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**Strategic Plan - Vision 2035** 

www.cce.edu.in

### **Our Inspiration**

#### ST. KURIAKOSE ELIAS CHAVARA 1805-1871

An educationalist and a social reformer of nineteenth century. St. Chavara founded the Carmelites of Mary Immaculate (**CMI**) congregation in 1831 to serve the marginalised and underprivileged.

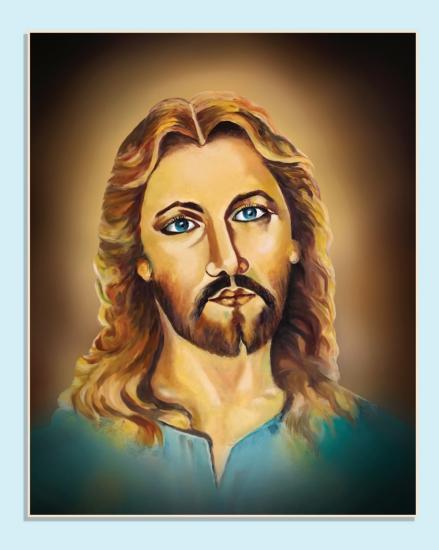
The CMI congregation, inspired by the vision of St Chavara, renders its service in educational, social, health care and other sectors aiming at the integral development of society.

He was canonised on 23 November 2014 in Rome by Pope Francis

### TEACHINGS OF ST. KURIAKOSE ELIAS CHAVARA

"Children, you are God's investment in the hands of your parents. Trust your mother, God will hear your mother's request like the baby's.. Laziness fosters evil habits. Good friends will make you good. Regular reading of good books and meditating on them will illumine the mind. Your attire and sanctity ought to be according to your age. Your profession must be according to your knowledge and age. Do not be the cause for your parents to shed tears on account of you, The humble man is the gretest among men. You belong to God and you should be given back to God. Pursue the path of truth and justice."

**CHRIST College of Engineering (CCE)** was born out of the educational vision of St Kuriakose Elias Chavara and managed by CMI fathers...



"I am the light of the world. Whoever follows me will not walk in darkness, but will have the light of life."

John 8:12

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(Established in 2015 under Christ Educational & Charitable Trust, Irinjalakuda)



#### **OUR VISION**

To be a premier technical institution that nurtures professionally competent and socially responsible engineers through quality education, training and research.

#### **OUR MISSION**

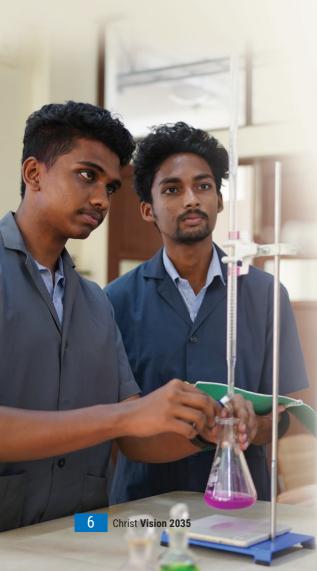
Implement state-of-the-art teaching-learning practices with qualified faculty and supportive infrastructure to impart knowledge in modern technologies.

Create a quality education system that encourages faculty and students to involve in meaningful research for the benefit of society.

Inculcate leadership qualities, ethical values and foster professionalism with the spirit of innovation and lifelong learning.



(Established in 2015 under Christ Educational & Charitable Trust, Irinjalakuda)



#### **QUALITY POLICY**

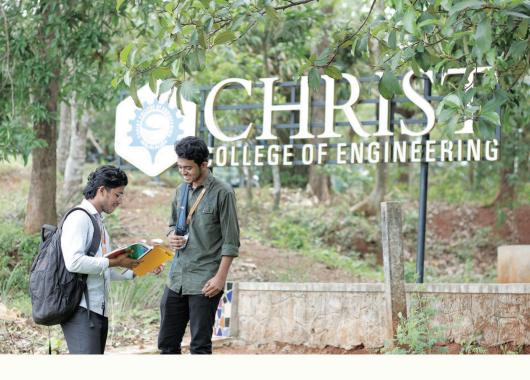
Christ College of Engineering is committed to achieve excellence in the higher education by providing a conducive platform for both students and faculty by creating an educational system based on quality education and ethical values. The college is also committed to continually improve its teaching learning practices and implement a holistic development of student community to meet the needs of the industry and society.

#### **CORE VALUES**

- Faith in God
- Moral Uprightness
- Integrity and Teamwork
- Empathy & Compassion
  - Innovation & Professionalism.

#### **MOTTO**

Freedom With Responsibility



#### **PREAMBLE**

Twenty-first century started with new challenges for humanity. Science and Technology has its strengths derived from the pursuits of innumerable scientists and engineers of the past. But, the expansive growth of population and the fast depletion of natural resources raise challenges hitherto unknown to the world per se. On one side, we need development that provides a free world with all needs within the affordable limits and reach of all, while on the other hand, inclusiveness and sustainable growth are increasingly falling prey to development activities. Education will empower human beings to make use of the opportunities for employment, and secular education will make the members of the society more inclusive in partnering with the people around the world in the development process. Research built on and pursuant to higher education can address the variety of issues in the chain of development. Since the developmental goals are changing faster and ever more dynamically at present, the institutions of higher learning have to constantly engage in dialogues with all the stakeholders and the community at large in order to be persistent in revamping their goals, objectives and the plans in a strategic manner.

The Union Cabinet has approved National Education Policy (NEP 2020) in July 2020 bringing major reforms in higher education. NEP is a comprehensive framework to guide the country's education development. The new education system can prove to be a turning stone in the times to come. The primary aim of introducing and implementing the NEP is to enhance the quality of education equally for all and to strengthen India as a global superpower.

Aspects such as widening the availability οf scholar ships, strengthening infrastructure for Open and Distance Learning. Online Education and increasing the usage of technology have received great attention in the NEP. These are vital reforms for the education sector. The policy also proposes phasing out of all institutions offering single streams and that all universities and colleges must aim to become multi-disciplinary by 2040.

Christ College of Engineering,

has gone through its existence and is always looking for ways to strengthen its infrastructure and processes to face emerging challenges.

The institute wants to be a destination for higher education and never wants any stone to be in its pursuit of excellence in all activities and targets.

VISION 2035 is the result of an exercise done recently by the institution, drawn through a team effort, to put together the thoughts and action plans for almost a decade ahead, to initiate such actions deemed decisive to build more on its strengths and enrich more on its values

Being a self-financing College, the dreams will take shape only with a proactive support of all our stakeholders as well as the Government. But, the stakes of industry and alumni in the development, on a mutually beneficial work-plan, for an institution of our kind need to be utilized effectively in the institutional development. This document is being submitted with all hopes and expectations.



#### **STRATEGIC PLAN - VISION 2035**

A STRATEGIC PLAN FOR EMERGENCE AS A LEADER IN TECHNICAL EDUCATION

#### **EXECUTIVE SUMMARY**

The Vision Document, VISION 2035- A STRATEGIC PLAN FOR EMERGENCE AS A LEADER IN TECHNICAL EDUCATION, seeks to affirmatively present the important dream of Christ College of Engineering to be one among the leaders in education that can provide a truly distinctive educational experience and a rewarding career. The strategic plan is being drawn to lay down an action plan to strengthen all spheres of activities for taking the institution forward in its journey for academic and research excellence, leveraging on the experience from its pursuits since 2015 by suitably and affirmatively networking with the alumni, industry, institutions within the country and across the world and the community at large.

The plan has been drawn by keeping all the stakeholders in perspective. The institution wants a renewed focus on students to make them more innovative through an outstanding learning experience. The institution wants the members of its faculty to transcend the boundaries of their disciplines and share the research ecosystem to work on transformational technologies that have the potential to address the societal challenges faced in India today and the world across, where science and technology can be of great use. The focus will be specifically given to research and skill development in areas such as electric vehicles, smart grid, housing, informatics, robotics and education. The effort shall be to continue to provide impetus to research, to enhance the quality and quantity of research output through an increase in research intensity, strengthening of the members of the faculty, Ph.D. student enrolment, improved infrastructure, engagement with industry and many worthwhile international collaborations in sponsored research. The institute wishes to have vibrancy in channelizing innovations to start-ups to enable continuous value addition to society.

The contributions of Christ College of Engineering to the business incubation are picking up. The College is a successful mentor of a few

start-ups, making them stand on their own feet and creating several men-days of work. The dream for a Research Park is kept close to our hearts because we feel that such an environment will help us stretch our wings for building an incubation ecosystem in the locality and would seamlessly connect members of our faculty to the community enabling entrepreneurship and value creation in the years to come by utilizing the research and innovations not only in CCE but in the neighbouring academic institutions also. Our students will also embrace the entrepreneurship culture. The change envisaged is translational and transformational. The institution will have industry-relevant academic programmes and excellent research facilities in due course. The institution will try to attain University status in 10 years from now, as envisaged in NEP.

#### ORGANIZATIONAL PERSPECTIVE

In a leading educational institution of our kind imparting education and training in areas of science, technology, engineering, academic, research, and networking activities and the facilities, such as library, constitute a macro-model of the total system of the institute. The core of the macro model is undergraduate education in engineering & applied sciences which will produce internationally competent and highly qualified graduates. The postgraduate programmes are the processes that produce specialized human resources as researchers, faculty, and managers. The new knowledge produced in the research would enrich undergraduate education. Similarly, the service activities around the pe-

riphery, such as research, consultancy, continuing education, entrepreneurship, incubation, and start-up are the radiating benefits flowing out from the institute due to its inner strengths. The following figure presents the organizational model encompassing these factors.



### A STRATEGIC PLAN FOR EMERGENCE AS A LEADER IN TECHNICAL EDUCATION

## 1 INSTITUTIONAL BACKGROUND

Christ College of Engineering (hereinafter referred to as CCE) was established in the year 2015 under Christ Educational and Charitable Trust, Irinialakuda, Thrissur, The goal of the organization is the holistic growth and development of higher educational platform and makes it available to all groups of the society through incorporation of resources and empowerment. From its inception, the organization has endeavored to accomplish its goal through collective efforts, proper infrastructure and skill development. CCE functions in accordance with the State and Central Government Educational Policies and abide by the laws of the nation in force. The organization is committed to co-operating government, public and private organizations and projects that share its objectives and practices. The organization works with a democratic structure and is committed to maintain transparency and accountability in the execution of its objectives and plans. The College has completed almost eight years in its functioning and has proven its excellence among the top Engineering colleges in the state of Kerala, consistently for three consecutive years, under APJ Abdul Kalam Technological University. The environment in Christ payes the way for an ideal learning ambience, providing exposure to different cultures and perspectives for fruitful and meaningful interactions. The inspired mindset of Christ helps to provide quality education and inculcate human values in students to embrace new challenges and seize new opportunities. Around 1200 student population and 90 plus faculty/ staff represent a cross-section of the state's demographic spectrum cutting across barriers of religion. caste, creed and gender. Now CCE offers five academic programmes at the undergraduate degree level.

#### The various Departments in CCE are:

- · Civil Engineering
- · Computer Science & Engineering
- · Electronics & Communication Engineering
- · Electrical & Electronics Engineering
- Mechanical Engineering

Besides the Engineering departments, CCE also has a Basic Science and Humanities Department. With the launching of NEP, our Vision and Mission had also gone through a transformational change. The College aims to slowly expand the horizon from teaching to teaching & research to embrace cutting-edge areas such as electric vehicles, smart grid, information security, the Internet of things, Robotics and so on. CCE envisages its growth as a multi-disciplinary University that offers equal opportunities to all people, that combines all the efforts to collaborate with the leading educational institutions worldwide while joining hands with the industry and service sectors in India to train the best talents of the aspirants.

## **2** AIM

The momentum of economic and social developments is steadily increasing. Knowledge is available at all times and worldwide; new information and insights are developing at an ever-faster pace. Our aim is to become a truly high-performing institution of higher education that provides distinctive learning experience and professional development for the students and a rewarding research experience for those who want to pursue research; to be a good employer, a nodal Centre for R&D, and a hotspot for networking with our alumni. So, our development will focus on various target groups as enlisted below:

SI. No	Target	Development Focus
1	Student	Distinctive educational experience and a benefitting career path
2	Community	Reach out to render support in the sustain- able development process where Science & Technology shall be an enabler
3	Industry	Constant interaction with SMEs and indus- tries in addressing research issues and operational problems
4	Incubation	Enabling support for start-ups and Research Park micro-entrepreneurs

5	R&D	Exposing the student and the members of its faculty to cutting-edge and emerging technologies and social needs to enhance their creativity and innovation
6	Alumni	Rewarding collaborative and cooperative moves for mutual benefit

## 3

### **STRATEGIES**

We shall strive to further improve our quality by various means, including:

- · Promoting student learning and research
- · Developing our national and international profile
- · Promoting global citizenship
- · Establishing networks
- · Working with industries and start-ups
- Engaging with alumni
- · Building environment for enriching career paths for faculty & staff
- Employee-enriching career experience and a sustained professional development



## 4 COURSES OF ACTION

### The following courses of action would provide CCE with a unifying sense of purpose and direction.

- It should work towards attaining national and international recognition among peer institutions for excellence in both research and teaching.
   It should be committed unwaveringly to academic excellence, engagement and discipline.
- It should assemble a dynamic body of faculty who exemplify excellence and innovation in the pursuit and delivery of knowledge and will perpetuate the highest education standards for future generations. It should be open to academics irrespective of gender, caste, ethnic origin, nationality, religion and ideology.
- It should maintain a collegial, supportive, and diverse environment that encourages its students, faculty and staff to achieve the best of their abilities.
- It should develop technology with human face for maintaining and advancing the growth of the country.
- It should play a vital role in making the Indian economy a knowledge economy. It should be capable of analyzing the state of the existing knowledge and its future perspectives and thereby capable of creating new knowledge by assimilating the knowledge that are being created all over the globe. It should produce innovators and creators of knowledge. Growth of economy and lifestyles of civilized societies are being increasingly determined by knowledge and innovation created and nurtured by knowledge institutions. It should look for closer interaction between itself, communities and industries to create national wealth and enhance national economic competitiveness, thereby promoting regional and local development.
- It should partner with academic, industrial and government entities that share and enhance its mission, so that the educational and collaborative efforts result in a maximum, positive, economic impact.
- It should build, develop and maintain an enduring, world-spanning network of alumni and facilitate permanent use of the network for international and national collaborations.

## STRATEGIC PLAN FOR 2023-2035

#### Major dimensions for the development plan are:

- 1.Interdisciplinary undergraduate and postgraduate academic programmes, having high content of research to match with the industrial needs and the national mission of self-sufficiency in science and technology; strengthening of existing programmes undertaken side by side. Provide state-of-art facilities to accomplish cutting-edge research in the frontier areas of, science, technology, engineering and management; start a Facilitation Centre for faculty development in engineering education.
- 2.Globally connected research and development activities with social and industrial relevance to support the needs of the nation in terms of innovation in knowledge, products and processes.
- 3. National and international networking with both academia and industry to enable the exchange of best practices and ideas in the global knowledge society.
- 4. Social and community outreach using new developments in science and technology for empowerment of various sections of the society.



### It is felt that the institution should have educational programmes to promote

- i) Fundamental understanding of basic and applied sciences
- ii) Capacity to understand advanced work, and
- iii) Imagination and intellectual capacity

#### A.It should follow 'learning to learn' approach so that the students are

- i) Ready to learn in any context and at any age
- ii) Able to tailor their approaches to learning in different contexts, appropriate to their individual needs and strengths
- iii)Confident about learning something new
- iv) Able to undertake independent learning
- v) Able to learn from others and undertake effective collaborative learning

In other words, CCE should give emphasis on 'how' they learn (process) in addition to 'what' they learn (content).

### B.It should have a delivery of education that enables its students to face the following challenges:

- i) Proliferating information
- ii) Multi-disciplinary technological development
- iii) Rapid changes in technology
- iv) Globalized market
- v) Endangered environment
- vi) Emerging social responsibilities
- C. It should provide students with the fundamental knowledge, interdisciplinary problem-solving skills, societal and business awareness, and confidence required to excel in their chosen professions.
- D. It should emphasize the development of students' cross-cultural attributes for the global job market. Hence, we look back and analyze our strengths and weaknesses to enhance our strengths and remove the weaknesses.

#### From our humble beginning in 2015, Our present strengths are:

- Project Based Learning Approach
- Outcome Based Education practiced from 2020 onwards
- Technology Business Incubator (TBI)
- Innovation and Entrepreneurship Development Centre (IEDC)
- Centre for Robotics Research

However, successful implementation of the above reforms and sustaining the quality of academic processes are constrained by the following aspects:

- 1. Absence of multi-disciplinary and industry-oriented programmes
- 2. Limited facilities for industry linked research
- 3. Affiliation to the University, which limits updating of syllabus, floating of new electives and rigid curriculum
- 4. Weak collaboration with international institutions and research centres

Academic autonomy status is the immediate requirement to solve the limitations with respect to the rigid curriculum.

After getting academic autonomy, we will have plans to revamp the syllabus to bring in multi-disciplinary content to enrich the existing programmes. It is expected that these programmes would then give an added impetus to the 'Make in India' initiative of the Government of India.

To bring in effective participation from the vast alumni base and the industry, active participation of alumni/industry in designing the curriculum, syllabi, promoting R&D network and offering better placement to the students, in addition to better industrial collaboration, are also kept in our perspective.



# 7 RESEARCH PLAN

To collaborate with academia and industry around the globe, in order to strengthen the education and research ecosystem, is part of our Mission. Towards achieving this mission, the plans envisaged are:

- 1.Develop state-of-art research facilities to perform cutting edge research in the frontier areas of science, technology, and engineering.
- 2.Attract young talented brains to enrich our proficiency, create new knowledge and innovation, and mobilize that knowledge and research innovation for social and economic benefit of the community/nation.

Hence, the Research Plan of CCE shall imperatively be providing for a strategic road-map for its excellence in research and development, utilizing its infrastructure and core competencies. There are also active collaborations with scientists from premier institutes in India and abroad. These are supported through several MoUs. There needs to be further acceleration for the R&D growth for innovation, suitable for implementation either in industry or social benevolence. The role of members of the faculty in consultancy services to industries and government agencies needs to be supported by infrastructure and high quality technical personnel.

The laboratories are well equipped but the expansion in user base and diversity in facilities needed are calling for significant investment in capacity expansion and day-to-day management.

#### Modernization of Laboratories of Existing Disciplines

The existing laboratories need updating and strengthening to bring in more sophistication, like digital tools, interfacing with the network through IoTs, etc. Obsolescence has to be rooted out. Hence, each department shall embark on a modernization drive to make state-of-the art facilities in the department laboratories. The focus shall be on developing expertise in sustainable development, smart cities, data analytics, smart grid, information security and so on.

#### **Establishing New Research Centres**

We propose specially focused Research Centres in specific areas. These are expected to be acting as the nodal Centres for multi-disciplinary collaboration for focused research by members of the faculties and students. We envisage few Centres in the coming 15 years' time. The tentative list is as given below. These have been identified based on in-house competencies. These can be started only if the institution is provided with the resources by the government or other agencies in due course of time. At least few of them will be started by around 2030.

- 1.Research Innovation Hub in Intelligent Robotics and Automation
- 2. Centre for Smart Grid and Sustainable Energy Systems
- 3. Centre for Technology Development and Planning for Smart Living
- 4. Centre for Environmental Forensics
- 5. Centre for Socio-technical Research and Industrial Support
- 6. Centre for Security and Privacy Technologies

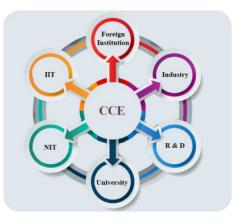
Various laboratories under each Centre shall be equipped to undertake multi-disciplinary research. We shall approach the corresponding funding agencies to secure funding for the facilities development. We will also establish a network of members of the faculty who work on common research areas that involve multi-disciplinary network so that there shall be an integrated approach for problem solving. Students will be actively engaged in the pursuits to become proficient in their field of specialization, both for conducting experiments and interpreting the results with a scientific temper.

#### **Outcome**

The institute will have a vibrant research eco system when it is possible to start these Centres and equip them with the advanced facilities. The proposed research themes are drawn by considering the most relevant problems and challenges the world faces. The research plan shall strengthen the research paths of individual researchers as well as interdisciplinary research teams who will facilitate the amalgamation of the fruitful ideas. A globally competitive and socially sensitive research environment is envisaged that nurtures out of the box thinking, and provides valuable inputs to academia and industry, thus providing valuable contributions to the society.

## 8 NETWORKING PLAN

Once the academic facilities and research infrastructure get strengthened, this will open up more avenues effective for more and fruitful collaborations. The institute would also join with leading national and international institutions for strenathenina interdisciplinary teaching and research. Following figure networking shows the



perspective. There is also a need for initiating prudent and socially relevant outreach activities. This is with a view to understand the social needs and to channelize a part of our academic efforts to solve the issues propping up in the society that can be managed using science and technology.

# 9 INFRASTRUCTURE PLAN

The CCE campus is located at Irinjalakuda, Thrissur. The campus is beautiful and green. It is situated in a semi-urban area and is easily reachable from airport/railway station. The land area available is 10 acres. The campus area is broadly categorized as academic(instructional) area, hostels area, and sports areas. The built-up space can be broadly categorized as instructional building (Chavara Block) which houses all the first year classes, Laboratories/workshops of all departments, CCE library, TBI and Ladies Hostel, as well as the instructional building (St. Mary's) Block which houses all higher semester class rooms, a

few Computer Laboratories, Placement Cell, Admission Cell, Examination Cell and Administration Officers' Cabins, Christ Hall which can accommodate 300 people, Conference room for 150, Four seminar halls with a capacity of 80 each, Administration Offices, Counselling rooms, Sick rooms and others.

Facilities have been added in an incremental manner. A separate block named as St Joseph's Block houses the boy's hostel, Language Lab, an Industry named TALROP consisting of a techies park etc. TALROP offers webdesign classes and entrepreneurship initiatives. Sports grounds, games courts, an open auditorium, and an amphitheatre are also there in the campus. The institute would like to be affirmative in providing on-campus accommodation for all the students, faculty members and staff. The facilities need to cover the 360-degree requirements of the campus community in terms of academics, research, residential areas, sports areas, recreation facilities, other amenities, power, water and staff welfare: because the College is situated in a semiurban locality with a developing economy. We propose a very conservative development plan and a systematic maintenance schedule for the existing infrastructure to meet our requirements, along with our new and renewed activities, pursuant to our quest for national/international visibility.

The infrastructure plan is drawn to support the institute's strategic vision and objectives, making it a preferred destination with outstanding academic programmes and vibrant campus life. Implementation of the plan, through renovation, addition of floors to the existing buildings, new constructions and, replacement of old and single storied buildings with high rise structures, will provide more teaching facilities, support research activities, generate more residential space and promote community engagement. But these are capital intensive activities. So, these will be undertaken in a phased manner only. Hence, the following strategic plan is drawn to be persistent in improving the campus befitting the institute's status.

Infrastructure	Strategy
Classrooms	Add another set of classrooms to meet the needs for the existing intake capacity with a view to improve the academic ambience. Improve classroom facilities by providing efficient lighting systems, furniture and connectivity to the learning management system.
Laboratories and Semi- nar Facilities	Add departmental as well as central facilities such as convention halls, research labs and resource centre for student research, etc. to provide the distinctive experience for both student and the faculty members. Laboratories will be continuously improved through removal of obsolescence to make it useful for the upcoming teaching and research needs. Development from ideas to prototype will be facilitated within the campus.
Library & Digital Library	Library will be strengthened as a world class facility that will provide print and digital resources for teaching, learning and research.
Student Accommodation	Construct new hostels for boys and girls with modernized kitchens and food courts. Extensive use of solar energy will be recommended for lighting and other purposes, to save on power drawn from grid.
Accommodation for Research Scholars, and the Visiting members of the faculty	Construct a cluster of apartments in a phased manner for providing the accommodation for research scholars, international students and the visiting members of the faculty.
Sports& Recreation	Systematic improvement of the facilities will be continued, which is necessary considering the climatic conditions of the locality.

Incubation and Research Park	Develop a mini campus for TBI and provide for a Research Park, where the budding companies can set up the R&D labs that will be mentored by the members of the faculty so as to connect them to the institutional, academic and research activities in a seamless manner.
Amenities	Improve canteen and medical facilities.
Faculty, Staff & Student Welfare	Improve/maintain campus facilities such as transport, recreation, food court, school, daycare centre, etc.
Campus Maintenance	Renovate and retrofit old buildings and maintain the campus roads because these are necessary considering the climatic conditions of the locality



Bringing in efficiency and increasing the productivity of the employees will be the focus in administrative reforms. The proposed plan will cater to the needs for academic administration, HR development and infrastructure management. Excellence in quality is a pursuit than a destination. So, the activities for strengthening the administrative system will be undertaken deeming the march towards our goal as a journey with actions, reviews, modifications and quality assurance.

The College will approach leading national and international accreditation agencies such as NBA and ABET and to get the programmes and institution duly accredited to and international methods and practices in education. Thereupon, the institution will approach ABET for assessment.

Our objective will be to cultivate a culture of organizational excellence, effectiveness and stewardship. It should remain committed to continuous improvement, streamlined shared services, reliable and transparent decision making and targeted information policy.

For supporting the activities of CCE to take up the above challenging tasks, there has to be sufficient technical staff with specific skills. Efforts will be taken up to provide specialized skill up-gradation training for the existing technical staff. This will help the faculty to contribute more effectively for better teaching, research and consultancy works. An efficient, continuously updated and state-of-the-art Management Information System (Linways, which is already available) integrating the various administration domains will enable CCE to attain its goals. A completely paperless operation can be envisaged by combining all the administrative activities in such a system. Institute Data Centre will host the complete data on campus. 100% digitization of office processes and a paper-free office will be our aim. All possible measures would be made from the institute administration to facilitate the Departments and the Administrative sections to carry out activities like admission, continuous evaluation, grading, issuing transcripts, procurement, organizing conferences/workshops, operation and maintenance of research infrastructure, campus maintenance, etc with planned deployment of staff and simplification of the process flow. Necessary structural adjustments will be incorporated to deal with the multiple roles for the members of the faculties and staff because of the residential nature of the institution. Training and development will be integrated with the administration, for proper and effective HR development.





Instilling professionalism in the management of the institute is the priority under the governance reforms. The objectives in the reforms in governance is to have a system initiative for

- a) Management capacity building by implementing scientific management principles
- b) Enhancement of stakeholder satisfaction level

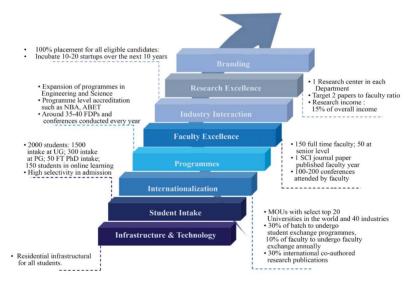
Stakeholder satisfaction is the indicator of the attainment of our goals. Within the given framework, CCE would like to go for good governance practices. Good governance is built not only on autonomy, but is also equally founded on accountability, leadership, performance, reforms and stakeholder satisfaction as the other pertinent pillars of sustenance of quality. So, the plan will be to strengthen the broad decision-making process through stakeholder participation, self-review and correction, openness to criticism and the readiness for self-learning.

CCE emphasizes the importance of academic excellence to supply well-trained engineers and scientists ready to positively impact industry, driving global, national, and regional economic growth. All the institutional stakeholders share a framework of common values that supports superior performance in education, research, and service. Institutional goals transcend internal and external boundaries. Leveraging specific strengths and targeting areas of development where there is opportunity for significant improvement are key areas to work upon. The rigidity of discipline wise compartmentalization of research will be replaced with a more inclusive clustered approach that will transcend the boundaries of specializations to make the research to be multi-disciplinary and more socially relevant. So, structural changes will be gradually incorporated to meet such requirements.

## 12 ALUMNI INTERACTION

Any institution sees the alumni as its brand ambassadors. Our alumni are very passionate about their alma mater and they believe that they owe the institute for their successful careers. The enthusiasm shown by the alumni for the growth and sustenance of the institute has certainly been a great means of its well-being over the years of its growth. Alumni act as a watchdog for our work and quality. Ways and means are being explored to bring them into the true institutional infrastructural development for capital gains.

#### **VISION 2035: SCALING GREATER HEIGHTS**



#### Strategic Options/ Initiatives to consider and implement

- Strengthening events, conferences, seminars, conclaves in focus sectors conducted at CCE campus
- Publish Thought Leaderships, Newsletters in all departments to position CCE as market leaders in chosen sectors
- Engage actively with alumni and position them as brand champions.

- Conduct admission events, campus tours to prospective students to articulate the strengths of CCE
- Strong presence in social media and online education forums to improve visibility in the student community

#### Research Excellence:

#### **Targets**

- 1 Research Centre / Centre of Excellence in each Department
- Two Publications per faculty in high-ranking international journals with high citation index
- Research income to be around 15% of overall income.

#### Strategic Options/ Initiatives to consider and implement

- Strengthening Research collaborations with the industry by establishing research centres in each department and promoting collaborative research to meet the research-specific needs of the industrial partner.
- Performance Management systems for Faculty members linking compensation, promotions to research outcomes – funded projects, publications
- Adequate Research Support to Faculty Members in terms of research scholars, teaching assistants

#### **Industry Interaction:**

#### Target

- 100% placements for all eligible candidates and increased average CTC
- Establish research centers in each department in collaboration with industry
- Incubate 10-20 start-ups over the next 10 years

#### Strategic Options/ Initiatives to consider and implement

- Strengthening collaborations with the industry by establishing sponsored research centers in CCE.
- Collaborative research, EDP/ MDP programs and academic programs in collaboration with the industry partner can be offered in such centers.
- · Enhance employability of students by internally conducting

- placement workshops and training sessions with the help of experienced faculty members, alumni.
- Incorporate changes in the curriculum to include modules to make students industry ready.
- Collaborate with placement training service providers and the industrial corporations to improve the employability of the students
- Expanding activities of entrepreneurship cell/incubation center to reach out to engineering students.

#### Faculty Excellence:

Target

- 150 full time faculty with around 50 at the senior level, 50 at the middle level and 30 with 2-3 years experience.
- Empanelled network of over 100 domain experts as industry faculty

#### Strategic Options/ Initiatives to consider and implement

- Recruitment drives in IITs and NITs with the promise of attractive remuneration packages on par with the industry and good infrastructure support
- Implement seed-money research grants and funds for young faculty members to pursue their research
- A Oueen Bee Strategy Offer the prospect of pursuing research/post-doc research under reputed and experienced star faculty members to promising young doctorates.
- Targeting the diasporas for talented scientists and academicians.
- · Strengthening Faculty Development initiatives (international exchange programs, sabbaticals to work in another institution or industry etc.) to keep faculty members updated with evolving teaching and research requirements
- Merit based promotions, creation of special growth path for meritorious faculty member

#### **Multi-disciplinary Education:**

The dream of CCE is to become a University with multi-disciplinary education system. Our ultimate milestone is providing a holistic, multidisciplinary and broad-based undergraduate engineering education with flexible study plans, more options in choosing the subjects, and more flexibility to enter and exit the course with authorized certification. Undergraduates will then have the option to choose the number of years as per their requirement ranging from 1-4 years with appropriate certification. For example, certificate after 1 year, advanced diploma after 2 years, license after 3 years and research license after 4 years. To achieve this dream, an implementation roadmap is prepared.

### IMPLEMENTATION ROAD MAP

#### The Roll Out of the Different Strategic Initiatives and the Key Milestones in the Strategic Plan of CCE



#### **MILESTONES**

Time horizon Milestones

#### 2023-2024

- NBA Accreditation of all UG Programmes
- Modernization of the laboratories & removal of obsolescence
- Renovation of classrooms
- Renewal of MoUs with the industries & institutions
- Focused activities under Ek

#### **Bharat Shresta Bharat**

- Revamping of skill development mission for community
- Operationalization of the visiting faculty scheme
- Initiation of student research activities/programmes
- National & international conferences
- Large number of Online courses
- Increase the number of intake to TBI and formal marketing

#### activities

- Science and Technology related CSR activities
- Recruitment of senior, middle and young faculty

#### 2024-2026

- Starting of new PG Programmes
- Increase of intake in UG Programmes
- Industry supported R&D Labs
- Academic Autonomy
- Revision of the curriculum for UG & PG Courses
- Faculty exchange with foreign universities
- Strengthening facilities such as Robotics Lab & Research Labs
- Implementing administrative and structural reforms
- Incubate Exchange programs with incubators of international/ national Incubators

#### 2026-2030

- Complete the construction of the multi levelled St. Mary's Block
- Introducing credit transfer

#### facilities

- International brand building for higher visibility
- Expansion of UG/PG level Programmes of Engineering/ Science
- New MoUs as well as Renewing the MoUs with industries and universities
- Incubating 20 start-ups

#### 2030-2035

- World class research centres-Visible International ranking
- Research Centres under collaboration with foreign universities
- Higher percentage of students
- Merging of sister concerns and setting up as a University
- Initiatives to bring research activities of leading companies at research park of the institute as a continuous effort and up gradation
- Establishment of Industrial Park in public private partnership mode
- 25 Successful Products in Market from CCE Campus



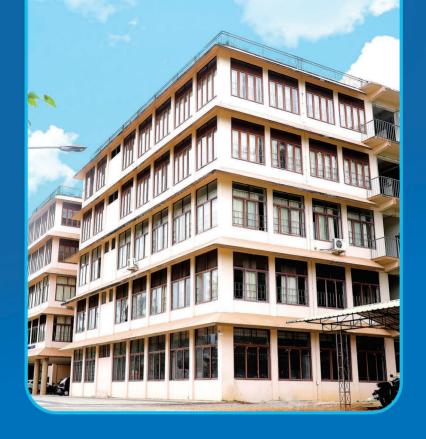


#### **SUMMARY**

In a nutshell, CCE envisages its growth as a multi-disciplinary and inter-disciplinary institution that would be scrupulous in following the principles of equality and Expanding inclusiveness. the scope and mission to become globally leading institution necessitates concerted efforts in multiple directions, especially in reaching out to collaborate with the leading educational institutions worldwide. This will enable the members of the faculty to join hands with the global academia, scientists and engineers in R&D. industry and service sectors. Back home, that will equip them with the knowledge and versatility to train the best brains.

The accomplishment of the vision for higher international standing is to be achieved through careful and systematic planning and implementation of activities like revamping the curriculum

οf existina programmes, strengthening the facilities. starting new multi-disciplinary programmes at UG and PG levels to address the human resource requirements in the cutting edge and emerging areas, rekindling research by enabling members of the faculty to undertake interdisciplinary research under various new research Centres and internationalization. Duplication of capital-intensive facilities shall be avoided by forming research clusters and facility Centres. The cross fertilization of disciplines must be facilitated. The structural reforms will bring in more vibrancy and stakeholder satisfaction. The institutional activities and the networking relationships across India and abroad will help CCE to become a truly world class University of higher education within the next twenty-five years' time.





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