government, KSHEC, universities, and experts in higher education.

#### **The proposed Governing Body includes:**

- Hon'ble Minister for Higher Education – Chairperson,
- Vice Chairman, KSHEC – Vice Chairperson,
- Principal Secretary (Higher Education) – Member,
- One nominated Vice Chancellor – Member,
- Member Secretary, KSHEC – Member,
- Two experts in higher education nominated by the Chairperson – Members,
- Director/Coordinator of TLT – Member and Convenor.

Once constituted, the Governing Body is expected to facilitate the formal registration and institutionalization of TLT as an autonomous Centre of Excellence.

### **Interim Administrative Arrangements**

At present, the Centre is functioning through interim institutional arrangements approved by KSHEC and the Government. Research Officers and Research Associates of KSHEC have been entrusted with additional responsibilities as Coordinators, Adjunct Faculty, and Research Associates for the Centre.

Administrative support is presently being provided through the existing administrative structure of KSHEC, including the Registrar, Finance Officer, and other officers who have been assigned additional responsibilities relating to the functioning of the Centre. Necessary supporting staff, including Research Assistants, Technical Assistants, and Office Assistants, are also being engaged based on approved norms and institutional requirements.

### **Activities and Progress (2025–26)**

During the academic year 2025–26, TLT undertook several academic and capacity-building activities related to higher education reforms and the implementation of the Four-Year Undergraduate Programme (FYUGP). The Centre organized curriculum development workshops, faculty orientation programmes, and training sessions focusing on multidisciplinary curriculum design, outcome-based education, active learning methods, blended learning, digital pedagogy, and innovative teaching-learning methodologies. These programmes were conducted for faculty members and academic stakeholders from universities and colleges across Kerala.

TLT also facilitated discussions and collaborative engagements with curriculum committees, Boards of Studies, Academic Councils, and academic experts for aligning university curricula and teaching-learning practices with contemporary educational requirements and higher education reforms. Model curriculum frameworks and academic support materials relating to interdisciplinary and skill-oriented programmes were also prepared and shared with participating institutions.

The Centre additionally initiated activities related to academic technology integration, digital learning systems, and e-content development to support the growing need for blended and online learning practices within higher education institutions.

### **Key Functions of the Centre**

TLT is expected to function as a statewide centre for pedagogical innovation, faculty development, curriculum support, and educational technology integration. The Centre will provide advanced pedagogical training and academic support for teachers, academic administrators, and educational institutions across Kerala.

### **The Centre will also:**

- Conduct faculty development and capacity-building programmes,
- Support curriculum design and academic restructuring,
- Promote innovative teaching-learning methodologies,

- Facilitate digital learning and blended education systems,
- Support research in higher education and pedagogy,
- Develop e-content and digital academic resources,
- Promote AI-assisted teaching-learning methodologies,
- Facilitate statewide dissemination of academic best practices,
- Support academic leadership and institutional quality enhancement.

### **CADLET and K Learn Initiatives**

One of the major future-oriented initiatives proposed under TLT is the establishment of the Centre for Advanced Digital Learning and Educational Technology (CADLET). CADLET is intended to function as a specialized unit for promoting digital learning, educational technology integration, AI-assisted teaching-learning systems, and e-content development within higher education institutions.

TLT is also coordinating the development of the proposed “K Learn” platform, which is envisaged as a comprehensive state-level digital learning platform for higher education. The K Learn platform is expected to facilitate online learning, digital content delivery, blended learning systems, multidisciplinary courses, faculty development programmes, and statewide academic collaboration.

These initiatives are expected to significantly strengthen the digital academic ecosystem of Kerala and support the long-term transformation of higher education through technology-enabled learning systems.

### **Future Directions (2026–27)**

TLT proposes to launch advanced certificate programmes and Training of Trainers (ToT) initiatives focusing on curriculum design, innovative pedagogy, digital learning, AI-assisted teaching-learning methodologies, educational leadership, and academic technology integration. The Centre also plans to establish university-level units and collaborative centres across Kerala to ensure wider institutional participation and statewide accessibility.

The Centre further proposes to operationalize CADLET and launch the K Learn platform as major statewide academic technology initiatives. Additional plans include strengthening digital infrastructure for e-content development, expanding faculty development activities, supporting multidisciplinary education initiatives, and establishing national and international academic collaborations to bring global best practices into Kerala’s higher education system.

TLT also aims to develop collaborative partnerships with universities, educational technology organizations, research institutions, and international academic agencies for promoting innovation in higher education and strengthening teaching-learning ecosystems.

### **Conclusion**

The Centre of Excellence in Teaching, Learning and Training (TLT) represents a major institutional initiative aimed at transforming the quality and effectiveness of higher education in Kerala through pedagogical innovation, faculty empowerment, curriculum modernization, digital integration, and collaborative academic development. The Centre is expected to play a crucial role in supporting the long-term academic transformation, modernization, and global competitiveness of Kerala's higher education ecosystem through innovative teaching-learning practices and technology-enabled educational systems.

## **2. Kerala Institute for Science, Technology and Innovation (KISTI)**

### **Vision**

The Kerala Institute for Science, Technology and Innovation (KISTI) is envisioned as Kerala's premier interdisciplinary research and innovation hub integrating genomics, microbiology, biotechnology, nanotechnology, artificial intelligence, agriculture, public health, and translational research. The Centre aspires to emerge as a globally recognized advanced scientific research institution fostering innovation-driven and socially relevant research.

### **Objectives**

KISTI aims to foster cutting-edge interdisciplinary research, nurture young researchers and postdoctoral scholars, facilitate industry partnerships, and promote translational research addressing societal and developmental challenges. The Centre seeks to strengthen Kerala's scientific research infrastructure while creating opportunities for innovation, entrepreneurship, and collaborative scientific advancement.

### **Present Status of Establishment of the Kerala Institute of Science, Technology and Innovation (KISTI)**

The Kerala Institute of Science, Technology and Innovation (KISTI) has been established as one of the major Centres of Excellence (CoEs) under the Kerala State Higher Education Council (KSHEC) as part of the Government of Kerala's higher education reform and research strengthening initiatives. KISTI has been conceived as an autonomous institution functioning under KSHEC with the objective of strengthening the research ecosystem, promoting innovation, supporting advanced scientific and technological research, and facilitating knowledge management in the fields of science, technology, and innovation.

Following the invitation of Expressions of Interest by KSHEC for hosting Centres of Excellence, Mahatma Gandhi University submitted a proposal to host KISTI within its campus. Based on subsequent discussions and decisions taken at the Government and KSHEC levels, it was decided to establish KISTI at the Mahatma Gandhi University campus as an autonomous Centre of Excellence functioning under KSHEC.

An MoU has been executed between KSHEC and Mahatma Gandhi University for the establishment and operationalization of KISTI. The Centre has been envisaged as an institution that will support advanced research, innovation ecosystems, interdisciplinary scientific collaboration, technology

development, and academic networking across Kerala. KISTI is also expected to function as a major research support platform capable of facilitating collaboration among universities, research institutions, industries, and innovation agencies within and outside the State.

As part of the interim establishment arrangements, the Vice Chancellor of Mahatma Gandhi University nominated Dr. Radhakrishnan E.K., Associate Professor, School of Biosciences, as the Coordinator for the implementation and operationalization of KISTI at the university campus. The Coordinator has been entrusted with the responsibility of initiating the establishment activities of the Centre and overseeing its early-stage institutional development.

KISTI has been designed to function as an autonomous institution under KSHEC and is not intended to be integrated into the administrative structure of the host university at any stage. The Centre is expected to remain open for collaboration and access to the entire academic, research, and industrial community of the State. The institutional framework of KISTI emphasizes interdisciplinary collaboration, shared research infrastructure, innovation-driven activities, and statewide academic engagement.

To facilitate the operationalization of the Centre during the initial phase, interim administrative and institutional arrangements have already been approved. Mahatma Gandhi University has agreed to provide temporary office space, institutional support, and logistical assistance required for the functioning of the Centre during the establishment phase. KSHEC has also initiated support mechanisms for the operational expenses and early-stage activities of KISTI until the Centre becomes fully functional.

The proposed governance structure of KISTI includes a Governing Council consisting of representatives from the Government, KSHEC, Mahatma Gandhi University, and experts from the field of higher education and research. The governance model is intended to ensure academic autonomy, institutional accountability, interdisciplinary coordination, and alignment with the broader higher education and innovation policies of the State.

The Centre is presently in the process of developing its institutional framework, infrastructure planning, collaborative networks, and operational systems. Proposals have also been prepared for the creation of academic, research, technical, and administrative positions required for the effective functioning of the Centre. KISTI is expected to play a major role in promoting scientific research, innovation ecosystems, advanced technology initiatives, interdisciplinary collaboration, and statewide research networking in Kerala.

### **Activities and Progress (2025–26)**

KISTI was established at Mahatma Gandhi University in March 2025 and has already initiated several advanced research activities. The Centre published two research papers and has another paper under revision. Collaborations have been established with major academic institutions, industries, startups, and research organizations including MGMARI Puducherry, Nitta Gelatin India Ltd, Sitaram Ayurveda, IUCBR&SSH, and NRICMI.

The Centre organized workshops and training programmes in Next-Generation Sequencing (NGS), Bioinformatics, and Oxford Nanopore Sequencing. KISTI also provides advanced analytical and molecular biology services including MIC testing, MBC analysis, biofilm assays, real-time PCR, Oxford Nanopore sequencing, and bioinformatics services.

### **Future Directions (2026–27)**

KISTI plans to establish a Genomics and Bioinformatics Core Facility, strengthen translational research and industry partnerships, and expand statewide research collaborations. The Centre aims to train more than 100 FYUGP students annually and establish revenue-generating services in sequencing, AMR profiling, and bioinformatics. KISTI also plans to increase participation in DBT, DST, SPARC, and BIRAC funded projects while developing patentable technologies and high-impact publications.

### **3: Kerala Network for Research Support in Higher Education (KNRSHE)**

#### **Vision**

The Kerala Network for Research Support in Higher Education (KNRSHE) envisions the creation of a collaborative, inclusive, and technologically advanced statewide research ecosystem that supports researchers, higher education institutions, industries, and innovation centres through shared research infrastructure, collaborative platforms, advanced instrumentation facilities, and interdisciplinary research networks. The Centre seeks to transform Kerala into a nationally recognized hub for high-quality research, innovation, and knowledge generation by ensuring equitable access to research facilities and fostering institutional collaboration.

#### **Introduction**

The Kerala Network for Research Support in Higher Education (KNRSHE) has been conceived as a flagship initiative of the Government of Kerala under the aegis of the Kerala State Higher Education Council (KSHEC). The initiative aims to strengthen the research ecosystem within higher education institutions by integrating research infrastructure, promoting collaborative research culture, and supporting advanced research activities across the State. KNRSHE functions as a comprehensive research support platform that pools together institutional resources, expertise, laboratories, and instrumentation facilities available across universities and colleges in Kerala. The initiative addresses one of the major challenges faced by researchers in the State, namely limited access to sophisticated research infrastructure and duplication of costly instrumentation across institutions. The Centre is also designed to support the emerging academic and research requirements arising from the Four Year Undergraduate Programme (FYUGP), postgraduate education reforms, interdisciplinary research programmes, innovation ecosystems, and industry-linked research initiatives.

#### **Present Status of Establishment of KNRSHE and its Sub-Centres: CIRL and CNRF**

The Kerala Network for Research Support in Higher Education (KNRSHE) has been established by the Government of Kerala under the Kerala State Higher Education Council (KSHEC) as one of the Centres of Excellence aimed at strengthening research, innovation, and advanced scientific infrastructure across higher education institutions in the State. KNRSHE has its headquarters at the Kerala State Higher Education Council (KSHEC), Thiruvananthapuram, functioning from the Science and Technology Museum Campus. At present, KSHEC provides administrative, financial, academic, and technical support to the Centre as an interim arrangement until KNRSHE evolves into an independent autonomous institution.

KNRSHE has been conceived as a statewide collaborative research ecosystem intended to facilitate shared access to advanced instrumentation, research facilities, interdisciplinary research support systems, and collaborative academic networking. The headquarters coordinates statewide research networking activities, infrastructure development initiatives, collaborative programmes, institutional partnerships, funding support, and digital integration of research facilities. The Centre also functions as the nodal coordinating agency for various sub-centres, research laboratories, and collaborative research networks functioning under KNRSHE.

As part of this initiative, the Central Instrumentation and Research Laboratory (CIRL) and the associated Central Network of Research Facilities (CNRF) are being established in different regions of Kerala as sub-centres of KNRSHE. At present, CIRL and CNRF sub-centres have been established at Government College for Women, Thiruvananthapuram, Kannur University Payyanur Campus, and Sree Kerala Varma College, Thrissur through Memoranda of Understanding executed between KSHCEC and the respective institutions. These centres are being developed by integrating the existing research laboratories, instrumentation centres, and scientific infrastructure available within the participating institutions into a statewide collaborative research network.

Steering Committees have been proposed for the governance and coordination of the sub-centres, and faculty members from the participating institutions have been entrusted with interim responsibilities for coordinating the operationalization and management of CIRL and CNRF facilities. KNRSHE is presently working towards expanding the CNRF network across Kerala, strengthening collaborative research support mechanisms, integrating research facilities through digital platforms, and facilitating shared access to sophisticated scientific infrastructure for researchers, faculty members, and students across higher education institutions in the State.

Detailed descriptions regarding the vision, objectives, activities, present status, and future directions of KNRSHE and its associated initiatives are presented in the following sections.

### **Objectives**

KNRSHE aims to build a statewide collaborative research ecosystem connecting higher education institutions, research organizations, and industries through integrated research infrastructure and academic collaboration. The Centre seeks to promote interdisciplinary and multidisciplinary research across academic domains and facilitate equitable access to sophisticated instrumentation and advanced research facilities. KNRSHE also focuses on strengthening research infrastructure in universities and colleges, supporting research scholars, faculty members, postgraduate students, and

undergraduate research initiatives, and establishing Central Instrumentation and Research Laboratories (CIRLs), Central Academic Computing Facilities (CACFs), and the Central Network of Research Facilities (CNRF). In addition, the Centre aims to promote patent facilitation, technology transfer, innovation, entrepreneurship, national and international research collaborations, and digital integration of research facilities while enhancing research output, publication quality, innovation, and societal impact.

### **Central Instrumentation and Research Laboratories (CIRLs)**

One of the major initiatives under KNRSHE is the establishment of Central Instrumentation and Research Laboratories (CIRLs) in different regions of Kerala. These centres are intended to function as shared advanced instrumentation hubs that provide access to sophisticated scientific equipment and research support facilities to researchers from multiple institutions. As part of the first phase of implementation, CIRLs have been operationalized at Government Women's College, Thiruvananthapuram, Kannur University Payyannur Campus, and Sree Kerala Varma College, Thrissur. Additional CIRLs are proposed in other university regions to ensure balanced regional access to advanced research infrastructure across the State. The CIRLs are expected to support advanced scientific experimentation, instrumentation access, research data analysis, interdisciplinary research, undergraduate and postgraduate research training, collaborative projects, faculty development programmes, and industry-supported research activities.

### **Central Network of Research Facilities (CNRF)**

A major component of KNRSHE is the establishment of the Central Network of Research Facilities (CNRF), which is envisaged as a statewide virtual research infrastructure network interlinking the existing laboratories, instrumentation facilities, and research centres available in higher education institutions across Kerala. The primary objectives of the CNRF are to optimize utilization of existing research infrastructure, avoid duplication of expensive instrumentation, facilitate shared access to research facilities, strengthen collaboration among institutions, and create a digitally integrated research support ecosystem across Kerala.

The CNRF functions through zonal nodal centres and institution-level nodal points distributed across the State. Existing zonal nodal centres include the South Zone CIRL at Government Women's College, Thiruvananthapuram, and the North Zone CIRL at Kannur University Payyannur Campus. Additional zonal centres are proposed in the MG University region and Calicut University region to ensure statewide research connectivity. Participating institutions are expected to map and share details of

their research facilities, instrumentation centres, laboratories, analytical services, and specialized infrastructure developed through government projects, sponsored research programmes, and institutional funding. KNRSHE is also developing a dedicated digital platform and web portal for facility mapping, online booking and scheduling, usage tracking, researcher access management, service guidelines, facility sharing coordination, and state-level monitoring of research infrastructure.

### **Research Collaboration and MoUs**

KNRSHE actively promotes research collaboration among institutions within Kerala as well as with national and international research organizations. The Centre is entering into Memoranda of Understanding (MoUs) with leading universities and research institutions to facilitate sharing of advanced research facilities, joint research projects, faculty exchange, student exchange, collaborative publications, capacity-building programmes, and research training initiatives. As part of this initiative, an MoU has been signed with University of Hyderabad for collaborative research activities, sharing of research facilities, and academic exchange programmes. KNRSHE also plans to establish partnerships with IITs, central universities, national laboratories, and international research institutions to provide broader access to specialized facilities and collaborative opportunities for researchers in Kerala.

### **Kerala Research and Innovation Fund (KRIF)**

As part of strengthening the research ecosystem, KNRSHE is also promoting the Kerala Research and Innovation Fund (KRIF), which aims to provide seed funding and research grants to researchers, faculty members, and emerging innovators within the State. The fund is expected to support seed research projects, interdisciplinary research initiatives, innovation-oriented projects, early-career researchers, student research initiatives, prototype development, technology transfer activities, and collaborative research programmes. The KRIF is envisaged as an enabling mechanism to encourage high-quality research and innovation activities aligned with the developmental priorities of Kerala.

### **Support for Research Infrastructure and Instrument Maintenance**

KNRSHE, through the CNRF framework, also proposes to provide annual maintenance support for sophisticated research instrumentation available within participating institutions. The support mechanism is intended to improve the sustainability and usability of expensive scientific equipment and ensure uninterrupted access for researchers across the network. Nodal centres within the CNRF may receive maintenance grants for instrument servicing, purchase of consumables, minor repairs, technical assistance, upgradation of facilities, and operational support. The grant support will be linked to the extent of facility utilization, quality and relevance of infrastructure, number of

researchers supported, research output generated, and contribution to the statewide research ecosystem.

### **Activities and Progress (2025–26)**

During the academic year 2025–26, KNRSHE initiated several important activities including operationalization of CIRLs in multiple regions, formation of institutional and faculty research networks, development of the CNRF framework, mapping of research facilities across institutions, initiation of collaborative research support mechanisms, preparation of digital integration systems for research infrastructure, research collaboration discussions with national institutions, development of maintenance support mechanisms for research equipment, promotion of undergraduate and postgraduate research initiatives, and planning for advanced computing and patent facilitation facilities.

### **Future Directions (2026–27)**

The future plans of KNRSHE include expansion of the CNRF network across all university regions, establishment of additional CIRLs and advanced research centres, operationalization of Central Academic Computing Facilities (CACFs), establishment of Patent Facilitation and Intellectual Property Support Centres, strengthening digital integration and virtual access to research infrastructure, expansion of national and international research collaborations, research mobility and travel grant support, creation of shared databases and digital repositories, promotion of innovation and industry-linked research, capacity-building programmes for researchers and technical staff, development of interdisciplinary research clusters, integration of undergraduate honours research support under FYUGP, and mobilization of external research funding and collaborative grants.

### **Conclusion**

The Kerala Network for Research Support in Higher Education (KNRSHE) represents a transformative initiative aimed at creating a strong, collaborative, and sustainable research ecosystem in Kerala. By integrating institutions, sharing infrastructure, promoting interdisciplinary collaboration, and supporting researchers through advanced facilities and funding mechanisms, KNRSHE is expected to significantly strengthen the quality and impact of higher education research in the State. The establishment of CIRLs, the development of the CNRF network, research collaboration initiatives, digital infrastructure integration, and research funding support mechanisms together position KNRSHE as a major institutional framework for advancing research excellence, innovation, and knowledge creation in Kerala's higher education sector.

## 4. Kerala Institute of Advanced Studies (KIAS)

### Vision

The Kerala Institute for Advanced Studies (KIAS) is envisioned as a premier trans-disciplinary institution dedicated to advanced research, higher-order knowledge production, and critical intellectual inquiry. The Institute seeks to create a globally recognized academic space where scholars, researchers, thinkers, artists, scientists, and practitioners from diverse fields collaboratively engage with the fundamental challenges facing humanity and society. KIAS aims to transcend conventional disciplinary boundaries and foster innovative, curiosity-driven, and socially relevant research rooted in intellectual freedom, critical thinking, and academic excellence.

KIAS further envisions itself as a national and international centre for advanced studies promoting secularism, social justice, gender equity, democratic values, epistemic diversity, and inclusive knowledge production. The Institute seeks to develop Kerala into a global hub for advanced interdisciplinary scholarship by integrating science, technology, humanities, social sciences, arts, philosophy, indigenous knowledge systems, and emerging digital technologies within a unified research ecosystem. The Institute also aspires to create an intellectually vibrant environment capable of generating transformative ideas, innovative research methodologies, and globally relevant knowledge grounded in local realities and social responsibility.

### Objectives

The mission of KIAS is to promote advanced trans-disciplinary research capable of addressing complex contemporary global and local challenges through collaborative intellectual engagement, innovative methodologies, and socially responsible knowledge production. The Institute aims to foster a research culture based on curiosity-driven inquiry, critical reflection, philosophical engagement, and interdisciplinary collaboration. KIAS seeks to create a vibrant academic environment that encourages scholars to undertake high-quality research beyond traditional disciplinary silos and to generate advanced knowledge with intellectual depth, social relevance, and global significance.

The Institute also aims to support early-career researchers, postdoctoral scholars, and senior fellows through fellowship programmes, mentoring systems, collaborative research platforms, and global academic partnerships. KIAS intends to facilitate the integration of indigenous knowledge systems, local ecological knowledge, scientific inquiry, digital technologies, and emerging interdisciplinary approaches into advanced research practices. The Institute further seeks to establish strong national and international collaborations with universities, research institutions, industries, policymakers, and

civil society organizations in order to strengthen the global relevance and societal impact of its academic and research activities.

### **Present Status of Establishment of the Kerala Institute for Advanced Studies (KIAS)**

The Kerala Institute for Advanced Studies (KIAS) has been established by the Government of Kerala under the Kerala State Higher Education Council (KSHEC) as one of the ten Centres of Excellence recommended by the Higher Education Reforms Commission of the Government of Kerala. KIAS has been conceived as an advanced interdisciplinary research institution devoted to higher-order knowledge production, scholarship, and intellectual engagement across disciplines.

Based on discussions held at the Government and KSHEC levels, it was decided to establish KIAS at the campus of the College of Engineering Munnar under the administrative framework of the Centre for Continuing Education Kerala. The Institute has been envisioned as a platform for promoting multidisciplinary, cross-disciplinary, interdisciplinary, and transdisciplinary approaches to research and knowledge generation by bringing together scholars, researchers, thinkers, and practitioners from diverse domains.

As part of the initial establishment arrangements, one acre of land has been allotted within the campus of the College of Engineering Munnar for the future development of KIAS infrastructure. In addition, the ground floor of the College Library Building has been allotted for establishing the office and physical library facilities of KIAS, while the third floor has been earmarked for the establishment of a Common Digital Library facility to support the academic and research activities of the Institute.

The College Auditorium and meeting facilities are also being made available to KIAS on a mutually agreed schedule without affecting the regular academic activities of the college. KSHEC has been permitted to undertake temporary interior works and infrastructure arrangements in the allotted spaces for enabling the commencement of the activities of KIAS.

The Executive Body of KSHEC decided to operationalize KIAS at the Munnar campus with interim administrative arrangements until the full institutional structure is established. KSHEC has been entrusted with the responsibility of coordinating the initial activities of the Institute, while academic activities are presently guided by the Vice Chairman, KSHEC. The Administrative Officer of the College of Engineering Munnar has also been designated as the Liaison Officer to facilitate coordination and administrative support between KIAS and the college during the establishment phase.

KIAS is proposed to be incorporated as an autonomous charitable society under the Travancore–Cochin Literary, Scientific and Charitable Societies Registration Act, 1955. The proposed governance

structure includes an Advisory Body, Governing Body, and Executive Body consisting of representatives from the Government, KSHEC, and eminent scholars. The Institute also proposes to establish fellowship programmes including Visiting Scholar Fellowships, Industry and Practice Fellowships, and Short-Term Visiting Fellowships to promote advanced research collaboration and academic exchange.

At present, the administration, finance, and academic coordination of KIAS are being managed by KSHEC as an interim arrangement until the formal registration and complete institutional structure of the Institute are established. KIAS is presently in the process of developing its academic framework, institutional structure, research programmes, collaborative initiatives, and infrastructure facilities for commencing its full-fledged activities as an advanced interdisciplinary research institution under KSHEC.

A permanent campus is also being planned for KIAS within the campus of the College of Engineering, Munnar. Based on discussions held at the Government level and subsequent site evaluations, suitable land has been identified for the long-term development of the Institute. It has been proposed that approximately one acre of land presently under the possession of the Centre for Continuing Education Kerala (CCEK), situated in Devikulam Taluk, KDH Village, under Survey Nos. 912, 914, 915, and 916/2, be allotted to KSHEC for the establishment of the permanent campus of KIAS. The specific land identified for KIAS falls within Survey Nos. 914 and 915 and is located on both sides of the internal road leading towards the staff quarters from the DTPC road through the college entrance.

The Revenue authorities have already completed the preliminary demarcation and boundary identification procedures for the proposed land. The proposal is presently under consideration of the Government, and the final Government orders for the formal transfer and allotment of the land to KSHEC for establishing the permanent campus of KIAS are awaited.

### **Proposed Activities of KIAS**

KIAS proposes to undertake a wide range of advanced academic, research, fellowship, and collaborative activities aimed at establishing a globally benchmarked ecosystem for higher-order knowledge production and intellectual engagement. The Institute plans to organize major multidisciplinary, interdisciplinary, cross-disciplinary, and trans-disciplinary research projects focusing on areas such as climate resilience, sustainability, health equity, urban transformation, digital ethics, social justice, environmental studies, indigenous knowledge systems, and emerging global challenges. These research programmes are intended to generate innovative theoretical frameworks,

translational knowledge, and socially relevant solutions capable of addressing complex contemporary problems.

KIAS also proposes to establish a fellowship-based academic structure inspired by internationally recognized Institutes of Advanced Studies. The Institute plans to introduce Senior Research Fellowships, Visiting Fellowships, International Fellowships, Industry Fellowships, Postdoctoral Fellowships, and Short-Term Visiting Scholar Programmes for accomplished researchers, scholars, artists, scientists, policymakers, and innovators from India and abroad. The fellowship programmes are intended to create a collaborative and intellectually stimulating environment promoting advanced scholarship, peer learning, and high-quality research output.

The Institute further proposes to organize regular academic and knowledge-sharing activities including weekly research seminars, colloquia, interdisciplinary roundtables, public lectures, annual conferences, workshops, summer and winter schools, thematic reading groups, policy dialogues, and collaborative research discussions. These activities are expected to facilitate intellectual exchange, interdisciplinary dialogue, collaborative inquiry, and dissemination of advanced research among scholars, institutions, policymakers, and the wider public.

KIAS additionally proposes to establish advanced digital infrastructure with hyper-connectivity, AI-enabled research systems, collaborative digital platforms, digital humanities laboratories, open-access repositories, and technology-supported research facilities. The Institute aims to promote AI-assisted research methodologies, digital scholarship, collaborative academic networking, and global research partnerships through technology-enabled systems and digital knowledge ecosystems.

The Institute also intends to establish collaborative partnerships with universities, research centres, Institutes of Advanced Studies, industries, civil society organizations, international academic networks, and policy institutions across India and abroad. These collaborations are expected to facilitate joint research programmes, faculty exchange, visiting scholar initiatives, collaborative projects, and global academic engagement. KIAS further proposes to engage actively with society through public outreach programmes, policy dialogues, community-based research, and knowledge-sharing initiatives aimed at promoting socially responsive scholarship and inclusive development.

### **Future Directions**

KIAS proposes to evolve into a globally connected Institute of Advanced Studies dedicated to high-quality trans-disciplinary research, collaborative scholarship, and socially relevant knowledge production. In the coming years, the Institute plans to operationalize its permanent campus at Munnar

with advanced academic infrastructure including research centres, fellowship spaces, residential facilities for visiting scholars, digital libraries, collaborative research laboratories, seminar halls, and technology-enabled learning environments. The Institute also proposes to establish a fully integrated digital research ecosystem with AI-enabled research tools, open-access repositories, digital humanities platforms, and global academic connectivity systems to support advanced collaborative scholarship.

KIAS intends to launch structured fellowship and residency programmes for national and international scholars, postdoctoral researchers, artists, scientists, policymakers, and practitioners from diverse disciplines. The Institute also plans to establish thematic research clusters focusing on areas such as climate resilience, sustainability studies, digital ethics, indigenous knowledge systems, democratic governance, social justice, environmental transformation, public health, and emerging interdisciplinary challenges. These research clusters are expected to function as long-term collaborative platforms integrating researchers, universities, industries, civil society organizations, and international academic partners.

The Institute further proposes to strengthen national and international collaborations with Institutes of Advanced Studies, universities, research organizations, policy institutions, and global academic networks through joint research projects, exchange programmes, visiting scholar initiatives, and collaborative publications. KIAS also plans to establish policy dialogue platforms, advanced academic workshops, public lecture series, summer and winter schools, and interdisciplinary research forums aimed at strengthening intellectual engagement and knowledge dissemination.

In addition, KIAS proposes to play an important role in supporting higher education reforms, advanced academic research, and knowledge-policy interfaces within Kerala by functioning as a platform for critical reflection, academic innovation, and evidence-based interdisciplinary scholarship. The Institute also aims to promote socially responsible and ethically grounded research capable of contributing to sustainable development, inclusive growth, cultural understanding, and democratic public discourse.

## **Conclusion**

The Kerala Institute for Advanced Studies (KIAS) represents a major intellectual and institutional initiative of the Government of Kerala under the Kerala State Higher Education Council aimed at strengthening advanced scholarship, interdisciplinary research, and higher-order knowledge production within the State. Conceived as a trans-disciplinary Institute of Advanced Studies, KIAS seeks

to create a vibrant academic ecosystem where scholars, researchers, thinkers, artists, scientists, and practitioners collaboratively engage with the complex challenges of contemporary society through critical inquiry, innovative methodologies, and socially relevant research.

The Institute embodies a long-term vision for developing Kerala into a globally recognized centre for advanced interdisciplinary scholarship by integrating science, technology, humanities, social sciences, arts, philosophy, and emerging digital technologies within a common intellectual framework. Through its proposed fellowship programmes, collaborative research initiatives, digital knowledge infrastructure, and global academic partnerships, KIAS is expected to significantly contribute to the advancement of research culture, academic excellence, and knowledge-based development in Kerala.

By promoting intellectual freedom, collaborative inquiry, epistemic diversity, and socially responsive scholarship, KIAS has the potential to emerge as a pioneering institution capable of redefining the role of higher education and advanced research in addressing contemporary global and local challenges. The Institute is therefore expected to play a transformative role in strengthening Kerala's higher education ecosystem and establishing the State as a major centre for advanced studies, critical thought, and innovative knowledge production.

## 5. Kerala Institute for Gender Equity (KIGE)

### Vision

The Kerala Institute for Gender Equity (KIGE) is envisioned as a premier interdisciplinary institution dedicated to making gender equality a reality in Kerala, India, and beyond through advanced research, policy support, knowledge generation, capacity building, and dissemination of best practices. The Institute seeks to function as a nationally recognized centre for research and academic engagement in the field of gender studies, social inclusion, equity, and human development. KIGE aims to create a vibrant intellectual and policy-oriented platform capable of addressing gender inequalities through evidence-based research, academic interventions, institutional collaboration, and socially responsive knowledge systems.

The Institute also envisions itself as a collaborative platform for integrating gender perspectives into higher education, governance, public policy, institutional practices, research, and social development initiatives. KIGE seeks to promote inclusive, democratic, equitable, and socially just approaches to knowledge production while strengthening awareness, sensitivity, and critical engagement with issues relating to gender equity, diversity, inclusion, and social transformation.

### Mission

The mission of KIGE is to redress inequalities in policies, services, institutional systems, and public interventions through interdisciplinary and trans-disciplinary research, policy engagement, academic networking, and capacity-building initiatives. The Institute aims to create a comprehensive platform for gender mainstreaming by providing step-by-step guidance, research support, data resources, and policy inputs for integrating gender perspectives into educational, administrative, developmental, and governance processes.

KIGE seeks to share its research outputs, knowledge resources, policy frameworks, and academic tools with universities, research institutions, government agencies, NGOs, and other stakeholders across Kerala, India, and beyond. The Institute intends to function as a centre for critical inquiry, collaborative scholarship, and socially relevant research focusing on women's studies, gender justice, diversity, inclusion, and equitable development. KIGE also aims to strengthen the role of higher education institutions in promoting gender-sensitive academic practices, socially responsible scholarship, and transformative public engagement.

### Objectives of KIGE

The major objective of KIGE is to foster interdisciplinary and trans-disciplinary research, publications, and academic engagement relating to all aspects of gender studies, gender equality, and inclusive social development. The Institute seeks to establish strong collaborative networks with universities, departments of gender studies, research institutions, policy organizations, and centres working in related thematic areas in Kerala, India, and abroad.

KIGE aims to identify critical gaps and emerging issues relating to women and gender in Kerala and India through systematic research, policy studies, and knowledge generation initiatives. The Institute proposes to establish a comprehensive gender database for Kerala to support evidence-based policy analysis, academic research, institutional planning, and developmental interventions relevant to the Government and society.

The Institute also seeks to mainstream gender studies within universities and higher education institutions in Kerala by introducing academic programmes, gender sensitization initiatives, faculty development programmes, training workshops, and curriculum integration activities. KIGE proposes to organize short-term and long-term training programmes for faculty members, researchers, administrators, students, and other stakeholders in order to strengthen gender awareness, gender-sensitive research methodologies, and inclusive institutional practices.

Another important objective of KIGE is to improve the enrolment, participation, leadership, and academic performance of female students through mentoring programmes, leadership training, counseling support, and awareness initiatives targeting school and college students. The Institute also seeks to strengthen outreach and networking activities by establishing collaborations with institutions, universities, research centres, and organizations engaged in gender studies and social inclusion within India and abroad.

KIGE further aims to develop a comprehensive knowledge resource centre consisting of books, journals, databases, digital archives, audio-visual resources, research reports, and academic materials relating to gender studies and inclusive development. The Institute also intends to facilitate collaborative research projects, policy dialogues, faculty and student exchanges, public engagement programmes, and socially responsive academic interventions capable of contributing to equitable and inclusive development in Kerala and beyond.

### **Present Status of Establishment of the Kerala Institute of Gender Equity (KIGE)**

The Kerala Institute of Gender Equity (KIGE) has been established by the Government of Kerala under the Kerala State Higher Education Council (KSHEC) as one of the Centres of Excellence aimed at

promoting advanced research, policy support, training, and knowledge generation in the field of gender equity and inclusive development. KIGE has been conceived as an autonomous interdisciplinary institution dedicated to making gender equality a reality through research, data generation, academic engagement, policy interventions, and dissemination of best practices.

Following the invitation of Expressions of Interest from universities across Kerala by KSHEC, Sree Sankaracharya University of Sanskrit submitted a proposal to host KIGE at its Kalady campus. KSHEC subsequently conducted a site visit to assess the suitability of the facilities and infrastructure offered by the University for establishing the Centre. Based on the decisions taken during the meeting chaired by the Hon'ble Minister for Higher Education and Social Justice, sanction was accorded for establishing KIGE as an autonomous Centre of Excellence under KSHEC at the Kalady campus of the University.

An MoU has been executed between KSHEC and Sree Sankaracharya University of Sanskrit for the establishment and operationalization of KIGE. The MoU defines KIGE as an autonomous institution of the Department of Higher Education functioning under KSHEC with the objective of improving the research ecosystem and knowledge management in the field of gender equity. The Centre is intended to function as a statewide platform for interdisciplinary collaboration, advanced research, training programmes, and academic engagement involving universities, industries, NGOs, and other institutions working in the field of gender studies and social inclusion.

KIGE is proposed to function as an autonomous institution under KSHEC and shall not become part of the administrative structure of the host university at any point of time. However, the host university will provide institutional support including office space, classrooms, meeting facilities, library access, digital resources, utilities, and other infrastructure required for the functioning of the Centre.

For the governance and oversight of the Centre, it has been proposed that a Governing Council be constituted consisting of the Hon'ble Minister for Higher Education as Chairperson, the Vice Chairman of KSHEC as Vice Chairperson, the Vice Chancellor of Sree Sankaracharya University of Sanskrit as Vice Chairperson, the Member Secretary of KSHEC, two experts in higher education nominated by the Chairperson, and the Director/Coordinator of KIGE as Member and Convenor. The proposed governance structure is intended to ensure academic autonomy, institutional accountability, interdisciplinary collaboration, and effective coordination between KSHEC, the University, and other stakeholders.

As part of the interim arrangements approved for the operationalization of KIGE, a faculty member nominated by the Vice Chancellor of Sree Sankaracharya University of Sanskrit has been designated

as the Coordinator of the Centre. The Coordinator has been authorized to make temporary arrangements required for the functioning of the Centre until regular institutional mechanisms and appointments are established. The Vice Chancellor of the University and the Member Secretary of KSHEC have also been authorized to take necessary steps for the immediate operationalization of KIGE in accordance with the conditions stipulated in the MoU.

To facilitate the effective functioning of the Centre, proposals have also been made for creating academic, research, administrative, and technical positions including Director, Faculty Fellows/Research Scientists, Administrative Officer/Research Officer, Research Associates/Research Assistants, and Technical and Office Assistants. The staffing structure of KIGE is proposed to function on a project-based and performance-oriented model consistent with the broader framework adopted for the Centres of Excellence under KSHEC.

At present, KIGE is in the process of developing its academic framework, institutional structure, collaborative partnerships, research programmes, training initiatives, and infrastructure facilities. The Centre is expected to play a significant role in promoting advanced interdisciplinary research, policy dialogue, training, academic networking, and socially relevant knowledge generation in the field of gender equity and inclusive development within Kerala and beyond.

### **Activities and Progress**

During the academic year 2025–26, the Kerala Institute of Gender Equity (KIGE) operationalized its activities at the Kalady campus of Sree Sankaracharya University of Sanskrit and initiated several academic, research, outreach, and policy engagement programmes relating to gender equity and inclusive development. The Centre organized a number of interdisciplinary academic events and public engagement programmes including the LGBTQIA+ Futures Playshop, Feminist Research Methodology Workshop, Gender Audit initiatives at St. Teresa's College, and Legal Consultation programmes relating to the Transgender Rights Amendment Bill. These programmes facilitated critical discussions on gender inclusion, diversity, social justice, feminist scholarship, and inclusive institutional practices within higher education and society.

KIGE also initiated research and policy support activities focusing on women's participation in waste management systems, gender-sensitive governance practices, and inclusive policy interventions. The Centre engaged with researchers, academic institutions, civil society organizations, and stakeholders working in the areas of gender studies, women's empowerment, social inclusion, and human rights. In addition, the Centre initiated collaborative networking activities and discussions for strengthening

gender mainstreaming within higher education institutions through research, training, and institutional engagement programmes.

### **Future Directions**

KIGE proposes to expand its academic, research, policy, and outreach activities during the academic year 2026–27 through the introduction of structured academic and capacity-building programmes in the field of gender studies and gender equity. The Centre plans to launch short-term academic courses, research fellowships, faculty development programmes, and specialized training initiatives relating to gender sensitization, feminist research methodologies, inclusive institutional practices, and policy engagement.

The Centre also proposes to organize Internal Committee (IC) training workshops, expand gender audit activities across higher education institutions, and strengthen institutional support mechanisms for promoting gender-equitable academic and administrative environments. KIGE further plans to publish research journals, policy handbooks, academic resource materials, and documentation relating to gender studies, inclusive development, and social justice.

In addition, the Centre proposes to organize national and international conferences, seminars, workshops, and collaborative research forums aimed at strengthening interdisciplinary engagement and academic networking in the field of gender studies. KIGE also plans to develop policy recommendations and institutional frameworks for promoting gender-equitable practices within higher education institutions and public systems. The Centre further intends to strengthen collaborations with universities, research institutions, NGOs, policy organizations, and national and international agencies working in the areas of gender equity, diversity, inclusion, and human development.

### **Conclusion**

The Kerala Institute of Gender Equity (KIGE) represents an important institutional initiative of the Government of Kerala and KSHCEC aimed at promoting gender justice, inclusive development, socially responsive scholarship, and evidence-based policy engagement through advanced interdisciplinary research and academic collaboration. Through its research activities, outreach programmes, training initiatives, policy interventions, and collaborative academic engagements, KIGE seeks to strengthen gender-sensitive institutional practices and contribute to the development of an equitable, inclusive, and socially just knowledge society.

By integrating research, academic engagement, policy support, and public outreach within a collaborative institutional framework, KIGE is expected to emerge as a leading centre for gender studies and inclusive development capable of influencing higher education, governance systems, public policy, and social transformation within Kerala and beyond.

## 6. Kerala Language Network (KLN)

### Vision

The Kerala Language Network (KLN) envisions establishing itself as a globally recognized Centre of Excellence for linguistic excellence, multilingual education, language research, translation studies, and cultural integration. The Centre seeks to position Kerala as a major hub for language learning, linguistic innovation, digital language technologies, and preservation of linguistic diversity by promoting regional, national, and international languages through advanced academic, research, and collaborative initiatives. KLN aims to foster multilingual competence, strengthen cultural diversity, preserve Kerala's rich linguistic heritage, and promote innovation in language education and research through interdisciplinary and technology-enabled approaches.

KLN also envisions creating an inclusive academic and cultural ecosystem where languages function as bridges connecting communities, cultures, knowledge systems, and global opportunities. The Centre seeks to strengthen Kerala's linguistic and cultural identity while simultaneously fostering global citizenship, intercultural dialogue, and multilingual communication capacities relevant to contemporary society and the knowledge economy.

### Mission

The mission of KLN is to promote regional, national, and global languages through cutting-edge education, interdisciplinary research, digital innovation, translation activities, and academic collaboration. The Centre aims to strengthen language learning and teaching systems in Kerala by integrating modern pedagogical practices, digital technologies, AI-enabled language tools, and technology-supported learning platforms into language education.

KLN seeks to preserve and document Kerala's linguistic diversity, including endangered dialects, indigenous languages, oral traditions, and cultural knowledge systems through systematic research, digital archiving, and collaborative community engagement. The Centre also aims to create inclusive spaces for linguistic and cultural exchange by connecting universities, language institutions, researchers, translators, indigenous communities, students, and international academic organizations within a common collaborative framework.

The mission of KLN further includes promoting multilingual communication skills, strengthening professional language training, developing language technologies, facilitating translation and

interpretation services, supporting linguistic research, and fostering socially relevant and culturally responsive language education systems across Kerala and beyond.

### **Objectives of KLN**

The major objective of the Kerala Language Network is to strengthen the teaching, learning, and promotion of Kerala's regional languages along with other national and international languages through structured academic programmes, professional language training initiatives, digital learning platforms, and collaborative academic activities. KLN seeks to establish a statewide network of language institutions and sub-centres for promoting multilingual education, communicative language skills, translation studies, and linguistic research.

KLN aims to document, archive, and preserve endangered dialects, indigenous languages, oral traditions, and linguistic heritage within Kerala through field research, digital archiving, language documentation, and collaborative engagement with local communities and indigenous groups. The proposed Study of Indigenous Languages of Kerala (SILK) sub-centre is intended to support research relating to language vitality, revitalization, linguistic documentation, script development, and educational resource creation, particularly for the minority and Scheduled Tribe languages spoken in Kerala.

Another important objective of KLN is to facilitate advanced linguistic research and innovation in areas such as sociolinguistics, applied linguistics, computational linguistics, language pedagogy, translation studies, natural language processing (NLP), speech recognition, machine translation, and AI-driven language technologies. The Centre proposes to establish specialized language technology initiatives and digital platforms for promoting accessible, technology-enabled, and interactive language learning systems.

KLN also aims to strengthen teacher development and faculty capacity-building programmes by training language educators in modern pedagogical approaches, digital teaching methodologies, blended learning systems, and technology-enhanced language instruction. The Centre seeks to develop online courses, e-resources, language learning applications, virtual learning environments, and AI-assisted educational tools capable of supporting multilingual learning across different sectors and learner groups.

The Centre further proposes to promote cultural integration, multilingual communication, and cross-cultural understanding through language exchange programmes, language festivals, academic collaborations, workshops, seminars, and public engagement initiatives. KLN also aims to publish

research papers, books, journals, translation works, dictionaries, language-learning materials, and digital resources for strengthening knowledge dissemination, academic engagement, and public access to linguistic and cultural knowledge systems.

### **Present Status of Establishment of the Kerala Language Network (KLN)**

The Kerala Language Network (KLN) has been established by the Government of Kerala under the Kerala State Higher Education Council (KSHEC) as one of the Centres of Excellence aimed at advancing linguistic excellence, promoting multilingualism, preserving cultural diversity, and strengthening innovation in language education and research. KLN has been conceived as an autonomous institution functioning under KSHEC with the objective of improving the research ecosystem and knowledge management in the fields of language studies, linguistics, translation, cultural studies, and multilingual education.

Following the invitation of Expressions of Interest from universities across Kerala by KSHEC, Thunchath Ezhuthachan Malayalam University submitted a proposal to host the headquarters of the Kerala Language Network at its Tirur campus. Based on subsequent discussions and decisions taken at the Government and KSHEC levels, sanction was accorded for establishing KLN as an autonomous Centre of Excellence under KSHEC with its headquarters at Thunchath Ezhuthachan Malayalam University and sub-centres at Ponnani, Kannur, and Thiruvananthapuram.

An MoU has been executed between KSHEC and Thunchath Ezhuthachan Malayalam University for the establishment and operationalization of KLN. The MoU defines KLN as an autonomous institution of the Department of Higher Education established through KSHEC with the intention of improving linguistic excellence, fostering multilingualism, promoting cultural diversity, and strengthening innovation in language education and research.

KLN has been envisioned as a statewide collaborative academic and research platform integrating universities, language institutions, researchers, translators, scholars, and cultural organizations working in the fields of Malayalam, Indian languages, foreign languages, translation studies, digital language technologies, and interdisciplinary language research. The Centre is also intended to function as a major hub for language training, linguistic research, translation activities, digital content development, cultural exchange, and multilingual knowledge dissemination.

The Centre is proposed to function as an autonomous institution under KSHEC and shall not become part of the administrative structure of the host university at any stage. However, the host university will provide institutional support including office space, classrooms, meeting facilities, library access,

digital resources, utilities, and other infrastructure required for the functioning of the Centre and its academic activities.

For the governance and oversight of KLN, it has been proposed that a Governing Council be constituted consisting of the Hon'ble Minister for Higher Education as Chairperson, the Vice Chairman of KSHEC as Vice Chairperson, the Vice Chancellor of Thunchath Ezhuthachan Malayalam University as Vice Chairperson, the Member Secretary of KSHEC, two experts in higher education nominated by the Chairperson, and the Director/Coordinator of KLN as Member and Convenor. The proposed governance structure is intended to ensure academic autonomy, institutional accountability, interdisciplinary collaboration, and statewide coordination of language-related academic and research activities.

As part of the interim arrangements approved for the operationalization of KLN, a faculty member nominated by the Vice Chancellor of Thunchath Ezhuthachan Malayalam University has been designated as the Coordinator of KLN. Faculty members nominated for the sub-centres at Ponnani, Kannur, and Thiruvananthapuram have also been designated as Assistant Coordinators for facilitating the functioning and coordination of the regional centres. The Coordinator has been authorized to make temporary arrangements required for the functioning of KLN and its sub-centres with prior approval from KSHEC.

To support the effective functioning of the Centre, proposals have also been made for creating academic, research, administrative, and technical positions including Director, Faculty Fellows/Research Scientists, Administrative Officer/Research Officer, Research Associates/Research Assistants, and Technical and Office Assistants. The staffing structure of KLN is proposed to function on a project-based and performance-oriented model in line with the broader framework adopted for the Centres of Excellence under KSHEC.

KLN has initiated Professional Language Training Centres as sub-centres in different regions of the State to expand access to multilingual education, language training, translation studies, and skill development programmes. At present, KLN has operational sub-centres at Irinjalakuda, Ponnani, and Kalyasseri, in addition to its headquarters functioning at the Thunchath Ezhuthachan Malayalam University campus, Tirur. These centres are intended to function as regional hubs for professional language training, communicative language courses, translation activities, cultural exchange programmes, and interdisciplinary language-related academic initiatives.

At present, KLN is in the process of developing its academic framework, collaborative networks, language training initiatives, research programmes, digital platforms, translation activities, and institutional infrastructure. The Centre is expected to play a major role in promoting multilingual education, language research, translation studies, linguistic innovation, digital language resources, and cultural knowledge systems within Kerala and beyond

### **Activities and Progress**

During the academic year 2025–26, the Kerala Language Network (KLN) significantly expanded its academic, training, and outreach activities as part of its efforts to strengthen multilingual education, professional language training, translation studies, and language-based skill development across Kerala. The Centre operationalized foreign language training programmes at the Shaikh Zainuddin Makhdoom Sub-Centre for Professional Language Training and Translation at Ponnani, where certificate courses in Communicative Arabic and German A1 were successfully conducted. The first batch of students completed the programmes, and examinations were conducted, with the Centre achieving a 100% pass percentage in the Communicative Arabic programme. The German A1 programme was also completed successfully as part of the initial phase of language training initiatives.

As part of its statewide expansion strategy, KLN established new Professional Language Training sub-centres at Irinjalakuda and Kalyasseri/Kannur to strengthen regional access to multilingual education and language-related skill development programmes. These centres were established to function as regional hubs for communicative language training, translation activities, language technology initiatives, and cultural exchange programmes. The Irinjalakuda sub-centre was inaugurated by the Hon'ble Minister for Higher Education and Social Justice and has commenced functioning with dedicated classroom and office facilities, digital infrastructure, and academic coordination support.

KLN offered certificate and communicative language courses in multiple languages including Communicative English, Hindi, French, Arabic, German, and Malayalam Skill Development through its various centres. The programmes were designed to enhance communicative competence, employability skills, translation capacities, intercultural communication, and multilingual proficiency among students and learners from different backgrounds. The Centre also initiated activities relating to Malayalam language skill development and professional communication training to support employability and academic advancement.

To strengthen the academic quality and institutional framework of its programmes, KLN constituted Boards of Studies for Communicative English and Hindi. The Boards of Studies were entrusted with

responsibilities relating to curriculum development, syllabus revision, academic standards, course structuring, evaluation mechanisms, and programme expansion. The Centre also initiated discussions regarding the integration of internships, mentoring systems, and experiential learning opportunities under the Four-Year Undergraduate Programme (FYUGP) framework in collaboration with participating institutions.

In addition to language training activities, KLN initiated translation services, language documentation activities, and preliminary work relating to language technology integration and digital language resource development. The Centre also undertook collaborative networking activities with universities, academic institutions, cultural organizations, and experts working in the areas of linguistics, translation studies, multilingual education, and indigenous language preservation. These activities were aimed at strengthening the institutional foundation of KLN as a statewide network for language education, research, and cultural engagement.

### **Future Directions**

During the academic year 2026–27, KLN proposes to significantly expand its academic, research, translation, and language technology initiatives across Kerala. The Centre plans to introduce advanced-level language programmes including German A2, Advanced Arabic, and additional communicative and professional language courses in selected Indian and foreign languages. KLN also proposes to strengthen multilingual skill development programmes aligned with employability, translation services, tourism, international communication, and academic mobility requirements.

The Centre intends to expand its internship, fellowship, mentoring, and experiential learning initiatives by integrating language training programmes with higher education institutions and the FYUGP framework. KLN also plans to introduce structured fellowship programmes, translation internships, faculty development initiatives, and student exchange opportunities to strengthen practical language learning and professional competencies.

A major focus area of KLN during the coming years will be the development of translation services and AI-assisted language technology systems. The Centre proposes to establish digital language laboratories, translation support systems, AI-enabled language learning tools, speech and text processing initiatives, and technology-supported multilingual communication platforms. KLN also aims to promote research and innovation in areas such as computational linguistics, natural language processing (NLP), digital lexicography, machine translation, and language resource development.

KLN further plans to organize seminars, workshops, conferences, cultural exchange programmes, literary interactions, and interdisciplinary academic activities aimed at promoting multilingualism, cultural diversity, and linguistic inclusion. The Centre also proposes to strengthen collaborations with universities, research institutions, language centres, and organizations including KIRTADS for activities relating to indigenous language documentation, cultural preservation, tribal language studies, and community-based linguistic research.

In addition, KLN proposes to expand its statewide network of Professional Language Training Centres and sub-centres to ensure wider access to language education, translation studies, digital language learning, and multilingual academic opportunities across different regions of Kerala. Through these initiatives, KLN aims to emerge as a major centre for multilingual education, language innovation, translation studies, and cultural knowledge systems within Kerala and beyond.

## 7. Kerala Knowledge Consortium Centres (KKC)

### Vision

The Kerala Knowledge Consortium (KKC) envisions the creation of a participatory, inclusive, and people-centered knowledge society in Kerala by integrating higher education institutions, industries, local bodies, NGOs, research organizations, and communities within a collaborative knowledge ecosystem. The Consortium seeks to transform higher education institutions into active centres of social innovation, community engagement, applied research, and local problem-solving by connecting academic expertise with real-world developmental challenges.

KKC aims to establish a sustainable statewide framework for knowledge co-creation, innovation, and socially relevant research capable of addressing the developmental needs of Kerala through interdisciplinary collaboration, community participation, and evidence-based interventions. The Consortium also envisions strengthening Kerala's innovation ecosystem by promoting collaborative partnerships that support inclusive growth, local development, sustainable technologies, and socially responsive knowledge production.

### Mission

The mission of KKC is to bridge the gap between academic research, industry requirements, community challenges, and societal development through collaborative and outreach-oriented knowledge initiatives. The Consortium seeks to create a dynamic ecosystem where universities, colleges, local self-government institutions, industries, civil society organizations, and communities jointly participate in identifying problems, generating knowledge, developing innovative solutions, and implementing socially beneficial interventions.

KKC aims to strengthen the role of higher education institutions in local development and innovation by promoting applied research, field-based studies, technology transfer, community engagement, entrepreneurship, and interdisciplinary academic collaboration. The Consortium also intends to encourage socially relevant research and participatory knowledge generation that directly contribute to industrial growth, environmental sustainability, public welfare, and inclusive development.

### Objectives

The major objective of the Kerala Knowledge Consortium is to foster real-time, community-driven solutions for challenges faced by industries, local bodies, communities, and the general public through

collaborative research and innovation initiatives. KKC seeks to promote outreach-oriented and applied research activities linked with local developmental priorities and societal needs.

The Consortium aims to establish a statewide knowledge-sharing ecosystem connecting higher education institutions with industries, local self-government institutions, NGOs, and community organizations in order to facilitate collaborative problem-solving and innovation. KKC also seeks to enhance the contribution of research, technology, and innovation towards local economic development, social transformation, sustainable development, and industrial growth.

Another important objective of KKC is to promote interdisciplinary and trans-disciplinary collaboration across diverse thematic domains such as sustainable agriculture, climate resilience, water resource management, indigenous technologies, educational technology, social entrepreneurship, health innovation, and local governance. The Consortium also aims to support knowledge dissemination, skill development, capacity building, entrepreneurship promotion, and innovation ecosystems through academic programmes, workshops, training activities, and collaborative projects.

KKC further seeks to strengthen participatory governance and collaborative institutional frameworks by involving multiple stakeholders in the planning, implementation, monitoring, and evaluation of projects and initiatives. The Consortium intends to create sustainable institutional partnerships capable of supporting long-term community engagement, innovation, and socially relevant academic interventions across Kerala.

#### **Present Status of Establishment of the Kerala Knowledge Consortium (KKC) and Madhava Knowledge Centre in Mathematics (MKCM), Irinjalakuda**

The Kerala Knowledge Consortium (KKC) has been established by the Government of Kerala under the Kerala State Higher Education Council (KSHEC) as one of the ten Centres of Excellence recommended by the Higher Education Reforms Commission of the Government of Kerala. KKC has been conceived as a pioneering initiative aimed at building a people-centered knowledge society by fostering collaborative partnerships among higher education institutions, local self-government bodies, industries, NGOs, and other stakeholders.

KKC has been envisioned as a distributed statewide network of domain-specific knowledge centres functioning as hubs for interdisciplinary research, innovation, knowledge exchange, and applied problem-solving. The initiative seeks to connect academic expertise with societal and developmental challenges through collaborative and community-oriented knowledge generation systems. The

Headquarters of KKC has been established at the Kerala State Higher Education Council (KSHEC), Thiruvananthapuram.

The Government has proposed that KKC Centres be established across Kerala in collaboration with universities, colleges, research institutions, industries, local bodies, and other partner organizations based on approved proposals in different thematic knowledge domains. Initially, up to ten domain-specific KKC Centres are proposed under the programme. The Centres are intended to function as interdisciplinary expert hubs supporting collaborative research, innovation, academic networking, and socially relevant knowledge production.

As part of the KKC initiative, the Madhava Knowledge Centre in Mathematics (MKCM) has been established at Irinjalakuda as a constituent unit of the Kerala Knowledge Consortium. The Centre has been conceived as an interdisciplinary Centre of Excellence in Mathematical Sciences dedicated to reviving and promoting the intellectual legacy of Sangamagrama Madhava and the Kerala School of Mathematics. The Centre seeks to integrate expertise from mathematics, history, Sanskrit, and related disciplines for promoting advanced research, academic collaboration, and knowledge dissemination relating to Indian mathematical traditions, infinite series, early calculus, and associated domains of knowledge.

The permanent campus of the Madhava Knowledge Centre in Mathematics is proposed to be established at the Irinjalakuda Educational Hub as per Government sanction. Until permanent infrastructure facilities are developed, the activities of the Centre are being initiated on a temporary basis utilizing the facilities available at the Irinjalakuda sub-centre of the Kerala Language Network (KLN). Additional space may also be arranged on rental basis within the same premises if required for the functioning of the Centre.

At present, the overall administration, coordination, financial management, and academic activities of KKC and the Madhava Knowledge Centre in Mathematics are being managed by KSHEC as an interim arrangement. Academic activities of MKCM are presently guided by the Vice Chairman, KSHEC and coordinated through Research Officers and designated experts entrusted with interim responsibilities by the Council.

KKC and MKCM are presently in the process of developing their academic framework, collaborative partnerships, research programmes, outreach activities, thematic knowledge initiatives, and institutional structures. The Centres are expected to play a major role in strengthening

interdisciplinary research, community-linked knowledge systems, innovation ecosystems, and socially relevant academic collaboration within Kerala's higher education and knowledge sectors.

## 8. Kerala Centre for Analytical Services (KCAS)

### Vision

The Kerala Center for Analytical Services (KCAS) envisions establishing itself as a nationally recognized Centre of Excellence in semiconductor technologies, advanced analytical services, VLSI design, photonics, and emerging electronic systems. The Centre seeks to strengthen Kerala's semiconductor ecosystem by creating a collaborative platform for advanced research, skilled workforce development, innovation, technology transfer, and industry-oriented academic engagement. KCAS aims to position Kerala as an important contributor to India's rapidly expanding semiconductor and microelectronics sector through cutting-edge research infrastructure, advanced training programmes, and collaborative partnerships with academic institutions, industries, and national research organizations.

KCAS also envisions developing a shared semiconductor research and analytical ecosystem capable of supporting universities, engineering colleges, industries, startups, and researchers through access to advanced laboratories, analytical facilities, device testing systems, and semiconductor research infrastructure. The Centre seeks to facilitate innovation and research in areas such as semiconductor fabrication, low-power devices, photonics, RF devices, AI hardware systems, and microelectronics while supporting Kerala's integration into the national semiconductor mission and future digital economy.

### Mission

The mission of KCAS is to strengthen the research ecosystem and knowledge management framework in emerging semiconductor technologies by providing state-of-the-art analytical services, advanced training, collaborative research facilities, and technology-oriented academic programmes. The Centre aims to promote advanced education and workforce development in VLSI design, semiconductor device fabrication, testing, packaging, photonics, and low-power electronic systems.

KCAS seeks to create a highly skilled talent pool capable of supporting upcoming semiconductor fabrication units, Assembly, Testing, Marking, and Packaging (ATMP) facilities, and semiconductor industries in India. The Centre also aims to reduce the migration of skilled engineering graduates from Kerala by creating advanced research, training, and innovation opportunities within the State.

The mission of KCAS further includes promoting collaborative research and development in semiconductors, photonics, sensors, nanotechnology, RF devices, AI-enabled hardware systems, and microelectronics through partnerships with universities, industries, national laboratories, and international institutions. The Centre also seeks to provide analytical and technical support services

to researchers, academic institutions, startups, and industries engaged in advanced semiconductor technologies and related domains.

### **Present Status of Establishment of the Kerala Center for Analytical Services (KCAS)**

The Kerala Center for Analytical Services (KCAS) has been established by the Kerala State Higher Education Council (KSHEC) as one of the Centres of Excellence proposed under the higher education reform initiatives of the Government of Kerala. KCAS has been conceived as a specialized autonomous Centre of Excellence focusing on advanced analytical services, semiconductor technologies, photonics, low-power devices, and emerging areas of advanced electronics and materials research.

As part of the implementation of the Centres of Excellence initiative, KSHEC identified KCAS as a new Centre of Excellence under KSHEC with particular emphasis on strengthening Kerala's semiconductor ecosystem through advanced research, industry collaboration, technical services, and skilled human resource development. Following the decisions of the Executive Body of KSHEC, it was resolved to establish KCAS during the academic year 2025–26 itself.

Cochin University of Science and Technology subsequently expressed its willingness to host KCAS at its campus, and KSHEC, after evaluating the facilities and infrastructure offered by the University, approved the proposal for establishing the Centre at the University campus. Accordingly, KCAS has been established as an autonomous Centre of Excellence under KSHEC at the Cochin University of Science and Technology campus.

A Memorandum of Understanding (MoU) has been executed between KSHEC and Cochin University of Science and Technology for the establishment and operationalization of KCAS. The MoU defines KCAS as an autonomous institution established under the Department of Higher Education through KSHEC with the objective of improving the research ecosystem and promoting effective knowledge management through advanced analytical and technical services in emerging semiconductor technologies.

KCAS has been established with the objectives of promoting advanced training in VLSI design and related technologies, developing a skilled workforce for upcoming semiconductor fabrication units and allied industries, supporting research and development in semiconductors, photonics, and low-power devices, and providing analytical and technical services in emerging semiconductor technologies.

The Centre is proposed to function as an autonomous institution under KSHEC and shall not become part of the administrative structure of the host university at any point of time. KCAS is intended to

function as an independent Centre of Excellence open for academic access, collaborative research, technical support, training, and innovation activities for the entire academic, research, and industrial community of the State.

For the governance and oversight of the Centre, it has been proposed to constitute a Governing Council consisting of the Hon'ble Minister for Higher Education as Chairperson, the Vice Chairman of KSHEC as Vice Chairperson, the Vice Chancellor of the host university, the Principal Secretary, Higher Education Department, the Member Secretary of KSHEC, experts nominated by the Chairperson, and the Director/Coordinator of KCAS as Member and Convenor.

As part of the interim arrangements approved for the operationalization of KCAS, Dr. Aldrin Antony, nominated by the Vice Chancellor of Cochin University of Science and Technology, has been entrusted with the charge of Coordinator of KCAS and is overseeing the implementation, coordination, and operationalization of the Centre. The Coordinator has been authorized to make temporary arrangements necessary for infrastructure, staffing, academic coordination, and operational support with the prior approval of KSHEC.

The host university has also agreed to provide temporary office space, logistical support, laboratories, classrooms, meeting facilities, library access, utilities, and other institutional support required for the initial functioning of KCAS. KSHEC will provide the initial operational support and coordinate the long-term development of the Centre in collaboration with the University and other stakeholders.

At present, KCAS is in the process of developing its institutional framework, advanced analytical facilities, collaborative research programmes, training initiatives, academic partnerships, and semiconductor-focused research ecosystem. The Centre is expected to play an important role in strengthening Kerala's semiconductor ecosystem, advanced electronics research, industry-oriented technical training, and innovation-driven higher education and research activities within the State.

### **Future Plan**

KCAS proposes to establish an advanced Semiconductor Research Laboratory (SRL) functioning as a shared research and training facility under the broader framework of Kerala's research ecosystem. The proposed SRL will include integrated laboratories for VLSI design, semiconductor device fabrication, packaging and assembly, testing, and characterization. The Centre plans to develop state-of-the-art shared facilities equipped with CAD tools, FPGA and ASIC prototyping systems, high-performance computing servers, semiconductor fabrication facilities, thin-film deposition systems, photolithography equipment, wafer testing systems, and advanced analytical instrumentation.

KCAS also proposes to establish modular clean-room facilities and pilot-scale semiconductor fabrication infrastructure capable of supporting academic research, prototyping, device testing, and collaborative R&D activities in areas such as silicon and GaAs semiconductor technologies, photonics, sensors, RF devices, and low-power chip design.

The Centre plans to launch advanced academic and training programmes for postgraduate students, research scholars, faculty members, and industry professionals in semiconductor technologies, VLSI workflows, chip design, device fabrication, packaging technologies, and semiconductor testing. KCAS also intends to organize Faculty Development Programmes (FDPs), certification programmes, hands-on skill development initiatives, and industry-oriented training modules aligned with India's semiconductor mission and emerging industrial requirements.

KCAS further proposes to establish collaborative partnerships with premier national institutions and semiconductor research organizations including IISc, IITs, Semiconductor Laboratory (SCL) Chandigarh, ISRO-related facilities, semiconductor industries, and global technology partners for joint research, advanced training, technology development, and knowledge exchange.

In the long term, KCAS aims to evolve into a major shared semiconductor research and analytical services hub supporting Kerala's higher education institutions, research ecosystem, startups, and industries through advanced infrastructure, collaborative innovation, workforce development, and translational research in semiconductor and emerging electronic technologies.

## 9. Kerala Institute of Policy Studies (KIPS)

### Vision

The Kerala Institute of Policy Studies (KIPS) envisions establishing itself as a premier centre of excellence in public policy research, analysis, planning, and governance studies dedicated to strengthening evidence-based policymaking, institutional effectiveness, and sustainable development. The Institute seeks to contribute towards effective, inclusive, democratic, and socially responsive governance through rigorous research, innovation, policy intelligence, and thought leadership. KIPS aims to become a nationally recognized policy think tank capable of supporting Government, higher education institutions, civil society organizations, and public institutions through advanced policy research, strategic analysis, and data-driven decision-making frameworks.

KIPS also envisions creating a vibrant interdisciplinary policy research ecosystem integrating academic scholarship, field-based evidence, technology-enabled analytics, stakeholder engagement, and public dialogue to address complex social, economic, educational, technological, environmental, and governance challenges relevant to Kerala and beyond. The Institute seeks to strengthen public policy discourse by promoting collaborative research, policy innovation, transparency, equity, inclusion, and socially relevant governance practices.

### Mission

The mission of KIPS is to conduct high-quality interdisciplinary research and policy analysis focusing on emerging and persistent policy challenges affecting higher education, governance, social development, economy, environment, technology, and public administration. The Institute aims to foster a culture of evidence-based decision-making in governance through rigorous research methodologies, data-driven analysis, policy modeling, qualitative inquiry, and impact assessment studies.

KIPS seeks to provide policy advice, strategic recommendations, institutional support, and analytical inputs to Government departments, higher education institutions, policymakers, civil society organizations, industries, and public institutions. The Institute also aims to function as a knowledge hub and collaborative platform facilitating policy dialogues, stakeholder consultations, academic engagement, and dissemination of research findings for strengthening democratic governance and institutional effectiveness.

The mission of KIPS further includes building policy research capacity among students, researchers, faculty members, administrators, and government officials through workshops, training programmes, policy fellowships, seminars, conferences, and academic collaborations. The Institute seeks to promote socially responsive and ethically grounded public policy research capable of contributing to inclusive development, sustainable governance, and long-term institutional transformation.

### **Present Status of Establishment of the Kerala Institute of Policy Studies (KIPS)**

The Kerala Institute of Policy Studies (KIPS) has been established by the Government of Kerala under the Kerala State Higher Education Council (KSHEC) as one of the ten Centres of Excellence recommended by the Higher Education Reforms Commission of the Government of Kerala. KIPS has been conceived as a dedicated policy research and advisory institution focusing on higher education policy, planning, governance, academic reforms, and evidence-based decision-making within the higher education sector.

The establishment of KIPS was proposed in the context of rapid transformations taking place in higher education at the State, national, and global levels, driven by internationalization, technological advancement, digital transformation, employability concerns, and changing academic and societal expectations. The Institute has been envisioned as a specialized think tank capable of supporting evidence-based policy formulation, long-term planning, policy analysis, and systemic reforms in higher education.

Based on the decisions of the Executive Body of KSHEC, KIPS was proposed as a new Centre of Excellence under KSHEC, and it was resolved to operationalize the Institute during the academic year 2025–26 itself. Accordingly, sanction has been accorded for the establishment of KIPS at Thiruvananthapuram under the Kerala State Higher Education Council.

KIPS is envisaged to function as a premier policy think tank in higher education focusing on policy-oriented research, strategic planning, governance studies, quality enhancement, employability, institutional effectiveness, equity, inclusion, and evidence-based academic reforms. The Institute is expected to analyse trends in higher education development at the State, national, and global levels and generate robust policy intelligence and data-driven insights for supporting Government, KSHEC, universities, and higher education institutions.

The core functional areas proposed for KIPS include policy research, impact assessments, academic publications, policy briefs, strategic reports, policy dialogues, stakeholder consultations, seminars, conferences, and development of higher education data systems and analytics frameworks. The

Institute is also expected to function as a knowledge hub and advisory body for the Government and KSHEC while facilitating collaboration and networking among universities, research institutions, policymakers, and international organizations engaged in higher education policy research.

KIPS is proposed to function as a Centre of Excellence under the administrative and academic supervision of KSHEC with functional autonomy in research and academic activities. The proposed governance structure includes a Governing Council chaired by the Hon'ble Minister for Higher Education, an Academic Advisory Board consisting of national and international experts, an Executive Director/Director as the Head of the Institute, thematic Research Divisions, and Administrative and Technical Units for operational support.

Pending the establishment of the full institutional structure of KIPS, the administration, finance, and academic coordination of the Institute are presently being managed by the respective wings of KSHEC as an interim arrangement. Academic activities of the Institute are currently guided by the Vice Chairman, KSHEC and coordinated by the Research Officers of KSHEC. The Member Secretary, KSHEC has been authorized to take necessary steps for operationalizing the Institute.

At present, KIPS is in the process of developing its institutional framework, research agenda, policy research divisions, collaborative networks, academic activities, and operational structure. The Institute is expected to play an important role in strengthening higher education policy research, strategic planning, governance reforms, institutional effectiveness, and evidence-based academic policymaking within Kerala's higher education system.

### **Future Plan**

KIPS proposes to develop into a comprehensive policy research and analytical institution with specialized research divisions focusing on higher education policy, governance reforms, economic development, public finance, social policy, environmental sustainability, technology policy, labour studies, gender studies, urban transformation, and public administration. The Institute plans to establish advanced policy research laboratories and data analytics units integrating statistical analysis, big data systems, econometric modeling, AI-assisted policy intelligence, forecasting tools, and digital governance research frameworks.

The Institute also proposes to undertake large-scale policy research projects, impact assessment studies, governance audits, longitudinal surveys, and thematic policy evaluations relating to major developmental and governance challenges within Kerala. KIPS intends to develop policy briefs, working papers, strategic reports, knowledge dashboards, policy intelligence frameworks, and

evidence-based recommendations for supporting Government agencies, KSHEC, universities, local self-government institutions, and public organizations.

KIPS further plans to organize national and international policy dialogues, stakeholder consultations, seminars, conferences, workshops, and capacity-building programmes bringing together policymakers, researchers, administrators, academic leaders, civil society organizations, and industry representatives. The Institute also proposes to establish collaborative partnerships with national and international policy research institutions, universities, think tanks, and global organizations engaged in governance and public policy research.

The Institute intends to launch structured fellowship programmes, visiting scholar initiatives, internship opportunities, and policy research training programmes for students, young researchers, and public officials. KIPS also plans to establish publication divisions for journals, policy reports, books, newsletters, and digital knowledge dissemination platforms aimed at strengthening public engagement and academic discourse on governance and public policy issues.

In the long term, KIPS aims to emerge as a leading public policy think tank and knowledge institution capable of influencing evidence-based policymaking, governance reforms, institutional planning, and socially responsive development strategies within Kerala and at the national level.

## 10. Centre for Indigenous People's Education (CIPE)

### Vision

The Centre for Indigenous People's Education (CIPE) envisions creating an inclusive, equitable, and culturally responsive higher education ecosystem that ensures meaningful participation of indigenous students in higher education and safeguards their right to equal access to academic, social, cultural, and professional opportunities. The Centre seeks to develop culture-based educational programmes, support systems, and academic interventions that are appropriate, relevant, and meaningful to the life, traditions, languages, knowledge systems, and socio-cultural realities of indigenous communities.

CIPE also envisions becoming a leading academic and research centre dedicated to indigenous education, tribal studies, community empowerment, and inclusive educational development through collaborative engagement with indigenous communities, higher education institutions, government agencies, researchers, and civil society organizations. The Centre aims to strengthen socially just, democratic, and culturally sensitive educational practices capable of promoting educational inclusion, academic success, cultural dignity, and sustainable development among indigenous populations.

### Mission

The mission of CIPE is to strengthen the participation, retention, academic progression, and overall educational experience of indigenous students in higher education through research, counseling support, academic interventions, community engagement, and culturally sensitive educational practices. The Centre aims to identify and address the structural, pedagogical, social, economic, linguistic, and cultural barriers affecting indigenous students within higher education institutions.

CIPE seeks to promote evidence-based policy interventions and research relating to indigenous education, tribal knowledge systems, educational access, inclusion, and student support mechanisms. The Centre also aims to create a supportive ecosystem for indigenous learners by developing counseling systems, mentoring networks, information platforms, skill development programmes, and academic guidance initiatives specifically designed for indigenous students and communities.

The mission of CIPE further includes fostering culturally grounded and community-linked educational approaches that integrate indigenous knowledge systems, local cultural practices, languages, and community participation into higher education processes. The Centre seeks to function as a collaborative platform connecting indigenous communities, higher education institutions,

policymakers, researchers, tribal welfare agencies, and civil society organizations for promoting inclusive and socially responsive educational development.

### **Objectives**

The major objective of the Centre for Indigenous People's Education is to improve the participation of indigenous students in higher education and address issues such as low enrolment, high dropout rates, academic exclusion, cultural alienation, and lack of access to educational opportunities and institutional support systems. The Centre seeks to develop inclusive and culturally sensitive educational models capable of supporting indigenous learners within higher education institutions.

CIPE aims to undertake interdisciplinary studies and research on indigenous people's education with a focus on identifying the core problems affecting participation, access, retention, pedagogic engagement, cultural adjustment, and academic success of indigenous students. The Centre also seeks to develop evidence-based recommendations and policy interventions for improving educational inclusion and institutional responsiveness towards indigenous communities.

Another important objective of CIPE is to establish a network of counselors, mentors, and academic support personnel, particularly graduates and postgraduates from indigenous communities, who can provide information, guidance, mentoring, and emotional support to prospective and existing indigenous students. The Centre also aims to create an information and guidance network providing academic, career, scholarship, and employment-related support accessible both online and offline.

CIPE further seeks to organize workshops, orientation programmes, bridge courses, skill development initiatives, awareness campaigns, and higher education preparedness programmes for indigenous students and communities. The Centre also aims to strengthen community engagement and participatory governance by ensuring the active involvement of indigenous communities in the governance, planning, and activities of the Centre.

In addition, CIPE proposes to collaborate with universities, tribal studies centres, government departments, NGOs, researchers, and community organizations for promoting indigenous education, cultural preservation, inclusive academic practices, and socially responsive educational policies. The Centre also intends to support research, documentation, and dissemination of indigenous knowledge systems, languages, traditions, and community-based educational practices.

### **Present Status of Implementation of the Centre for Indigenous People's Education (CIPE)**

The Centre for Indigenous People’s Education (CIPE) is proposed to be established as a specialized Centre of Excellence under the Kerala State Higher Education Council (KSHEC) in collaboration with University of Calicut at the ITSR campus, Chethalayam, Wayanad. The proposed Centre has been conceived as an academic and research institution dedicated to indigenous education, tribal knowledge systems, inclusive learning, cultural preservation, community engagement, and research relating to indigenous communities and marginalized populations.

As part of the initial implementation process, the University of Calicut has accorded in-principle approval for establishing the Centre at the ITSR Chethalayam campus and has nominated a Coordinator to oversee the implementation and preliminary operational activities of the proposed Centre. Discussions and preliminary consultations regarding infrastructure support, academic activities, institutional collaboration, and operational arrangements have also been initiated between KSHEC and the University.

However, the Centre has not yet formally commenced its full-fledged functioning as the Memorandum of Understanding (MoU) between KSHEC and the University of Calicut for the establishment and operationalization of CIPE is presently pending finalization and execution. The formal operationalization, administrative arrangements, and institutional activities of the Centre are expected to commence following the execution of the MoU and approval of the necessary implementation framework.

At present, CIPE remains in the preparatory phase of establishment, and further steps relating to governance structure, infrastructure development, academic planning, staffing arrangements, collaborative programmes, and institutional operationalization are expected to be taken jointly by KSHEC and the University of Calicut after completion of the formal procedural requirements.

## Conclusion

The Centres of Excellence (CoE) initiative established under the Kerala State Higher Education Council (KSHEC) represents a landmark institutional intervention in the higher education sector of Kerala aimed at creating a collaborative, research-oriented, innovation-driven, and socially responsive knowledge ecosystem. Conceived as part of the broader higher education reform agenda of the Government of Kerala, the initiative seeks to establish a network of specialized autonomous institutions functioning across diverse thematic domains critical to the future development of higher education, research, technology, governance, culture, and inclusive social transformation.

The project presently includes major Centres of Excellence such as the Centre for Excellence in Teaching, Learning and Training (TLT), Kerala Network for Research Support in Higher Education (KNRSHE), Kerala Institute for Advanced Studies (KIAS), Kerala Language Network (KLN), Kerala Institute of Gender Equity (KIGE), Kerala Institute of Policy Studies (KIPS), Kerala Center for Analytical Services (KCAS), Kerala Knowledge Consortium (KKC), Centre for Indigenous People's Education (CIPE), and the Madhava Knowledge Centre in Mathematics (MKCM). Each of these Centres has been conceived with a distinct thematic focus while functioning within a collaborative statewide framework coordinated through KSHEC.

TLT primarily focuses on curriculum innovation, pedagogical transformation, faculty development, digital learning, and advanced teaching-learning systems, including the proposed Centre for Advanced Digital Learning and Educational Technology (CADLET) and the K-Learn platform. KNRSHE focuses on strengthening Kerala's research ecosystem through the establishment of Central Instrumentation and Research Laboratories (CIRLs), Central Network of Research Facilities (CNRF), shared research infrastructure, advanced computing systems, and collaborative research support mechanisms across the State. KIAS has been conceived as a trans-disciplinary Institute of Advanced Studies dedicated to higher-order knowledge production, interdisciplinary scholarship, fellowship programmes, and globally connected advanced research initiatives.

KLN focuses on multilingual education, language research, translation studies, digital language technologies, indigenous language preservation, and professional language training through its headquarters at Tirur and sub-centres at Ponnani, Irinjalakuda, and Kalyasseri/Kannur. KIGE focuses on gender equity, inclusive development, feminist scholarship, policy interventions, and socially responsive research relating to gender justice and institutional inclusion. KIPS functions as a higher

education policy think tank and policy research institution dedicated to evidence-based policymaking, governance studies, institutional planning, and policy intelligence.

KCAS focuses on semiconductor technologies, VLSI design, photonics, low-power devices, advanced analytical services, and workforce development aligned with India's semiconductor mission. KKC has been conceived as a collaborative knowledge ecosystem connecting universities, industries, local bodies, NGOs, and communities for socially relevant problem-solving, innovation, and community-linked knowledge generation. As part of KKC, the Madhava Knowledge Centre in Mathematics (MKCM) at Irinjalakuda focuses on advanced mathematical sciences and the intellectual legacy of the Kerala School of Mathematics.

CIPE, proposed at ITSR Chethalayam, Wayanad in collaboration with the University of Calicut, focuses on improving the participation of indigenous students in higher education through culturally responsive educational models, counseling systems, community engagement, indigenous knowledge research, and inclusive academic support systems.

The CoE initiative also adopts a distributed implementation framework through regional sub-centres and collaborative institutional partnerships across Kerala. Important sub-centres and collaborative units established under the project include CIRL and CNRF facilities at Government College for Women, Thiruvananthapuram, Kannur University Payyanur Campus, and Sree Kerala Varma College, Thrissur under KNRSHE; Professional Language Training Centres under KLN at Ponnani, Irinjalakuda, and Kalyasseri/Kannur; and the proposed Semiconductor Research Laboratory and shared semiconductor facilities under KCAS. These sub-centres extend the outreach of the CoE initiative while promoting regional participation, shared infrastructure utilization, and collaborative academic engagement.

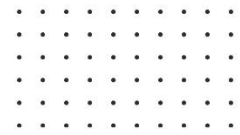
A major strength of the CoE framework lies in its emphasis on interdisciplinary collaboration, academic autonomy, institutional networking, shared infrastructure, digital integration, innovation ecosystems, and socially relevant knowledge production. The Centres are designed not merely as isolated institutions but as interconnected knowledge hubs capable of supporting the entire higher education ecosystem of Kerala through collaborative governance, research partnerships, digital platforms, training programmes, and public engagement initiatives.

Although many of the Centres are presently in different stages of operationalization and infrastructure development, significant progress has already been achieved through the establishment of institutional frameworks, execution of MoUs with universities, appointment of coordinators, initiation

of pilot programmes, creation of sub-centres, and development of statewide collaborative networks. The initiative has already laid the foundation for a long-term transformation of Kerala's higher education and research landscape.

In the coming years, the Centres of Excellence are expected to emerge as major institutional drivers of academic innovation, research excellence, technological advancement, policy support, multilingual education, social inclusion, and knowledge-based development in Kerala. Through their combined activities, the CoEs have the potential to position Kerala as a nationally and internationally recognized hub for higher education reform, interdisciplinary scholarship, collaborative research, and socially responsive innovation.





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