



SELF STUDY REPORT
FOR
3rd CYCLE OF ACCREDITATION

KUMARAGURU COLLEGE OF TECHNOLOGY

**CHINNAVEDAMPATTI POST COIMBATORE
641049**

www.kct.ac.in

Submitted To
NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL
BANGALORE

Executive Summary

Introduction:

Kumaraguru College of Technology (KCT), Coimbatore is a Self-Financing Engineering College established in the year 1984 under the auspices of Ramanandha Adigalar Foundation, a charitable educational trust of The Sakthi Group. KCT offers BE / BTech, ME / MTech, MBA and MCA programmes and has 12 Centres for guiding research scholars, leading to the award of Ph D.

Situated in a spacious 156 acre campus in the IT corridor of Coimbatore, KCT is an autonomous institution affiliated to Anna University and approved by All India Council for Technical Education. KCT has been accredited by the National Assessment and Accreditation Council with Grade 'A' with a CGPA of 3.21 during the Second Cycle, 2016 – 2021. Among the 15 UG Programmes offered, 12 Programmes are accredited by the National Board of Accreditation (NBA) and out of 14 PG Programmes, 2 are accredited and applications have been submitted for the accreditation of 5 Programmes. KCT, currently, has 6051 students and 27000+ Alumni members spread across various countries.

Able guidance and patronage of the Founder **Padma Bhusan, Arutchelvar (Late) Dr. N.Mahalingam (fondly known as Ayya)**, and the Chairman Dr.B.K.Krishnaraj Vanavarayar, have led KCT to have consistent focus on Quality Education and maintain with the motto, “*Character is Life*”.

By Voluntarily opting for peer-led and self-assessment and evaluation processes, KCT has improved its systems, processes and procedures, in the past and strives to provide the best possible services to its stakeholders.

On account of the accomplishments in various fronts, KCT has been able to obtain recognitions from various agencies including University Grants Commission (Autonomy, 2(f) and 12(B) Status), University (Permanent Affiliations), Department of Scientific and Industrial Research (SIRO Organisation), Department of Science and Technology (Forge Accelerator), Atal Innovation Mission (Mentor India Program), EdCIL (Study in India Program) and Ranked consistently among the Top 100 Institutions by the National Institutional Ranking Framework in all the six Editions under Engineering Colleges Category (2016 to 2021). KCT has been ranked among the top institutions in the Institution Innovation Council and ARIIA ranking of Ministry of Education.

On realising the responsibilities in providing quality education to meet the national and international demands, considering technological changes and disruptions, values and culture postulated by the traditional knowledge systems and, adopting the core values proposed by National Assessment and Accreditation Council, Kumaraguru College of Technology has prioritized its focus and framed the Vision and Mission.

Vision: The vision of the college is to become a technical university of International Standards through continuous improvement.

Acheivement of vision requires voluntary self assessments and benchmarking with the best institutions nationally and Globally

Mission: Kumaraguru College of Technology (KCT) is committed to

- Provide quality Education and Training in Engineering and Technology
- Prepare students for life and work, equipping them to contribute to the technological, economic and social development.
- Develop a sense of professional responsibility, social and cultural awareness and set students on the path to leadership.

Implementation of the mission necessitates benchmarking with international best practices and address the contemporary issues related to industry and society

SWOC***Institutional Strength :***

KCT aims to achieve multidisciplinary academic excellence through quality education and values and derive maximum benefits from undergraduate, postgraduate, and doctoral programmes. Research programmes undertaken by the Institute focus on maximizing the benefits to industry and society.

- Ranked among the Top 100 Institutions by NIRF in all 6 editions
- Cross Learning from Group Institutions
- Benchmarking CBCS curriculum with Premier Institutions
- Credit transfer and credit portability
- Outcome Based Education with defined objectives
- Mandatory Human Excellence Courses
- Summer / Winter Track courses for needy students
- Scope for Learning multiple Languages (German, Japanese, French and Hindi)
- Scope for Peer-Learning, Intramural Hackathons and Competitions
- DSIR Recognition for Scientific and Research Activities
- Centralised research facilities for Faculty & Students
- Incubation Facilities and Innovation centres(Re, iQube and Garage) to support Students and Faculty
- Seed Grant to students and faculty for Innovative Projects
- Decentralized Governance with transparency, defined roles and responsibilities
- Financial Assistance to needy students
- Students have representations in Board of Studies, Committees constituted by Institute
- Instituted 25 different welfare measures to employees
- Implementation of Good Practices - Establishment of Ahimsa Vanam, Resource Recovery Park, Green Corridor, Ban on single use plastics and implementation of digital initiatives

Institutional Weakness :

KCT has weaknesses arising out of complex systems including

- Centralized Admission (Tamil Nadu Engineering Admission) System
- Lack of coordination in various centralized admission systems (Engineering, Medical, Agriculture and Architecture)
- Time taken to publish examination results
- Publications in the SCI journals
- Progression of students to higher education

Institutional Opportunity :

The tangible opportunities include,

- Participation in Prime Ministers Special Scholarship Scheme, Study-in-India Programs
- Opportunity to interact with Group Institutions (Liberal Arts and Agriculture)
- Offering collaborative courses with international universities
- Supplementing Teaching-Learning through SWAYAM, A-View, Virtual Laboratories of IIT Bombay, IIT Delhi and IIT Kharagpur and NPTEL
- Offering Value Added Courses in the Emerging Areas (Quantum Computing, Edge Computing, Defence Technology,..)
- Promoting Intellectual Property Rights culture among students
- Enhancing the alumni interaction for Institutional growth

Institutional Challenge :

Increasing market competition, establishment of more centrally funded institutions, universities (Central, Deemed-to-be and State Private) and online education portals result in shift in the admission pattern and localised concentration of students, which is a major challenge faced by the Institution at large in addition to the following,

- Increasing levels of regulatory mechanisms (approvals and affiliation)
- Tangible gaps between academic and industry practices
- Declining trends in conventional engineering streams (Mechanical, Civil and Electrical Engineering)
- Diminishing funding opportunities for self-financed institutions
- Rising costs of overheads and resources

Criteria wise Summary***Curricular Aspects :***

KCT has implemented wide range of initiatives and practices to address the emerging global, national and local needs. Curriculum, to suit the personal and professional needs, is designed with flexibility and values, through multiple revisions, updation with focus on employability, entrepreneurship and skill development. Accordingly every programme has its own Educational Objectives (PEOs), Generic and Specific Outcomes (POs and PSOs) with further scope for value addition and enrichment. Certain value based courses have been made mandatory to all the UG programmes to inculcate the Indian Culture and Ethical Systems that help us to sustain various adverse impacts. Feedback for continuously improving the content, delivery and assessment are also in place.

- Mapping of curriculum with Vision and Mission of the Institute
- Introduction of new programmes in the emerging and interdisciplinary areas – MBA (Innovation, Entrepreneurship and Venture Development), MTech – Data Science, ME – Construction Management, Environmental Engineering, Technology Management and BTech – Artificial Intelligence and Data Sciences and B.E Information Science and Engineering
- Opportunity for Minor Specialisation in Data Science, Cyber Security, Network Programming, 3D Printing and IoT
- Unique Courses offered to address the emerging needs - (i) Battery Technology, Autonomous Vehicles and Systems, Green Energy, Globally Accepted Accounting Principles (global needs), (ii) Smart

- Cities, Power Distributions, GST (national), (iii) IT, Water and Waste Management (regional) and (iv) Design and Manufacturing - pump, technical textiles, garments (local needs)
- Engineering Clinic (Innovation Practicum) in the Initial Years of Study
- Opportunity to learn multiple languages – Hindi, French, German and Japanese
- 159 Courses offered under open-elective (FCLF)
- Flexibility in selection of assessment methods
- More than 90% of subjects have been revised in the last 5 years

Teaching-learning and Evaluation :

Innovative practices have been introduced in Teaching–Learning to enhance experience of the learners. Hands-on courses are taught from first semester onwards to understand concepts in STEM areas, besides Project Based Learning, Problem Based Learning, Asynchronous Learning, MOOCs and Layer-Learning through Embedded Courses in the last 5 years. Students are admitted through TNEA and Consortium of Self-Financed Colleges of Tamilnadu following transparent system with continuous efforts to attract students from different geographical locations to improve profile of the learners and introduce cross-cultural learning. Learner Centric curriculum has a focus on Outcomes that can be demonstrated by the learners at the end of the course / programme. Quality of Teaching-Learning is ensured through alignment of content, delivery, assessment and evaluation with cognitive processes, CO-PO, PSO mapping and Bloom's Taxonomy.

- Availability of Support Systems for product development, incubation of ideas
- Student-led forums (CLED, Re, Sprout, Leadership Council) for Team Work and enhancing Soft Skills
- Option to learn more credits than minimum prescribed
- Paid internships to students by KCT
- Comprehensive feedback system at the time of graduation
- 100% Full-time Faculty Members
- Credits for NCC – B & C Certificates
- Opportunity for teachers to upgrade their skills and knowledge
- Sponsored Skill and Personality Development Centre for marginalised categories of students
- Collaboration with Online Education providers (Harappa and Great Learning)
- Collaborations with 32 Professional Bodies
- Systematic Remedial Classes
- Effective usage of PO Attainment
- Research Ethics as a Mandatory Course in PG

Research, Innovations and Extension :

KCT has approved Policies and Procedures for human resource development and tapping the potential of students, maintain innovation ecosystem and research culture in the Campus. Research Cell and Kumaraguru Leadership Development Agency organise programmes to enhance the capabilities of members in undertaking research, collecting and disseminating information related to availability of funds through various schemes. KCT has established 19 Collaborative Centres with Industries and Government Agencies to sustain research activities. Incentives are available for faculty and students to pursue research activities, besides IP registration. Procedures are available for revenue sharing in the case of consultancy and services carried out by faculty members. Kumaraguru Action for Relief and Empowerment (KARE), Microcosm, *Namadhu Pangu*, NSS and Chapters of Various Professional Bodies have been established to interact with the society and transfer benefits, wherever possible. KCT signed MoUs with **15** International Universities and **100** Industries for training, research and resource sharing.

- Availability and implementation of Research Policy
- Research Cell to monitor faculty research activities and facilitation
- Re Cell for promoting student research
- Project Based Learning and Protosem for Product Development and Innovation

- Kumaraguru Center of Industrial Research and Innovation and Forge for promoting research and incubation
- Support to faculty for travel for presenting projects, participating in National and International Conferences
- 75% of the Departments have funded projects
- 12 Centres for Research to guide Ph D Scholars
- Institutional Innovation Cell recognized by Ministry of Education
- H-Index of the Institute is 44
- Rs 100 Lakhs generated annually through consultancy and corporate trainings
- 84 IPs filed, 58 published, 5 Granted and 4 Commercialized in the past 5 years
- 100+ Awards received for various extension activities

Infrastructure and Learning Resources :

KCT has a land-space of 156 acres, adequate for future needs. Buildings in the Campus are well-connected by roads without any barriers and equipped with emergency exits, fire extinguishers and safety aspects. Keeping pace with academic developments, research needs and student strengths, new blocks are constructed and existing blocks are renovated with additional facilities. Academic Departments are provided with Library Space with textbooks, reference books and journals, while two Central Libraries – Mahatma Gandhi Central Library and N.Mahalingam Tamil Research Centre – house reference books, magazines, journals and rare collections. Campus-wide Internet facility enables digital modes of teaching-learning on and off the campus. Adequate number of computing systems and local servers are made available for continuous storage and retrieval of data. Exclusive maintenance team takes care of building, electrical installation, water treatment, lifts, lawn and gardening related activities.

- 100% ICT Enabled Classroom for Teaching-Learning
- 130 classrooms and 122 laboratories for both UG and PG programmes
- Separate Student Innovation Centres (Re, iQube, Garage), Student Activity Centre and Innovation Laboratories
- TIFAC – Core in Textile Machinery
- 25 acres of land for sports and games
- Emphasis for Chess, Yoga and Cultural Activities
- RFID Enabled Central Library with OPAC System
- Availability of Plagiarism Check Software
- 16 Industry Sponsored Centres and One DST Funded Incubation Centre
- 250 kWp solar panels for power generation
- Policies and Procedures available for facilities maintenance

Student Support and Progression :

KCT has student support forums including Office of Student Affairs, CLED, Sprout, LEED, Re, iQube, Garage, Leadership Council, Super 60, Presidents of Associations, Clubs and Societies, KARE, Professional Chapters and Committees (Internal Complaints Committee, Student Grievances Redressal, Internal Quality Assurance Cell and Anti-Ragging Committee). KCT extends scholarships through AICTE TFW Scheme, Mahatma Gandhi Scholarship for Meritorious Students, KCT-NGOs freeships during admission to attract and retain meritorious students. Career Counselling and Guidance, Placement Supports are extended to all students and online Grievance Redressal and mentoring Portal is available for lodging grievances. Centre for Career Empowerment and Entrepreneurship Development (CEED) facilitates coaching of students for GATE, GRE and IELTS, while International Office identifies and facilitates mobility of students for higher studies abroad. Registered Alumni Association functions with specific objectives and facilitates interactions, sponsorships and scholarships.

- 35 Clubs and Societies under six verticals - Arts, Social, Literary, Technical and Fitness

- More than 50% of students benefit through scholarships / freeships instituted by the Management, Government and NGOs
- 13 different scholarships offered to students other than Government Scholarships
- Adequate opportunities for Skill Enhancement of students
- Good participation of students in sports and cultural activities
- Participation of Students in Academic Bodies include Board of Studies, Department Advisory Board
- Participation of Students in different committees – Internal Complaints Committee, Student Grievance Redressal Committee, Anti-Ragging Committee and IQAC
- Exclusive forum for students – Leadership Council, Super 60, Presidents of Association, Clubs and Societies and League for Entrepreneurial Empowerment and Development
- 70 Cultural and Competitive events are organised annually

Governance, Leadership and Management :

KCT has Policies and Standard Operating Procedures to ensure transparency and accountability in the governance and leadership, from recruitment to retirement of employees and admission to graduation of students. Reflecting the purpose of education and institution, Vision and Mission statements have been framed and disseminated to various stakeholders. KCT has flat organisational structure with defined roles and responsibilities for every function with accountability with ample scope for innovations. KCT participates in various ranking and surveys to assess and align its academic and administrative activities in line with its Vision. Students and faculty members are involved in decision making, process implementation and enhancement -participative style of Management. Financial function is supported by internal and statutory audits and tuition fee is major source of income. IQAC functions and implements quality initiatives in KCT.

- KCT has defined Vision, Mission and Values
- Perspective plan for future actions is in place
- Decentralised working systems
- Statutory Committees (Board of Studies, Academic Council, Finance Committee and Governing Council) and mandatory committees (Internal Complaints Committee, Committee on SC/ST, Anti-Ragging Committee) are functioning as per UGC, AICTE guidelines
- Office of Student Affairs offers mandatory, value added, outsourced and joint-services to students
- *Yugam* – Annual Techno-cultural event attracts 15000 students
- Has 16 Policies and 7 SOPs for various functions
- ERP System has been implemented for admission, teaching-learning, examination and administration related activities
- Accounting and Auditing systems are in place
- 250 Programmes have been organised for teaching and non-teaching staff members
- 40% of faculty members are provided financial assistance for attending conferences and workshops

Institutional Values and Best Practices :

KCT was started with the strong vision and objectives laid down by the visionary founder late **Padma Bhusan Arutchelvar N Mahalingam** with legacy that spreads over a century with strong motto, *Character is Life*. Autonomy is considered as the responsibility and means to achieve its vision, KCT follows good practices for the benefit of the Institution, Environment and Society, which itself leads to many innovative practices. The entire campus is environment-friendly, curated by practices and actions of faculty members and students through value based education and participative-cum-ownership approach.

- Demonstrating values and ethics to the society
- Transparent, participative gender equity initiatives
- Availability of Code of Conduct and, Values and Ethics Committee
- Green Campus with Barrier free environment and user-friendly systems
- Installation of Solar Power and Biogas Plants

- Establishment of Resource Recovery Park for waste management and upcycling
- Use of biofertilizers for gardening and landscaping
- Rain water harvesting and recharging facility
- Water treatment and recycling system
- Ban on one-time use plastics and Policy for Paper Usage
- Implementation of Green Corridor for motor-free movements
- Campus-wide bicycle usage initiated by the Institute
- Equal Opportunities for all categories of students
- Celebration of nationally important days for imbibing values among students and faculty members
- Demonstrating values and ethics to the society
- Transparent, participative gender equity initiatives
- Availability of Code of Conduct and, Values and Ethics Committee

Profile

BASIC INFORMATION

Name and Address of the College	
Name	KUMARAGURU COLLEGE OF TECHNOLOGY
Address	CHINNAVEDAMPATTI POST COIMBATORE
City	Coimbatore
State	Tamil Nadu
Pin	641049
Website	www.kct.ac.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	Saravanan D	0422-2661122	9487700830	0422-2669406	principal@kct.ac.in
IQAC / CIQA coordinator	Selvanayaki S.	0422-2661100	9600989004	0422-	iqac@kct.ac.in

Status of the Institution	
Institution Status	Private and Self Financing

Type of Institution

By Gender	Co-education
By Shift	Regular

Recognized Minority institution

If it is a recognized minority institution	No
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Establishment Details

Date of Establishment, Prior to the Grant of 'Autonomy'	27-09-1984
Date of grant of 'Autonomy' to the College by UGC	21-07-2008

University to which the college is affiliated

State	University name	Document
Tamil Nadu	Anna University	View Document

Details of UGC recognition

Under Section	Date	View Document
2f of UGC	15-12-2003	View Document
12B of UGC	18-12-2014	View Document

Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)

Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day,Month and year(dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	10-07-2021	12	Approved by AICTE

Recognitions

Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	No

Location and Area of Campus

Campus Type	Address	Location *	Campus Area in Acres	Built up Area in sq.mts.

Main campus area	CHINNAVEDAMPATTI POST COIMBATORE	Urban	156.61	132973.5
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ACADEMIC INFORMATION

Details of Programs Offered by the College (Give Data for Current Academic year)						
Program Level	Name of Program/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BE,Civil Engineering	48	HSc or Equivalent	English	120	102
UG	BE,Mechanical Engineering	48	HSc or Equivalent	English	120	103
UG	BE,Electrical And Electronics Engineering	48	HSc or Equivalent	English	120	113
UG	BE,Electronics And Communication Engineering	48	HSc or Equivalent	English	186	186
UG	BE,Computer Science And Engineering	48	HSc or Equivalent	English	60	54
UG	BE,Computer Science And Engineering	48	HSc or Equivalent	English	133	133
UG	BTech,Textile Technology	48	HSc or Equivalent	English	60	45
UG	BTech,Information Technology	48	HSc or Equivalent	English	63	63
UG	BTech,Information Technology	48	HSc or Equivalent	English	64	64
UG	BE,Mechatronics Engineering	48	HSc or Equivalent	English	60	55
UG	BTech,Bio Technology	48	HSc or Equivalent	English	60	56
UG	BTech,Fashion Technology	48	HSc or Equivalent	English	60	36
UG	BE,Electronics And Instrumentation Engineering	48	HSc or Equivalent	English	60	57
UG	BE,Aeronautical Engineering	48	HSc or Equivalent	English	60	57
UG	BE,Automobile Engineering	48	HSc or Equivalent	English	60	41
PG	ME,Civil Engineering	24	BE or BTech in relevant discipline	English	18	11
PG	ME,Civil Engineering	24	BE or BTech in relevant discipline	English	18	18
PG	ME,Civil Engineering	24	BE or BTech in relevant discipline	English	12	12
PG	ME,Mechanical Engineering	24	BE or BTech in relevant discipline	English	12	11

PG	ME,Electrical And Electronics Engineering	24	BE or BTech. in relevant discipline as specified by TANCA	English	12	7
PG	ME,Electronics And Communication Engineering	24	BE or BTech in relevant discipline as specified by TANCA	English	12	5
PG	ME,Computer Science And Engineering	24	BE or BTech in relevant discipline as specified by TANCA	English	12	8
PG	Mtech,Textile Technology	24	BE or BTech in relevant discipline as specified by TANCA	English	12	0
PG	Mtech,Information Technology	24	BE or BTech in relevant discipline as specified by TANCA	English	18	18
PG	Mtech,Bio Technology	24	BE or BTech in relevant discipline as specified by TANCA	English	18	17
PG	Mtech,Fashion Technology	24	BE or BTech in relevant discipline as specified by TANCA	English	6	4
PG	MCA,Computer Application	24	Any Degree with Maths or Statistics	English	60	60
PG	MBA,Management Studies	24	Any Degree	English	180	180
PG	MBA,Management Studies	24	Any Degree	English	30	15
Doctoral (Ph.D)	PhD or DPhil,Civil Engineering	36	ME or MTech in relevant discipline	English	10	10
Doctoral (Ph.D)	PhD or DPhil,Mechanical Engineering	36	ME or MTech in relevant discipline	English	3	3
Doctoral (Ph.D)	PhD or DPhil,Electrical And Electronics Engineering	36	ME or MTech in relevant discipline	English	2	2
Doctoral (Ph.D)	PhD or DPhil,Electronics And Communication Engineering	36	ME or MTech in relevant discipline	English	1	1
Doctoral (Ph.D)	PhD or DPhil,Computer Science And Engineering	36	ME or MTech in relevant discipline	English	1	1
Doctoral (Ph.D)	PhD or DPhil,Textile Technology	36	ME or MTech in relevant discipline	English	1	1
Doctoral (Ph.D)	PhD or DPhil,Bio Technology	36	ME or MTech in relevant discipline	English	1	1
Doctoral (Ph.D)	PhD or DPhil,Fashion Technology	36	ME or MTech in relevant discipline	English	1	0
Doctoral (Ph.D)	PhD or DPhil,Management Studies	36	ME or MTech in relevant discipline	English	3	3

Doctoral (Ph.D)	PhD or DPhil, Chemistry	36	ME or MTech in relevant disxipline	English	1	0
Doctoral (Ph.D)	PhD or DPhil, Physics	36	ME or MTech in relevant discipline	English	1	0
Doctoral (Ph.D)	PhD or DPhil, Mathematics	36	ME or MTech in relevant discipline.	English	1	0

Position Details of Faculty & Staff in the College

Teaching Faculty

	Professor				Associate Professor				Assistant Professor			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0				0				0			
Sanctioned by the Management/Society or Other Authorized Bodies	43				61				243			
Recruited	23	20	0	43	39	22	0	61	150	93	0	243
Yet to Recruit	0				0				0			

Non-Teaching Staff

	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				205
Recruited	175	30	0	205
Yet to Recruit				0

Technical Staff

	Male	Female	Others	Total
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				123
Recruited	73	50	0	123
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD	0	0	0	0	0	0	0	0	0	0
Ph.D.	22	20	0	36	22	0	51	40	0	191
M.Phil.	0	0	0	0	0	0	3	14	0	17
PG	1	0	0	3	0	0	96	39	0	139

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

Part Time Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			
	Male	Female	Others	Male	Female	Others	Male	Female	Others	Total
D.sc/D.Litt/LLD	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	Male	Female	Others	Total
	0	0	0	0

Provide the Following Details of Students Enrolled in the College During the Current Academic Year						
Program		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	3623	56	35	2	3716
	Female	1467	14	5	0	1486
	Others	0	0	0	0	0
PG	Male	375	9	0	0	384
	Female	314	10	0	0	324
	Others	0	0	0	0	0
Doctoral (Ph.D)	Male	67	4	0	0	71
	Female	67	3	0	0	70
	Others	0	0	0	0	0

Provide the Following Details of Students admitted to the College During the last four Academic Years

Category		Year 1	Year 2	Year 3	Year 4
SC	Male	95	111	100	92
	Female	39	40	43	39
	Others	0	0	0	0
ST	Male	6	2	3	3
	Female	0	5	1	2
	Others	0	0	0	0
OBC	Male	750	718	812	751
	Female	387	397	426	392
	Others	0	0	0	0
General	Male	85	83	96	96
	Female	51	48	56	49
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		1413	1404	1537	1424

Provide the Following Details

Number of Programs	UG programs not covered under the Autonomous status of UGC	PG programs not covered under the Autonomous status of UGC	Professional Programs offered	Self-financed Programs offered	New Programs introduced during the last five years
	0	0	0	29	7

EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Aeronautical Engineering	View Document
Automobile Engineering	View Document
Bio Technology	View Document
Chemistry	View Document
Civil Engineering	View Document
Computer Application	View Document
Computer Science And Engineering	View Document
Electrical And Electronics Engineering	View Document
Electronics And Communication Engineering	View Document
Electronics And Instrumentation Engineering	View Document

Fashion Technology	View Document
Information Technology	View Document
Management Studies	View Document
Mathematics	View Document
Mechanical Engineering	View Document
Mechatronics Engineering	View Document
Physics	View Document
Textile Technology	View Document

Institutional preparedness for NEP	
1. Multidisciplinary/interdisciplinary:	<ul style="list-style-type: none"> • UG and PG Programmes are introduced in both multidisciplinary and interdisciplinary fields in the last 5 years, which include (i) Information Science and Engineering, (ii) Artificial Intelligence and Data Science, (iii) Data Sciences and (iv) Technology Management. • Minor Specialisations are offered in the domains of (i) Cyber Security, (ii) 3D Printing, (iii) Internet of Things, (iv) Data Sciences and (v) Network Programming. • In addition, many 3-credit courses (currently 159 courses) are offered to the students of all the branches as a part of Open Electives to encourage the interdisciplinary approach and culture among the students.
2. Academic bank of credits (ABC):	<ul style="list-style-type: none"> • In order to facilitate the transfer of credits into Academic Bank, data capturing of credits completed by individual students, every semester, has been implemented with suitable ERP system. • KCT has expressed the willingness to be a part of National Academic Depository to the University, which is the essential step towards ABC.
3. Skill development:	<ul style="list-style-type: none"> • Courses are introduced from I semester onwards in order to enhance the soft and hard skills of the students (Engineering Clinics) • Hard skills are enhanced with the more number of one-credit courses, value added courses and internships. • Soft skills are enhanced with the introduction of (i) additional Indian languages – Hindi, (ii) foreign languages – German, Japanese and French, (iii) problem solving – related courses in VI / VII semesters and (iv) activities through 35+ clubs and forums for improving skills related to team work, advocacy and conflict resolution
4. Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course):	<ul style="list-style-type: none"> • Human Value / Excellence Department offers Value Based Courses from I to VII Semesters as given below. (i) Personal values (ii) Inter-Personal values (iii) Family Values (iv) Professional Values (v) Social Values (vi) National Values (vii) Global Values • In addition, courses that links Indian Culture and Tradition are offered as the Open

	Electives (6 Courses) to the students. • A course on “Indic Culture” has been introduced as the mandatory course to the students of newly introduced programme – Artificial Intelligence and Data Sciences.
5. Focus on Outcome based education (OBE):	KCT introduced Outcome Based Education (OBE) in 2014 and Choice Based Credit System (CBCS) in 2015, which emphasized on honing the skills and knowledge of the graduates. The courses of all the programmes are categorised into Humanities and Social Sciences (HS), Basic Sciences (BS), Basic Engineering Sciences (ES), Professional Core (PC) and Cluster Courses, Professional Electives (PE), Open Electives (OE) and Project Work (PW) . Programme Educational Objectives (PEO), Programme Outcomes (POs – also known as Graduate Attributes), Programme Specific Outcomes (PSO) are framed, considering the following features. The course outcomes (CO's) are designed to align with the Programme Outcomes (PO's) and Programme Educational Objectives (PEO's) . Accordingly, every students learns to demonstrate skills and attitude with concepts at the end of every course.
6. Distance education/online education:	KCT, as an Autonomous and affiliated Institution, is not eligible to offer distance education and online education. However, KCT encourages the students and faculty members to register online courses offered by NPTEL and SWAYAM platforms and provide credit equivalence to the students and suitably recognize in the case of faculty members in their performance appraisal system.

QIF

1. Curricular Aspects

1.1 Curriculum Design and Development

1.1.1 Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which is reflected in Programme outcomes (POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the Programmes offered by the Institution.

Answer:

Kumaraguru College of Technology (KCT) offers 15 UG Programmes and 14 PG Programmes in Engineering, Technology, Applied Science and Management. In line with Vision of the Institute, KCT strives to provide Outcome Based Education (OBE) - deriving its ability to design and develop curriculum along with mid-course corrections whenever required through the systems that are in place as a part of autonomous status - ensures relevant and updated regulation, curriculum and contents to match the emerging trends and industry-demanded skills (21st Century Skills). Accordingly, Programme Educational Objectives (PEO), Programme Outcomes (POs – also known as Graduate Attributes), Programme Specific Outcomes (PSO) are framed, considering the following features.

Core Fundamentals with real-time applications and principles, options to understand the exploding new knowledge to enhance the employability (Professional and Open Electives) and proficiency in software packages and current tools used in research and industries are included in the curriculum to suit above framework.

Feedback and suggestions received from stakeholders (students, faculty, alumni, employers) are taken into consideration by Statutory Bodies, that meet at regular interval, such as Board of Studies, Academic Council and Governing Council, for designing curriculum. It facilitates incorporating the focus on global, national, regional and local requirements namely (few examples), (i) Battery Technology, Autonomous Vehicles and Systems, Green Energy, Globally Accepted Accounting Principles - GAAP (global needs), (ii) Smart Cities, Power Distributions, GST (national), (iii) IT, Water and Waste Management (regional) and (iv) Design and Manufacturing - pump, technical textiles, garments (local needs) into the curriculum and stay relevant.

Policies/Courses developed by DST, UGC, AICTE related to skill development, employability, innovation and entrepreneurship are integrated into curriculum, besides technical (profession) courses, to ensure the relevance with respect to needs of the Nation. POs are set based on guidelines given by NBA and thereby incorporating global perceptions of outcomes into UG/PG Programs.

PSOs are designed considering the graduate profile (Knowledge – Skill – Attitude) recommended by Professional Bodies such as, ASME, ASCE, SAE, IEEE, ISA, CSI, ACM, ACS and SDC thereby focusing on technical, societal and global needs. POs and PSOs are delineated into different courses, characterised by relevant Course Outcomes (CO). Correlation of COs with POs and PSOs are established for all the identified courses with prerequisites.

Curriculum Design and Development process includes benchmarking the content with premier institutions, adopting the best practices (of both national and international level) that are proven to give successful experience to students, flexibility to enrol courses through MOOCs and Professional Bodies. Curriculum and syllabi are revised at regular intervals to update the contents and accommodate the emerging trends in science, engineering and technology, following the process defined (Additional Information).

Innovation Practicum (Engineering Clinic), Internship, Capstone Project, Mandatory Courses related to Profession, Ethics, Environmental Science, Indian Constitution, Value Education, Entrepreneurship Development are offered as a part of the curriculum to all branches at UG level.

PAC, DAB, BoS and Academic Council ensure the implementation of the regulation and curriculum with relevant audit process at regular intervals.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

1.1.2 Percentage of Programmes where syllabus revision was carried out during the last five years.

Answer: 94.12

1.1.2.1 Number of all Programmes offered by the institution during the last five years.

Answer: 34

1.1.2.2 How many Programmes were revised out of total number of Programmes offered during the last five years

Answer: 32

File Description	Document

Minutes of relevant Academic Council/BOS meeting	View Document
Details of program syllabus revision in last 5 years(Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

1.1.3 Average percentage of courses having focus on employability/ entrepreneurship/ skill development offered by the institution during the last five years

Answer: 98.67

1.1.3.1 Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years..

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
798	877	866	1067	1060

File Description	Document
Programme / Curriculum/ Syllabus of the courses	View Document
MoU's with relevant organizations for these courses, if any	View Document
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	View Document
Average percentage of courses having focus on employability/ entrepreneurship(Data Template)	View Document

1.2 Academic Flexibility

1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years.

Answer: 57.74

1.2.1.1 How many new courses are introduced within the last five years

Answer: 933

1.2.1.2 Number of courses offered by the institution across all programmes during the last five years.

Answer: 1616

File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

1.2.2 Percentage of Programmes in which Choice Based Credit System (CBCS) / elective course system has been implemented (Data for the latest completed academic year).

Answer: 100

1.2.2.1 Number of Programmes in which CBCS / Elective course system implemented.

Answer: 29

File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for Additional Information	View Document

1.3 Curriculum Enrichment

1.3.1 Institution integrates crosscutting issues relevant to Professional Ethics ,Gender, Human Values ,Environment and Sustainability into the Curriculum

Answer:

KCT aims to provide a holistic education, keeping the curriculum a dynamic and updated one. Curriculum is revised to incorporate crosscutting issues related to **Ethics, Gender, Human Values, Environment and Sustainability** into core, electives and other courses. Program Outcomes include major criteria like (i) Disciplinary Outcomes, Transferable Skills, (ii) Complex Engineering Problems and (iii) Contextual Knowledge – Ethics, Environment and Sustainability, and Engineer and Society in specific. Courses specified in curriculum are mapped with these outcomes and facilitating exposure to cross-cutting issues through academic regulation and curricular interventions. Courses relevant and related to Ethics (35 courses), Human Values (58 courses), Society – Gender Issues (13 courses), Environmental Science and Sustainability (124 courses) form a part of the curriculum under various Regulations (R2015, R2017 and R2018).

Many pressing issues that cut across nationally and internationally (emphasised by UN SDGs), including global warming, water, pollution, health and hygiene, clean energy, infrastructure, sustainable cities and gender equity (in particular women in leadership -Reduce inequalities), responsible consumption and production are offered as the disciplinary courses.

Autonomous Regulation of KCT offers Gender and Human Values related courses from First Semester to Seventh Semester, by Department of Human Excellence. These courses have focus on *sathya* (truth), *dharma* (justice), *prema* (love), *shanthi* (peace) and *ahimsa* (non-violence) incorporated in (i) Family Values, (ii) Social Values, (iii) National Values, (iv) Global Values, (v) Professional Values, (vi) Indian Constitution and (vii) Environmental Science to instil discipline among the students to be socially responsive towards environment and society (Contemporary issues that result in environmental degradation highlights the importance of ecosystem and biodiversity).

With recent efforts made by Ministry of Education in offering Gender and Human Values related courses, KCT offers Universal Human Value Course as a mandatory Student Induction Program. Also, Indic Culture and Technologies to understand the various dimensions of Indian Culture and Philosophy is offered; Tamil Research centre is established to propagate the ethics and values of ancient culture among the young aspirants. Courses on Human Rights and RTI Act empower the students to understand rules and procedures related to fundamental rights and responsibilities. Courses and workshops on Entrepreneurship Development enable students to analyse entrepreneurial traits and to explore business opportunities.

Ethics, Leadership Development Courses offered as a part of Flexible Comprehensive Framework for Learning focus on Humanities, Social Sciences, Management & Leadership to enable students to become responsible citizens. Ethics based courses dwell on Leadership skills, ethical use of resources, Quality of product, Public safety, Honesty and integrity, Conflict resolution, problem solving and decision making,

code of conduct. Courses related to environment, ethics, societal issues with specific focus on the moral principles, social values and loyalty to the services.

Opportunities to implement environmentally conscious and sustainable activities, including establishing Green Corridors with no vehicle movements, *Ahimsa Vanam*, Resource Recovery Park, wider green coverage, water harvesting, recycling and sewage treatment are carried out as a part of curriculum (few courses – EIA, Cleaner Production, Toxicology, Climate Change, Policies and Legislations, Pollutants and Pollution).

File Description	Document
Upload the list and description of the courses which address the Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum	View Document
Any additional information	View Document

1.3.2 Number of value-added courses for imparting transferable and life skills offered during last five years.

Answer: 119

1.3.2.1 How many new value-added courses are added within the last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
34	20	22	18	25

File Description	Document
List of value added courses (Data Template)	View Document
Brochure or any other document relating to value added courses	View Document

1.3.3 Average Percentage of students enrolled in the courses under 1.3.2 above.

Answer: 72.89

1.3.3.1 Number of students enrolled in subject related Certificate or Add-on programs year wise during last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
3372	5325	5476	2234	5130

File Description	Document
List of students enrolled	View Document
Any additional information	View Document

1.3.4 Percentage of students undertaking field projects/ internships / student projects (Data for the latest completed academic year)

Answer: 85.28

1.3.4.1 Number of students undertaking field projects / internships / student projects

Answer: 4891

File Description	Document
List of programs and number of students undertaking field projects / internships / student projects (Data Template)	View Document
Any additional information	View Document

1.4 Feedback System

1.4.1 Structured feedback for design and review of syllabus – semester-wise / year-wise is received from

1) Students, 2) Teachers, 3) Employers,

4) Alumni

Answer: A. All 4 of the above

File Description	Document
Action taken report of the Institution on feedback report as minuted by the Governing Council, Syndicate, Board of Management	View Document
URL for stakeholder feedback report	View Document
Link for Additional Information	View Document

1.4.2 The feedback system of the Institution comprises of the following :

Answer: A. Feedback collected, analysed and action taken and report made available on website

File Description	Document
Any additional information	View Document
URL for stakeholder feedback report	View Document

2.Teaching-learning and Evaluation

2.1 Student Enrollment and Profile

2.1.1 Average Enrolment percentage (Average of last five years)

Answer: 92.52

2.1.1.1 Number of students admitted year-wise during last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
1632	1502	1637	1545	1612

2.1.1.2 Number of sanctioned seats year wise during last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
1740	1764	1734	1668	1668

File Description	Document
Institutional data in prescribed format (Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

2.1.2 Average percentage of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc. as per applicable reservation policy) during the last five years (exclusive of supernumerary seats)

Answer: 87.44

2.1.2.1 Number of actual students admitted from the reserved categories year wise during last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
689	623	654	613	667

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for Additional Information	View Document

2.2 Catering to Student Diversity

2.2.1 The institution assesses the learning levels of the students and organises special Programmes for advanced learners and slow learners

Answer:

KCT aims to attract students with different backgrounds (socio-economical, communal, medium-of-study and geographical), abilities (differently abled, involvement in sports) and aims to give a holistic education to everyone. Competency-skill assessment is carried-out to identify students with different learning abilities to design course deliveries. Based on the student's higher secondary performance, the students are grouped under two categories, achievers and bloomers (slow learners).

Students with biology background are offered additional sessions related to software coding to cope-up with other students. To encourage the peer-learning and group learning, learning-teams are formed in project-based courses – Engineering Clinic (I to V Semesters), Projects (VII and VIII Semesters) and this helps to understand each-others' strength, complement each other. Students are sensitised to understand options including, (i) Course drop, (ii) Examination withdrawal, and (iii) Choosing courses in open electives (without pre-requisites) to suit their learning pace.

Students who join under sports categories, participate in sports meets/tournaments at zonal, University levels are given learning materials/classes to bridge the gap and encourage them to participate in such activities. Students, regardless to their learning abilities, who join NCC and complete 'B' certificate are provided credit equivalence and additional skills leading to employability. KCT has signed MoU with Online Education Providers – Harappa and Great Learning, for free-courses at basic level and then advanced courses on subsidised fee.

Options for Advance Learners (Achievers)

Students with fast-learning abilities are formed into different cohorts to learn science-with-projects, design-thinking, intellectual property rights, paper publications and mini-projects, in addition to regular courses. They are offered additional one-credit courses in the first semester itself on STEM related topics. Students with English language proficiency are provided opportunities to learn Hindi, French, German and Japanese to improve their academic profiles. Internships are offered within KCT in the students-led centres (Re, iQube and Garage)/industry-based problems solving (KCIRI and Forge) / government sponsored projects; currently close to 500+ students are benefitted through these platforms.

CLED and Re` offers Lecture Series, Certificate Courses and sponsorships to attend various programmes on the basis of merit. Fast learners identified by faculty mentors, Heads of Departments are funded to become members in Professional Bodies (IEEE, IE, FPSI, AIDAT, CMA, NHRD) to learn additionally, relevant to their fields. Students who have ability to solve complex problems are encouraged to take-up internship in industry, research laboratories and, Universities abroad.

Support to Slow Learners (Bloomers)

Over a period of experience the courses like Mathematics, Programming Languages, Digital Signal Processing, Strength of Materials where the students' performance was low, students are guided through remedial classes to enhance the outcomes in the evaluation.

Students who are unable to complete the courses successfully in the end-semester examinations, are provided an opportunity to re-learn the course (even for a strength of one student) through Summer/Winter Tracks, monitored centrally through Controller of Examinations and respective Department Heads. AICTE sponsored Centre for Skill and Personality Development Centre for SC/ST has been established to provide employability skills and programmes to the students belonging to socially marginalised community through dedicated resources.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

2.2.2 Student - Full time teacher ratio (Data for the latest completed academic year)

Answer: 15.71

File Description	Document
Any additional information	View Document

2.3 Teaching- Learning Process

2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

Answer:

Student-centric learning methods are introduced as a hub-spoke model in KCT, where teaching – learning activities to meet curricular requirements are carried out by academic departments, while Re, iQube, Garage, CLED, KCIRI and Forge are established to involve students in co-creation of various learning modules, delivering additional lectures/courses through peer-learning and build confidence levels of the students.

Academic interventions for enhancing experiential learning, problem solving abilities are addressed through innovative curricular components such as

1. Embedded courses – where theory and practical components are taught simultaneously/parallel to understand concepts,
2. Simulation based experiments in laboratories, industry sponsored facilities with commercial scale experiments (Departments - Textile, Fashion, Biotech, Electronics, Instrumentation, Automobiles, Mechanical, Electrical),
3. Workshops with computer-based learning – CAD, Rapid Prototyping, CNC machines, CMM, CAM and Simulation-and-animation oriented learning wherever applicable,
4. Activities of Clubs and Societies, Professional Chapters and Department Associations bring additional values in understanding emerging trends in STEM areas in collaboration with relevant agencies,
5. Industrial visits/field visits/visits to industrial fairs are organised to appreciate new developments in their domains,
6. Internships for a period ranging between one-week to one-semester are provided during winter/summer vacation or to carry-out capstone projects in industry.

Participative learning are deployed in three different ways –

1. Students joining with faculty members in executing projects funded by the industries, Government agencies thereby providing opportunity to understand higher level concepts in their domains, get hands-on experience in handling equipment, instruments and machines.
2. Handling the classes to the junior students by seniors, mentoring by alumni after college hours in learning analytical subjects, laboratory courses, preparation for competitive examinations,
3. Short courses, lectures, workshops and demonstration sessions are organised by senior students to freshmen and second year students – through Re, iQube, Garage, KCIRI for different duration (list given in the Additional Information).

Problem Solving, in the context of society and the Nation, is given attention during entire learning cycle of the students through systematic efforts, which includes,

1. Offering courses that leads to diagnosing a problem and providing solutions – Engineering Clinic
2. Project Based Learning with a cohort for nurturing advanced learners – introduced in 2020-21 with a cohort of 110 students in I year, resulted in publications, patents and enhanced learning of students.
3. Semester-long, multi-discipline group-based teams solve complex engineering problems – Protosem, with/without sponsorship from industries.
4. Tutorial component is introduced in the analytical courses, wherever required.
5. Intramural hackathons are organised by Departments to enhance the learning experience, implement the understanding and improving abilities of students to provide solutions to complex problems.
6. Designing and developing new products to participate in various competitions, solving problems related to the KCT campus (faculty attendance – touch free system, campus sanitation, SmartApps, KSTEAR, etc.,)
7. Pre-placement internships in companies to solve problems assigned to student teams (individual/group projects) and

Executing capstone projects which necessitates careful planning, executing and finalising various activities using technical tools, software and new/novel materials for solving a problem chosen.

File Description	Document
Any additional information	View Document

2.3.2 Teachers use ICT enabled tools including online resources for effective teaching and learning process.

Answer:

In order to enhance the learning experience, to provide better user-experience, state-of-the-art educational technologies are employed in the teaching-learning process. KCT has laid the optical fibre cable connecting every part of the campus for quick and easy access of contents from the Intranet / Internet, WiFi connectivity in the classrooms. All the faculty members of KCT own personal laptops. Students are encouraged to use the facilities available in the institution and needy students are supported through financial assistance schemes of the Institute / facilitating bank loans to purchase computing systems.

Software required for simulation, analysis and animation are purchased and students are permitted to use them remotely also. All the classrooms are equipped with LCD projector, system connectivity and Internet. Besides, every academic block is equipped with Interactive Smart Board with wider features for enhancing the teaching. Video conferencing, Skype facilities are made available for interacting with experts, alumni and peer groups for value added discussions related to emerging topics.

KCT has signed an Institute-wide license with Microsoft (A1 License) Teams for conducting on-line classes and, KOED (Kumaraguru Online Education) portal combines MS Teams with Learning Management System, which further facilitates, uploading course materials, video lectures created by faculty members, automatic capturing of student attendance, posting of continuous assessment questions and marks, semester-end marks and processing of the results and awarding the grades. Software and hardware facilities are installed and maintained by Department of Technology Services with qualified staff members. Frequent tips are circulated to use the inbuilt features of MS Teams by all the Members.

Campus community – faculty, support staff and students – is trained to use the ICT resources, technological platforms and online resources to augment and supplement the regular process. In order to streamline this process and create awareness among the community, Department of Academics (DoA) organises awareness programmes, short-videos, ICT-based content creation, work instructions in the Institute portal as a ready-reckoner. The ICT tools are grouped into following categories.

ICT Component	Purpose of Deployment in Teaching - Learning
KITE	Portal for Integrating LMS and Online contents and delivery
Moodle	Portal for Integrating LMS and Online contents
KOED	Platform to train the community in ICT processes, tools and techniques.
Content Enhancement	Multimedia Presentation and Hypertext
Flipped Classroom	Integration of MOOCs, NPTEL, Coursera and YouTube lectures
Simulation using Virtual Laboratories	A-View of Amrita Viswa Vidyapeetham, Virtual Laboratories of IIT Bombay, CoE Pune
Simulation Tools	MATLAB, LabView, ANSYS, CATIA, SolidWorks, Comsolve and MultiSim software
FOSS	NetBeans, CodeBlocks, NS2 Network Simulator, SciLab, Bayesian, MySQL, MongoDB
Hardware Kits	For Hands-on Experience and Demonstration of concepts
Interactive / Collaborative Tools	White Board, Mentimeter and other tools for descriptive courses, drawing / design-based courses
Software Demonstration	R Programming, OpenCV for concept understanding
CAMU - LMS	Major activities of Teaching-Learning
Online Library	National Digital Library, Online Journals for learning beyond contents, solving assignments
Course Server	Easy access to NPTEL Courses

During the pandemic period (COVID 19), many laboratory experiments were video captured and posted in the portal for better understanding of different concepts.

File Description	Document
Any additional information	View Document
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	View Document

2.3.3 Ratio of students to mentor for academic and other related issues (Data for the latest completed academic year)

Answer: 18.09

2.3.3.1 Number of mentors

Answer: 317

File Description	Document
Upload year wise, number of students enrolled and full time teachers on roll	View Document
Circulars pertaining to assigning mentors to mentees	View Document
Any additional information	View Document

2.3.4 Preparation and adherence of Academic Calendar and Teaching plans by the institution

Answer:

Activities of the forthcoming Academic Year are planned in advance considering the inputs received from the Academic Section, Controller of Examinations, Student Affairs, Activities of Statutory Bodies, Government (Holidays), Accreditation related activities, Support Systems and, Clubs and Societies. Preparation of such a comprehensive calendar helps KCT to optimize the resource utilisation, planning the Institution-level events like sports day, techno-cultural events, graduation day and celebration of other important days.

Academic Calendar helps to plan/optimize common facilities, laboratories, conduct of open (institute-wide) electives, internal assessments and semester-end examinations. Fig. 2.3 shows different components considered for preparation of the Academic Calendar. Draft version of the Academic Calendar is discussed in the HoD's Meeting by the Head of the Institution and considered for implementation after incorporating the suggestions, if any.

[2.3.4.png](#)

Fig. 2.3 Academic Calendar preparation and Components

Teaching Plan – Preparation and Adherence

Course plan is prepared ahead of the semester and approved by the module coordinator and Head of the Department. Course plan contains details about the name of the faculty, designation, programme to which the course is offered, semester, regulation, academic year, course category (theory/lab/theory with lab) and credit. The course plan starts with syllabus content along with contact hour requirements. For common courses (I Year), Mandatory Non-credit Courses, Open Electives, common course plans are prepared by the Course Committee and given to all course handling faculty members. It includes pre-requisite details, course outcomes with Bloom's Taxonomy level and assessment scheme for the specified course outcomes. Entire syllabus is logically divided into number of sessions as per the curriculum, along with formative assessment, assignment topics, and self-study topics if any. In the case of e-content, portions

for synchronous and asynchronous modes are decided, contents are prepared accordingly and posted in the drive for the easy access to the students.

Similarly, for practical components (Lab / Projects) the topic with course outcomes focussed in the course plan against program outcomes. The course plan includes topics beyond the syllabus covered and methodology followed for instructional delivery. It includes assessment methodologies both direct and indirect methods adopted during the course delivery. Assessment of the learning outcomes are carried out as per the course outcomes expected with the weightage decided. While delivery of the course and at the end of the course delivery, academic audits are conducted to evaluate the transaction effectiveness

File Description	Document
Upload Academic Calendar and Teaching plans for five years	View Document
Link for Additional Information	View Document

2.4 Teacher Profile and Quality

2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

Answer: 100

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years(Data Template)	View Document
List of the faculty members authenticated by the Head of HEI	View Document
Link for Additional Information	View Document

2.4.2 Average percentage of full time teachers with Ph. D. / D.M. / M.Ch. / D.N.B Superspeciality / D.Sc. / D.Litt. during the last five years (consider only highest degree for count)

Answer: 44.29

2.4.2.1 Number of full time teachers with Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D'Lit. year wise during the last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
198	188	176	156	124

File Description	Document
Institutional data in prescribed format (Data Template)	View Document
Any additional information	View Document
Link for Additional Information	View Document

2.4.3 Average teaching experience of full time teachers in the same institution (Data for the latest completed academic year in number of years)

Answer: 10.84

2.4.3.1 Total experience of full-time teachers

Answer: 3955

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

2.5 Evaluation Process and Reforms

2.5.1 Average number of days from the date of last semester-end/ year- end examination till the declaration of results year-wise during the last five years

Answer: 22.2

2.5.1.1 Number of days from the date of last semester-end/ year- end examination till the declaration of results year wise during the last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
34	27	20	17	13

File Description	Document
Institutional data in prescribed format (Data Template)	View Document
Any additional information	View Document

2.5.2 Average percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

Answer: 4.98

2.5.2.1 Number of complaints/grievances about evaluation year wise during the last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
2	244	467	288	476

File Description	Document
Number of complaints and total number of students appeared year wise	View Document
Any additional information	View Document

2.5.3 IT integration and reforms in the examination procedures and processes including Continuous Internal Assessment (CIA) have brought in considerable improvement in Examination Management System (EMS) of the Institution

Answer:

Office of the Controller of Examinations, established after the autonomous status with defined roles, systems and procedures, provides adequate scope for introducing reforms in scheduling, assessments, evaluation, processing of question papers and scrutiny, online corrections of answer papers (wherever possible, like during pandemic period) and publication of results in the personalised way for individual candidates with transparency, equal opportunity for all verifiable evidences and fool-proof mechanism without any deviation. Such reforms are implemented with automation, integration of IT infrastructure and tools for data for accuracy, reliability, completeness, retrieval, timeliness with transparency. IT Tools starting from MS Excel to completely automated software platforms (KITE & KOED) are implemented in assessment and examination related activities to collect regular and irregular flow of information, including for mid-course correction if any required.

KCT has implemented fully flexible choice based curricular system integrated with KITE portal. The process starts with admission and considers entire activities related to teaching-learning-assessment/evaluation till graduation. Each student has the option, enabled through software, to select their choice of courses, faculty, and timetable during the course enrolment. Online attendance capturing and maintenance helps to assess the eligibility of students to appear in the final examinations w.r.t attendance.

Preparation of examination calendar, activities related to selection and appointment of examiners for question paper setting, online scrutiny of question papers for correctness, calculation of Continuous Assessment Marks (CAM) from various components, processing of CAM with final evaluation, declaring results with grades, submission of requests for revaluation (grievance) are carried out through software system with complete transparency while ensuring security and confidentiality.

Dissemination of information related to examination schedule, hall and seating arrangement and issue of Hall Ticket to students are sent through personalised modes, common announcements in the web portal for easy access. Evaluated answer scripts of the ESE are scanned and given to the students who opt for retotalling, revaluation thereby ensuring the confidence on the system with reduced cycle time.

Questions for CAT and ESE are mapped with Course Outcomes and Levels of Cognition as recommended by Bloom's Taxonomy that facilitates assessing the attainment levels of Course Outcomes, Programme Outcomes and Programme Specific Outcomes of a given batch, which in turn used for redesigning the syllabus, delivery modes and assessment methods, besides the measurement of knowledge and skill levels of the students objectively, enhancing the employability in particular.

IT systems are deployed to conduct online examinations with appropriate front and backend software support (to ensure the robustness and scalability), video and artificial intelligence-based proctoring (AI proctoring with alerts /warnings, prevention of multi-tasking), which mitigates the malpractices and improve the confidence on the examination system of KCT, reinforce the ethical practices in the learning process (as recommended by Graduate Attributes). Entire process may be reviewed and audited in the digital form with continuous screen-shots (image capturing).

Status courses completed, credits earned against degree requirements, grades are accessible to the students and parents through the ERP System.

File Description	Document
Any additional information	View Document

2.6 Student Performance and Learning Outcomes

2.6.1 Programme and course outcomes for all Programmes offered by the institution are stated and displayed on website and communicated to teachers and students.

Answer:

Framing / Stating of Outcomes

Curriculum, of a programme offered in KCT, is designed and developed based on Program Educational Objectives, Program Outcomes/Program Specific Outcomes and Course Outcomes as shown in Fig. 2.6.1 (a). Assessment and attainment of these outcomes are carried out using bottom-up approach.

[2.6.1\(a\).png](#)

Fig. 2.6.1 (a) Process for Ensuring Compliance of Curriculum with PEO, PO/PSO and CO

Fig. 2.6.1 (b) illustrates the initial process of designing curriculum and syllabi, which involves framing Educational Objectives of the programme, an essential step in defining Outcomes. Considering Vision and Mission of the Department, DAB recommends the PEOs, which is then reviewed, analysed by Board of Studies and recommended to Academic Council for approval. On approval by Academic Council, the Objectives are published to relevant stakeholders.

[2.6.1\(b\).png](#)

Fig. 2.6.1 (b) Process of Framing PO and PSO

On acceptance of PEOs, Programme Outcomes recommended by the National Board of Accreditation and Programme Specific Outcomes in line with recommendations of Professional Bodies (comprising expertise and experience) are framed. Every outcome is then divided into smaller categories to form Course Outcomes, which are then converted into content of suitable courses, i.e. syllabi. Course Outcomes define the expectation from each student, who registers a course, capable of being able to comprehend the facts, concepts, procedures (knowledge) with adequate skill set. This process ensures stating/mapping of Course Outcomes with POs, PSO and PEOs completely. Extent of compliance of curriculum for mapping and attaining the POs/PSOs is verified and finally with approval of Academic Council, curriculum is implemented (Fig. 2.6.1 (c)).

[2.6.1\(c\).png](#)

Fig. 2.6.1 (c) Process to Ensure Compliance and Extent of Attainment of PO/PSO and CO

Mechanism of Dissemination PEO, POs and PSOs

Once the PEO, POs, PSOs and COs are approved, they are disseminated to create awareness among the stakeholders, to understand by students and faculty so that they respond to expectations and develop their capabilities (Knowledge, Skills and Attitude). These outcomes are disseminated in multiple ways – discussions, information, and publication - to different stakeholders, using printed and e-sources, as given in the Table.

Table 2.6.1 Dissemination of the PEOs, POs and PSOs

Sl. No.	Stakeholders	Process of Dissemination
		Published in
1	Management and Members of Governing Council	Regulations Department Newsletter
2	Faculty/Staff/Students	Website Discussed in Induction Programmes Published in Regulations & Curriculum book

3 Parents

Dissemination of COs

Course Outcomes of each course are given as a pre-reading material in the curriculum, placed before the syllabus to enable the students and others to understand and appreciate the expectations from them at the end of the course – the capabilities the students will be able to perform / demonstrate. While framing assessment and evaluation questions, course outcomes are considered to allocate the proportion of marks, to justify their mapping strength POs and PSOs.

File Description	Document
Upload COs for all courses (exemplars from Glossary)	View Document
Link for Additional Information	View Document

2.6.2 Attainment of programme outcomes and course outcomes are evaluated by the institution.

Answer:

As stated in 2.6.1, Assessment/attainment of PO/PSO are carried out following bottom-up approach, i.e. calculating the attainment of different course outcomes, mapping them with relevant PO/PSO and then calculating the outcomes of PO and PSO, compared with target values.

Every course is prescribed with course outcomes, course plan with Cognitive Processes (based on Bloom's Taxonomy) and assessment pattern (given in curriculum). Data are collected from tests, assignments and other academic evaluations carried out based on the nature of courses offered (Table 2.6.2 in Any Other Information). Assessment and attainment of COs are calculated at the end of every semester (Fig. 2.6.2).

Steps Involved:

1. CO assessment matrix is prepared for every course based on assessment categories. Average marks obtained in assessments against items for each CO is taken as attainment (%).
2. Target is set by Course Coordinator, in consultation with Head of the Department. Attainment gaps are identified based on the difference between target and actual score.
3. From this result, attainment of each CO of the course is reviewed, analysed and if targets are achieved, it is inferred that CO is attained for that period.

[2.6.2.png](#)

Fig. 2.6.2 Process of Assessing Course Outcomes

Attainments of POs and PSOs are evaluated through direct & indirect measures. Target levels of POs and PSOs are set and the actual attainment of POs and PSOs are calculated. Analysis and review, improvements are made in all the relevant activities to enhance the actual attainment levels.

COs of all the courses are mapped with POs, i.e. CO-PO Mapping Matrix. Course instructor measures attainment of CO, subsequently, CO attainment of each course is mapped to related Program Outcomes. Program Outcome attainment is calculated using the average values of the relevant CO attainment values. If the POs/PSOs attainment is less than the target, the DAB has to identify possible ways to improve students' performance, in consultation with the concerned course coordinator, in terms of course content preparation, delivery and assessment.

Indirect methods considered for calculating POs/PSOs include program exit survey, alumni survey and employer survey. The average score of the questionnaires are calculated as indirect attainment of POs and PSOs and discussed in the Board of Studies and Academic Council Meeting.

Sample calculation of CO, PO and PSOs is furnished in the Additional Information.

File Description	Document
Any additional information	View Document

2.6.3 Pass Percentage of students(Data for the latest completed academic year)

Answer: 96.43

2.6.3.1 Total number of final year students who passed the examination conducted by Institution.

Answer: 1593

2.6.3.2 Total number of final year students who appeared for the examination conducted by the Institution.

Answer: 1652

File Description	Document
Upload List of Programmes and number of students passed and appeared in the final year examination(Data Template)	View Document
Any additional information	View Document
Link for the annual report	View Document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Answer: 3.57

File Description	Document
Upload database of all currently enrolled students	View Document

3.Research, Innovations and Extension

3.1 Promotion of Research and Facilities

3.1.1 The institution's Research facilities are frequently updated and there is a well defined policy for promotion of research which is uploaded on the institutional website and implemented

Answer:

Research Policy

KCT has Research Policy that gives direction, motivation and implementation of various research facilities and activities. Besides, guidelines and recommendations of new facilities are discussed and finalised in Department Advisory Board, Academic Council and Governing Council with necessary budget provisions. Faculty members are encouraged to submit proposals for Management funding and extra-mural funding from different agencies.

Research Facilities, Systems and Funding

KCT has created different institution-wide research facilities to foster research and innovation culture among students and faculty members, as given below.

Table 3.1.1 Research Support Systems

Research Facility		Activities
Student Research-Re	Students	Research Activities
Student Research-iQube	Students	
Student and Faculty Research - Garage	Students	
Student and Faculty Research -Kumaraguru Centre for Industrial Research and Innovation	Students and Faculty	
Research and Incubation centre -Coimbatore Innovation and Business Incubator	Students and Faculty	
Student and Faculty Research	Students and Faculty	
Research Cell	Students and Faculty	Facilitation of Research and directions
IP Cell	Students and Faculty	IP Awareness and Filing IPs
KCTLearning and Development Academy	Faculty	Capacity Building

All these systems have dedicated manpower, physical infrastructure (provided in additional information) and budgetary provisions for activities implemented through annual plan. Research Journals are subscribed to support researchers in updating the latest information.

Coimbatore Innovation and Business Incubator (CIBI), hosted by KCT, is a Technology Business Incubator, supported and catalysed by DST, New Delhi under the NSTEDB scheme. It provides a platform to students, faculty members and public to incubate new ideas into new products/processes.

Research Cell of KCT, headed by a Senior Professor, undertakes activities related to building capacity, capability of faculty members on writing project proposals and publishing papers. Research Cell facilitates formation of inter-disciplinary research teams by providing a common platform for discussion among faculty members, besides coordinating research conferences/workshops. The Cell disseminates information related to announcements of funding schemes by Governments and industries and helps Investigators to prepare annual statements to be submitted to funding agencies.

IP Cell of KCT organises awareness programmes on IP and facilitates filing IPR applications through institutional sponsorship. It has IP Policy for both faculty and students and disseminates innovations to stakeholder.

Funding and Facilities

KCT allocates budget for support systems with Rs 20 to 25 Lakhs each for Re, iQube, Garage and Research Cell for facilitating research activities. Research budgets are allocated to Departments to augment research activities and cumulative (year-on-year) expenditures incurred towards creation and updation of research facilities by Departments, CIBI and external funds are given below (Fig. 3.1.1).

[3.1.1.png](#)

KCT has established collaborative laboratories, with industries to understand concepts, modify and develop new processes and products:

- KCT-UB Chem Tech NDT Lab
- KCT-EMC Dell Lab for Analytics and Cloud
- KCT-Bosch Centre for Automotives
- KCT-Rieter Lab
- KCT-Keysight Centre for Wireless Technologies
- KCT-TI Lab for Signal Processing and Embedded Systems
- KCT-LoRaWAN Academy
- KCT-Yokogawa Centre for DCS
- KCT-Fluke Centre for Calibration
- KCT-Siemens Centre for Automation
- KCT-Lectra-Speed Step Centre for Design

Research Policy, IP Policy, expenditures incurred and outcomes are published in the website.

File Description	Document
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	View Document
Any additional information	View Document
URL of Policy document on promotion of research uploaded on website	View Document

3.1.2 The institution provides seed money to its teachers for research (average per year, INR in Lakhs)

Answer: 36.42

3.1.2.1 The amount of seed money provided by institution to its faculty year-wise during the last five years (INR in lakhs).

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
11.86	35.1	68.51	27.03	39.58

File Description	Document
Minutes of the relevant bodies of the Institution	View Document
List of teachers receiving grant and details of grant received	View Document
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	View Document
Any additional information	View Document

3.1.3 Percentage of teachers awarded national / international fellowship for advanced studies/research during the last five years

Answer: 1.2

3.1.3.1 The number of teachers awarded national /international fellowship for advanced studies / research year wise during last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
3	4	5	4	7

File Description	Document
List of teachers and their international fellowship details	View Document
e-copies of the award letters of the teachers	View Document

3.2 Resource Mobilization for Research

3.2.1 Grants received from Government and non-governmental agencies for research projects, endowments, Chairs in the institution during the last five years (INR in Lakhs)

Answer: 520.62

3.2.1.1 Total Grants from Government and non-governmental agencies for research projects , endowments, Chairs in the institution during the last five years (INR in Lakhs)

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
130.12	147.42	82.24	79.54	81.30

File Description	Document
List of project and grant details	View Document
e-copies of the grant award letters for research projects sponsored by government and non-government	View Document

3.2.2 Percentage of teachers having research projects during the last five years

Answer: 9.94

3.2.2.1 Number of teachers having research projects during the last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
53	52	33	31	21

File Description	Document
Names of teachers having research projects	View Document
Any additional information	View Document

3.2.3 Percentage of teachers recognised as research guides**Answer:** 22.19**3.2.3.1 Number of teachers recognized as research guides****Answer:** 81

File Description	Document
Upload copies of the letter of the university recognizing faculty as research guides	View Document

3.2.4 Average percentage of departments having Research projects funded by government and non-government agencies during the last five years**Answer:** 73.33**3.2.4.1 Number of departments having Research projects funded by government and non-government agencies during the last five years****Answer:**

2020-21	2019-20	2018-19	2017-18	2016-17
13	13	9	10	10

3.2.4.2 Number of departments offering academic programmes**Answer:**

2020-21	2019-20	2018-19	2017-18	2016-17
15	15	15	15	15

File Description	Document
Supporting document from Funding Agency	View Document
List of research projects and funding details	View Document
Any additional information	View Document

3.3 Innovation Ecosystem**3.3.1 Institution has created an eco system for innovations, creation and transfer of knowledge supported by dedicated centers for research, entrepreneurship, community orientation, Incubation etc.****Answer:**

Research culture in the campus is ensured through academic initiatives, forming Focused Research Groups, students research bodies (Re', iQube, Garage), Research as one of the verticals in the Students' Leadership Council, establishing Centre for Research, Laboratories with focused approach, recruitment of student interns, selecting Super-60 among fast learners and sponsoring to training programmes. Under co-curricular activities, a separate stream has been established to include clubs related to research activities. Research Cell has been established to execute activities for students and faculty members. IPR Cell facilitates filing of IPR generated through projects, research and collaborative works carried out between KCT and Industries. A Committee has been formed with Senior Leaders – Administrative Officer, Executive Officer and Chief Financial Officer to facilitate signing of MoU and NDAs for research activities.

KCT's Research Policy emphasis on needs and means to carry out research, facilitation of activities, dissemination of information, preparation of project proposals and post-project activities. HR Policy aims to enhance research activities in KCT, bring-in more faculty members into research by incentivizing research related activities – seed grants, travel, availing on-duty, publications, career progression and visiting various research laboratories.

Achievements of faculty are recognized and rewards are instituted to motivate and carry out more research works. Kumaraguru Center of Industrial Research and Innovation (KCIRI) makes coordinated efforts in approaching funding agencies for research, consultancy and new product development. KCT-DST funded Incubator (Forge Accelerator) facilitates research and innovation leading to new knowledge, products and processes.

Every Department has research laboratory to foster research culture. KCT has tie-up with Universities abroad to carry out research activities namely, Tel Aviv University Israel, NUS Singapore, Leeds University, Texas Tech University for joint research and conferences. For accomplishment of research activities, students and faculty members have won many awards and recognition. Role of various support systems are summarized in the Table 3.3.1.

Table. 3.3.1 - System for innovations, creation and transfer of knowledge

Center	Ecosystem for innovation	Creation	Transfer of Knowledge
Research			
Re IQUBE GARAGE	Training, Mentoring, Creating facilities, Hackathon and Funding	Product development, Prototyping,	Publications, Commercial implementations
KCIRI	Establishing facilities and seeking external funding	New product/process	Knowledge transfer to industry and Government laboratories
Research Cell	Manpower Development	Capacity/Capability development	Platform for dissemination
IPR	Process facilitation		Patent Filing and Commercialization
Research Centers	Collaboration with Universities	New knowledge	Sharing with Academic Community
Entrepreneurship			
LEED	Generation of new ideas	Business models	Bliss, <i>Olipadi</i> , Munch Box, <i>Namma</i> Café,
Incubation			
CIBI	Training, Mentoring, Establishing facilities, Hackathon and Funding	Technology/ Business ideas and models	Start-ups
Community Orientation			
Nammadhu Pangu	Interacting with Communities, Identification of needs for uplifting lifestyle	Networking with NGOs, communities, schools and small groups	Programs for Health awareness, Socio-cultural events and Woman- empowerment
KARE			Relief activities during Natural Calamities
NSS, Clubs and Societies			Eye / health camps in nearby villages, Blood Donation camp, Drug and Aids Awareness programs, <i>Swachh Bharat</i> camp, Road Safety Patrol
Microcosm		Eco-sensitive initiative for inclusive and	Student volunteers involve in projects of environmental sustainability

	sustainable environment	
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File Description	Document
Upload any additional information	View Document

3.3.2 Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development during the last five years.

Answer: 365

3.3.2.1 Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR), entrepreneurship, skill development year-wise during the last five years.

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
143	58	60	40	64

File Description	Document
Report of the event	View Document
List of workshops/seminars during last 5 years	View Document

3.4 Research Publications and Awards

3.4.1 The Institution ensures implementation of its stated Code of Ethics for research through the following:

- 1. Inclusion of research ethics in the research methodology course work**
- 2. Presence of Ethics committee**
- 3. Plagiarism check through software**
- 4. Research Advisory Committee**

Answer: A. All of the above

File Description	Document
Any additional information	View Document
Link for additional information	View Document

3.4.2 Number of Ph.D's registered per teacher (as per the data given w.r.t recognized Ph.D guides/supervisors provided at 3.2.3 metric) during the last five years

Answer: 1.74

3.4.2.1 How many Ph.Ds are registered within last 5 years

Answer: 141

3.4.2.2 Number of teachers recognized as guides during the last five years

Answer: 81

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document
URL to the research page on HEI web site	View Document

3.4.3 Number of research papers per teachers in the Journals notified on UGC website during the last five years

Answer: 3.53

3.4.3.1 Number of research papers in the Journals notified on UGC website during the last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
183	290	371	311	196

File Description	Document
List of research papers by title, author, department, name and year of publication	View Document

3.4.4 Number of books and chapters in edited volumes / books published per teacher during the last five years

Answer: 3.9

3.4.4.1 Total number of books and chapters in edited volumes/books published and papers in national/ international conference proceedings year-wise during last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
306	428	412	213	130

File Description	Document
List books and chapters in edited volumes / books published	View Document
Any additional information	View Document

3.4.5 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed

Answer: 3.18

File Description	Document
Bibliometrics of the publications during the last five years	View Document
Any additional information	View Document

3.4.6 Bibliometrics of the publications during the last five years based on Scopus/ Web of Science - h-index of the Institution

Answer: 25.5

File Description	Document
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	View Document
Any additional information	View Document

3.5 Consultancy

3.5.1 Revenue generated from consultancy and corporate training during the last five years (INR in Lakhs).

Answer: 624.61

3.5.1.1 Total amount generated from consultancy and corporate training year-wise during the last five years (INR in lakhs).

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
126.89	153.56	140.80	101.53	101.83

File Description	Document
List of consultants and revenue generated by them	View Document
Audited statements of accounts indicating the revenue generated through consultancy and corporate training	View Document
Any additional information	View Document

3.5.2 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs).

Answer: 241.63

3.5.2.1 Total amount spent on developing facilities, training teachers and staff for undertaking consultancy during the last five years (INR in Lakhs)

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
17.49	33.05	80.65	65.96	44.48

File Description	Document
List of facilities and staff available for undertaking consultancy	View Document
Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff for undertaking consultancy	View Document
Any additional information	View Document

3.6 Extension Activities

3.6.1 Extension activities are carried out in the neighbourhood community, sensitising students to social issues, for their holistic development, and impact thereof during the last five years

Answer:

KCT extends support to the neighbourhood communities to provide basic supports, enhance the lifestyle of people, training on good practices and, address health and education related issues. Key Initiatives and Impacts thereby, are listed below.

Table 3.6.1 Key Initiatives and their Impacts

Initiatives	Impact
Namadhu Pangu (NP)	<ul style="list-style-type: none"> Adopted 5 village panchayats and about 140 litres of milk distributed to 780 school children on every Friday Rural Learning Centre conducts classes to 30 school students from Monday to Friday every week. Vacation camps for 50 school children are conducted every year to showcase and enhance their talents
Kumaraguru Action for Relief and Empowerment (KARE)	<ul style="list-style-type: none"> Support to Kerala flood (2018) - distributed material worth of Rs.10,00,000/- Support to Gaja cyclone (2018) – reached 2500 households and distributed material worth of Rs.10,00,000/- Bandipur Forest fire - Rs.50,000/- was contributed and handed over essential relief materials Odisha Fani cyclone (2019) – Rice, Dal and Napkins were distributed Kerala and Tamil Nadu floods (2019) - materials worth Rs.1,85,000/- were distributed to 80 households. Gudalur rain (2019) - distributed relief materials worth Rs.82,000/- to 60 households in villages COVID 19 Response (since 2020) – Rs. 6,50,000 Funds Spent on support activities, Distribution of free food, sanitizers and PPE to frontline workers
National Service Scheme (NSS)	<ul style="list-style-type: none"> Voluntary activities – 25 nos. Eye camps – 25 nos. Blood donation - 1549 units Tree plantation – 210 nos. 7 days special camp in villages – 4 nos.
National Cadet Corps (NCC)	<ul style="list-style-type: none"> Swachh Bharat activities – 8 nos. Lake cleaning – 3 nos. Tree plantation - 50 nos.
Rotaract Club	<ul style="list-style-type: none"> Tree plantation - 475 nos. Eye camps in villages – 2 nos. Blood donation – 150 units Awareness on plastic eradication – 4 nos.
Microcosm	<ul style="list-style-type: none"> Upcycling of products - Refurbishment of Plastics, clothes, slippers etc.,
Social Immersion Project (SIP)	<ul style="list-style-type: none"> Student Projects with NGO and nodal partners, total beneficiaries - 6351 nos.
Covid Care Centre (CCC)	<ul style="list-style-type: none"> Capacity of 800 nos. of bed COVID patients benefitted – 4000 nos.
Yugam	<ul style="list-style-type: none"> Women Empowerment, Transgender support, Bringing Back the Heritage and Go Green & Go Clean

Initiatives	Impact
Handloom Project	<ul style="list-style-type: none"> Received Rs. 15,65,200/- from Pradhan Mantri Kaushal Vikas Yojana and National Skill Development Corporation and training given to weavers with stipend in handloom weaving jacquard.
Clubs and Societies	<p>Youth Red Cross of KCT focusses on First Aid and Disaster Management, Red Ribbon Club support for Aids Awareness programs.</p> <p>Road Safety Patrol conduct awareness programs on road safety impacting several lives of the public.</p> <p>Nature Club, Pudhu Paavai, UYIR Club, Gandhian Youth Movement, ABLE Club of KCT dedicated to the grass root work in the society.</p>

Impact of Extension Activities among the students:

As a result of active involvement in extension activities, our students could showcase their development in the following dimensions:

- Responsibility towards the society
- Developing empathy
- Decision making and leadership
- Involvement in disaster relief activities - Flood, Cyclone, COVID 19
- Awareness on Blood and Organ donation, Woman empowerment, Tree plantation, Swachh Bharat, Avoidance of plastics, Health check-ups, Weaver's Empowerment

File Description	Document
Upload Any additional information	View Document

3.6.2 Number of awards and recognition received by the Institution, its teachers and students for extension activities from Government / Government recognised bodies during last five years

Answer: 102

3.6.2.1 Total number of awards and recognition received for extension activities from Government/ Government recognised bodies year-wise during the last five years.

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
25	38	17	15	7

File Description	Document
Number of awards for extension activities in last 5 year	View Document
e-copy of the award letters	View Document

3.6.3 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

Answer: 371

3.6.3.1 Number of extension and outreach programs conducted by the institution through NSS/NCC, Government and Government recognised bodies during the last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
89	78	75	69	60

File Description	Document
Reports of the event organized	View Document
Number of extension and outreach Programmes conducted with industry, community etc for the last five years	View Document

3.6.4 Average percentage of students participating in extension activities listed at 3.6.3 above during the last five years

Answer: 74.72

3.6.4.1 Total number of students participating in extension activities listed at 3.6.3 above year-wise during the last five years.

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
4178	5048	4274	3635	4908

File Description	Document
Reports of the event	View Document
Average percentage of students participating in extension activities with Govt or NGO etc	View Document

3.7 Collaboration

3.7.1 Number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

Answer: 720.4

3.7.1.1 Total number of Collaborative activities per year for research/ faculty exchange/ student exchange/ internship/ on –the-job training/ project work

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
648	613	899	806	636

File Description	Document
Number of Collaborative activities for research, faculty etc	View Document

3.7.2 Number of functional MoUs with institutions of national, international importance, other institutions, industries, corporate houses etc. during the last five years (only functional MoUs with ongoing activities to be considered)

Answer: 103

3.7.2.1 Number of functional MoUs with institutions of national, international importance, other Institutions, industries, corporate houses etc. year wise during last five years

Answer:

2020-21 2019-20 2018-19 2017-18 2016-17
22 21 32 18 10

File Description	Document
e-copies of the MoUs with institution/ industry/ corporate house	View Document
Details of functional MoUs with institutions of national, international importance, other Institutions etc during the last five years	View Document
Any additional information	View Document

4.Infrastructure and Learning Resources

4.1 Physical Facilities

4.1.1 The Institution has adequate infrastructure and physical facilities for teaching- learning. viz., classrooms, laboratories, computing equipment etc.

Answer:

KCT has a total land space of 156.61 acres, available for institutional purpose, strategically located in IT corridor with proximity to Kerala and Karnataka. AICTE and Anna University recommend requirements for efficient conduct of programmes approved and affiliated by them. KCT has good infrastructure facilities, considering growing demands of manpower requirements in terms of emerging areas of engineering domains, space required for academic (Teaching-Learning and Research) , extra and co-curricular activities, administrative and amenities purposes.

Table 4.1.1 Infrastructure Facilities

S.No.	Facilities Required	AICTE Requirement	Available @ KCT
1.	Land area (Acres)	7.5	156.61
2.	Instructional Area (sq.m.)	16385	34983
3.	Administrative Area (sq.m.)	770	2855
4.	Amenities Area (sq.m.)	370	2773
5.	Circulation Area @25% of built-up area (sq.m.)	4381	10153
6.	Total Classrooms and Area	97 no. & 5676 sq.m	130 no. & 10760 sq.m
7.	Total Tutorial Rooms and Area	19 no.& 627 sq.m	17 no. & 984 sq.m
8.	Laboratories and Area	123 no. & 8778 sq.m	123 no. & 16307 sq.m
9.	Drawing Hall (sq.m.)	396	448
10.	Seminar Halls	3 no. & 396 sq.m	5 no. & 1548 sq.m

11.	Auditorium (sq.m.)	400	1457
12.	Innovation Centres	Not Required	Garage (520 sq.m) iQube (256 sq.m) Re` (208 sq.m)
13.	Student Activity Centre	Not Required	Available (590sq.m)
14.	Library Books	61200 Volumes; 12150 Titles	110524 volumes; 62619 Titles
15.	Computers (no.)	1025	1874
16.	Printers (no.)	54	77
17.	Innovation Lab	Desirable	Available KC.IRI (754 sq.m), KC.AIR (134.54 sq.m)
18.	ERP System	Desirable	Available MYKCT, CAMU, TALENT-PRO
19.	Bank / ATM	Desirable	1 Bank, 3ATMs
20.	Transport	Desirable	18 buses and 28 cars, 1 Ambulance
21.	IPR Cell	Desirable	Available
22.	National Accreditation Board for Testing and Calibration Laboratories (NABL)	Not Required	1 Centre for testing and calibration.
23.	Industry Sponsored Labs	Not Required	16 Labs Available
24.	Incubation Centre	Not Required	1 Centre Available - DST funded
25.	Library to promote Language and Culture	Not Required	70000 books
26.	Medical Centre	Desirable	325 sq.m with 1 Doctor and 1 Nurse

Out of total built-up area of **1.33 lakh square metre, 2855 sq.m.** are allocated to administrative purpose, which accommodates offices for admission, alumni, technology and administrative services, accounts, purchase, student affairs, maintenance and security service, studio for video recording and editing, students and industrial research activities, controller of examinations, outreach programs, and residential programs. Buildings are constructed with natural ventilation, aeration and have ramps for differently abled students and has well connected footpath. Lifts are available in high-rise buildings.

Playgrounds have been established in an area of **23 acres**. Other physical facilities include : power generation and distribution, space for PV power (250kWp), sewage treatment, RO plant, waste segregation and disposal – resource recovery park, temple, vehicle parking, gymnasium and indoor games,

rain water recharging and collection pond, residential complex for students and staff, guest house, auditorium, open-air theatre, transport station, Garage-Innovation Centre, halls for cultural activities, physical, digital security and surveillance systems, TIFAC-CORE and offices for civil, electrical and building maintenance works. All the academic blocks, laboratories and hostels are connected through internet/wi-fi facility.

File Description	Document
Upload Any additional information	View Document
Paste link for additional information	View Document

4.1.2 The institution has adequate facilities for cultural activities, yoga, games and sports (indoor & outdoor); (gymnasium, yoga centre, auditorium, etc.,)

Answer:

KCT has spaces earmarked for sports, games, yoga and cultural activities (Table 4.1.2).

Table 4.1.2 Sports Facilities

S.No.	Sports Facility	Area sq.m.	Establishment	Usage (No. of students per session)
1.	Playground Total Area	93070 (23 Acres)	1986	All interested students
2.	Hockey Field	6324	2014-2015	36
3.	Athletic Track	11315	2000-2001	30
4.	Cricket Field	11315	2000-2001	26
5.	Cricket Practice Net (2 no.)	300	2002-2003	20
6.	Football Field	9200	2002-2003	36
7.	Basket Ball Court (3no.) with Floodlight	3500	1994 & 2004	36
8.	VolleyBall Court (3no.) with Floodlight	2100	1998- 1999	36
9.	Ball Badminton Court (2no.) with Floodlight	1000	1998-1999	20
10.	Kabaddi Court (2no.)	460	2011-2012	30
11.	Tennis Court	1002	2001-2002	6
12.	Handball Court with Floodlight	1500	2000-2001	28
13.	Kho-Kho Court with Floodlight	608	1998-1999	24
14.	Football Turf with Floodlight	1500	2017-2018	18

15.	Throwball Court	500	2003-2004	24
16.	Table Tennis -Women	500	2016-2017	18
17.	Volley Ball Court – Men	700	2015-2016	12
18.	Chess Academy	80	2017-2018	15

Indoor Sports and Gymnasium

Indoor facilities include Multi-purpose Synthetic Court for Badminton (2566 sq.m.), Carrom, Table Tennis, Throw ball (500 sq.m) and volley ball court (700 sq.m). Indoor space houses facilities to practice martial arts, Karate and Fencing for men (328 sq.m.) / women (123 sq. m.). Carrom and chess facilities are available in hostels. 45% of ground are available for expansion of facilities. Physical director and coaches train students in indoor and outdoor games.

Beginning of academic year, cultural, sports talents of students are identified and nurtured, around 20% of students participate in regional, national and international events and win awards every year.

N. Mahalingam Chess Academy (NMCA)

NMCA, instituted by KCT to honour Arutchelvar N. Mahalingam, who strived to build an ecosystem for chess in India, was inaugurated by Grand Master Viswanathan Anand on 21st March 2017. NMCA (80 sq.m.) has Chess boards, clocks, hanging chess board and books related to chess game. Academy bolsters the skills of chess talents through coaching camps, practice sessions and tournaments. Students have won International, national awards and Grand Master titles.

Yoga and Meditation

Meditation Hall / Gnanasabai (219 sq.m.), Dhyana Mandapam (193 sq.m.) and Yoga Hall (250 sq.m.) are established for students to practice yoga and meditation, facilitated by trained set of faculty members. Human Excellence is an integral part of the curriculum and student undergo 105 hours of theory and practice sessions on yoga and life skills. Gandhian Study Centre (158 sq.m.) established in 2009 and Swami Vivekananda study centre (130 sq.m.) established in 2011, houses 200 books written by Mahatma Gandhi and 800 titles of Swami Vivekananda and Sri Ramakrishna Paramahansa with rare photographs.

Cultural Activities and Clubs

Air-conditioned auditorium (1457 sq.m.) has a capacity of 1500 seating, available for all functions and events. Five Seminar Halls with seating capacity ranging from 70 to 480 and 16 Conference Halls in academic blocks are also available. KCT has 37 Clubs and Societies, managed by students, related to Arts, Technical, Societal and Business to supplement curricular learning.

Yugam-Techno-cultural event features 130+ events, 60+ workshops, cultural performances, inspirational talks, competitions and contests, witnessed by 10,000+ audience annually.

NMTRC

N Mahalingam Tamil Research Centre provides 70,000 rare-books, palm-leaf notes categorized under Geology, Archaeology, Anthropology, Linguistics, Arts and Modernism.

File Description	Document
Upload any additional information	View Document
Geotagged pictures	View Document

4.1.3 Percentage of classrooms and seminar halls with ICT- enabled facilities such as smart class, LMS, etc. (Data for the latest completed academic year)

Answer: 100

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Answer: 135

File Description	Document
Upload any additional information	View Document
Institutional data in prescribed format	View Document

4.1.4 Average percentage of expenditure for infrastructure augmentation excluding salary during the last five years (INR in Lakhs)

Answer: 24.03

4.1.4.1 Expenditure for infrastructure augmentation, excluding salary year-wise during last five years (INR in lakhs)

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
286.52	543.52	1145.52	1068.80	1116.40

File Description	Document
Upload Details of Expenditure , excluding salary during the last five years	View Document
Upload audited utilization statements	View Document
Upload any additional information	View Document

4.2 Library as a Learning Resource

4.2.1 Library is automated using Integrated Library Management System (ILMS)

Answer:

Mahatma Gandhi Central Library (MGCL) - Central Library- is the hub of KCT housed in the first floor of Mahalingam Vigyan Bhavan with a built-up area of **1714 sq.m.** It is a Learning Resource Centre and offer Library services to all the Students, Research scholars, Faculty members and all other staff members of KCT campus to enhance their knowledge and increase the potential of teaching and learning activities.

The Library follows open access system(library.kct.ac.in). It has separate sections like Spacious stack area, Reference section, Circulation Counter, Information Desk, Digital Library, Periodical section, Back Volumes section, Acquisition Section, Technical Section, CD/DVD Section, Photocopy/Scan Section and Wi-Fi enabled air conditioned Reading halls.

The Central library has comprehensive collection of 110524 printed books. The Library collection includes 30,000 E journals including IEEE ASPP, Springer, ASCE, ASME, J-Gate, Elsevier Science Direct and EBSCO Business Elite, 1200 E- Books and 204 print journals and magazines. Remote access is provided to all the KCT users through INFED – INFLIBNET for accessing all the subscribed E –resources

of MGCL. In addition, it has a collection of 7500 CD/DVDs. KCT Central Library holds the membership with National Digital Library and NPTEL online courses (400 web and 500 video courses), hosted in the local server. Central Library web page provides needed information to the end users.

The Library is fully computerized and automated by using **Koha Library software** integrated with RFID and Barcode Technology. Interactive touch screen KIOSK facility is also available. Web **OPAC (Online Public Access Catalogue)** facility is available for retrieving books and other learning materials of the Library including CDs, project reports and previous year question papers. Email Alert service is enabled to all the users on all Library transactions.

KCT MGCL holds institutional membership with **DELNET** (Developing Library Network) for ILL (Inter Library Loan) and Document Delivery Services, Access to Knowledge Gainer Portal, Language Learning Portal, Manuscripts and rare books, Domain wise E-Books and E-journals (Full Text), Thesis/Dissertation, Medline Database, US Patents, Cambridge online Dictionary etc. to the academic community. KCT MGCL also holds the membership with National Digital Library of India.

Table 4.2.1 Automation in Library

Automation and Year of Automation	2016-17	2017-18	2018-19	2019-20	2020-21
Implementation of OPAC	Yes	Yes	Yes	Yes	Yes
Software	AUTOLIB	AUTOLIB	Koha and 2CQR	Koha and 2CQR	Koha and 2CQR
Fully / Partially Automated	Fully Automated	Fully Automated	Fully Automated	Fully Automated	Fully Automated
Version	AEEDL2.1	AEEDL2.1	18.11.02.000	18.11.02.000	18.11.02.000
RFID /Barcode	Yes	Yes	Yes	Yes	Yes
Digital Library	Yes	Yes	Yes	Yes	Yes
Availability of WiFi	Yes	Yes	Yes	Yes	Yes
Year of Installation (Automation)	2005	2005	2018	2018	2018

Library Timings:

Working Days: 8:00 AM to 11:00 PM

Holidays: 8:30 AM to 4:30 PM.

File Description	Document
Upload any additional information	View Document
Paste Link for additional information	View Document

4.2.2 Institution has access to the following:

1. e-journals

2. e-ShodhSindhu**3. Shodhganga Membership****4. e-books****5. Databases****6. Remote access to e-resources**

Answer: A. Any 4 or more of the above

File Description	Document
Institutional data in prescribed format	View Document
Details of subscriptions like e-journals, e-books , e-ShodhSindhu, Shodhganga Membership etc	View Document

4.2.3 Average annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the last five years (INR in Lakhs)

Answer: 63.97

4.2.3.1 Annual expenditure of purchase of books/e-books and subscription to journals/e- journals year wise during last five years (INR in Lakhs)

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
52.26	118.16	58.51	56.38	34.55

File Description	Document
Details of annual expenditure for purchase of and subscription to journals/e-journals during the last five years	View Document
Audited statements of accounts	View Document
Any additional information	View Document

4.2.4 Percentage per day usage of library by teachers and students (foot falls and login data for online access) during the latest completed academic year

Answer: 17.51

4.2.4.1 Number of teachers and students using library per day over last one year

Answer: 1068

File Description	Document
Details of library usage by teachers and students	View Document
Any additional information	View Document

4.3 IT Infrastructure

4.3.1 Institution has an IT policy covering wi-fi, cyber security, etc., and allocated budget for updating its IT facilities

Answer:

KCT provides campus-wide Internet, wired / Wi-Fi facilities (**237 access points**) and ERP software for campus management connected through **256Mbps+80Mbps** Internet bandwidth. KCT has IT Policy that governs, subscription (connection), usage and termination of usage by students, faculty members, technical and administrative staff members for teaching-learning, research and consultancy services, support services, security and surveillance inside campus. Policy includes (i) Rights and Responsibilities, (ii) Staff Responsibilities, (iii) User Responsibilities, (iv) Acceptable Uses, (v) Confidentiality and IP Agreement, (vi) Disclaimers and (vii) User Agreement.

IT facilities of KCT includes (i) hardware and (ii) software facilities to connect various facilities and provide necessary facilities, services and supports. Entire Campus is connected through optical fibre cable (OFC) spanning over a length of 5950 Meters. Hardware facilities of the Campus include **1874 computers, 77 printers**, Optical Character Recognition (OCR) machine, Dummy Number Preparation Machine, RFID / Barcode systems for campus entry and exit for both students and faculty members. **582 IP Cameras** are installed at various locations in the campus for safety and surveillance. **32 numbers** of Biometric devices are installed at various points to capture the fingerprint / facial recognition of the faculty and hostel students to mark their attendance.

Database storage, mining and maintenance are carried out using (i) Rack Servers of Dell Power Edge R740 -56 Core processor (28*2) – Configured to host and support KCT SmartApps applications (Hosting and development), Library software (Koha), College webserver, Firewall - Management logs server and all certain essential applications, (ii) Blade servers of HP C7000 Blade Enclosure with 13 Nos of HP BL460c Blade Servers, (iii) HPE Proliant BL460c blade server to support library entry authentication service, (iv) Network-attached storage (NAS) server – HP NAS 1600 NAS - for storage purpose and repository for NPTEL resources and (v) VDI Setup - 250 N-Computing N400 Thin Client connected with HP and Lenovo Servers, Brocade Switch, NetApp Storage. Networking infrastructure is supported by end-to-end fibre optic backbone, Gigabit optic modules and enterprise class switches, routers. Security of the networks and systems are managed by firewalls (Checkpoint 13500) supported by the Barracuda Appliance for email protection, applications and cloud security, network security and data protection. College uses only licensed software for teaching-learning, research and administrative purpose without violating proprietary software.

KSTEAR software internally developed by KCT is used for tracking of efforts and activities of faculty members and as a means to monitor their engagement during pandemic situation. **KCT SmartApps** is used to apply and avail leave, student admission, online grievance registrations, automated bonafide certificate requests and issue for students. Kumaraguru Integrated Technology for Education (**KITE**) is an end-to-end ERP implemented to support processes related to Admission, Student Database, Regulation, Curriculum Transactions, Examination, Academic Examination, Accounting and Hostel Management. Microsoft Campus Agreement with User License to students and faculty are assigned with MS Teams License for Education (A1 plus). **KOED** – Kumaraguru Online Education combines both ERP system and MS Teams for online teaching, assessment and other value added services.

File Description	Document
Upload any additional information	View Document
Paste link for additional information	View Document

4.3.2 Student - Computer ratio (Data for the latest completed academic year)

Answer: 3.06

File Description	Document
Upload any additional information	View Document

Student - computer ratio	View Document
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4.3.3 Bandwidth of internet connection in the Institution.

Answer: ≥ 50 MBPS

File Description	Document
Upload any additional information	View Document
Details of available bandwidth of internet connection in the Institution	View Document

4.3.4 Institution has the following Facilities for e-content development

1. Media centre
2. Audio visual centre
3. Lecture Capturing System(LCS)
4. Mixing equipments and softwares for editing

Answer: A. All of the above

File Description	Document
Upload Additional information	View Document
Institutional data in prescribed format	View Document

4.4 Maintenance of Campus Infrastructure

4.4.1 Average percentage expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the last five years

Answer: 58.16

4.4.1.1 Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year wise during the last five years (INR in lakhs)

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
1348.48	2285.64	2257.07	2349.40	1717.66

File Description	Document
Upload any additional information	View Document
Details about assigned budget and expenditure on physical facilities and academic facilities	View Document
Audited statements of accounts	View Document

4.4.2 There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

Answer:

A well established system and procedure are in place for physical academic and support facilities. KCT has adequate infrastructure facilities, in order to ensure effective use of the facilities- development and

maintenance of infrastructural facilities, manpower, budgetary provisions are given sufficiently. Resources are administered by functional divisions with defined responsibilities. Requirements are obtained from Heads of the Departments and consolidated with budget and submitted to the Principal for approval. Indents are raised with the Purchase Department following a documented process.

Security Services in KCT ensure safety and protection of students, staff members and College assets on a 24x7 basis. Surveillance cameras are installed to further enhance the security.

All the buildings are examined for fire safety. Fire alarms and fire hydrants are installed in administrative building. The fire safety systems are checked and authorized by Infra Maintenance Team.

Physical infra of each department is taken care by a faculty Infra Coordinator. Electrical maintenance, network related repair & maintenance works, Air-conditioning (AC) maintenance are registered through an online portal with a ticket number through **online portal (www.smartapps.kct.ac.in)**. The closure of the work is communicated to the faculty/staff member who registered the work in the portal. Well-staffed housekeeping division is available for maintaining ambience, cleanliness & hygiene in all the classrooms, laboratories, libraries, administrative offices and rest rooms.

The Laboratories are renovated as per needs of curriculum. The academic departments, through their annual budget, services the equipment's regularly by raising indents for repair and maintenance. Non-teaching staff of respective laboratories maintain the systems for effective usage.

Classrooms are provided with ceiling-mounted projectors, maintained by the Department of Technical Support (DTS). The Central servers, Operating and Application Software Management, Anti-virus and fire-wall services are maintained by the Department of Technical Support (DTS). Minor / major repair works related to the software, computers and peripherals are attended by DTS team. Backup procedures have been established and carried out on the college servers to handle risk of information loss. Proper infrastructure (Dedicated Space, Air-conditioners) has been provided for IT Infrastructure/Management. Security updates and vulnerability patches to the servers and other critical systems are carried out regularly.

Library provides good ambience for reading, and Books in the library are well maintained in racks as per the standard protocols governing the library management system. Books in damaged condition, are immediately repaired and bound to ensure their good condition for the users. The library management software is maintained annually to provide smooth transaction of books.

Seminar halls, Board rooms and guest/Alumni lounge are booked in advance by based on the availability status through online portal.

Two maintenance staff members and two markers take care of the sports grounds - levelling and marking of borders and internal markings as per specifications. Hostels are maintained with exclusive dining areas. KORE cafeteria serves 500 members at a given time with hygienic and tasty foods. In addition to water supplied by the Corporation (2 LLPD), 8 number of borewells supply the required water (7 LLPD peak capacity). RO Plants (1000 LPH) are installed for supplying potable water. 1.0 MLD sewage water treatment plant with Sequential Batch Reaction is established to recycle hostel wastewater. Resource Recovery Park is an integrated solid waste management facility to segregate and dispose the waste through composting, upcycling, recycling, incineration and scientific land filling and is maintained by microcosm.

Transport division has fleet of 18 buses with speed governor and 30 cars, to transport students and staff members from various locations and maintained as per the norms of TN RTO. Exclusive power house facilities are available to manage the power supply. Periodical electrical checks are carried out by Government Agencies and safety certificates are renewed. Roof top Solar Power 250 kWp station installed on rooftop in B,C,E block rooftops together provide approximately 3.5 Lakh Units annually.

The Aruljyothi Medical Centre housed inside the campus caters to the basic medical care. The eight-bedded hospital with one doctor, nursing assistants and ambulance facilities is operational 24x7 and are maintained regularly.

Following Table shows Functional Divisions with the assigned responsibilities.

Table 4.4.1 Work System for Maintenance Activities

S.No	Functional Division	Responsibilities	Manpower (No.)	Officer Responsible
1.	Civil Maintenance	Campus maintenance	7	Head-Infra
2.	Electrical and Solar Facilities	Maintenance of electrical installations	11	Manager
3.	AC Maintenance	Maintenance of AC, Water Cooler	2	Manager
4.	House Keeping	General cleanliness	140	Head – Facilities & Operations
5.	Water Supply and Plumbing	Maintenance of water lines	6	Engineer
6.	Water Management System	Reverse Osmosis and Sewage Plant	3	Head – F&O
7.	Technical Support	Maintenance of Networks, Servers, PCs, peripherals, Bandwidth	12	Director – DTS
8.	Security System	Security Service	2 + 75	Head – F&O
9.	Transport System	Transport Services	36	Asst Manager
10.	Hostels	Hostel Services	14	Deputy Head - Hostel
11.	Medical Centre	Healthcare Services	1+1	Doctor and Staff Nurse

File Description	Document
Upload any additional information	View Document

5.Student Support and Progression

5.1 Student Support

5.1.1 Average percentage of students benefited by scholarships and freeships provided by the Government during last five years

Answer: 40.3

5.1.1.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

Answer:

2020-21 2019-20 2018-19 2017-18 2016-17

2194 2370 2408 2443 2478

File Description	Document
upload self attested letter with the list of students sanctioned scholarships	View Document
Institutional data in prescribed format	View Document
Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years	View Document

5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution and non-government agencies during the last five years

Answer: 16.29

5.1.2.1 Number of students benefited by scholarships and free ships provided by the institution, Government and non-government bodies, industries, individuals, philanthropists during the last five years (other than students receiving scholarships under the government schemes for reserved categories)

Answer:

2020-21 2019-20 2018-19 2017-18 2016-17
27 1235 1191 1175 1208

File Description	Document
Upload any additional information	View Document
Number of students benefited by scholarships and freeships besides government schemes in last 5 years	View Document
Institutional data in prescribed format	View Document

5.1.3 Following Capacity development and skills enhancement activities are organised for improving students capability

- 1. Soft skills**
- 2. Language and communication skills**
- 3. Life skills (Yoga, physical fitness, health and hygiene)**
- 4. Awareness of trends in technology**

Answer: A. All of the above

File Description	Document
Details of capability enhancement and development schemes	View Document
Any additional information	View Document

5.1.4 Average percentage of students benefited by career counseling and guidance for competitive examinations as offered by the Institution during the last five years.

Answer: 91.21

5.1.4.1 Number of students benefitted by guidance for competitive examinations and career counselling offered by the institution year wise during last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
4271	5799	5158	5881	5824

File Description	Document
Number of students benefitted by guidance for competitive examinations and career counselling during the last five years	View Document

5.1.5 The institution adopts the following for redressal of student grievances including sexual harassment and ragging cases

1. Implementation of guidelines of statutory/regulatory bodies
2. Organisation wide awareness and undertakings on policies with zero tolerance
3. Mechanisms for submission of online/offline students' grievances
4. Timely redressal of the grievances through appropriate committees

Answer: A. All of the above

File Description	Document
Upload any additional information	View Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	View Document

5.2 Student Progression

5.2.1 Average percentage of placement of outgoing students during the last five years

Answer: 50.25

5.2.1.1 Number of outgoing students placed year - wise during the last five years.

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
711	841	918	912	896

File Description	Document
Upload any additional information	View Document
Self attested list of students placed	View Document
Details of student placement during the last five years	View Document

5.2.2 Percentage of student progression to higher education (previous graduating batch).

Answer: 1.57

5.2.2.1 Number of outgoing student progressing to higher education.

Answer: 26

File Description	Document
Details of student progression to higher education	View Document
Any additional information	View Document

5.2.3 Average percentage of students qualifying in state/national/ international level examinations during the last five years (eg: IIT-JAM/CLAT/ NET/SLET/GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/State government examinations, etc.)

Answer: 91.19

5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: IIT/JAM/ NET/ SLET/ GATE/ GMAT/CAT/GRE/ TOEFL/ Civil Services/ State government examinations, etc.)) year-wise during last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
113	70	82	59	56

5.2.3.2 Number of students appearing in state/ national/ international level examinations (eg: IIT/JAM/ NET / SLET/ GATE/ GMAT/CAT,GRE/ TOEFL/ Civil Services/ State government examinations) year-wise during last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
120	78	85	66	65

File Description	Document
Number of students qualifying in state/ national/ international level examinations during the last five years	View Document
Any additional information	View Document

5.3 Student Participation and Activities

5.3.1 Number of awards/medals won by students for outstanding performance in sports/cultural activities at inter-university/state/national / international level (award for a team event should be counted as one) during the last five years.

Answer: 263

5.3.1.1 Number of awards/medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) year - wise during the last five years.

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
16	50	62	55	80

File Description	Document
Number of awards/medals for outstanding performance in sports/ cultural activities at inter-university / state / national / international level during the last five years	View Document
e-copies of award letters and certificates	View Document

5.3.2 Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution

Answer:

KCT provides options and avenues to the students to showcase their potentials to plan and implement students-led initiatives, participate in various academic and administrative committees and councils for implementing innovative practices, social justice among the students and enhance the stakeholders relationship at Institution-level. While giving opportunities in various councils and committees, conscious efforts are taken by the institute to inculcate, among the students, the social responsibilities, gender sensitiveness and good citizenry through value education – Family Values, Social Values, Professional Values, National Values and Global Values as a part of the curriculum and thereby aims at holistic development of the individual students. Participation of students in the independent councils / committees and representation in different committees are shown below. Leaders / Representatives of independent (student) councils, like CLED, LC, DA, Super 60, LEED, Clubs and Societies, are encouraged to prepare the annual list of activities, in line with Mission and Goals of the Institute, and implement the same, thereby developing various skills and competence and enhanced educational experience. In the case of Statutory Bodies, suggestions made by the representatives are recorded and considered for implementation.

Institute establishes necessary infrastructure facilities in terms of work space (Student Activity Centre – 590 Sq.m.), recognition with key designations, budgetary provisions to implement various initiatives, instituting various Clubs, Societies and Professional Chapters for active participation and contribution of the students in social, ethical, technology and leisure activities. Necessary policies, procedures are developed jointly by students and faculty for various councils and committee (other than statutory committees) to ensure the continuity of the system and optimal use of various resources.

S. No.	Name of the Council	No of members	Nature	Stakeholders Addressed
1	Centre for Leadership Empowerment and Development (CLED)	113	Academic, Administrative	Faculty, Students
2	Leadership Council (LC)	30	Academic, Administrative	Faculty, Students, Employers
3	Department Association (DA)	30	Academic	Faculty, Students, Employers
4	Super 60	33	Governance, Academic	Management, Faculty, Students
5	League for Entrepreneurial Empowerment and Development (LEED)	22	Student Support Services	Students, Industry
6	Sprout	35	Student Support Services	Students
7	Kumaraguru Online Education (KOED)	43	Academic	Faculty, Students

S. No.	Name of the Council	No of members	Nature	Stakeholders Addressed
8	Kumaraguru Action for Relief & Empowerment (KARE)	20	Governance	Faculty, Students, Society, Government
9	Clubs and Societies	76	Academic, Administration	Students, Faculty, Industry, Society
10	Professional Chapters	1500+	Academic, Administration	Students, Faculty, Industry, Professional Bodies
11	Institute Innovation Council (IIC)	26	Governance, Academic	Students, Society, Regulatory Bodies
12	Department Advisory Board (DAB)	20	Academic, Curriculum Design	Students, Faculty, Industry
13	Board of Studies (BoS)	30	Academic Regulation, Curriculum Design	Students, Alumni, University, Faculty, Industry
14	Academic Council (AC)	39	Academic Regulation, Curriculum Design	Students, Alumni, University, Faculty, Industry
15	Statutory Committees – Internal Complaints and Women Empowerment Committee (ICWEC), Student Grievances Redressal Committee (SGRC), Internal Quality Assurance Cell (IQAC), Anti-Ragging Committee	ICWEC- 9 SGRC-9 IQAC-21 ANTI RAG-16	Academic, Administration	Students, Faculty, Regulatory Bodies

S. No.	Name of the Council	No of members	Nature	Stakeholders Addressed
16	Non-Statutory Committee — Examination and Evaluation Committee, Extra and Co-curricular Activities Committee, Library Committee	Examination and Evaluation Committee-8 Extra & Co-curricular activity committee-10 Library Committee-17	Academic, Administration	Students, Faculty, University
17	Research iQube Garage (RiG)	Re'-50 IQube-230 Garage-42	Academic, Industry	Students, Alumni, Faculty

File Description	Document
Upload any additional information	View Document

5.3.3 Average number of sports and cultural events / competitions organised by the institution per year

Answer: 103.4

5.3.3.1 Number of sports and cultural events / competitions organised by the institution year - wise during the last five years.

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
113	144	136	75	49

File Description	Document
Report of the event	View Document
Number of sports and cultural events / competitions organised per year	View Document

5.4 Alumni Engagement

5.4.1 The Alumni Association / Chapters (registered and functional) contributes significantly to the development of the institution through financial and other support services.

Answer:

KCT has Alumni network (<http://www.kctalumni.com>) that includes students graduated from the first batch in the year 1988 to till last batch of graduates. Kumaraguru College of Technology Alumni Association (KCTAA) has been registered under the Tamil Nadu Societies Registration Act 1975 (Tamil

Nadu Act 27 of 1975) with the Registration No: 64/2016. KCTAA has 27000+ alumni members around the world.

Activities of the KCTAA

- (i) Alumni Talk Series,
- (ii) Placement assistance to students,
- (iii) Delivering full or part of the credit courses,
- (iv) Alumni Reunion,
- (v) Annual Meet,
- (vi) Global Alumni Meet (GAM),
- (vii) Regional meets at national and international level,
- (viii) Sports Meet,
- (viii) Coffee Table Talk,
- (ix) Publishing Alumni Newsletter,
- (x) Participating in the Outreach / Extension Activities,
- (xi) Providing financial assistance to needy students and
- (xii) Honouring Outstanding Members (Luminaries).

Reunions

Reunion strengthens the alumni network of KCTAA as it acts as a bridge between and for professionals where they can exchange their work, experience and help each other networking and business, also supports in knowledge transfer with the current students. Types and frequency of Alumni Reunion Meet include

1. Global Alumni Meet – Every 2 years
2. Silver Jubilee Meet – Every year in the month of July
3. Other Reunions like 5, 10, 15, 20, 30 years

Alumni Support

Supports extended by the Members of KCT AA varies from non-monetary to monetary, depending upon the occasion and need; some of the notable supports are given below.

- **KARE Contribution:** During the Gaja cyclone, Kerala Flood and COVID-19 pandemic situations, alumni extended their support and contributed in various ways.
- **Mentorship:** Students are mentored by an alumnus depending upon the common interests of mentor and mentee and the number of students to be mentored by you solely depends on their comfort level. This can prove to be immensely useful for the students as they get to know about the pros and cons of choosing a career option and about various opportunities in their interest field. It also provides the alumnus with a platform to interact with the students on a one to one basis and stay connected with the Institute.

- **Scholarships & Contributions:** Needy students are identified and provided scholarship every year- 4 students with the total amount of Rs 1,00,000/-. Members of KCTAA contribute generously for the annual Techno Cultural event- Yugam-to the extent of Rs 11,00,000/- cumulatively for the years 2018-2019 and 2019-2020.
- **Academic and International Interaction:** Alumni who are at the pinnacle of their careers help students by their insight and vast experience of how things work professionally. As they have a deep understanding of current opportunities in their respective fields, they are invited to be a member in Board of Studies, Academic Council, IQAC, and invited to also as resource person for one credit/two credit courses, be the guest or jury for various lectures, In-plant Training/ Internships /Placements Lab.
- **Newsletter:** The Annual Newsletter is published every 3 months which features in-house activities, events, and recent developments in academic and extracurricular activities, innovations and future visions.
- **Feedback:** KCT values the feedback of the alumni on its academic function regularly.

File Description	Document
Any additional information	View Document

5.4.2 Alumni financial contribution during the last five years (in INR).

Answer: A. ≥ 15 Lakhs

File Description	Document
Any additional information	View Document

6. Governance, Leadership and Management

6.1 Institutional Vision and Leadership

6.1.1 The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the Institution

Answer:

KCT has a governance system, driven by Vision, Mission, Values and aims to become one of the best-known entities in the sphere of education. Over these years, top leadership has introduced many policy-oriented, system-based approaches that has led KCT to be one among the Top 100 Institutions in India at present.

Vision

Vision is to become a Technical University of International Standards through continuous improvement.

Mission

KCT is committed to providing quality Education and Training in Engineering and Technology to prepare students for life and work equipping them to contribute to technological, economic and social development of India. The College pursues excellence in providing training to develop a sense of professional responsibility, social and cultural awareness and set students on the path to leadership.

Values

KCT strives to imbibe ethical practices among youth, value based education with emphasis on personal values, family values, professional values, social values, national values and international values. Values and value systems have been established around single core value “***Character is Life***”. Senior Leaders set values through leading and following these value systems and are recognized by the society through many awards conferred upon them – Founder Chairman N.Mahalingam with *Padma Bhushan*, Arutchelvar, D.Litt (*Honoris Causa*) and the current Chairman B.K.Krishnaraj Vanavarayar with leadership positions in Institutions/Professional Bodies, Bhartiya Vidya Bhavan, South India Mills Association, CII, etc.

Perspective Plan

Based on the Vision, Mission and Values of KCT, a perspective plan has been drawn with contributions received from stakeholders. Plan envisions KCT to be among the Top 50 Institutions by the year 2025, to be achieved through sustained developments towards (i) teaching-learning, (ii) faculty quality, (iii) outreach activities, (iv) graduation outcomes and (v) perception of stakeholders. These are divided into goals and targets, assigned to relevant teams and evaluated through performance review systems.

Nature of Governance

All statutory and non-statutory committees are in place as per guidelines and executes various functions, abiding norms of the regulatory bodies.

KCT follows participative management approach in managing functions and decision making, with faculty members from different levels. Based on interest, capabilities developed, and experience gained over a period time, members are inducted into various positions, with equal opportunity. Broad structure is given in Fig. 6.1.1.

[6.1.1.png](#)

Fig. 6.1.1 Organisational Structure

Sub-systems mentioned above, consist of faculty members from different cadres, sex and qualifications (as given in *Additional Information*). IQAC coordinates activities of sub-systems, collates implementation status and outcomes, and submits the report to stakeholders for their feedback and recommendations. Academic decisions related to design and development of Course Modules, Courses, Curriculum and Academic Regulations are carried out by a team of faculty members – Autonomous Committee, Programme Assessment Committee, Department Advisory meeting, Board of Studies, Standing Committee, Academic Council and Governing Council. Decisions are taken by respective Chairperson/Coordinator and sent to stakeholders for suggestions and feedback.

Effectiveness of the leaders, actions of leaders and outcomes are reviewed at different levels viz, Autonomous Committee, Research Committee, Operational Committee and Governing Council.

File Description	Document
Any additional information	View Document
Link for additional information	View Document

6.1.2 The effective leadership is reflected in various institutional practices such as decentralization and participative management.

Answer:

Office of Student Affairs (OSA) was established to facilitate the needs and aspirations of students on academic, co-curricular, extra-curricular, campus life, well-being, conflict management, grievance

redressing and nation building. Earlier, the activities were handled individually and did not extract advantages offered with coordinated efforts. Sub-systems shown in Criterion 6.1.1, involve smaller workgroups that carry out activities independently within specified scope, with defined roles and responsibilities. This manifest decentralised and participative management approach.

Case Study: Student Support Systems - Office of Student Affairs

KCT admits students from different communities, regions, religions and States to foster diversity in the campus, which itself demands certain dedicated services to meet the needs of the students. On realising the growing need to address students, KCT established a support system, OSA, established in the year 2013-14, to look after activities pertaining to Student Admission-to-Graduation and strive to achieve satisfactory results.

Team OSA aims to be a catalyst in making the students explore their true potential by understanding about self, community and contribute towards the global society. Its mission dwells on (i) commitment to student success in and out of the classroom, (ii) emphasizing on life-long learning by focusing on their – Academic, Personal well-being, Extra-curricular activities, Campus Life and Grievance Redressal.

Decentralisation and Participative Management

There is a role clarity and functions, financial power given to take up routine activity of a committee. Committees are also allowed to take expert members, as special invitees, whenever there is a need for advisory roles. Students related activities of KCT were identified, certain activities were released from Administrative Office and OSA was established as an independent support system with defined objectives, roles and responsibilities as shown in Fig. 6.1.2.

[6.1.2.png](#)

Fig. 6.1.2 Supports and Services Offered by OSA

Though dedicated manpower is employed at every stage, involvement of faculty members and students in every service is evident in implementation and decision making. This has resulted in ability of faculty members to influence the system positively towards *Learning Culture* with transparency.

These services bring-in faculty members into decision making and implementing plans, to cater to requirements of students and enhance their learning. Such a decentralised system has led to an inclusive approach in involving faculty members. 30 faculty members actively participate in clubs & societies related activities, involved in guiding, counselling and mentoring related activities with demonstration of personal values, ethics and integrity, bring out innovative practices. These services invite feedback from different users, formally and informally, through interaction with senior leaders to improve the system and effectiveness.

Outcomes

Participating management culture introduced by KCT yields tangible results in every batch of students in attitude, leadership abilities, academic performance, performance in their career and helps faculty in developing and maturing the systems. Many events are organised entirely by student teams with confidence and courage, including *Yugam* – Annual Techno-cultural event that witness 15000+

participants. Information to students is disseminated fast by OSA through media and personally through mentors for better reach and quick response, for timely decisions.

File Description	Document
Any additional information	View Document
Link for additional information	View Document
Link for strategic plan and deployment documents on the website	View Document

6.2 Strategy Development and Deployment

6.2.1 The institutional Strategic / Perspective plan is effectively deployed

Answer:

Strategic Plan of KCT, which includes Equity and Access as one of the focus areas, aims to support the students with financial incentives, scholarships and stipend through various options, thereby improving the inclusive growth as detailed.

KCT is one of the preferred engineering colleges by the students and parents and it stands as one of the top 3 institutions in the State, in terms of admissions (Criterion 2.1.1.1). Every year, students from different communities and socio-economic backgrounds are admitted into various programmes. About 15% of the students belong to First Graduate category, 23 % of students belong to low income and middle-income categories, who many a time look for certain financial help.

Admission Scholarships

KCT, on its own and through philanthropic NGOs (Maatram, Agaram), identify meritorious students and provide admission scholarship, ranging up to 100%. Besides, KCT applies for Tuition Fee Waiver (TFW) scheme under AICTE to encourage meritorious, economically deprived students to join engineering programmes.

Merit Scholarships

Students of UG and PG programmes are encouraged to perform better in academics, research, extra/co-curricular and outreach activities, and those who actively participate in organising various academic events in the Campus. Students from these categories are selected and provided scholarship to excel in their domains. Merit scholarships offered by NGOs / industries / Alumni are facilitated to students based on the need and merit.

Financial Incentives

Students, who excel in academic activities, participate in extra-mural events are encouraged with financial incentives to meet their expenses towards design and development of prototypes, registration and travel, disseminating their findings in terms of publications in conferences and IP rights.

Internships

Students with unique skills and potential are inducted as short-term, part-time interns with stipend ranging up to Rs 10,000/month, which in turn help them to meet certain educational expenses. Student interns are recruited by RiG, KCIRI, Forge Accelerator, functional units like Alumni Office, HR, Peer-learning initiatives (CLED, Sprout).

Table 6.2.1 summarises the efforts taken by KCT to promote equity and access, provide financial access to the needy and meritorious students. Table 6.2.1 Financial Assistance Extended (Rs in Lakhs)

Scheme	2016-17	2017-18	2018-19	2019-20	2020-21
Mahatma Gandhi Scholarship	109.35	105	104.50	107.69	-
Tuition Fee Waiver Scheme	7.00	4.20	4.625	3.825	0.45
Admission through NGO	6	7.07	8.26	7.01	0.12
Alumni Scholarship	-	1.0	1.0	1.0	-
Other Scholarships/ Tuition fee waiver facilitated by the institution	19.88	35.76	44.87	56.27	34.45
Financial Incentives (December 2021)	-	-	0.8	0.8	1.8
Stipend based Activities	-	-	1.04	3.42	1.55

Nearly 40% (Criteria 5.1.2) of students are impacted positively through these activities, initiated by the Institution. Also, this brings-in coordinated efforts of Management, Office of Student Affairs, Regulatory Body (AICTE), Society (NGOs), Industries and Alumni to support the economically weaker section of the students. Standard Operating Procedures (SOPs) have been prepared and implemented for every scheme and administered through different sub-systems of the Institute to make this process transparent and participative.

File Description	Document
Link for additional information	View Document
Link for Strategic Plan and deployment documents on the website	View Document

6.2.2 The functioning of the institutional bodies is effective and efficient as visible from policies, administrative setup, appointment, service rules and procedures, etc.

Answer:

KCT has defined organisation structure and roles that are transparent, documented and implemented according to Institutional guidelines or as per statutory requirements. Calendars of events / activities are prepared for efficient functioning of academic Departments, Centres and Offices. Organogram of KCT is given below (Fig. 6.2.2).

[6.2.2.png](#)

Fig. 6.2.2 Organisational Structure

KCT has policies and processes, work-groups with heads wherever required supported and actively participated by majority of the faculty members. Committees are formed as per guidelines, which give opportunities for members to join and contribute towards growth of the Institution (Table 6.2.2.). 100% faculty members are involved in various activities (Table 6.2.2).

KCT has laid-down Policies, Procedures/SoPs for every major function for ensuring the effectiveness. Implementation of policies, procedures and functioning of different work systems with relevant feedback are reviewed and suitable remedial actions are taken by IQAC. Based on Roles and Responsibilities involved 'positional allowances/honorarium' are given to faculty members. Also, Members / Committees that gives significant contribution are recognized and rewarded suitably.

S No	Name of the Committee / Board	Faculty Members Involved (On Rotation)
1.	Programme Advisory Committee (UG/PG)	All Faculty Members
2.	Department Advisory Board	All Faculty Members
3.	Board of Studies	All Faculty Members
4.	Standing Committee	All Heads of Departments
5.	Academic Council	All Heads + 4 Members on Rotation + Coordinator
6.	Governing Council	2 Members
7.	Finance Committee	2 Members
8.	IQAC	9 Members
9.	Anti-Ragging Committee	3 Members
10.	Anti-Ragging Cell	3 Members
11.	Anti-Ragging Squad	All Faculty Members
12.	Internal Complaints Committee	3 Members
13.	Committee for SC/ST	7 Members
14.	Grievance Redressal Cell-Students	4 Members
15.	Discipline-and-Welfare Committee	5 Members
16.	Academic Audit Committee	76 Members/Cycle
17.	Examination and Evaluation Committee	6 Members
18.	Extra-Curricular Activities Committee	7 Members
19.	Women Empowerment Cell	6 Members
20.	Library Committee	6 Members

S No	Name of the Committee / Board	Faculty Members Involved (On Rotation)
21.	Ethics-and-Values Committee	5 Members
22.	Clubs and Society Coordinators	31 Members
23.	Academic Support Functions (DoA / CoE / Professional Chapters / Coordination Activities / DSIR / Alumni Relations / Infra / Placement / Accreditation)	All Faculty Members

In order to have the smooth functioning, following Policy / Process Documents are available:

1. Admission Policy
2. HR Policy
3. Probation Policy
4. Promotion Policy
5. Emergency Management Policy
6. Email Usage Policy
7. Referral Policy
8. Residential Accommodation Policy
9. Examination and Evaluation Policy
10. Research Policy
11. IPR Policy
12. IT Policy
13. WiFi Policy
14. Purchase Process
15. Paper Usage Policy
16. Green Campus/Waste Management Process
17. Revenue Sharing (Consultancy) Process
18. SoP for Faculty Awards
19. OSA – SoPs
20. SoP for Scholarships
21. Adjunct Faculty Policy
22. SoP for Industrial/Field Visits
23. Students Grievance Redressal Policy

Based on the feedback received, changes in the policies / guidelines issued by various agencies, these policies are reviewed and amended/revised.

File Description	Document
Any additional information	View Document
Link to Organogram of the Institution webpage	View Document

6.2.3 Implementation of e-governance in areas of operation

1. Administration
2. Finance and Accounts
3. Student Admission and Support
4. Examination

Answer: A. All of the above

File Description	Document

Screen shots of user interfaces	View Document
Institutional data in prescribed format	View Document
Institutional data in prescribed format	View Document
ERP (Enterprise Resource Planning) Document	View Document
Any additional information	View Document

6.3 Faculty Empowerment Strategies

6.3.1 *The institution has effective welfare measures for teaching and non-teaching staff and avenues for career development/ progression*

Answer:

KCT has HR Policy, which encompasses welfare measures and career development opportunities for both faculty members and support staff. KCT adopts different measures to empower the faculty members and staff to realise their potential and improve their functions, performance in teaching-learning, research, outreach, personal/institutional developments and personal life. Both faculty and staff members are appraised about the scope and opportunities available for their career growth and avenues for career development, as a part of the Induction Programme. Major initiatives related to these are furnished in the Table 6.3.1.

Equal opportunities are given to everyone in terms of sponsorship to (i) pursue higher studies in KCT and other premier institutions, (ii) attend short courses in their domains, (iii) upgrade professional competency through suitable skill development and (iv) lead different centres/activities, thereby gain administrative skills.

Faculty members are encouraged to pursue higher studies and acquire higher qualification to progress further in their career; similarly Technical Support Staff are also encouraged to pursue Bachelors, Masters, Doctoral programmes and, eligible and interested candidates are inducted into teaching positions (Assistant Professor / Associate Professor).

Besides, interested members are deputed to head / work-with different support systems, which include KCIRI, Re', Garage, School of Foundational Sciences, School of Innovation and different functions like Head – Accreditation, Ranking, Academics, Professional Chapters, KLDA, Focused Research, Controller of Examinations, Member in Governing Council / Academic Council and Coordinators / Members in Statutory, Non-Statutory and Mandatory Committees. All these avenues are expected to provide administrative skills, process awareness, awareness on regulatory / compliance issues that are essential in career progression. Positional Allowances (incentive) are given to certain roles that demand extended working hours and higher responsibilities.

Performance Appraisal System for faculty members has been implemented to provide transparent, unbiased evaluation of faculty members, receive feedback from faculty, Head of the Department and revise the system of appraisal thereby providing scope for planning the career progression to every member. Activities and outcomes of the members are disclosed voluntarily by everyone, audited by the Head of the Department, reviewed by HR Section and considered for career progression, Rewards and Recognitions as per Policy.

Table 6.3.1 Welfare Measures – Faculty and Staff Members

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1. Flexible Working Hours
2. Admission to Wards
3. Sabbatical for Higher Education
4. Residential Facilities
5. PhD Allowance)
6. Positional Allowance
7. Seed Grant for Projects
8. Yearly Performance - Special Incentives
9. Incentive for Publications
10. Reimbursement of IPR Filing Expenses
11. Recognition during Teachers' day
12. Reimbursement of NPTEL Exam Fees
13. Conference/Project Presentation - TA, Registration, Accommodation
14. Laptop Scheme with interest-free EMI
15. Subsidised Transport Facility
16. Gift Voucher for Marriage
17. Financial Support to attend FDP, Workshop and Conferences
18. Travel Grant to receive Awards and Prizes
19. Counselling (one-to-one and online)
20. Hospital with Bed facilities
21. Loan facility
22. Provident Fund
23. Gratuity
24. Medical / Accident Insurance
25. Six Months Maternity Leave

File Description	Document
Any additional information	View Document

6.3.2 Average percentage of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the last five years.

Answer: 55.7

6.3.2.1 Number of teachers provided with financial support to attend conferences/workshops and towards membership fee of professional bodies year wise during the last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
335	218	153	193	156

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Link for additional information	View Document

6.3.3 Average number of professional development / administrative training Programmes organized by the institution for teaching and non-teaching staff during the last five years.

Answer: 50

6.3.3.1 Total number of professional development /administrative training Programmes organized by the institution for teaching and non teaching staff year-wise during the last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
79	35	18	65	53

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

6.3.4 Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).

Answer: 36.03

6.3.4.1 Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
120	129	125	162	154

File Description	Document
IQAC report summary	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Answer:

Enumerate the various internal and external financial audits carried out during the last five years with the mechanism for settling audit objections within a maximum of 500 words

KCT has a dedicated Finance Section headed by Chief Finance Officer (Qualified Chartered Accountant), ably assisted by Accountants and Assistants to facilitate financial transactions. Adequate controls are established to ensure that assets of the institution are safeguarded, and transactions are executed and are appropriately recorded in the books of account. Roles and responsibilities of people at various levels are well defined to ensure appropriate information flow and to facilitate effective monitoring. KCT has a Financial Committee which reviews transactions, activities and suggests processes, procedures and smooth functioning.

KCT has appointed an independent internal audit firm for appraising controls and financial records of and a different audit firm for audit and preparation of annual statements. Audits are carried out with certain objectives, while conducting the audit relevant stakeholders are involved and finally audit findings, objections and suggestions are sent to the Trust Office, Chief Finance Officer and the concerned sections/departments for further actions. This review is done on an annual basis and the findings are discussed with the Trustees. Table 6.4.1 details the audit type, objectives and outcomes expected from the audit process.

Table 6.4.1 Process of Audits Carried-out – Objectives Vs Outcomes

Audit Type	Audit Team	Audit Objectives	Outcomes Expected	Objections Addressed by
Budgetary Control – Preparation, Utilization and Review	Accounts Section and Identified Faculty Team	To follow established procedures, permissible expenditures / heads, provisions for inclusive growth	Equitable budget provision to all Departments / Centres Planning of budget for uniform financial outlay	Concerned Heads
Internal Audit – Resources other than cash flow	Accounts Section and Identified Faculty Team	Maintenance of required books of accounts (capital expenditure/consumables) Settlement of advances and petty cash, adherence to policies, and effective control over transactions.	Adherence to laid-down policy & procedures Ensure that assets are safeguarded and control is effective.	Accounts Officer & Concerned Heads
Internal Audit – All Transactions	Outsourced Independent Auditors (M/s KS Aiyar & Co)	Ensure proper book-keeping, accounting processes Optimum utilization of resources Adherences to Statutory requirements and ensure adequate control over financial reporting	Verify Allocation Vs Expenditure Identify unutilized resources Productivity and process improvement with innovative practices	Chief Finance Officer & Trust Office
Statutory Audit	Outsourced Independent Auditors (M/s PN Raghavendra Rao & Co)	Verify sources of income and uses of income, assets and liabilities Adherence to Generally Accepted Accounting Principles and Statutory Compliances.	Report on financial status of KCT Present independent report to stakeholders with suggestions and recommendations	Chief Finance Officer & Trust Office

Audit findings, recommendations and the best practices suggested by the Auditors are discussed at Department / Centre-level or Institution level for implementation in the subsequent cycle. Accordingly, awareness programmes / training sessions are conducted, centrally.

Internal Audit is supplemented with an Annual Review of Financials by the Statutory Auditors, who also take into consideration the report of Internal Auditor and discuss the findings with Internal Auditors, wherever necessary. KCT is regular in completion of these audits and the reports are also submitted to the Regulators on a timely basis.

File Description	Document
Any additional information	View Document

6.4.2 Funds / Grants received from non-government bodies, individuals, philanthropists during the last five years (not covered in Criterion III and V) (INR in Lakhs)

Answer: 0

6.4.2.1 Total Grants received from non-government bodies, individuals, Philanthropers year-wise during the last five years (INR in Lakhs)

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
0	0	0	0	0

File Description	Document
Institutional data in prescribed format	View Document

6.4.3 Institutional strategies for mobilisation of funds and the optimal utilisation of resources

Answer:

Financial status and viability of the Institute are monitored and reported by Accounts Section of the Institute, and through third party auditors (Internal Audit and Statutory Audit) to the Institute / Trust Office. Budget preparation process, at KCT, itself provides an opportunity to the Heads of Departments / Centres to understand the financial worthiness / viability, by capturing both possible revenue and expenses, thereby inculcating financial consciousness in their operations.

While there is an overall long term Institutional strategy for optimisation of resources, an annual plan for mobilization of funds and optimal allocation thereof are determined prior to the start of each academic year. Together with revenue income, possibilities of extending the use of various facilities with restoration / repair and amalgamating different operations are also considered to reduce the financial burden to the possible extent.

Being a self-financed educational institution, major source (~ 90%) of the income that comes from collection of tuition fee only. However, efforts are taken to reduce the dependency / risk on depending purely on tuition fee collected from the students, every year and increase the income from other relevant activities. Accordingly, policies, processes are established to explore newer avenues like offering short courses, industry-driven dedicated programmes, alumni network, philanthropists, accumulating surplus revenues wherever and whenever possible to create reserve corpus. Nevertheless, the fee collected year-

after-year increases on account of revision in the fee recommended by the Government and introducing new graduate programmes, as seen in the Fig. 6.4.3 (a).

[6.4.3\(a\).png](#)

Fig. 6.4.3 (a) Income from Student Fee

Faculty members are motivated to undertake consultancy assignments and testing services (Fig. 6.4.3 (b)), and also to submit the proposals to various funding agencies for research, creation of additional learning / research facilities, to address the financial needs and augment the facilities creation.

[6.4.3\(b\).png](#)

Fig. 6.4.3 (b) Income from Consultancy and Testing Services

(2019-20 – Revenue reduced due to pandemic and lockdown)

KCT has accumulated reserves and surplus over the past several years and is shown in the Fig. 6.4.3 (c). KCT leverages this to earn Interest which also supplements its fee income Fig. 6.4.3 (d).

[6.4.3\(c\).png](#)

Fig. 6.4.3 (c) Accumulated Reserves and Surplus

[6.4.3\(d\).png](#)

Fig. 6.4.3 (d) Income Generated through Interests

Additional spaces available with Institute are rented to corporates, small companies to generate additional revenue (Fig. 6.4.3 (e)) and use the resources optimally and also reduce the dependency on tuition fee. Having the corporates and companies beside helps KCT in many intangible ways also.

[6.4.3\(d\).png](#)

Fig. 6.4.3 (d) Income Received from Renting the Premises

On the whole, *the strategies for financial and other resource mobilisation include* (i) Fee Receipt, (ii) Other Educational Services and Programmes, (iii) Interest accumulated, (iv) Rental Income, (v) Miscellaneous Receipts and their relative contributions are shown in Fig. 6.4.3 (g).

[6.4.3\(g\).png](#)

File Description	Document
Link for additional information	View Document

6.5 Internal Quality Assurance System

6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes visible in terms of – Incremental improvements made for the preceding five years with regard to quality (in case of first cycle)

Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives (second and subsequent cycles)

Answer:

IQAC functions as per guidelines of UGC. Recommendations given by NAAC during Cycle 2 visit (F.19.26/EC (SC-19)/DO/2016/7.2 dated 02-December-2016) were discussed and considered for implementation.

Case I: ERP during Cycle 2

During Cycle 2, KCT had numerous software for teaching/learning, assessment/evaluation (Table 6.5.1(a)). No software was available for uploading lessons and class proceedings for access to students.

Table 6.5.1 (a) Software Usage – Cycle-2-Accreditation

Software	Purpose
MIS (Inhouse)	CAM Entry
MyKCT (SBNA)	Attendance and CAM
Smart Apps (SBNA)	Leave Application
Exams (eNova Solutions)	Result Processing, Grading
Tally	Hall Ticket, Fee Payment

Action Taken

DTS was assigned with responsibility of identifying, selecting suitable software vendor, who can provide a comprehensive solution, considering requirements (Table 6.5.1). Octoze Technologies-Chennai was chosen, after comparisons and discussions. Though implementation of modules take 12 to 18 months, it was decided to implement within 3 months through Tech-champions and concurrent training of users, implementation in phases (Fig. 6.5.1). Critical path was considered (1-3-5), with activities implemented, in parallel. MS Teams was linked to Octoze with customisation and termed as “KOED – Kumaraguru Online Education”. KOED, today, provides comprehensive solution, Admission-to-Graduation, integrating all processes.

[6.5.1.png](#)

Fig. 6.5.1 – Implementation of ERP

(1-User creation, 2-Admission, 3-Staff, 4-Student data, 5-Action Plan, 6-Teaching Plan, 7-Exam, 8-Feedback, 9-Attendance, 10-Communication, Phase II: Assignment/Leave/QB)

Case II: Status of Training to Support Staff during Cycle 2

Administrative and Technical Staff, though they have formal education, lacked certain soft skills and software proficiency. Kumaraguru Learning and Development Academy (KLDA) was established during 2016 to identify, understand training needs of faculty, staff members and organise training programmes using inhouse and outsourced resources. Through informal discussions with Heads, individual members, training needs are identified, grouped into different modules – soft skills, personal health, personal finance, domain based, software packages, communication skills, interpersonal skills (Table 6.5.1 (b)). This has resulted in better relationship between student and staff, staff and faculty, awareness on personal responsibility, work-life balance, higher productivity and co-working with faculty in preparation of compliance reports using software.

Table 6.5.1 (b) Training of Staff

AY	Training	Beneficiaries
2016-17	Soft Skills	21
2017-18	Health & Wellbeing	44
	Right-to-Information	17
	Develop Your Career	07
	Plan your Financial Future	17
	Basics of Designing	13
	Stress Management	10
	Recharge Your Body & Mind	12
	Email Etiquette & Communication	11
	MS-Excel	17
	Workplace Communication	11
	MS-Power-Point	17
	Time Management	10
	Etiquettes and Manners	13
	Self-Awareness	15
	Bringing Process Improvements	05
	Planning and Scheduling	05
2018-19	Basic Python Programming for Everybody	40
	Enhancing English Communication Skills	17
2019-20	MS-Excel for Efficiency	45
	Winning People with Interpersonal Skills	50
	Training on MS-Excel	30
	MS-Excel - Part 1	35
	MS-Excel - Part 2	42
	MS Excel And E-Mail Etiquette	30
	Computer Applications for Supporting Staff	19
2020-21	MS-Word and PowerPoint	25
	Financial Planning	41
	English Language in Effective Teaching and Classroom Management	42

File Description	Document
Any additional information	View Document

6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms and recorded the incremental improvement in various activities

(For first cycle - Incremental improvements made for the preceding five years with regard to quality

For second and subsequent cycles - Incremental improvements made for the preceding five years with regard to quality and post accreditation quality initiatives)

Answer:

Case 1: QUALITY ASSURANCE - ACADEMIC AUDIT

Academic audit is process of quality improvement in academic system, leading to student success. Audit involves self-study, peer review and site-visit, organised by IQAC to facilitate self-reflection and self-improvement of faculty, thereby improving quality of education (Fig. 6.5.2).

[6.5.2.png](#)

Fig. 6.5.2 Academic Audit Process

Audit Head is appointed by Principal, who in turn forms audit team in consultation with Heads. On confirmation of members, an awareness is given by Principal, followed by discussions on processes, checklists, forms and findings of previous audits and methods of presenting audit findings.

Audit Process

Conducted twice a year and major audit points and audit documents are shown in Table 6.5.2 (a).

Table 6.5.2 (a) Audit Points and Records

Audit Points	Audit Documents / Records
<ul style="list-style-type: none"> • Timetable • Syllabus Coverage • Records • Course plan • Assessment Pattern and Marks • Course materials • Lab Manual/Workbook • Quality of Question papers • Verification of CO attainment 	<ul style="list-style-type: none"> • Faculty Workload • Student Enrollments • Result Analysis • Remedial Classes • List of adjunct faculty • BOS, DAB minutes • Projects Implementation • Feedback • Course-end Survey

Audit findings are shared with respective faculty members through Heads and overall report is discussed in IQAC meeting to assess gaps and blind spots.

Academic Audit for the academic year 2020-21, during COVID-19 pandemic, took place from April to May 2021. Synchronous sessions and online Course File audits happened at end of cycles. Out of 117 sessions, 80 Synchronous were audited and contents of Asynchronous mode were verified. Auditors observed the Sessions, received feedback recorded from students. Comments were taken into consideration, necessary actions were taken, e.g. final year students of Automobile Engineering had difficulties in attending placement training sessions as they had parallel classes, same time. This was conveyed to faculty and class was shifted to afternoon slot of timetable.

Case 2: Project Based Learning – *Engineering Clinic*

Engineering students are expected to address the needs of community, society and nation with innovative ideas, as emphasized in POs. In order to improve problem-solving abilities of students it was suggested to introduce *Engineering Clinic* as a credit course in curriculum. *Engineering Clinic* was introduced in Regulation 2017, Regulation 2018 adopting P-D-C-A concept for implementation (Table 6.5.2 (b)).

Since PBL was relatively a new concept, it was decided to seek the assistance from Forge Accelerator, start-up incubator, to train faculty members in small groups in problem identification, brainstorming, idea-creation, PoC preparation and prototyping.

Syllabi are termed as (i) Engineering Sprints, (ii) Innovation Sprints, (iii) Design Sprints and (iv) Ideation Sprints (given in *Additional Information*). Steps were taken to (i) Assessment and Alignment, (ii) Capacity Building, (iii) Academic Integration, (iv) Resource Allocation, (v) Institutionalization after incorporating necessary feedback.

Table 6.5.2 (b) Engineering Clinic / Innovation Practicum (P-D-C-A)

Ideation of PBL	Preparation of Regulation
Discussions in BoS, AC	Curriculum/Syllabi
Pilot through Workshop	Train-the-Faculty
Objectives & Outcomes	Device Assessments
Document the Learning	Rolling out the Course
Identify the Potentials	Assess Learning Outcome
Disseminate the Findings	Group Interactions

File Description	Document
Any additional information	View Document
Link for additional information	View Document

6.5.3 Quality assurance initiatives of the institution include:

1. Regular meeting of Internal Quality Assurance Cell (IQAC); Feedback collected, analysed and used for improvements
2. Collaborative quality initiatives with other institution(s)
3. Participation in NIRF
4. Any other quality audit recognized by state, national or international agencies (ISO Certification)

Answer: All of the above

File Description	Document
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Upload e-copies of the accreditations and certifications	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document
Paste web link of Annual reports of Institution	View Document

7. Institutional Values and Best Practices

7.1 Institutional Values and Social Responsibilities

7.1.1 Measures initiated by the Institution for the promotion of gender equity during the last five years.

Answer:

KCT emphasis a culture that inculcates gender equity, sensitivity and harmony in its social and physical environments. Equal opportunities are provided to girls in admission into various degree programs and women in employment, career advancements and elevation into higher positions in the organization through appropriate Policies (HR Policy, Career Advancement Schemes, Performance Assessment Systems), Committees (Internal Complaints Committee, Grievance Redressal Committee), creating platforms for empowerment (Women Empowerment Cell, Leadership Council), establishing adequate facilities (Cubicles / Cabins, Hostels, Gymnasium and Sports Fields, Restrooms), support services (Women HR Manager, Lady Counselor, Lady Caretakers and Lady Physical Director) and offering academic courses related to Gender Sensitization and Equity.

The Campus provides safe environment to the girls by providing multi-layer safety features. Entire campus is kept safe from intruders by maintaining concrete boundary walls with physical and electronic security systems. 582 IP surveillance cameras and 32 biometric systems are installed to ensure safe check-in and check-out of student with an IVRS system. Some of the initiatives are given below:

Table 7.1.1 Thinks to Ensure Gender Equity

S No	Activities / Facilities	Year of Establishment	Objectives	Role of Girl Students / Women Faculty
1	Extra-curricular Activity – NCC (Army wing – Girls – 52 students Air Wing - 30% Girls)	2006-2007 2016-2017	Provide awareness, opportunities to women students in defence related activities and career	Cadets, Different Ranks Lady Captain
2	NSS – Induction of Girl Students	1989-1990 (common)	Provide awareness, opportunities to girls' students in serving the society	Volunteers / Team Leaders Women Faculty Coordinator
3	Exclusive Gym for Girls	2016	Ensure participation of women in sports and maintain healthy physique	Beneficiaries

4	Exclusive Club for Girl Students - <i>Pudhu Paavai</i> (New age Women)	2015	Organize events / activities related to gender equity, sensitization, induction programmes	Volunteer / Coordinator / Organiser Women Faculty Coordinator
5	Women Empowerment Cell	2014	Organize events related to gender equity, sensitization, gender related health issue to girl students	Volunteer / Coordinator / Organiser & Women Faculty Coordinator
6	Internal Complaints Committee	2015	Redressal mechanism, solve grievances related to personal and academics	Committee Members, Faculty Coordinator
7	Grievance Redressal Committee	2012		Committee Members
8	Committee on SC/ST	2014		Committee Members
9	Women Counsellor	2012	Receive, analyse and solve gender related issues	Counsellor
10	Online Counselling – Your <i>Dost</i>	2020	Provide anonymous counselling and support for personal, psychological issues	Beneficiaries
11	Women in Leadership Council / Associations	2016	Provide equal opportunity in administration and leadership positions	Coordinators / Centre Heads / HOD's/ Dean
12	Leadership Empowerment and Development	2016	Opportunities for girl students to develop themselves	Coordinators
13	HR Manager - Women	2011	Provide personal attention to lady employees and their needs	-
14	Governing Council	2016	Provide equal opportunity in leadership positions	Member
15	Academic Courses related to Gender Equity / Sensitization / Empowerment – Open Electives	2017	Reinforce gender sensitivity among boy and girl students through systematic efforts	Beneficiaries
16	Academic Courses – Value	2015		Beneficiaries

File Description	Document
Specific facilities provided for women in terms of: a.Safety and security b.Counselling c.Common Rooms d. Day care center for young children e. Any other relevant information	View Document
Annual gender sensitization action plan	View Document

7.1.2 The Institution has facilities for alternate sources of energy and energy conservation measures

1. *Solar energy*
2. *Biogas plant*
3. *Wheeling to the Grid*
4. *Sensor-based energy conservation*
5. *Use of LED bulbs/ power efficient equipment*

Answer: A. 4 or All of the above

File Description	Document
Geotagged Photographs	View Document
Any other relevant information	View Document

7.1.3 Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 500 words)

- *Solid waste management*
- *Liquid waste management*
- *Biomedical waste management*
- *E-waste management*
- *Waste recycling system*
- *Hazardous chemicals and radioactive waste management*

Answer:

KCT has well-laid policies and processes to handle Solid, Liquid, Biomedical and E-wastes. KCT has established **Microcosm**, which plays the major role in formulating the policies related to waste prevention and waste handling and elimination, thereby moving towards a “sustainable, green campus”. KCT has following policies in place, which help to channelise activities related to various kinds of wastes – (i) Paper Usage Policy, (ii) Plastics-free Campus, (iii) Scrap Disposal Policy and (iv) Waste Classification and Disposal. Department of Facilities with the dedicated manpower, takes care of collection, segregation and disposal of wastes, safely. Wherever possible, suppliers are advised / negotiated to use minimum amount of packing materials thereby reducing waste generation. Manures produced using the bio composting (Yard Capacity (1.5 Tons)) of wastes are used in the kitchen-garden to produce the vegetables to the extent of (90 tonnes/year).

KCT, do not use any radioactive wastes in any form and so handling and disposal of these wastes do not arise. With respect to the biomedical wastes that arise out of the Campus-Clinic (Hospital), safe collection and disposals are ensured through Local Municipality Waste Collection system. Green / Biofertilizers are used in gardening / gardens so that disposal does not pose any issues. Other wastes are managed as given below.

Table 7.1.3 Sources Collection and Disposed of Wastes

S No	Type of	Possible Sources of	Collection Method	Disposal
------	---------	---------------------	-------------------	----------

	Waste	Generation		Process
1	E Waste	Used Computers / Servers / Printers	Collected and kept centrally by Department of Technology Services (DTS)	Negotiated with suppliers for buy-back
2		Exhausted Printer Cartridges	Collected Centrally by DTS and Purchase	Used for refilling through contractual agreement
3		Electrical Cables, Panels and Construction Materials	Collected and segregated in the Resource Recovery Park (RRP)	Disposed to authorised vendors / taken for reuse
4	Liquid Waste	Toilet / Urinal Wastes	Collected through a common channel and then to Equalization Tank for Sewage Treatment	Treated in the Sewage Treatment Plant and reused (STP) for landscaping
5		Kitchen Wash-water		
6		RO Reject Water	Collected through the trench	Used for landscaping and gardening
7	Solid Waste	Incoming Packing Materials	Collected and segregated in the RRP / Scrap Yards	Disposed to authorised vendors / taken for reuse for various projects
8		Damaged Furniture		
9		Paper Wastes		
10		Construction / Demolition Wastes		
11	Solid Waste	Kitchen Wastes / Wastes from Staff Residents	Collected through Common System, segregated into dry and wet categories	Used in Piggery and remnants taken for bio-composting
12		Leaves / Wooden Logs	Collected through Horticulture Section	Taken for bio-composting
13		Laboratory Wastes	Collected by respective labs in accordance with MSDS	Safely disposed as per MSDS

File Description	Document
Relevant documents like agreements/MoUs with Government and other approved agencies	View Document
Geotagged photographs of the facilities	View Document
Any other relevant information	View Document

7.1.4 Water conservation facilities available in the Institution:

1. Rain water harvesting
2. Borewell /Open well recharge
3. Construction of tanks and bunds
4. Waste water recycling
5. Maintenance of water bodies and distribution system in the campus

Answer: A. Any 4 or all of the above

File Description	Document
Geotagged photographs / videos of the facilities	View Document
Any other relevant information	View Document
Link for any additional information	View Document

7.1.5 Green campus initiatives include:

- 1. Restricted entry of automobiles*
- 2. Use of Bicycles/ Battery powered vehicles*
- 3. Pedestrian Friendly pathways*
- 4. Ban on use of Plastic*
- 5. landscaping with trees and plants*

Answer: A. Any 4 or All of the above

File Description	Document
Various policy documents / decisions circulated for implementation	View Document
Geotagged photos / videos of the facilities	View Document
Any other relevant documents	View Document

7.1.6 Quality audits on environment and energy are regularly undertaken by the Institution and any awards received for such green campus initiatives:

- 1. Green audit*
- 2. Energy audit*
- 3. Environment audit*
- 4. Clean and green campus recognitions / awards*
- 5. Beyond the campus environmental promotion activities*

Answer: A. Any 4 or all of the above

File Description	Document
Reports on environment and energy audits submitted by the auditing agency	View Document
Certification by the auditing agency	View Document
Certificates of the awards received	View Document
Any other relevant information	View Document

7.1.7 The Institution has disabled-friendly, barrier free environment

- 1. Built environment with ramps/lifts for easy access to classrooms.*
- 2. Divyangjan friendly washrooms*
- 3. Signage including tactile path, lights, display boards and signposts*
- 4. Assistive technology and facilities for Divyangjan accessible website, screen-reading software, mechanized equipment*
- 5. Provision for enquiry and information : Human assistance, reader, scribe, soft copies of reading material, screen reading*

Answer: A. Any 4 or all of the above

File Description	Document
Policy documents and information brochures on the support to be provided	View Document
Geotagged photographs / videos of the facilities	View Document
Details of the Software procured for providing the assistance	View Document
Any other relevant information	View Document

7.1.8 Describe the Institutional efforts/initiatives in providing an inclusive environment i.e., tolerance and harmony towards cultural, regional, linguistic, communal socioeconomic and other diversities (within 500 words).

Answer:

KCT provides equal opportunity to the young aspirants in admission into various programmes to ensure equity and access in higher education. No gender bias is adopted in admitting the students, which has resulted in the gender proportion of considering the total strength.

Students of different socio-economic status like are admitted and students who are from economically weak admitted under Tuition Fee Waiver (TFW) schemes of AICTE and State Government. After admission, various scholarships are provided by Management and facilitated for different Government Schemes, as specified in the Criterion 5. Besides, students who belong educationally backward sections are given preference under the First Graduate (of the Family) Scheme (CCC students) during the admission.

Besides, students with meritorious record in sports, persons with disability, wards of ex-servicemen are given preference in the admission while following the norms of the DoTE.

KCT ensures equity among different communities by strictly following the Reservation Policies of State and Central Government and currently has students from SC/ST, OBC and other categories and such students are provided equal facilities and access without any gender and caste discriminations.

In order to provide the career enhancement opportunities to the Diploma Candidates, Lateral Entry Scheme has also been implemented, where a Diploma holder can directly join second year of the UG Programme based on the Merit and other conditions.

Inclusive environment provided by KCT also facilitates students with different linguistic and cultural backgrounds comprising Hindu, Muslim, Christians, Gujarathi, Sindhi, Jain, Sourashtrian, Rajput and other regionally dominant. Also geographical diversity or regional inclusiveness is demonstrated by admitting students from Andaman and Nicobar, Andhra Pradesh, Jammu and Kashmir, Karnataka, Kerala, Maharashtra, NCT, Pondicherry and a few foreign countries through NRI Quota. For parents working with different Government Offices, who are often transferred to different locations, facilities are extended to admit their wards at partially completed stage of education, through DoTE.

With reference to faculty members qualification, experience as specified by UGC are followed at the time of recruitment thereby providing equal opportunity to all the Indian citizens. KCT has male: female ratio – 210::138, and eligible members are provided higher administrative positions like Head of the Department, Controller of Examinations, Dean and other Centre Heads thereby ensuring inclusivity in every respect. Besides Mandatory Committees and Non-Statutory Committees recommended by UGC, AICTE and University are formed for smooth and brotherhood-working atmosphere in the Institution regardless to the diversity.

File Description	Document
Supporting documents on the information provided (as reflected in the administrative and academic activities of the Institution)	View Document
Any other relevant information	View Document

7.1.9 Sensitization of students and employees of the Institution to the constitutional obligations: values, rights, duties and responsibilities of citizens (within 500 words).

Answer:

The fundamental duties of the Constitution to create and promoting culture and enforcing the duties vis-a-vis the fundamental rights are followed at every level in the institution. Founder of the Institution was awarded with the highest civilian award *Padma Bhushan* by the then President of India for the contribution and following values, duties and responsibilities relentlessly.

Leadership of KCT promotes scientific temper, humanism and spirit of inquiry among students and faculty through mission, strategic initiatives, facilities, funds for different activities through seed grants, matching grants, instituting sponsorships and scholarships so as to strive for excellence in individual's and collective activities to reach higher levels in the operations. Indian Constitution, as a mandatory course, is taught to all students of UG thereby bringing an awareness on constitutional values, rights duties and responsibilities among everyone. Activities of NCC, NSS, Celebrating Independence Day & Republic Day emphasise the importance of National Flag and National Anthem, cherish and follow the noble ideals like *Mahatma Gandhi*, *Swami Vivekanandha*, *Bharathiar* and events related to freedom struggle.

Students and Faculty Members respond to the service-calls posed by the State and National level, responding to situations, like regulating traffic, safe-guarding public properties, guiding the crowds during festival seasons, local body elections, imposing lock-down (COVID-19), thereby facilitating, promoting harmony and spirit of common brotherhood. KCT maintains equity among the students and employees, regardless to their regions, religions and linguistic backgrounds and maintain the dignity of everyone, in particular women students and employees. Courses related to heritage, culture and values are offered as the Open (FCLF) Electives for the students with different background into the same classroom. Courses related to Environment, activities of Microcosm, NSS, NCC, Clubs & Societies have the focus to protect and improve the natural environment like forests, lakes, rivers and promoting the presence of different flora and fauna inside the campus in addition to different kinds of birds including the National Bird – peacocks thereby abiding the Constitutional Values of India.

Fundamental rights of Indian citizens emphasised through the Constitution are dutifully followed and necessary provisions are given through various measures as given below.

Table 7.1.9 Implementation of Fundamental Rights

Right to Equality	No discrimination exercised between genders, religions, communities, demography and students are encouraged to maintain equality
Right to Freedom	students are encouraged to exercise freedom in academic grievances, accessing facilities, assemble and organise various events and functions, form Councils, Associations
Right against Exploitation	Ethical work practices are followed with no engagement of child labour
Right to Freedom of Religion	No restrictions in terms of following religions, worship and no selective promotion of religion inside the campus
Cultural and	Reservations related to admission are

Educational Rights	followed to protect the interests of minorities; financial assistance for socially and economically backward are facilitated
Right to Constitutional Remedies	Providing access to various sections like Tuition Fee Waiver, Lateral Entry, Admission to OCI/FN/NRI as per recommendations
Right to Property	Personal/Professional properties of students/faculty like certificates, mark/grade sheets are not retained, illegally

File Description	Document
• Details of activities that inculcate values; necessary to render students in to responsible citizens	View Document
Any other relevant information	View Document

7.1.10 The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard.

- 1. The Code of Conduct is displayed on the website**
- 2. There is a committee to monitor adherence to the Code of Conduct**
- 3. Institution organizes professional ethics programmes for students, teachers, administrators and other staff**
- 4. Annual awareness programmes on Code of Conduct are organized**

Answer: A. All of the above

File Description	Document
Details of the monitoring committee composition and minutes of the committee meeting, number of programmes organized, reports on the various programs etc., in support of the claims	View Document
Code of ethics policy document	View Document
Any other relevant information	View Document

7.1.11 Institution celebrates / organizes national and international commemorative days, events and festivals (within 500 words).

Answer:

KCT, functions with a motto “Character is Life”, plans to inculcate different values among faculty members and students. Founder of the Institution, Late *Padma Bhusan N Mahalingam* himself was an ardent follower of Gandhian Principles and Swami Vivekanandha’s ideologies and facilitated publication of the Biography of Mahatma Gandhi (Publisher: No.of Volumes.). Through systematic approach Clubs and Societies, Leadership Council, Department Associations, NSS, NCC, Microcosm and Professional Chapters organise and celebrate (i) Cultural Festivals, (ii) Important Days, (iii) Religion-Independent Festivals, (iv) Commemorative Days, (v) Important National Days and (vi) International Days. Institute allocates a budget close to Rs 50 to 60 lakhs for such events annually for this purpose. Week-long celebrations are also organised during Gandhi Jayanthi, Literary Festival, Red Ribbon (AIDS Awareness) Week, Sarvodaya Week, Road Safety Week and Yugam (Techno-cultural Events). During Nationally Important days like **Independence Day, Republic Day, Teachers Day**, Chairman, Correspondent, Joint-Correspondent address the faculty members and students to showcase their commitment in such value-

based events and nurture the patriotism, commitment and dedication to the profession and country. In order to continuously reinforce the contributions of national leaders, among the young students, common facilities are named after the leaders like – Mahatma Gandhi Study Centre, Vivekananda Student Centre, Seminar Halls named after Vikram Sarabhai, Vishveshwarya and full-body statue of Swami Vivekananda has been installed in the Institution.

Gandhi Jayanthi is celebrated every year to commemorate the doctrine of nonviolence and special gathering is arranged for faculty and students with a special speech. **World Student Day** is celebrated on October 15th every year that marks the birth anniversary of APJ. Abdul Kalam. **Pongal** is a traditional festival celebrated to acknowledge the sun, rain, soil, water, and cattle. Some of key events, organised and celebrated, are given below.

Table 7.1.11 Important Days Celebrated

S No	Category of Events	Importance of the Day	Date
1		Kargil Victory Day	26 July
2		National Handloom Day	07 August
3		Ramanujam's Birthday	22 December
4	International Days	International Labour Day	01 May
5		Mothers' Day	09 May
6		World Environment Day	05 June
7		World Blood Donor Day	11 June
8		International Yoga Day	21 June
9		World Photography Day	12 August
10		World Literacy Day	8 September
11		International Women's Day	8 March
12	Religion-Independent Festivals	Pongal	Weeklong Celebrations during second week of Jan
13		New Year	14 April
14	Commemorative Days	Farmers' Day	23 December
15		Teachers' Day	05 September
16		Engineers' Day	15 September
17		Gandhi Jayanthi	02 October
18		Army Day	15 January
19		Kargil Victory Day	26 July

File Description	Document
Geotagged photographs of some of the events	View Document
Annual report of the celebrations and commemorative events for the last five years	View Document

7.2 Best Practices

7.2.1 Describe two best practices successfully implemented by the Institution as per NAAC format provided in the Manual.

Answer:

Title of the Practice: ProtoSem – Prototype Semester

Objectives of the Practice

ProtoSem is an Open Innovation Fellowship Program, designed and developed by KCT-Forge Academy embedding an innovation-centred approach to engineering education. The program enables students with the necessary skills and competencies to solve real-world problems and develop tech-enabled solutions for the needs of industry, corporations, startups, and society.

The Context

ProtoSem imparts practical, conceptual knowledge through co-creation opportunities, which has proven to enhance the employability of students and sets towards an accelerated career path. Students spend 20 Weeks in the integrated Lab Ecosystem that enables them to develop solutions using 3D Printing, Embedded Systems, ML, Robotics, AR/VR, and IoT. Students are trained by Experts through training sessions & prototyping that gives hands-on exposure with Agile Methodologies and Product Management. Selection of students is carried out through a 3 step process, considers student's curiosity, learnability, drive, and attitude.

- Help students understand the importance of Innovation skills
- Learning from the traditional system for a transdisciplinary program
- Time consuming process of selection evaluates the student under various verticals of problem solving, mindset to team player
- Scholarships/Financial supports are given to outstanding meritorious students
- Leverage learning advanced technologies and build a Minimum Usable Prototype

[7.2.1\(fig1\)](#)

1. The Practice

- **Learning by doing** is to learn the process of innovation by doing
- **Values & Ethics:** Innovation Engineers learn and implement agile practices to be self-sufficient to manage and impart right ethics
- **Product Innovations:** Students work in transdisciplinary teams go through a defined process for developing a product innovation
- **Skill building:** Rubrics showcase the key skill areas defined in various technologies to catalyse product innovations and to create innovation engineers
- **Co-create with Industry/Start-ups** - Teams interact with industry/start-ups on a regular basis, understand and align to product innovation with agile methods on a day-to-day basis
- **Curriculum** is built by the best practices used in industry, facilitated by industry experts

Uniqueness

Market Place - Challenge statements are shared to select the challenge. Team identifies Visionary - who leads the team, Hacker - does technical job to outcomes, Designer - brings a creative approach to solutions.

[7.2.1\(fig2\)](#)

Values and Corporate Practices - Students are trained on project management tools to Plan, Organise, Review, Meet and discuss day to day action plans and execute the work in the most effective manner.

Zen Pencils is an online showcase to feature illustrations taking on famous quotations and making a visual style to create a story. Students choose a comic strip that suits/inspire enough to pursue their life dreams. This activity helped to understand, identify individual's goals and aspirations.

16 - Personalities Circle is a psychometric test to learn what drives, inspires, and worries different personality types, helping to build meaningful relationships within cohort. It helps to make the best possible combination of people in a team. This activity is carried out at the start and end of *ProtoSem* to show them how their personality has improved and showcase how awesome they are.

[7.2.1\(fig3\)](#)

Collaborative Cohort aims to break stereotypic behaviours of individuals and process to look for new friends, new people, new ideas and accept newer ones with open-mindedness to achieve team outcomes.

[7.2.1\(fig4\)](#)

Movie Time is a part of ProtoSem, imparting some important lessons by on-screen performances. Movie titles include Spare Parts starring George Lopez, which sets the life at ProtoSem and expectations. Coach Carter, Remember the Titans, Internet's Boy and Ted Talks are other screenings that happen.

Game Nights are introduced to international board games to build stronger relationships with fellow teammates and resilient cohort. This helps in identifying key personality traits of individuals and Four major games include RISK - Game of Global Domination, Pandemic, Resistance and Scotland Yard.

- **Drawsaurus** opens up the minds and getting adapted to ProtoSem culture. With learning & fun, students break boundaries of emotional barriers and increase productivity.

5. Evidence of Success

From 9 batches of ProtoSem, there were 345 Innovation engineers trained to develop 81 product innovations. From these, 4 teams have filed patent applications and 4 teams have registered to be a start-ups. Around 30 Lakh investment was raised from Corporate and Government Organisations. 86 innovation mentors from various domains, mentored to develop their MUP.

Corporate-sponsored Innovation Fellowship

10 Innovation Engineers bagged employment at ThoughtWorks after a rigorous internship and interview. To identify potential candidates from the current Cohort, students across various academic institutions underwent Innovation Bootcamp. During the Boot Camp various workshops, organized to upskill and competencies required for selection were supported by the ThoughtWorks.

Based on expert suggestions, selected students underwent rigorous training on specific skills and competency development on the best practices and processes. It was practised under the mentorship of experts and developers. ThoughtWorks acquires potential interns/employees based on their exceptional performance during their internship.

Innovation Engineers placed at ThoughtWorks through Fellowship

Differential Employability

With network of start-ups and industrial connections spanning across different sectors, ProtoSem provides visibility and access to employability opportunities. This network shares technology discussions, events notifications and others in the context of engineering and product.

6. Problems Encountered and Resources Required.

- Most of the courses are handled by industry professionals where session planning is important
- Requirements of Program Interns is mandatory in order to support the teams for their product innovations
- High end hardware labs and work tables required for MUP development
- During pandemic, *ProtoSem* Experience Kit was developed to learn, play and execute their learning outcomes

Title of the Practice : *The Huddle* – Forum for Senior Leadership Meet

Objectives of the Practice

Need for discussions among the senior leaders was felt to discuss various issues during start of pandemic, take decisions and disseminate the best practices. It was decided to meet daily between 10.00 to 10.30 am through online platform. Objectives of the Huddles are to

- Establish a platform for Institutional Leadership, academic and administrative, to discuss contemporary issues, best practices, and actionable ideas
- Discuss and Disseminate vital information required for making decisions at Institutional / Departmental / Support Systems-levels
- Promote Participative Style of Management and systematically plan empowerment of internal stakeholders for implementing various initiatives

The Context

COVID-19 pandemic posed an unprecedented challenge and difficulty in executing various activities related, and digitalization has seen a major surge. Due to the effects of the pandemic, the need for remote discussions has substantially increased and is expected to continue in the future. Huddle discussions have gained a lot of attention in all the working systems. They are popular because they bring together a small group of people to meet on a regular schedule for discussion.

“Huddle” refers to a strategic gathering where players determine the next play on the field during an American football game. Currently, this is also becoming a trend as a space to produce active discussions and new ideas in various organizations. In Kumaraguru, Huddle was originally proposed to discuss the Government guidelines, University Notifications and take appropriate decisions for implementing the best practices to mitigate COVID impact and support the local community.

The Practice

The series of discussions under the banner of the Huddle series kick-started on 08th April 2020, immediately after first lock-down. The initiative was envisaged by Mr Shankar Vanavarayar, Joint Correspondent to bring together the institutional leadership members to a forum to discuss ideas, brainstorm and share matters of importance. Through the pandemic that was emerging isolated people and spaces, the ideas and connections with the members of the institution were taken forward seamlessly through this initiative. with each discussion being moderated by a chairperson. The panel includes the members from the apex administration body as well as the program leads of various support systems. There have been nearly 758 topics discussed under diverse genres namely Teaching and Learning, Curriculum Development, R&D, Faculty Development, Student Support, Leadership & Governance and Facilities, Digital Transformation and General Information.

The information was curated and presented by the administrative members, faculty and the budding graduates of the four wings of Kumaraguru institutions including College of Technology (KCT), College of Liberal Arts and Science (KCLAS), KCT Business School (KCTBS) and Institute of Agriculture (KIA).

Evidence of Success

[7.2.1\(fig5\)](#)

[7.2.1\(fig6\)](#)

Sessions featured 758 agendas, out of them, 346 agendas were presented by students, faculty and administrative members of KCT, 21 presentations from KCTBS, 8 agendas from KIA and 327

presentations focussed holistically on Kumaraguru Institutions (KI). KCLAS put forth 37 presentations - student achievements and departments.

[7.2.1\(fig7\)](#)

[7.2.1\(fig8\)](#)

IMPACT ON TEACHING LEARNING

Out of 209, 56 concepts developed and implemented, 67 information to stakeholders. Includes skills development and activities of clubs and forums.

32%

IMPACT ON LEADERSHIP

176 informational presentations - 56 concepts developed, and 48 information. Included NIRF, GOs and exam notifications

27%

RESEARCH & DEVELOPMENT

Of the 90 presentations on R&D, 24 implemented, 24 served as information. Includes projects, funding, publications.

27%

IMPACT ON CURRICULUM DEVELOPMENT

48 presentations - 17 ideas implemented. Initiatives - Coursera updates, Clubs and Forums Report, YourDost partnership.

35%

FACILITIES & INFRA ENHANCEMENT

24 presentations, 13 actions taken, 5 information to the stakeholders. Includes Campus maintenance, Campus entry portal, Security management, COVID Care Centre.

IMPACT ON FACULTY DEVELOPMENT

19 presentations – 13 provided information. Proposals - K-STEAR Demo, Training for SFS faculty, Weekly Forum debrief.

16%

STUDENTS SUPPORT & ENGAGEMENT

48 presentations - 17 ideas were worked upon and implemented, 16 of them were information.

35%

Problem Encountered and Resources Required

This deep analysis on the implementation of the Huddle series in Kumaraguru institutions has shown a positive impact in various aspects / functions of the institutions. This practice has also enabled multiple levels of networking among the various working groups of the institution.

- Training of Seniors on software platform was initial hiccup encountered during implementation
- Availability of Internet bandwidth at various locations deterred presentations and discussions
- Framing the agenda on daily basis, disseminating the decisions and information to relevant stakeholders during the pandemic posed serious problem.
- Reaching-out all the Members after lock-down seemed to be tiresome one due to physical routines and pre-committed engagements of the Members.

File Description	Document
Best practices in the Institutional web site	View Document
Any other relevant information	View Document

7.3 Institutional Distinctiveness

7.3.1 Portray the performance of the Institution in one area distinctive to its priority and thrust within 1000 words

Answer:

KCT has the vision set as “to become a technical university of International Standards through continuous improvement”. Senior Leadership and Governance has laid down Mission, Values and commitment of the leaders are visible in actions and plans, and reinforces the activities and developments. Decentralised and participative Management has led to open-culture, driven creativity and innovations of stakeholders.

Planning and execution of policies, processes and procedures have led to develop an **Innovation Ecosystem, through involvement of its stakeholders in Education, Research and achieving Quality in the Outcomes** (Fig. 7.3.1).

[7.3.1.png](#)

Fig. 7.3.1 Innovation Ecosystem

Innovations in Education

KCT has been introducing innovative features in the Regulation and Curriculum and was one of the first Engineering Colleges in TN to plan for CBCS in 2009. Suggestions and participation of stakeholders in addressing future manpower helped KCT to start distinct programmes, MBA – Innovation, Entrepreneurship and Venture Development, MTech – Technology Management and revising curriculum to achieve 90% plus courses focusing on Skill Development, Employability and Entrepreneurship (Criterion 1.1.3) without losing focus on Ethics as specified in Criterion 1.3.1.

Flexible and Comprehensive Learning Framework for Open Electives, Embedded Courses to understand concepts, Engineering Clinics for learning Innovation through series of hands-on activities, Project Based and Problem Based Learning, *Protosem* and Value Added Courses are some of the innovative pedagogical initiatives adopted by KCT. 32 Chapters of Professional Bodies / Associations have been established to enhance skills and knowledge through expert interactions.

Innovations for Research

On realising the needs to enrich education through research findings, KCT started its efforts by establishing research laboratories, support systems and different centres. Research Policy provides competitive atmosphere to showcase talents and contribute to value creation and addition. Sabbatical leave policy facilitates short-term engagement with industries/institutions with monetary benefits. Students are inducted as interns at Re, iQube, Garage, KC.IRI and Forge Accelerator with financial incentives and are involved in projects funded by various agencies. KCT has instituted Seed Grant for young faculty members to carry out initial research works, prior to approaching funding agencies. Financial incentives are provided for quality publication, research works and IP created by students and faculty members. IP Cell created through Institutional Innovation Cell facilitates dissemination of research, supporting IP claims through patents/copyrights. Coimbatore Innovation and Business Incubator, supported and catalysed by DST provides a platform to students, faculty members and public to incubate new ideas into products/processes.

Innovations for Quality

Quality has the focus on Life of Students and Faculty on Campus, ensuring sustainable measures within the campus, networking with communities, villages and industries for enhancing livelihood of public. Supporting the artisans, retaining traditional culture and values by coordinated efforts of Management, Faculty Members and Students are seen as the best practices. Statutory, Mandatory and Non-Statutory Committees have been established to self-regulate the processes and practices with a focus on Vision and Values. KCT has established *Microcosm* with a focus to ensure the implementation of sustainable practices in using natural resources, waste management and introducing innovation. These efforts helped KCT to increase collaborations and partnerships with stakeholders for improving quality of life.

Outcomes, Recognitions and Rewards

Education Related Outcomes

- 100% of programmes have been revised in the last 5 years
- 100% CBCS with Summer and Winter Track options
- 90% of courses have focus on Employability, Skill Development and Entrepreneurship
- 80% of students carry out Projects in STEM areas
- 80% of students undergo training / internships
- 70% of students benefited through Value Added Courses
- 517 Courses Introduced
- Value Based Education with a focus on personal, professional, family and global values
- Participative and Peer Learning
- 35+ Clubs and Societies for Co-curricular Activities
- 91 % of students pass successfully during final year
- 3594 scholarships through Management, Government and NGOs
- 381 students cleared competitive examinations in the last 5 years

Research Outcomes

- 198 Faculty Members with Ph D
- 12 Research Centres approved by the Anna University
- 16 Industry supported collaborative laboratories
- 23 Teachers received awards from Government and NGOs
- Rs 570 lakhs received as project grants in the last 5 years
- Rs 714 Lakhs generated through Consultancy/Testing Services
- 75% of the Departments have funded projects
- 831 workshops conducted on Research Methodology, IPR and Skill Development
- 1677 papers in indexed journals, and 1200 book chapters and conference proceedings published in the last 5 years
- 12261 Citations cumulatively for 5 years
- DSIR Recognition as SIRO
- DST – Forge Accelerator for incubation and innovation
- TIFAC – CORE in Textile Machinery

Enhancing Quality of Life

- 374 Extension Programmes organised through NSS / NCC and Forums
- Green Campus with 4900+ Trees of 150+ Varieties
- Home for 70+species of native and migratory birds
- *Ahimsa Vanam* inside the campus
- 83,00,000 litres water harvested through pond annually during monsoon
- 7 Lakh Litres of waste water recycled every day
- 250 kWp power generation through Solar Power plant
- **Namadhu Pangu** adopted 5 villages for Health awareness, Socio-cultural events and woman-empowerment.
- **Kumaraguru Action for Relief and Empowerment (KARE)** supported the public during Chennai Floods (2015), Gaja Cyclone (2018), Kerala/TN Floods (2019) and COVID-19 pandemic.
- NSS involved in 110 Voluntary activities including 25 Eye camps, donation of 1549 units of blood and planting 210 saplings
- NCC rendered services including Lake cleaning, Conduct Environmental Awareness Programs
- **Rotaract Club** helps orphanages, conduct Aids Awareness programs, Road Safety Patrol
- **Social Immersion Project** to identify problems in society and develop products
- **Microcosm** has a focus on campus sustainability activities and support for campus green cover
- **KCT - TN Government COVID Isolation Centre** is 800 beds capacity, inaugurated by the Chief Minister, to serve thousands of COVID patients
- **KCT Campus Centre for Weavers** (2019) gives training to weavers with stipend in handloom weaving
- **Coimbatore Weaver's Centre** provides training to 500 handloom weavers of Coimbatore in developing newer products and design in sarees, to use Jacquard
- **Centre for Bhavani Jamakalam** takes efforts to popularize the Jamakalam with value addition and recently recognized by *Atma Nirbhar Bhaarat* for Design, New Delhi
- **Initiatives to Enhance Farmers' Income** supports 5000 farmers to enhance agriculture activities and introduce Integrated Farm Practices
- **Foundation for South Indian Heritage** supports preservation and restoration of Heritage Building, Assets of South India

File Description	Document
Appropriate web in the Institutional website	View Document

Extended Profile

Program

Number of programs offered year-wise for last five years

Answer:

2020-21	2019-20	2018-19	2017-18	2016-17
29	30	29	27	27

File Description	Document
Institutional data in prescribed format	View Document

Number of departments offering academic programmes

Answer: 15

Students***Number of students year-wise during last five years*****Answer:**

2020-21	2019-20	2018-19	2017-18	2016-17
5735	5842	5979	5921	6023

File Description	Document
Institutional data in prescribed format	View Document

Number of outgoing / final year students year-wise during last five years**Answer:**

2020-21	2019-20	2018-19	2017-18	2016-17
1652	1696	1686	1715	1757

File Description	Document
Institutional data in prescribed format	View Document

Number of students appeared in the examination conducted by the Institution, year-wise during the last five years**Answer:**

2020-21	2019-20	2018-19	2017-18	2016-17
5726	5813	5963	5886	5989

File Description	Document
Institutional data in prescribed format	View Document

Number of revaluation applications year-wise during last five years**Answer:**

2020-21	2019-20	2018-19	2017-18	2016-17
2	244	467	288	476

Teachers***Number of courses in all programs year-wise during last five years*****Answer:**

2020-21	2019-20	2018-19	2017-18	2016-17
808	888	878	1081	1076

File Description	Document
Institutional data in prescribed format	View Document

Number of full time teachers year-wise during the last five years**Answer:**

2020-21	2019-20	2018-19	2017-18	2016-17
365	375	383	392	396

File Description	Document
Institutional data in prescribed format	View Document

Number of sanctioned posts year-wise during last five years**Answer:**

2020-21	2019-20	2018-19	2017-18	2016-17
365	375	383	392	396

File Description	Document
Institutional data in prescribed format	View Document

Institution***Number of eligible applications received for admissions to all the programs year-wise during last five years*****Answer:**

2020-21	2019-20	2018-19	2017-18	2016-17
5564	4264	3932	3943	1519

File Description	Document
Institutional data in prescribed format	View Document

Number of seats earmarked for reserved category as per GOI/State Govt rule year-wise during last five years**Answer:**

2020-21	2019-20	2018-19	2017-18	2016-17
755	754	755	724	725

File Description	Document
Institutional data in prescribed format	View Document

Total number of classrooms and seminar halls**Answer:** 135***Total number of computers in the campus for academic purpose*****Answer:** 1874

Total Expenditure excluding salary year-wise during last five years (INR in Lakhs)**Answer:**

2020-21	2019-20	2018-19	2017-18	2016-17
2811.52	3593.12	3644.78	3569.00	3337.00

Conclusion**Additional Information :**

Besides academic work, faculty members and senior leaders are actively involved in the preservation and protection of local talents, culture and traditions. On voluntary basis the Team Kumaraguru has initiated (i) Coimbatore Weaver's Centre, (ii) Centre for Bhavani Jamakalam, (iii) Initiatives for Doubling Farmers' Income and (iv) Foundation for South Indian Heritage.

Coimbatore Weaver's Centre is an initiative that provides training to handloom weavers of Coimbatore in developing newer products and design in sarees. So far 500 artisans have been trained to use Low Weight Jacquard, a technology developed by a team of faculty members from Kumaraguru.

Centre for Bhavani Jamakalam is an off-campus centre located in Appakudal, a small village near Bhavani. Bhavani Jamakalam is known for its pastel colours and horizontal stripes, being produced by local community since 1800s. Recently, it has been awarded with GI Tag and the Centre takes efforts to popularize the Jamakalam with value addition and recently recognized by Atma Nirbhar Bharat for Design, New Delhi.

Initiatives to Enhance Farmers' Income is an effort jointly taken with Kumaraguru Institute of Architecture to support farmers of Erode Districts to enhance their agriculture activities and introduce Integrated Farm Practices with Dairy Products. Tel Aviv University of Israel has agreed to support and extend their facilities for this purpose.

Foundation for South Indian Heritage, the latest initiative, aims to support the activities related to preservation and restoration of Heritage Building, Assets of South India. Foundation plans to run courses for our students and others, study, document and research structure and its Civil/design and technology, documentation projects of existing structures, consulting in restoration and renovations, and publishing along with N.Mahalingam Tamil Research Centre - bringing out books on the amazing heritage.

Concluding Remarks:

KCT has a governance system, driven by its Vision and Mission. Values and value systems have been established around the single core value "**Character is Life**". KCT aims to attract students with different backgrounds, abilities and provide a holistic education, keeping curriculum a dynamic and updated one, incorporating cross-cutting issues related to Ethics, Gender, Human Values, Environment and Sustainability. Student-centric learning methods are introduced as a hub-spoke model in KCT, where teaching – curricular requirements are carried out by academic departments, while Re, iQube, Garage, CLED, Protosem, KCIRI and Forge are established to involve students in co-creation and build confidence levels. KCT has good infrastructure facilities, considering growing demands of manpower requirements in terms of emerging areas of engineering domain, space required for academic, extra and co-curricular activities and space required for administrative and amenities purposes.

KCT has Research Policy that gives direction, motivation and implementation of various research facilities and activities. Besides, guidelines and recommendations of new facilities are discussed and finalised in Department Advisory Board, Academic Council and Governing Council with necessary budget provisions. KCT provides options to students to showcase their potentials, implement students-led initiatives, participate in academic and administrative committees.

Long-term Plan envisions KCT to be among the Top 50 Institutions by the year 2025, to be achieved through sustained efforts towards (i) teaching-learning, (ii) faculty quality, (iii) outreach activities, (iv) graduation outcomes and (v) perception of stakeholders. Feedback mechanism has been implemented for improving internal systems and meet the changing needs and demands.

EXCLUDED METRICES

List of Excluded Metrics

5 Student Support and Progression : Weightage (100)

5.2 Student Progression : Weightage (30)

Ref No	Details of Metric	weightage	Metric Performance
5.2.2	Percentage of student progression to higher education (previous graduating batch). (Metric Type : Derived , Question Type : QN , Evaluation : By DVV , Nature : Value)	10	1.57

6 Governance, Leadership and Management : Weightage (100)

6.4 Financial Management and Resource Mobilization : Weightage (20)

Ref No	Details of Metric	weightage	Metric Performance
6.4.2	Funds / Grants received from non-government bodies, individuals, philanthropists during the last five years (not covered in Criterion III and V) (INR in Lakhs) (Metric Type : Derived , Question Type : QN , Evaluation : By DVV , Nature : Value)	10	0

ANNEXURE

1.Metrics Level Deviations

Metric ID Sub Questions and Answers before and after DVV Verification

Number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development during the last five years.

3.3.2 3.3.2.1. **Total number of workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development year-wise during the last five years.**

Remark : DVV has excluded less than 5 days workshops/seminars conducted on Research methodology, Intellectual Property Rights (IPR),entrepreneurship, skill development shared by HEI.

5.3.1 Number of awards/medals won by students for outstanding performance in sports/cultural activities at inter-university/state/national / international level (award for a team event should be counted as one) during the last five years.

5.3.1.1. Number of awards/medals won by students for outstanding performance in sports / cultural activities at inter-university / state / national / international events (award for a team event should be counted as one) year - wise during the last five years.

Remark : DVV has not consider shared certificates of participation by HEI.

Average percentage of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the last five years (Professional Development Programmes, Orientation / Induction Programmes, Refresher Course, Short Term Course).

6.3.4

6.3.4.1. Total number of teachers attending professional development Programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes year wise during last five years

Remark : DVV has excluded less than 5 days report by HEI.

2.Extended Profile Deviations

Extended Profile Deviations
No Deviations