Estd : 1984

KONGU ENGINEERING COLLEGE

(Autonomous)

Perundurai, Erode-638060

CERT No.: 99 -100 -20788
ISO 9001 : 2015

Transform Yourself

STRATEGIC PLAN

2020 – 2025

KONGU
Assuring the Best

CONTENTS

Executive Summary

Technical Education is important for the country since it helps to develop technology, increase industrial production and employment that will improve people's quality of life. Kongu Engineering College has completed more than three decades of dedicated service in the field of technical education and has established a name for itself in offering high quality professional education. The college has developed and successfully implemented its first Strategic Plan for the period of five years (2015-20) and a majority of the goals envisioned in the first plan were achieved. In order to further scale new heights in this highly competitive dynamic global scenario and to meet the expectations of the stakeholders, the college intended to renew the strategic plan for the duration of 2020-2025. Based on the results of implementation of the first strategic plan, a detailed SWOT Analysis was undertaken. After a thorough analysis and several deliberations, the new strategic plan has been developed.

The effects of changing global scenario have created unprecedented problems, such as covid pandemic and also opportunities in higher education in the new millennium. In the sector of teaching-learning, teachers have to demonstrate their skills through several innovative teaching methods for transforming the students into high quality professionals. The modern higher education system demands the teachers and students to make a significant contribution through cutting-edge technology, research and innovation that has a measurable societal impact. More over collaborations with Industries, research organizations and foreign universities are becoming increasingly important. Accordingly, the new strategic plan aims to offer a wide spectrum of facilities to meet the current challenges in every aspect with the significance focus on teaching and learning, research and development and collaborative activities at the national and the international level.

1.0 The Path Travelled

1.1 Preamble

Kongu Engineering College is a premier research-led autonomous Institution, approved by the All India Council for Technical Education, New Delhi and affiliated to the Anna University, Chennai. The college was started in 1984 by The Kongu Vellalar Institute of Technology Trust formed comprising of 41 philanthropists of the Kongu region with the motto to provide affordable and value-based quality technical education to the students of this region. From a modest beginning of a total of 180 students in 3 UG branches, the institution has grown phenomenally in 36 years to the present strength of over 8250 students in 14 UG programmes, 19 PG programmes and 16 research programmes.

The dedication and support of management combined with the efforts of the Principals, faculty and disciplined students has helped the college to add several laurels to its credit.

KEC is one of the first self-financing engineering colleges to be established in TamilNadu. Located in a serene and sylvan atmosphere in Perundurai, near Erode in Tamil Nadu, the college has a sprawling campus of 167 acres and a built-up area of 22,45,265 sq.ft with state - of- the- art infrastructural facilities and an excellent academic track record.

The institution was affiliated to Bharathiar University, Coimbatore from 1984 to 2001 and is currently an autonomous institution affiliated to Anna University since 2001. The autonomous status was conferred by UGC in 2007.

1.2 Academic Milestones (Commencement of various programmes)

1984	:	KEC was established with 3 UG programmes (Civil, Mechanical and ECE)
1988	:	BE (Computer Science and Engineering)
1993	:	MCA
1994	:	B.Tech (Chemical Engineering), BE (EEE) and MBA
1996	:	BSc (Computer Technology) and ME (Engineering Design)
1997	:	MSc (Computer Technology)
1998	:	BE (Electronics and Instrumentation Engineering) and B.Tech (Information Technology)
1999	:	BE (Mechatronics) and ME(CSE)
2000	:	BSc (Information Technology)
2001	:	MSc (IT), PhD programmes in Mechanical Engineering and Computer Science and Engineering
2002	:	ME (Applied Electronics)
2003	:	ME (Construction Engineering), ME (CAD/CAM), ME (VLSI Design) and M.Tech (Chemical Engineering)
2004	:	ME (Mechatronics)
2005	:	PhD programmes in Civil Engineering and Chemical Engineering
2006	:	B.Tech (Food Technology) and PhD programmes in EEE and Mathematics
2007	:	Autonomous Status conferred and PhD programmes in Physics and Chemistry, BSc (Software Engineering)
2008	:	PhD programmes in ECE, Mechatronics and English
2010	:	ME (Control and Instrumentation Engineering), ME (Computer and Communication Engineering) and PhD Programmes in Electronics and Instrumentation Engineering and Information Technology
2011	:	ME (Communication Systems),ME (Power Electronics and Drives) and PhD programmes in FT, Computer Applications and Management Studies
2012	:	ME (Structural Engineering) and ME (Embedded Systems)
2013	:	M.Tech (Information Technology) and M.Tech (Food Technology)
2015	:	BE(Automobile Engineering)

1.3 Highlights

- ✓ Eco-friendly green and clean campus of 167 acres with built up area of 22,45,256 sq.ft
- ✓ 14 UG programmes, 19 PG programmes and 16 PhD/MS (by Research) programmes
- ✓ 8250 students, 278 Research Scholars, 528 faculty (247 with PhD Qualifications), 506 staff members
- ✓ Well defined curriculum – avenuesto learn beyond syllabus
- ✓ Top 5% of students in each class are given scholarship
- ✓ Offers full scholarship to students who excel in sports and government school students
- ✓ Excellent placement record
- ✓ Industry-Institute Partnership Cell (IIPC) with approved Energy Auditors
- ✓ State-of-the-art laboratories
- ✓ Campus-wide Networking with Wi- Fi connectivity, 520 Mbps Internet
- ✓ A/C Library, Online Journals and Self Learning facility
- ✓ A/C Seminar Halls – 13, A/C Auditorium - 1, Meditation Hall – 2 and A/C Convention centre with a seating capacity of 4500
- ✓ Guest House, Dispensary with Ambulance, Bank with 24 hrs ATM facility and Post Office
- ✓ Un-interrupted water supply and power supply with captive generators of 3250kVA
- ✓ Power generation through solar power plant upto 680kW
- ✓ Sewage Effluent Treatment plant with the capacity of 10 Lakh liter/day

- ✓ Rs. 2490.16 lakhs of research grants received from various Government bodies like AICTE, UGC, DST, CSIR, DIT, MNRE etc
- ✓ 9 UG programmes accredited by National Board of Accreditation(NBA) under Washington Accord under Tier I
- ✓ Recipient of Best Engineering College Award (2001) from ISTE, New Delhi
- ✓ Recipient of Best Engineering College Principal Award- twice (2000 & 2013) from ISTE, New Delhi
- ✓ Received National Award for Technology Business Incubator @ Kongu Engineering College (TBI@KEC) from DST presented by the Honorable President of India, May 2013
- ✓ Recipient of Best Industry Linked Institution in India for Department of Electrical and Electronics Engineering based on AICTE-CII 2013 survey
- ✓ Recipient of "BEST NET" award at the National level for the CII-Yi KEC Students chapter in 2014 from CII-Yi, New Delhi
- ✓ Community FM radio, second of its kind in TamilNadu; bagged "Best Community Campus Radio 2008" award from Radio Duniya, New Delhi
- ✓ Recipient of Cleanest Higher Educational Institutions award in the Country by AICTE Swatch Campus Ranking 2019
- ✓ Recipient of AICTE National Level Clean & Smart Campus Award in 2019
- ✓ Recipient of AICTE certificate of appreciation for contribution in One Student One Tree in 2019
- ✓ Recipient of AICTE certificate of appreciation for contribution in Jal Shakti Abiyan in 2019
- ✓ Recipient of Best Performing Institution Innovation Council from the South Zone, India
- ✓ Recipient of AICTE Clean Campus Award in 2017
- ✓ Recipient of Outstanding Institute Industry Partnership award twice in 2015 & 2016 from SEED
- ✓ Recipient of Best Academic Administrator Award for Prof. S.Kuppuswami (Former Principal)
- ✓ Recipient of Best E-Cell Entrepreneurship Eco System Builder Award in 2015
- ✓ Brand A institution in the category of private/self-financing institutions by ARIIA-2020
- ✓ Ranked 135th in Engineering Category in India Ranking 2020 under National Institutional Ranking Framework (NIRF), MHRD, Govt. of India
- ✓ Ranked 5th Position in Cleanest Higher Education Institutions among all the institutions in India by AICTE for the year 2019

- ✓ Ranked 2nd Position in Tamilnadu and 2nd Position in Super Excellence of Top Engineering Institutes in India (by Competition Success Review (CSR) Magazine

- ✓ Ranked 4th Position in Tamilnadu and 38th Position at all India level by "Outlook" magazine (including IITs and NITs)
- ✓ Ranked 2nd Position among Best Self Financing Engineering Colleges in Tamil Nadu and 14th position among private Engineering colleges in South Zone, India by "The Week" magazine in 2020
- ✓ Ranked 9th Position in Tamilnadu and 77th Position among private Engineering colleges in India by "India Today "magazine
- ✓ Ranked 16th Position in Tamilnadu and 75th Position among private Engineering colleges in India by "Education world "magazine

2.0 National and Global Scenario

Indian Scenario in Engineering Education

With the tremendous use of technology by almost every citizen of our country in their day-to-day life, the critical role of engineering education in addressing the challenges of our society has received a good recognition. Today, India produces around 1.5 million engineers from almost 6000 colleges every year. These educational institutions and engineering educators own the responsibility of producing competent and skilled engineers to cope with the changing requirements of the industry. As per the present scenario, it is evident that the demand lies in adopting emerging technologies as opposed to traditional engineering.

One of the forecasts of future technology shows a clear trend towards software healthcare services, especially artificial intelligence (AI), internet of things (IoT), embedded software, mobility, analytics, and cloud; that are growing at a rapid pace as compared to traditional technologies. Hence the recommendation from AICTE is to give emphasis on these areas viz, AI, IoT, Blockchain, Robotics, Quantum Computing, Data Sciences, Cyber Security, 3D Printing & Design. More over multi-disciplinary engineering courses, especially in Computational Biology, Biotechnology, Biomedical Engineering, Mechatronics, Space Technology, Aerospace, Agriculture, and Environmental Engineering need to be focused.

With the increased pace of technical advancements, competencies of the faculty also need to be developed, especially in the areas of new age technologies and research. To promote innovation and reformation in engineering education, new skills and competencies to be possessed by future engineers need to be analyzed and action plans are to be evolved to bridge the gaps. Presently all industrial sectors require graduates with a higher degree of cognitive abilities such as creativity, logical reasoning and problem solving sensitivity as part of their cores skill set.

In the context of institute -Industrial partnership, the demand-supply gap has to be reduced by making internships as a mandatory one for all technical education students. Also signing of MoUs both with government agencies, private and start-ups need to be accelerated to address the challenges of the future and to produce industry ready graduates.

New Education Policy 2020 – Highlights

The New Education Policy (NEP-2020) has introduced many reformations in the Indian education system. The new policy envisions offering a new structure to the education system in the country. From school education to higher education, NEP proposes the revision and revamping of all aspects of the education structure, including its regulation and governance, to create a new system that is aligned with the aspirational goals of 21st-century education, while remaining consistent with India's traditions and value systems.

Introduction of a four-year undergraduate degree with multiple entries and exit options, and establishing a standard higher education regulation for both private and public institutions are some of the critical features for higher education sector.

The long-term plan as per the policy is to do away with the current system of colleges being affiliated to universities. Each college would become either fully integrated into a university or converted into an autonomous and independent degree providing institution. An independent board would come to govern each higher education institution (HEI), whether a college or university.

Under the policy, numerous existing tiny colleges that are pedagogically financially unviable would be merged with larger HEIs. Each HEI would have a minimum of 3,000 students. HEIs will have the freedom to choose the mix between research and teaching as per their strengths, with the sector eventually consisting of highly research intensive institutions at one extreme and highly teaching intensive institution on the other. This is broadly the structure prevailing in the US and UK.

A complete restructuring along these lines is the long-term goal for which the policy sets a deadline of 2035. But the policy contains many low hanging fruits that can be harvested within few years. These include conversion of leading colleges into board administered, autonomous, degree giving HEIs; freeing up undergraduate students to take courses across all disciplines; launch of a four-year bachelor's degree; openings to foreign universities; incorporating vocational education in college curriculum; and creation of a National Research Foundation. The government has to draw up a time-bound plan to implement these changes over the next five years.

The undergraduate degree will be of either 3 or 4-year duration, with multiple exit options. For instance, a student can exit with a certificate after completing 1 year in a discipline or field including vocational and professional areas, or a diploma after 2 years of study, or a Bachelor's degree after a 3-year programme. The 4-year multidisciplinary Bachelor's programme, however, shall be the preferred option.

- ❖ An Academic Bank of Credit (ABC) shall be established which would digitally store the academic credits earned
- ❖ The 4-year programme may also lead to a degree 'with Research' if the student completes a rigorous research project
- ❖ Model public universities for holistic and multidisciplinary education, at par with IITs, IIMs, etc., called MERUs (Multidisciplinary Education and Research Universities) will be set up
- ❖ Higher education institutions shall move away from high-stakes examinations towards continuous and comprehensive evaluation
- ❖ India will be promoted as a global study destination providing premium education at affordable costs. An International Students Office at each institution hosting foreign students will be set up
- ❖ A legislative framework facilitating such entry will be put in place, and such universities will be given special dispensation regarding regulatory, governance, and content norms on par with other autonomous institutions of India
- ❖ In every education institution, there shall be counseling systems for handling stress and emotional adjustments
- ❖ Efforts will be made to incentivize the merit of students belonging to SC, ST, OBC, and other SEDGs
- ❖ Vocational education will be integrated into all school and higher education institutions in a phased manner over the next decade. By 2025, at least 50% of learners through the school and higher education system shall have exposure to vocational education
- ❖ The policy also speaks of creating a National Research Foundation (NRF)
- ❖ The policy also mentions the creation of a Higher Education Commission of India (HECI)

HEIs shall have the flexibility to offer Master's programmes of two years for those who have completed a three-year undergraduate programme, one year for students who have completed a four-year undergraduate programme, or five-year integrated Bachelor's and Master's programmes.

1. The policy says that 'high performing' Indian universities shall be encouraged to set up campuses in other countries. Similarly, selected universities – such as those from among the top 100 universities in the world – shall be encouraged to operate in India
2. A National Research Foundation shall be established to facilitate "merit-based but equitable" peer-reviewed research funding

The policy says that the centre and states shall work together to increase public investment in education to 6 per cent of the gross domestic product, from the current 4.43 per cent.

Global Scenario

Indian economy today is closely integrated with the global economy. Multinational corporations (MNCs) see India both as an attractive market and as a country where production and services could be profitably out-sourced. In fact, the boom in the outsourcing of IT services by US firms can be said to be the root cause of the growth in engineering education in India.

While many Western countries have rapidly ageing populations, India and China have a large population of young people who would seek education in higher educational institutions including engineering colleges. This means that the reputed universities abroad face a difficult task in enrolling enough local students to ensure their viability. Therefore, foreign universities are actively promoting their services to Indian students. International co-operation in higher education has now become an economic necessity.

University Grants Commission has recently notified regulations which provide a regulatory framework for academic collaborations with foreign universities. This provides both an opportunity and a threat to Indian higher educational institutions. It opens up avenues for research collaboration, student and faculty exchange programs and an opportunity to improve the standard of education provided to our students.

The institutions which use this framework to collaborate with foreign universities can improve the quality of the teaching- learning process and hope to attract better students. Others who fail to use this opportunity to improve the quality of the education that they offer would inevitably suffer from reduced patronage and face a difficult future.

In order to meet the demands of the market and the globalization process which links the world in an internationally social and economic dimension, graduates should have problem solving expertise in solving problems in areas such as environmental and energy, bioengineering problems (including medicine), ultra-nanoscale, miniaturization, problems related to population growth and in managing globalization.

India has recently been accorded the position of a permanent signatory membership of the Washington accord. This would mean that programmes that are accredited by National Board of Accreditation will have international validity. This is a significant step to improve the quality of our engineering education to international standards.

Since, engineering education is being shaped by a wide range of divergent global factors including covid pandemic, it is mandatory for Institutions to transform engineering education in a comprehensive and holistic way to prepare students for the challenges ahead.

3.0 Review of Strategy Plan (2015-20)

	ASPECTS	ATTAINMENT
Teaching Learning Process	Bridge Course	MTS and EIE departments implemented
	Common Electives	Implemented as Open Electives in R-2018
	E-Learning Methodology	Several Departments implemented E-materials for some courses. Highlights: CSE implemented BYOD facility CSE & IT implemented on SWAYAM MOOC ENGLISH department implemented PST-I and PST-II
	Inter-disciplinary Projects	Several Departments implemented inter-disciplinary projects upto 25%
	Projects to Products	Initiatives have been taken by all departments to convert potential projects to products
	Projects to Patents	Initiatives have been taken by all departments to convert potential projects to products
	Student projects at R&D labs / leading institutions / Industries	Around 20% to 30% projects
	Internship	No. of students undergoing internship has increased to 30%
	Assessment and Evaluation Process	Uniformly implemented OBE and Rubric based evaluation.
	Faculty Competence	Achieved through FDPs, STTPs, TTT, and NPTEL courses
	Academic Administration Through Online	Developed ERP software for administration activities like student administration, faculty management, finance and hostel management.
	Introduce new relevant Programmes	Being contemplated
	Participation of professional bodies	Quite a good number of activities have been conducted with professional bodies like – IEEE, CSI, ASME, IEI, IETE, SAE
Research and Development	Total value of R&D Grants received	Rs. 407.76 Lakh Received through Funding Agency
	Impact factor, h-index & citation index.	h-Index – 53, Citations – 16,860 as on June 2020
	Collaborative/Joint research initiatives	Initiative taken for submitting joint research proposals in collaboration with leading academic institutions and industries.
	Centre of Excellence	A few facilities created with fund from FIST,

		DST, CDAC and Institution fund
	Patent	10 patents and 3 design patents obtained. 69 patents are in pipeline.
	Technical Journal	Not initiated
	No. of Ph.D. from KEC research centres	Good - 139 completed PhD.
Human Resource Planning and Development - Faculty	Student: Faculty Ratio	Good (18:1 on average)
	Faculty with PhD	247
	Faculty with Industrial experience (as percentage of total)	5% of faculty members have industrial experience
	Average years of experience	8 to 9 years
	Faculty training in industry	Good-5%
	Participation in Faculty development programs	Good-40%
	Participation in Faculty exchange programs	1% of faculty participated.
	Faculty Induction and guidance	Pedagogy in OBE done in all departments
	Refresher course/ Workshop for existing faculty	146 programmes organized
	Publication of research papers	Good number of publications. International Journal – 2687 National Journal – 43 Book Chapters - 74
Human Resource Planning and Development - Students	Student diversity	To be improved – presently very few under Prime Minister Special Scholarship Scheme
	Student enrolment for competitive examinations	Enrollment :1368
	Communication skills	Good. BEC courses for all students. Japanese and German language training programmes offered for interested students.
	Student Exchange programs	Very few in Chemical, IT ,CSE , Mechanical and Automobile
	Student internship in industry	1826 students attended internships in industry.
	Entrepreneurship Awareness	EMDC conducted 3 programmes per year
	Additional Academic support for weaker/ disadvantaged students	Systematic approach is followed to improve the student
	Placement	6587- offers (2015-2020)
	Practical orientation	Good – Introduction of integrated labs, in-plant training and Internship
	Understanding of concepts	Good - Adoption of OBE
Human Resource Development – Staff	Computer Literacy	10% of staff improved their skills.
	Develop technical skills	40% of staff developed technical skills.
	Enhancement of qualification	2% of staff upgraded their qualification.

Industry-Interaction	Revenue through IIPC activities	Good (IIPC) Rs.90 Lakhs
	Faculty trained in industries	392 Faculty members
	Student internship in industry	1826 students attended internships in industry.
	Training programs for industries	10 programmes arranged for industries
	Projects done for/in industry by students	786 Projects done with Industry support
	Establishment of Labs/ Centres with Industry support	A very few
	Faculty Projects / Consultancy undertaken to meet specific industry requirements	481 Consultancy activities and 751 testing activities undertaken.
	Guest Lectures given in industry/ Industry associations by faculty	10 lectures
	Guest Lectures by Industry personnel	272 lectures
Community Engagement	Technology based projects for societal issues	Addressed through OHE projects and Projects by Institution Innovation Cell
	Educating the public	Satisfactory – In association with Kongu CRS and NSS
	Short-term Courses/Workshops/Skill based programmes for Women, senior citizens, unemployed youth, etc.	10 programmes organized
	Programmes for less privileged children/orphans	Conducted few programs through ROTRACT, Yi
	Social Service (Blood donation, etc.)	Good - In association with NSS and NCC
	Village Adoption and infrastructure development	Satisfactory - In association with NSS
Internationalization	Student/Faculty Exchange Programmes	A very few students went for exchange programme
	Fellowships for PhD/PDF/Professional Excellence	A very few (INSA fellowships and foreign Fellowships)
	Higher Education abroad	105 students
	Provide admission to Foreign Students	NIL

4.0 SWOT Analysis

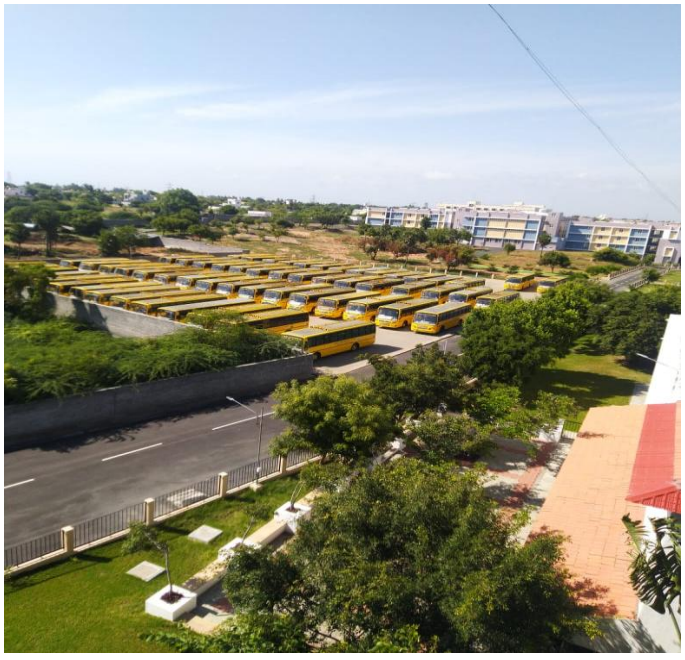
Institutional Strength

Rewards and recognition

- A strong public image on quality, reputation, discipline and infrastructural facilities at the college
- 9 UG programmes NBA Accredited under Washington Accord. Few more in pipeline
- Accredited by NAAC with A Grade Ranked by NIRF since its inception, 2015
- Conferred Autonomous status since 2007
- Best Engineering college / Best Principal Awards from ISTE
- Active TBI which has won National Award for BEST TBI in India
- Branded A ranked institution in the category of private/self-financing institutions by ARIIA-2020.
- ISO certified & IE(I) Accredited
- Industry-Institute Partnership Cell (IIPC) with certified Energy Auditors
- Ranked 5th Position in the Cleanest Higher Education Institutions among all the institutions in India by AICTE for the year 2019

Management and Administration

- A highly supportive and motivated management
- Autonomy in Administration with empowerment at different levels
- Transparent and systematic functioning
- Financial strength and stability
- Financial Assistance to needy / deserving students



Academics

- Autonomous status giving freedom and flexibility in academic and related matters
- Broad range of programmes at the UG and PG level

Faculty and Students

- 247 faculty members with PhD and 192 pursuing PhD representing the research aptitude of the institution
- Highly experienced faculty with high retention rate
- Highly skilled supporting staff
- Fairly good input (students)
- Good Placement in reputed organizations

Infrastructure and Environment

- A conducive learning environment in a serene, clean and green campus
- Continuous up gradation of academic, research and welfare facilities
- Excellent facilities for co-curricular and extra-curricular activities

Industry Focus / Research

- Dynamic value added courses to meet the changing requirements of the industry
- Good tie-up with industries, MoUs, resulting in higher internship
- Funded projects from various Government agencies
- 10 patents obtained, 3 Design patents granted, 69 patents published; more in pipeline
- Improvement in publications in quality journals and citations
- Nurturing Innovation through Institution Innovation Cell
- Established 3 centers of excellence in collaboration with leading industries

Community Linkage

- Good community Linkage through Kongu Community Radio, NSS, NCC and Rotract
- Scholarship for school toppers and sportsmanship
- Talent show organized to exhibit the talents of school children
- Forums for the benefit of less privileged community

Institutional Weakness

- Location Disadvantage (Rural)
- Communication skills of students due to diversity lacuna
- Lack of sponsored research laboratories from industries and Govt. organizations
- Limited Tie-ups with foreign universities

Institutional Opportunity

- Acquiring Deemed to be the University or Private University status for Tapping more research funding
- Leveraging technology for societal cause
- Applied research with the involvement of TBI and IIPC
- Enhancing tie-up with local bodies, government agencies and NGOs
- Leveraging the membership of professional and industry bodies
- Entrepreneurship development through student-faculty entrepreneur development schemes,IPR and patenting project / research outcomes
- Leveraging Alumni Strength
- Avenues for higher education and competitive examinations
- Design and deployment of e-content for reputed platforms like SWAYAM
- Student faculty exchange programme with Foreign and National Universities
- Extending the in-house software development activities

Institutional Challenge

- Declining charm of Engineering education, Fluctuating market conditions for employment, Entry of Foreign Universities
- Fast changing requirements and expectations of industries

5.0 Vision, Mission and Quality Policy

Vision

To be a centre of excellence for development and dissemination of knowledge in Applied Sciences, Technology, Engineering and Management for the Nation and beyond

Mission

We are committed to value based Education, Research and Consultancy in Engineering and Management and to bring out technically competent, ethically strong and quality professionals to keep our Nation ahead in the competitive knowledge intensive world

Quality Policy

We are committed to:

- Provide value-based quality-based education for developing the student as a competent and responsible citizen
- Contribute to the Nation and beyond through the state of-the-art technology
- Continuously improve our services

6.0 Strategic Plan for 2020-25

6.1. Teaching Learning Process

S.No	Goal	Present Status	Strategy	Expected Outcome
1	Introducing Innovative Teaching Methods	OBE is in practice throughout the Institution.	Design thinking/case study, Flipped Classroom, Practical oriented learning etc	At least one activity per course
2	Developing e-content to encourage self learning aspects	e-content are being developed for some of the courses	Developing Videos and Smart books	Any 2 forms of e-content per department
3	Developing virtual Labs	Virtual labs are being used for some courses	Training to be given for developing virtual lab contents	At least one lab per department
4	Enhancing multi-disciplinary approach in teaching	Open elective concept is being introduced	Promoting multidisciplinary projects.	One multidisciplinary project per student during 7^{th}or 8^{th} semester
5	Providing personal and career mentoring to students	Counseling cell created at college level	Enhancing mentoring activities	• No of meetings -at least 2 times per semester • Weak students coaching -at least 2 per semester • Effectiveness –at least 40% improvement
6	Promoting Technology Assisted self learning	Students are undertaking NPTEL courses for credit transfer.	Encouraging students to undertake more online courses through self study	At least 4 course per student with/without credit transfer during 4 years
7	Converting Projects into Papers/products/patents	Currently following	Encouraging students to convert projects to papers / products/patents	In each department: 80% - academic projects to papers 15% - projects to products 5% - projects to patents

6.2 Resources – Infrastructure:

S.No	Goal	Present Status	Strategy	Expected Outcome
1	Laboratory up gradation	Already followed	Purchase of new equipment as per up gradation of syllabus	At least 5 new equipment per department every year
2	Improvement in Computing facility	Needs improvement	• Implementing Bring Your Own Device (BYOD) concept • Providing new centralized server for engineering software such as Matlab, Lab View etc with central storage facility to all students and faculty members	• Each student should posses a laptop • Any one laboratory course per department should be conducted using this centralized server facility
3	Creating smart class rooms/studios	Available in few department (ECE, MCA, MBA - Micro Teaching Laboratory)	Recording facility may be created in each class room to enhance e-content development	• One well equipped studio for college • At least for one course, entire e-content is to be developed per semester in each department
4	Creating Teaching & Learning resource repository	Not existing	Developing e-learning resource repository consists of PPTs, Videos, short summary, formula, Q-bank prepared / compiled by Faculty members etc and to be kept for free access to students	Repository for every subject should be created in each department
5	Creating centralized e-data management system for the institution	Needs improvement	Providing a separate server for data management system for faculty and students.	All the student and faculty details should be available and accessible by everyone from the centralized server.
6	Creation of Continuing Education cell	Not existing	To organize brainstorming Lectures and motivate faculty and students towards continuous learning To create platform for offering online courses in NPTEL, Coursera, Udemy etc by our faculty	At least four programmes per department in a year At least one online course per department to be offered in a year

7	Up gradation of Sports infrastructure facilities	Needs improvement	• Up-gradation of the Basketball & Badminton court with synthetic flooring and providing Systematic training program • Establish new play facilities in hostels • Up-gradation of the gym facilities, organize fitness camp and seminar • Increase the number of Sports quota admissions	Minimum 10% increase in overall participation of the students and achievements every year
8	Improvement in Library automation services & infrastructure	Library automation software is available. Most of the library services are manual. Library virtual resources are accessed only within the campus	Establishing RFID based Library Management system. To implement software tools like KNIMBUS, so that the available e-resources can be accessed remotely	Minimum 20% increase in library access by students and faculty every year
			To increase library space to hold more Books, Journal back volumes.	Minimum 20% increase in purchase of books every year.

6.3.1 Human Resources – Faculty

S.No	Goal	Present Status	Strategy	Expected Outcome
1	Faculty retention	Good faculty retention is maintained.	Retain eminent professors after retirement as Emeritus Professors Appointment of experts from industry & other institutions/ organizations as Adjunct faculty	Minimum 1 Emeritus Professor. Minimum 2 Adjunct Faculty in every department.
2	Faculty student ratio	1:16	Recruiting faculty members to meet the ratio	AICTE and NBA norms to be met.
3	Faculty Professional skill development	Needs improvement	• Online course completion • Participation in FDP (more than 5 days) • Outside world Interactions:	• One per faculty in an academic year • One per faculty in an academic year

			Participation in conferences/ workshops/ seminars Acting as resource person- expert lecture, Chief Guest, chairperson, BOS member, etc • Faculty exchange Program - National / International levels • Organizing FDPs/ Seminars/ Conferences-Sponsored /self supporting and professional society activities	• 50% of faculty per department in a year • At least one faculty per year in department level • Minimum 4 activities per department in a year
4	Faculty Induction and Pedagogical programme	Needs improvement	• Training for faculty with less than two years experience. Refresher Workshop for faculty with two-to-five-year experience • Encourage fresh faculty to complete NITTTR course	• Minimum one activity at institutional level per year • Fresh faculty has to complete 8 courses within a span of 2 years

6.3.2 Human Resources - Supporting Staffs

S.No	Goal	Present Status	Strategy	Expected Outcome
1	Staff retention	Good staff retention	Reward and recognition to be given every year based on the performance.	Average year of experience of staff member in every department should be minimum 10 years.
2	Staff skill up gradation	Needs improvement	Sponsoring staffs to participate in skill development programmes with minimum two to five days.	50% in each dept per year
3	Staff Qualification up gradation	Needs improvement	Sponsoring staffs for higher studies	At least 10% at institutional level

6.3.3 Human Resources - Students

S.No	Goal	Present Status	Strategy	Expected Outcome
1	Student diversity	Mostly from Tamil Nadu	Conducting National level competition and create promotion in other states.	20% from other states
2	Quality Placements	Needs improvement	• Conducting core/ software training programmes • Introducing regular one credit courses for development of soft skills • Conducting value added / one credit courses • Introduce comprehensive test and viva in 7^{th} semester • Identifying and inviting more number of reputed companies for placement	• Minimum 4 programmes per department • Every student must attend one • Every student must attend one • Minimum 2 tests as per GATE syllabus • 85% of placement at institutional level/ departmental level • Increase the average salary by 5% every year
3	Student Participation in Innovation programmes	Needs improvement	• Engaging students to develop innovative projects • Funding support to develop projects • Organizing Exhibitions and Hackathons,etc	• Minimum 5 projects per department to be scaled up. • Minimum one project per student to be exhibited
4	Competitive examination and Higher studies	Needs improvement	• Conducting awareness/ training programmes • Conduct mock tests for GATE & CAT	• Minimum 20% of students should involve in higher studies in each department • Minimum 30% students should appear for competitive examinations with at least 10% success rate
5	Entrepreneurship development/ Promoting Start up	Needs improvement	Conducting awareness programmes Encouraging students to participate in idea contest and Pitch decks	At least two per year At least three per year

6.4 Research and Development

S.No	Goal	Present Status	Strategy	Expected Outcome
1	R&D Grants received	263 Research Projects have been Sanctioned (2490.16 Lakhs) • The SEED money for internal projects is provided by the institution to encourage initial research related activities for young faculties • The overhead charges of the grant received from the funding agency can be utilized for the purchase of equipments, partly for travel expenses pertaining to attending conferences abroad etc.	• Focus more on Multi-disciplinary research. • International funding can be obtained • Search for funding from other funding organizations (NGOs/Ministry) • Every faculty member with Ph.D. qualification shall apply for a minimum of one funded research project per year	Minimum 1.5 Crore funding per year from external funding agency
2	Sponsored Research Programme Organised	545 Sponsored Programme Organised (423.08 Lakhs)	• Search for New and Viable funding agencies to provide financial support for organising FDP/Workshop and Conferences • The Institution supports for organization of high-level conferences/workshops/seminars	Minimum 25 FDP /workshop and 3 international conferences per year supported by external funding agency
3	Publication (Journals and Books)	Total Publication in Journals: 1349Book Published:129	• Publication of research work in Science Citation Index (SCI)/Scopus Journal • Faculty member with Ph.D. qualification should publish minimum one SCI paper per year and Faculty with Masters Degree qualification should publish a	• Average of one paper per faculty in SCI/Scopus journals. • Minimum 600 Scopus indexed publications, out of which 300 should be in SCI journals per year

			minimum of two Scopus indexed paper per year • Faculty members are appreciated with appropriate monitory incentives for their Web of Science/Scopus indexed journal publications • Faculty members are motivated to write Book and publish with renowned publisher.	
4	Improvement of Citation Index	Total Google Scholar Citations :23914	• Faculty members should utilize either Urkund/ Turnitin-Ithenticate plagiarism software's before submitting the research papers/project proposals and its similarity index should be less than 15% • Quality publications will enhance citation index. Incentives can be provided for publications with high citation.	Average Scopus indexed citations should cross 4 per paper for last 3 year publications.
5	Joint/Collaborative Research	Work Initiated	• The Institute encourages faculty members to establish network with other higher institutions of learning and research organizations within India and abroad and go for MOU • Registration Fee, travel, boarding and lodging expenses to participate in conferences/workshops/seminars and other professional development activities have to be provided by the Institution partly	• 10 collaborative / joint research projects with lead institutions / R&D laboratories / industries. • Atleast one faculty should opt for Post-Doctoral Fellowship abroad or in lead R&D institutions per year • At least two faculty to be trained with collaboration partners and reputed organizations like DRDO, CSIR, IITs, IISc, foreign universities on every year

6	Patent/IPR	• 13 Patents Granted • 70 Patents Published	• Financial and Administrative support is provided to all faculty/staff/students for filling of patents/other IPR related activities • Good projects to be incubated by TBI with funding support from KEC/TBI and other TBI Schemes	5 patents to be get granted every year Minimum 15 patents should be filed per year. Atleast one technology transfer needs to take place and one patent to be commercialized.
7	Centre of Excellence	Three centers are in the pipeline to be established	• Based on the core strength and expertise available, each Department to plan to establish one centre of excellence.	One/Two Center of Excellence in each department.
8	Research Centre	16 Research Centers with 247 Ph.Ds	• Stipend for full time research scholars is provided by the Institution • Performance incentives is provided to eligible faculty members with PhD qualification per year based on their research performance evaluation i.e. research publications, patents and extramural funded projects	• 100% PhD should get recognized as supervisors • Minimum 5 scholar should register per year in each centre and atleast 3 should get graduated every year

6.5 Collaboration at National and International level

S.No	Goal	Present Status	Strategy	Expected Outcome
1	Promoting MoUs	Limited to local industries	Identifying more number of Industries/Higher Education Institutions at national and international level for collaborative works	• At least four new MoUs per year in every department • At least three activities (Expert lecture/ Industrial Training, Internship, Industrial Visit, Industrial project) from each MoU in

				every academic year
2	Industrial Training for Faculty	Average	Encouraging Faculty members to get industrial exposure for minimum 5 days	25% of faculty per department in a year
3	Industrial Training for Students	Satisfactory	Creating list of core industries and encouraging students for Industrial visit, In-Plant Training and Internship	• Master list of core industries to be kept in each department • At least 2 industrial visits per academic year • At least 4 industrial visits per student in four years • At least 2 In plant training per student in four years • 100% of students should go for internship at industries in every department for an academic year
4	Student exchange programme	Low in number	Sponsoring students to pursue education in reputed Institutions in India and abroad under student exchange programme	At least 1% of total students at institutional level in an academic year for minimum six months
5	Faculty Exchange programme	Very few	Sponsoring Faculty members to teach / pursue research in reputed Institutions in India and abroad/ R&D laboratories.	At least 3% of total faculty members at institutional level in an academic year for minimum six months
6	Training Programmes for Industrial Personnels	Needs improvement	Identifying the training needs of Industry and the relevant expert faculty	• Master list of area of training • Minimum one training programme at department level in a year
7	Promoting	Needs improvement	Identifying possible industrial	• Master list of possible

	Industrial Consultancy Activities		consultancies and communicating with suitable industries	industrial consultancies provided by each department • At least two consultancy activities per department in a year.
8	Development of Sponsored Laboratories	Needs improvement	Identifying the possible areas for developing sponsored laboratories.	At least three sponsored labs to be developed at institutional level in a year.
9	Collaboration with Alumni	Needs improvement	• Creating master list of alumni contact details for every batch in each department • Creating alumni chapters in major places in India and abroad. • Conducting alumni decade meet and silver Jubilee meet every year • Creating a master list of renowned alumni in various categories such as Industrial expert, Academic expert, renowned entrepreneur. • Conducting Alumni lectures	• Master list of alumni contact details for every batch in each department should be available • Minimum 5 alumni chapters programmes with at least any one activity to be initiated by each chapter. • Atleast two activity should be initiated • Minimum four alumni lectures per department in a year.

6.6 Governance

S.No	Goal	Present Status	Strategy	Expected Outcome
1	Data management System	Department level maintenance	Separate ERP team has to be framed. Full ERP implementation with centralized data collection and maintenance must be established.	To be established within two years
2	Exploring new avenues of fund raising	Needs improvement	• Establish centers through sponsorship from industries • Attract benefits from Corporate Social Responsibility • Increasing funds from research projects , consultancies	• At least 3 sponsored centers from industry • 20% Increase of R&D fund every year
3	Linkages with international universities for horizon expansion	Only a few linkages currently. Needs improvement.	• Develop mechanisms for international relations • Identifying partner Universities at International level and sign MoUs • Attract international faculty on contract appointments • Organize joint activities like conferences, workshops, credit courses, expert lectures	• Organize 3 Mega events at international level every year • At least 3 MoU with international universities
4	Bringing Alumni Engagement on board	Needs improvement	• Enable, facilitate seamless coordination between alumni association and Institute • Multiple interaction modes – interaction between alumni and students – mentoring • interaction between alumni and faculty • Alumni inputs for curriculum development • Alumni support for students placement and internship • Enhance institute responsiveness to alumni request	4 activities at Institution level

			• Establish alumni chapters all over the world • Build corpus fund for sustainable activities of alumni association	
5	Advance Frontiers of knowledge	Needs improvement	• Encourage conduct of advanced research conferences at the institute • Promote Ph.D. students exchange with partner international universities • Encourage formation of multidisciplinary research teams and centers· • Enhance facilities for Ph.D. students and post-doctoral researchers • Proactive and flexible mechanism to attract quality faculty and researchers • Establish proactive board of studies and academic council • Additional courses in the areas of Artificial Intelligence, Data Science, Data and business· analytics, Robotics, Big data, Machine learning, Deep learning etc.	• 1 Conference at Institute level per year • 2 PhD students per year • Framing of Multidisciplinary research teams as much as possible

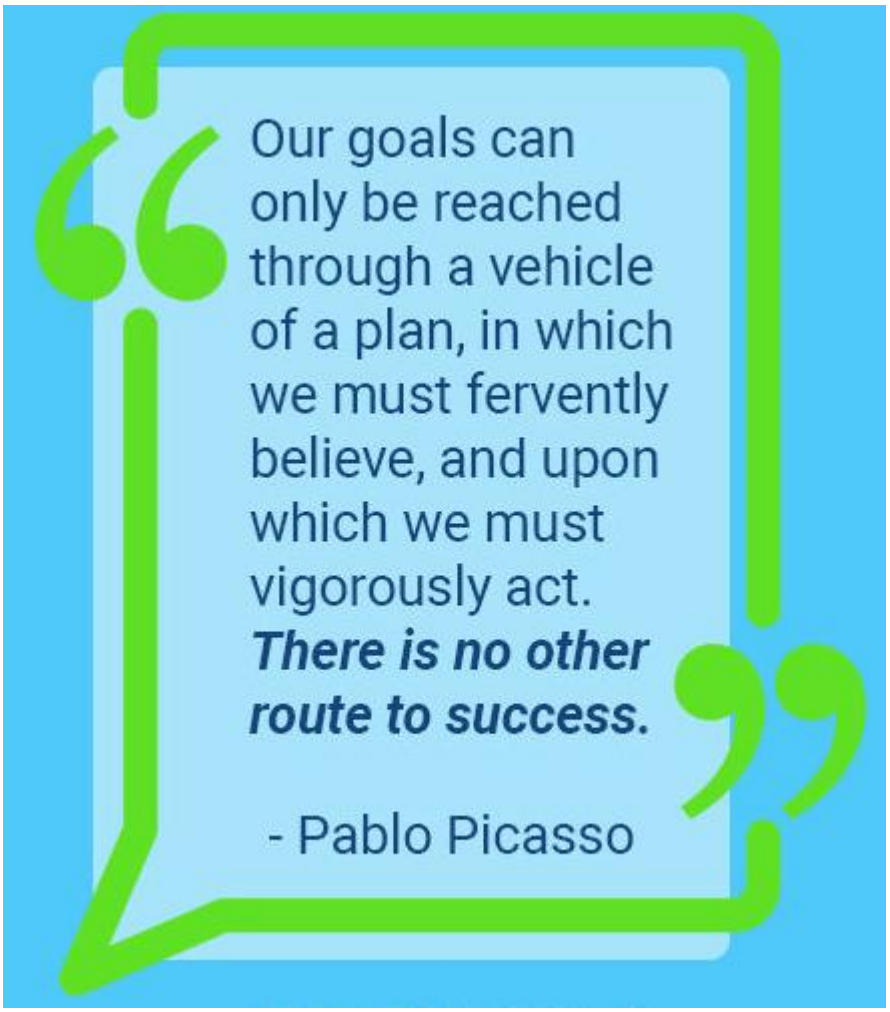
6.7 Community Engagement

S.No	Goal	Present Status	Strategy	Expected Outcome
1	Technology based projects for societal issues	A few projects have been done.	Identification of societal issues to be solved using technology. Effective utilization of resources of TBI and departments	one project per department per year
2	Educating the public	Kongu CRS conducts programmes on various topics	More programmes useful for the community like healthcare, agriculture, technology issues, etc. to be conducted.	About 20 programmes or events/year.

		About 5 programmes or events conducted every year through NCC, NSS, Rotract club, Women development club and YI	Short-term Courses/Workshops/ Skill based programmes for Women, senior citizens, unemployed youth, etc. The events may include: Rallies, fund raising programmes, programmes over the community radio To associate with NGOs and self Help Groups	
3	Programmes for less privileged children/orphans	A few programmes conducted through Thoorigai, Rotaract club,	Motivation of faculty and students for good cause. May be included in the association plan of all departments Connect with governmental agencies and NGOs	8 events/ programmes/ contributions.
4	Social Service (Blood donation, eye camp, health camp, environmental camp etc.)	NSS conducts blood donation camps Tree plantation drives Awareness on plastic-free society	Awareness creation among students, staff, faculty. Green Clean campus	Two health campus per year Two environmental campus per year.

7.0 Looking Ahead

The strategic planning document developed will serve as a monitoring tool for self- appraisal at various levels and also be a guiding document from the Management upto the Staff level. Periodical reviews to assess the achievement level vis-à-vis the plan and take necessary corrective action is called for. It is hoped that with sustained efforts, involvement, monitoring and support, it is possible to reach the goals set in this document.


Our goals can only be reached through a vehicle of a plan, in which we must fervently believe, and upon which we must vigorously act. There is no other route to success.
- Pablo Picasso