



YEARLY STATUS REPORT - 2020-2021

Part A

Data of the Institution

1.Name of the Institution		Kumaraguru College of Technology
• Name of the Head of the institution	Dr. D. Saravanan	
• Designation	Principal	
• Does the institution function from its own campus?	Yes	
• Phone No. of the Principal	04222661122	
• Alternate phone No.	04222661111	
• Mobile No. (Principal)	9487700830	
• Registered e-mail ID (Principal)	principal@kct.ac.in	
• Address	Chinnavedampatti post,	
• City/Town	Coimbatore	
• State/UT	Tamilnadu	
• Pin Code	641049	
2.Institutional status		
• Autonomous Status (Provide the date of conferment of Autonomy)	25/07/2007	
• Type of Institution	Co-education	
• Location	Urban	

• Financial Status	Self-financing				
• Name of the IQAC Co-ordinator/Director	Dr .S.Selvanayaki				
• Phone No.	04222661100				
• Mobile No:	9600989004				
• IQAC e-mail ID	iqac@kct.ac.in				
3.Website address (Web link of the AQAR (Previous Academic Year)	https://www.kct.ac.in/wp-content/uploads/2021/08/AQAR-2019-20.pdf				
4.Was the Academic Calendar prepared for that year?	Yes				
• if yes, whether it is uploaded in the Institutional website Web link:	https://www.kct.ac.in/academic-calendar/				
5.Accreditation Details					
Cycle	Grade	CGPA	Year of Accreditation	Validity from	Validity to
Cycle 1	B	2.67	2009	29/12/2009	28/12/2014
Cycle 2	A	3.21	2016	02/12/2016	01/12/2021
6.Date of Establishment of IQAC			09/06/2009		
7.Provide the list of Special Status conferred by Central and/or State Government on the Institution/Department/Faculty/School (UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC, etc.)?					

Institution/ Department/Faculty/School	Scheme	Funding Agency	Year of Award with Duration	Amount
Kumaraguru College of Technology	UGC-2f	UGC	15/12/2003	Nil
Kumaraguru College of Technology	UGC-12B	UGC	18/12/2014	Nil
Kumaraguru College of Technology/BioTechnology/ Dr. K. Kumaravel	SERB	DST	05/02/2021	3300000
Kumaraguru College of Technology/Textile Technology and Civil Engineering/ Mrs.R.Sukanya Devi and Dr.A.Geethakarthi	DST-SEED	DST-SEED	22/10/2020	1975000
Kumaraguru College of Technology	FIST	DST	20/12/2018	6000000
Kumaraguru College of Technology	SPARC	MHRD	26/03/2019	4798775
Kumaraguru College of Technology / ECE/ Dr.SA.Pasupathy	MeitY	C-DAC	19/06/2019	8967000

8. Provide details regarding the composition of the IQAC:

- Upload the latest notification regarding the [View File](#)

composition of the IQAC by the HEI		
9.No. of IQAC meetings held during the year	4	
<ul style="list-style-type: none"> Were the minutes of IQAC meeting(s) and compliance to the decisions taken uploaded on the institutional website? 	Yes	
<ul style="list-style-type: none"> If No, please upload the minutes of the meeting(s) and Action Taken Report 	No File Uploaded	
10.Did IQAC receive funding from any funding agency to support its activities during the year?	No	
<ul style="list-style-type: none"> If yes, mention the amount 		
11.Significant contributions made by IQAC during the current year (maximum five bullets)		
<p>1. Implemented KOED to adopt online Education 2. Revamped the procedure for Academic Audit 3. Created Awareness on NAAC Accreditation 4. Preparation of SSR for NAAC Third Cycle 5. MoUs with online Education providers and other institutions/industries for knowledge sharing and research</p>		
12.Plan of action chalked out by IQAC at the beginning of the academic year towards quality enhancement and the outcome achieved by the end of the academic year:		

Plan of Action	Achievements/Outcomes
Submission of SSR for Third Cycle	Submitted on 01.01.2022
Hands on Training to faculty members on ICT Tools	Workshop conducted to all faculty members in 2 phases by KOED. Many webinars were conducted to adopt online teaching
Classes on cycle mode	Courses were conducted in cycle with maximum 3 courses per cycle to avoid network issues.
Training faculty for new ERP	Familiar with Microsoft outlook and MS Teams for online Teaching
Sensitize faculty and students towards IPR	26 patent and one Design patent filed
Workshops/ Seminars on skill development and trends in technology	Around 200 workshops were conducted in order to update the knowledge and skill
13. Was the AQAR placed before the statutory body?	Yes
<ul style="list-style-type: none"> Name of the statutory body 	
Name of the statutory body	Date of meeting(s)
IQAC Meeting	11/05/2022
14. Was the institutional data submitted to AISHE ?	Yes
<ul style="list-style-type: none"> Year 	
Year	Date of Submission
01/01/2021	04/03/2022
Extended Profile	

1.Programme	
1.1	29
Number of programmes offered during the year:	
File Description	Documents
Institutional Data in Prescribed Format	View File
2.Student	
2.1	5735
Total number of students during the year:	
File Description	Documents
Institutional data in Prescribed format	View File
2.2	1652
Number of outgoing / final year students during the year:	
File Description	Documents
Institutional Data in Prescribed Format	View File
2.3	5726
Number of students who appeared for the examinations conducted by the institution during the year:	
File Description	Documents
Institutional Data in Prescribed Format	View File
3.Academic	
3.1	808
Number of courses in all programmes during the year:	
File Description	Documents
Institutional Data in Prescribed Format	View File
3.2	365
Number of full-time teachers during the year:	

File Description	Documents
Institutional Data in Prescribed Format	View File
3.3 Number of sanctioned posts for the year:	365
4.Institution	
4.1 Number of seats earmarked for reserved categories as per GOI/State Government during the year:	755
4.2 Total number of Classrooms and Seminar halls	135
4.3 Total number of computers on campus for academic purposes	1874
4.4 Total expenditure, excluding salary, during the year (INR in Lakhs):	2811.52

Part B

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 are reflected in Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of the various Programmes offered by the Institution.

Kumaraguru College of Technology 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. Accordingly, Programme Educational Objectives (PEO), Programme Outcomes (POs), Programme Specific Outcomes (PSO) are framed to match the emerging trends and industry-demanded skills.

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.

PSOs are designed considering Knowledge - Skill - Attitude, recommended by Professional Bodies focusing on technical, societal and global needs. POs and PSOs are delineated into different courses, characterised by relevant Course Outcomes (CO).

Curriculum Design and Development process includes benchmarking the content with premier institutions and syllabi are revised at regular intervals to update the contents and accommodate the emerging trends in science, engineering and technology.

File Description	Documents
Upload additional information, if any	View File
Link for additional information	https://naac.kct.ac.in/1/ssr/1_1_1/1.1.1_PEOs-POs-COs_Needs_and_relevance.xlsx

1.1.2 - Number of Programmes where syllabus revision was carried out during the year

4

File Description	Documents
Minutes of relevant Academic Council/BOS meeting	View File
Details of syllabus revision during the year	View File
Any additional information	No File Uploaded

1.1.3 - Number of courses focusing on employability/entrepreneurship/ skill development offered by the Institution during the year

798

File Description	Documents
Curriculum / Syllabus of such courses	View File
Minutes of the Boards of Studies/ Academic Council meetings with approval for these courses	No File Uploaded
MoUs with relevant organizations for these courses, if any	View File
Any additional information	View File

1.2 - Academic Flexibility

1.2.1 - Number of new courses introduced across all programmes offered during the year

129

File Description	Documents
Minutes of relevant Academic Council/BoS meetings	View File
Any additional information	No File Uploaded
Institutional data in prescribed format (Data Template)	View File

1.2.2 - Number of Programmes offered through Choice Based Credit System (CBCS)/Elective Course System

29

File Description	Documents
Minutes of relevant Academic Council/BoS meetings	View File
Any additional information	No File Uploaded
List of Add on /Certificate programs (Data Template)	View File

1.3 - Curriculum Enrichment

1.3.1 - Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability, and Human Values into the curriculum

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, Human Values, Society - Gender Issues, Environmental Science and Sustainability form a part of the curriculum under Regulation 2018.

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, responsible consumption and production are offered as the disciplinary courses.

KCT offers Gender and Human Values related courses from First Semester to Seventh Semester, by Department of Human Excellence, focussing on sathya, dharma, prema, shanthi and ahimsa. Ethics, Leadership Development Courses offered as a part of Flexible Comprehensive Framework for Learning focussing on Humanities, Social Sciences, Management & Leadership.

File Description	Documents
Upload the list and description of the courses which address issues related to Gender, Environment and Sustainability, Human Values and Professional Ethics in the curriculum	View File
Any additional information	View File

1.3.2 - Number of value-added courses for imparting transferable and life skills offered during the year

46

File Description	Documents
List of value-added courses	View File
Brochure or any other document relating to value-added courses	View File
Any additional information	No File Uploaded

1.3.3 - Number of students enrolled in the courses under 1.3.2 above

3359

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

1.3.4 - Number of students undertaking field work/projects/ internships / student projects

4891

File Description	Documents
List of programmes and number of students undertaking field projects / internships / student projects	View File
Any additional information	No File Uploaded

1.4 - Feedback System

1.4.1 - Structured feedback and review of the syllabus (semester-wise / year-wise) is obtained from 1) Students 2) Teachers 3) Employers and 4) Alumni A. All 4 of the above

File Description	Documents
Provide the URL for stakeholders' feedback report	https://www.kct.ac.in/igac/
Upload the Action Taken Report of the feedback as recorded by the Governing Council / Syndicate / Board of Management	View File
Any additional information	View File

1.4.2 - The feedback system of the Institution comprises the following

A. Feedback collected, analysed and action taken made available on the website

File Description	Documents
Provide URL for stakeholders' feedback report	https://www.kct.ac.in/igac/
Any additional information	View File

TEACHING-LEARNING AND EVALUATION

2.1 - Student Enrollment and Profile

2.1.1 - Enrolment of Students

2.1.1.1 - Number of students admitted (year-wise) during the year

1632

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

2.1.2 - Number of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as per the reservation policy during the year (exclusive of supernumerary seats)

689

File Description	Documents
Any additional information	View File
Number of seats filled against seats reserved (Data Template)	View File

2.2 - Catering to Student Diversity

2.2.1 - The institution assesses students' learning levels and organises special programmes for both slow and advanced learners.

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. 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 Re, iQube, Garage, KCIRI and Forge. CLED and Re` offers Lecture Series, Certificate Courses and sponsorships to attend various programmes on the basis of merit.

Support to Slow Learners (Bloomers)

Students with biology background are offered additional sessions related to software coding to cope-up with other students. Students are sensitized 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. Bridge courses were conducted for Lateral Entry Students. For the courses like Mathematics, Programming Languages, Digital Signal Processing, Strength of Materials, students are guided through remedial classes. Students who are unable to complete the courses successfully in the end-semester examinations, are provided an opportunity to re-learn the course through Summer/Winter Tracks.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

2.2.2 - Student – Teacher (full-time) ratio

Year	Number of Students	Number of Teachers
30/09/2020	5735	365

File Description	Documents
Upload any additional information	View File

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:

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 to involve students in co-creation of various learning modules, delivering additional lectures/courses through peer-learning and build confidence levels of the students.

Experiential learning

1. Embedded courses
2. Simulation based experiments in laboratories, industry sponsored facilities with commercial scale experiments
3. Workshops with computer-based learning
4. Industrial visits/field visits / Internships

Participative learning

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, laboratory courses, preparation for competitive examinations,
3. Short courses, lectures, workshops and demonstration sessions

Problem Solving

1. Offering courses that leads to diagnosing a problem and providing solutions
2. Tutorial component is introduced in the analytical courses, wherever required.
3. Intramural hackathons a to enhance the learning experience, implement the understanding and improving abilities of students to provide solutions to complex problems.
4. Designing and developing new products to participate in various competitions
5. Pre-placement internships in companies to solve problems and Executing capstone projects

File Description	Documents
Upload any additional information	No File Uploaded
Link for additional Information	https://naac.kct.ac.in/2/ssr/2_3_1/2.3.1%20Student%20Centric%20Methods.pdf

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

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 provided, WiFi connectivity and optical fibre line for access to all in the campus.

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 interactions.

KCT has Institute-wide license with Microsoft 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 assignments.

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, The ICT tools are grouped into following categories.

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	Documents
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	https://www.mycamu.co.in/#/
Upload any additional information	View File

2.3.3 - Ratio of students to mentor for academic and other related issues

2.3.3.1 - Number of mentors

317

File Description	Documents
Upload year-wise number of students enrolled and full-time teachers on roll	View File
Circulars with regard to assigning mentors to mentees	View File

2.3.4 - Preparation and adherence to Academic Calendar and Teaching Plans by the institution

Activities of the 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.

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.

File Description	Documents
Upload the Academic Calendar and Teaching Plans during the year	View File

2.4 - Teacher Profile and Quality

2.4.1 - Number of full-time teachers against sanctioned posts during the year

365

File Description	Documents
Year-wise full-time teachers and sanctioned posts for the year	View File
List of the faculty members authenticated by the Head of HEI	View File
Any additional information	No File Uploaded

2.4.2 - Number of full-time teachers with PhD/ D.M. / M.Ch. / D.N.B Super-Specialty / DSc / DLitt during the year

198

File Description	Documents
List of number of full-time teachers with PhD./ D.M. / M.Ch. / D.N.B Super-Specialty / D.Sc. / D.Litt. and number of full-time teachers for 5 years	View File
Any additional information	View File

2.4.3 - Total teaching experience of full-time teachers in the same institution: (Full-time teachers' total teaching experience in the current institution)

3955

File Description	Documents
List of teachers including their PAN, designation, Department and details of their experience	View File
Any additional information	View File

2.5 - Evaluation Process and Reforms

2.5.1 - Number of days from the date of last semester-end/ year- end examination till the declaration of results during the year

34

File Description	Documents
List of Programmes and the date of last semester-end / year-end examinations and the date of declaration of result	View File
Any additional information	View File

2.5.2 - Number of students' complaints/grievances against evaluation against the total number who appeared in the examinations during the year

2

File Description	Documents
Upload the number of complaints and total number of students who appeared for exams during the year	View File
Upload any additional information	No File Uploaded

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

KCT has implemented fully flexible choice based curricular system integrated with KITE portal. Each student has the option, enabled through software, to select their choice of courses, faculty, and timetable during the course enrolment. 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), processing of CAM with final evaluation, declaring results,

submission of requests for revaluation are carried out through software system with complete transparency. Dissemination of information related to examination schedule, hall and seating arrangement and issue of Hall Ticket to students are sent through personalised modes for easy access.

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. Entire process may be reviewed and audited in the digital form with continuous image capturing

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

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	Nil

2.6 - Student Performance and Learning Outcomes

2.6.1 - Programme Outcomes and Course Outcomes for all Programmes offered by the institution are stated and displayed on the website and communicated to teachers and students

Curriculum of a programme offered in KCT is designed and developed based on Program Educational Objectives, Program Outcomes/Program Specific Outcomes and Course 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.

Programme Outcomes recommended by the National Board of Accreditation and Programme Specific Outcomes are framed. Every outcome is then divided into smaller categories to form Course Outcomes, which are then converted into content of suitable courses. Course Outcomes defines the expectation from each student, who register 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.

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.

File Description	Documents
Upload COs for all courses (exemplars from the Glossary)	View File
Upload any additional information	No File Uploaded
Link for additional Information	https://www.kct.ac.in/departments/

2.6.2 - Attainment of Programme Outcomes and Course Outcomes as evaluated by the institution

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.

CO assessment matrix is prepared for every course based on assessment categories. 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. 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.

Attainments of POs and PSOs are evaluated through direct & indirect measures. If the POs/PSOs attainment is less than the target, DAB will 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.

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

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	Nil

2.6.3 - Pass Percentage of students

2.6.3.1 - Total number of final year students who passed in the examinations conducted by Institution

1593

File Description	Documents
Upload list of Programmes and number of students appear for and passed in the final year examinations	View File
Upload any additional information	View File
Paste link for the annual report	https://naac.kct.ac.in/2/ssr/2_6_3/COE Annual Report - 2020 - 21.pdf

2.7 - Student Satisfaction Survey

2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design its own questionnaire). Results and details need to be provided as a weblink

<https://www.kct.ac.in/wp-content/uploads/2022/03/Student-Satisfaction-Survey-on-Teaching-Learning-Process-2020-21-1.pdf>

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

Research culture in the campus is ensured - among students, faculty members and relevant stakeholders-through academic initiatives (Project Based Learning, Project, Protosem), introduction of thrust areas, forming Focused Research Groups, students research bodies (Re`, iQube, Garage), Special provision in the annual budget is provided to create Centres of Excellence, Centre for Research, Sponsored Laboratories with a focussed approach, recruitment of

interns and sponsoring students, faculty members and technical staff for various training programmes. In order to facilitate the research activities, Research Cell has been established. IPR Cell facilitates the filing of IPR, generated through projects, research and collaborative works carried out between KCT and Industries.

KCT encourages faculty to carry out research through well-laid policies and procedures. Research Policy emphasis on the needs and means to carry out research, avenues available within KCT, facilitation of activities including dissemination of information, facilitating preparation of proposal, offering internal reviews, recommending small-grant / seed-grants and post-project activities like preparation statements, filing IP and successful closure of projects, HR policy aims to enhance research activities in KCT, bring-in more faculty members into research group by incentivizing research related activities-travel, availing on-duty, publications, career progression, workload reduction and visiting various research laboratories.

File Description	Documents
Upload the Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	View File
Provide URL of policy document on promotion of research uploaded on the website	https://www.kct.ac.in/wp-content/uploads/2021/12/Research-policy.pdf
Any additional information	View File

3.1.2 - The institution provides seed money to its teachers for research

3.1.2.1 - Seed money provided by the institution to its teachers for research during the year (INR in lakhs)

11.86

File Description	Documents
Minutes of the relevant bodies of the institution regarding seed money	View File
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	View File
List of teachers receiving grant and details of grant received	View File
Any additional information	No File Uploaded

3.1.3 - Number of teachers who were awarded national / international fellowship(s) for advanced studies/research during the year

3

File Description	Documents
e-copies of the award letters of the teachers	View File
List of teachers and details of their international fellowship(s)	View File
Any additional information	No File Uploaded

3.2 - Resource Mobilization for Research

3.2.1 - Grants received from Government and Non-Governmental agencies for research projects, endowments, Chairs during the year (INR in Lakhs)

130.12

File Description	Documents
e-copies of the grant award letters for research projects sponsored by non-governmental agencies/organizations	View File
List of projects and grant details	View File
Any additional information	No File Uploaded

3.2.2 - Number of teachers having research projects during the year

53

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	Nil
List of research projects during the year	View File

3.2.3 - Number of teachers recognised as research guides

74

File Description	Documents
Upload copies of the letter of the university recognizing teachers as research guides	View File
Institutional data in Prescribed format	View File

3.2.4 - Number of departments having research projects funded by Government and Non-Government agencies during the year

13

File Description	Documents
Supporting document from Funding Agencies	View File
Paste link to funding agencies' website	Nil
Any additional information	View File

3.3 - Innovation Ecosystem

3.3.1 - Institution has created an ecosystem for innovations and creation and transfer of knowledge supported by dedicated centres for research, entrepreneurship, community orientation, incubation, etc.

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. IPR Cell facilitates filing of IPR generated through

projects, research and collaborative works carried out between KCT and Industries.

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.

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.

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

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

3.3.2 - Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR), Entrepreneurship and Skill Development during the year

314

File Description	Documents
Report of the events	No File Uploaded
List of workshops/seminars conducted during the year	View File
Any additional information	View File

3.4 - Research Publications and Awards

3.4.1 - The Institution ensures implementation of its Code of Ethics for Research uploaded in the website through the following: Research Advisory Committee Ethics Committee Inclusion of Research Ethics in the research methodology course work Plagiarism check through authenticated software **A. All of the above**

File Description	Documents
Code of Ethics for Research, Research Advisory Committee and Ethics Committee constitution and list of members of these committees, software used for plagiarism check	View File
Any additional information	No File Uploaded

3.4.2 - Number of PhD candidates registered per teacher (as per the data given with regard to recognized PhD guides/ supervisors provided in Metric No. 3.2.3) during the year

3.4.2.1 - Number of PhD students registered during the year

37

File Description	Documents
URL to the research page on HEI website	https://www.kct.ac.in/wp-content/uploads/2022/01/List-of-scholars.pdf
List of PhD scholars and details like name of the guide, title of thesis, and year of registration	View File
Any additional information	No File Uploaded

3.4.3 - Number of research papers per teacher in CARE Journals notified on UGC website during the year

183

File Description	Documents
List of research papers by title, author, department, and year of publication	View File
Any additional information	No File Uploaded

3.4.4 - Number of books and chapters in edited volumes / books published per teacher during the year

305

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

3.4.5 - Bibliometrics of the publications during the year based on average Citation Index in Scopus/ Web of Science/PubMed**3.4.5.1 - Total number of Citations in Scopus during the year**

2566

File Description	Documents
Any additional information	No File Uploaded
Bibliometrics of the publications during the year	View File

3.4.6 - Bibliometrics of the publications during the year based on Scopus/ Web of Science – h-Index of the University**3.4.6.1 - h-index of Scopus during the year**

44

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

3.5 - Consultancy**3.5.1 - Revenue generated from consultancy and corporate training during the year (INR in lakhs)**

126.89

File Description	Documents
Audited statements of accounts indicating the revenue generated through consultancy and corporate training	View File
List of consultants and revenue generated by them	No File Uploaded
Any additional information	View File

3.5.2 - Total amount spent on developing facilities, training teachers and clerical/project staff for undertaking consultancy during the year

17.49

File Description	Documents
Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff for undertaking consultancy	View File
List of training programmes, teachers and staff trained for undertaking consultancy	No File Uploaded
List of facilities and staff available for undertaking consultancy	View File
Any additional information	No File Uploaded

3.6 - Extension Activities

3.6.1 - Extension activities carried out in the neighbourhood sensitising students to social issues for their holistic development, and the impact thereof during the year

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

NamadhuPangu (NP)

- 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)

- 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)

National Cadet Corps (NCC)

Rotaract Club

- Voluntary activities .
- Blood donation
- Tree plantation

Covid Care Centre (CCC)

- Capacity of 800 nos. of bed
- COVID patients benefitted - 4000 nos.

Handloom Project

- 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

- Nature Club, PudhuPaavai, UYIR Club, Gandhian Youth Movement, ABLE Club of KCT dedicated to the grass root work in the society.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

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 the year

25

File Description	Documents
Number of awards for extension activities in during the year	View File
e-copy of the award letters	View File
Any additional information	No File Uploaded

3.6.3 - Number of extension and outreach programmes conducted by the institution through NSS/NCC/Red Cross/YRC, etc. during the year (including Government-initiated programmes such as Swachh Bharat, AIDS Awareness, and Gender Sensitization and those organised in collaboration with industry, community and NGOs)

89

File Description	Documents
Reports of the events organized	View File
Any additional information	View File

3.6.4 - Number of students participating in extension activities listed in 3.6.3 during the year

4178

File Description	Documents
Reports of the events	View File
Any additional information	View File

3.7 - Collaboration

3.7.1 - Number of collaborative activities during the year for research/ faculty exchange/ student exchange/ internship/ on-the-job training/ project work

648

File Description	Documents
Copies of documents highlighting collaboration	View File
Any additional information	No File Uploaded

3.7.2 - Number of functional MoUs with institutions of national and/or international importance, other universities, industries, corporate houses, etc. during the year (only functional MoUs with ongoing activities to be considered)

105

File Description	Documents
e-copies of the MoUs with institution/ industry/ corporate house	View File
Details of functional MoUs with institutions of national, international importance, other institutions etc. during the year	View File
Any additional information	View File

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 equipments, etc.

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. 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.

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.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

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

KCT has spaces earmarked for sports, games, yoga and cultural activities.

Sports Facilities

Indoor Sports

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.).

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. .

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. .

Cultural Activities and Clubs

Air-conditioned auditorium (1457sq.m.)has a capacity of1500 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.Yugam-Techno-cultural event features 130+ events, 60+ workshops, cultural performances, inspirational talks, competitions and contests, witnessed by 10,000+ audience annually.

File Description	Documents
Geotagged pictures	View File
Upload any additional information	View File
Paste link for additional information	Nil

4.1.3 - Number of classrooms and seminar halls with ICT-enabled facilities

135

File Description	Documents
Upload any additional information	No File Uploaded
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	View File

4.1.4 - Expenditure for infrastructure augmentation, excluding salary, during the year (INR in Lakhs)

286.52

File Description	Documents
Upload audited utilization statements	View File
Details of Expenditure, excluding salary, during the years	View File
Any additional information	No File Uploaded

4.2 - Library as a Learning Resource

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

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.

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. WebOPAC (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.

The Central library has comprehensive collection of 110524 printed books, 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. MGCL has a collection of 7500 CD/DVDs, holds the membership with National Digital Library and NPTEL online courses (400 web and 500 video courses),

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

4.2.2 - Institution has access to the following: e- A. Any 4 or more of the above journals e-ShodhSindhu Shodhganga

Membership e-books Databases Remote access to e-resources

File Description	Documents
Details of subscriptions like e-journals, e-books, e-ShodhSindhu, Shodhganga membership	View File
Upload any additional information	View File

4.2.3 - Expenditure on purchase of books/ e-books and subscription to journals/e-journals during the year (INR in lakhs)

52.26

File Description	Documents
Audited statements of accounts	View File
Any additional information	No File Uploaded
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the year (Data Template)	View File

4.2.4 - Usage of library by teachers and students (footfalls and login data for online access)

4.2.4.1 - Number of teachers and students using the library per day during the year

264

File Description	Documents
Upload details of library usage by teachers and students	View File
Any additional information	No File Uploaded

4.3 - IT Infrastructure

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

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.

Database storage, mining and maintenance are carried out using (i) Rack Servers of Dell Power Edge R740 -56 Core processor (28*2)- (ii) Blade servers of HP C7000 Blade Enclosure with 13 Nos of HP BL460c Blade Servers, (iii) HPE Proliant BL460c blade server (iv) Network-attached storage (NAS) server - HP NAS 1600 NAS. 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.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

4.3.2 - Student - Computer ratio

Number of Students	Number of Computers
5735	1874

File Description	Documents
Upload any additional information	View File

4.3.3 - Bandwidth of internet connection in the Institution and the number of students on campus

A. 750 Mbps

File Description	Documents
Details of bandwidth available in the Institution	View File
Upload any additional information	View File

4.3.4 - Institution has facilities for e-content development:
Facilities available for e-content development Media Centre Audio-Visual Centre Lecture Capturing System (LCS) Mixing equipments and software for editing

A. All four of the above

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil
List of facilities for e-content development (Data Template)	View File

4.4 - Maintenance of Campus Infrastructure

4.4.1 - Expenditure incurred on maintenance of physical and academic support facilities, excluding salary component, during the year (INR in lakhs)

1348.47

File Description	Documents
Audited statements of accounts	View File
Upload any additional information	View File

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

The development and maintenance of infrastructural facilities in the campus has been one of the priority areas of activities in KCT. The management is committed to maintain and develop the campus as a user - friendly and eco - friendly space. The campus resources are administered by well established functional divisions with the defined responsibilities.

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 throughonline 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.

Work System for Maintenance Activities

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

STUDENT SUPPORT AND PROGRESSION

5.1 - Student Support

5.1.1 - Number of students benefitted by scholarships and freeships provided by the Government during the year

2194

File Description	Documents
Upload self-attested letters with the list of students receiving scholarships	View File
Upload any additional information	No File Uploaded

5.1.2 - Number of students benefitted by scholarships and freeships provided by the institution and non-government agencies during the year

27

File Description	Documents
Upload any additional information	No File Uploaded
Institutional data in prescribed format	View File

5.1.3 - The following Capacity Development and Skill Enhancement activities are organised for improving students' capabilities Soft Skills Language and Communication Skills Life Skills (Yoga, Physical fitness, Health and Hygiene) Awareness of Trends in Technology

A. All of the above

File Description	Documents
Link to Institutional website	Nil
Details of capability development and schemes	View File
Any additional information	View File

5.1.4 - Number of students benefitted from guidance/coaching for competitive examinations and career counselling offered by the institution during the year

7879

File Description	Documents
Any additional information	No File Uploaded
Number of students benefitted by guidance for competitive examinations and career counseling during the year (Data Template)	View File

5.1.5 - The institution adopts the following mechanism for redressal of students' grievances, including sexual harassment and ragging: Implementation of guidelines of statutory/regulatory bodies Creating awareness and implementation of policies with zero tolerance Mechanism for submission of online/offline students' grievances Timely redressal of grievances through appropriate committees

A. All of the above

File Description	Documents
Minutes of the meetings of students' grievance redressal committee, prevention of sexual harassment committee and Anti-ragging committee	View File
Details of student grievances including sexual harassment and ragging cases	No File Uploaded
Upload any additional information	View File

5.2 - Student Progression

5.2.1 - Number of outgoing students who got placement during the year

849

File Description	Documents
Self-attested list of students placed	View File
Upload any additional information	No File Uploaded

5.2.2 - Number of outgoing students progressing to higher education

26

File Description	Documents
Upload supporting data for students/alumni	View File
Details of students who went for higher education	View File
Any additional information	No File Uploaded

5.2.3 - Number of students qualifying in state/ national/ international level examinations during the year

5.2.3.1 - Number of students who qualified in state/ national/ international examinations (e.g.: IIT-JAM/NET/SET/JRF/ GATE /GMAT /CAT/ GRE/ TOEFL/Civil Services/State government examinations) during the year

113

File Description	Documents
Upload supporting data for students/alumni	View File
Any additional information	View File

5.3 - Student Participation and Activities

5.3.1 - Number of awards/medals for outstanding performance in sports and/or cultural activities at inter-university / state /national / international events (award for a team event should be counted as one) during the year

21

File Description	Documents
e-copies of award letters and certificates	View File
Any additional information	View File

5.3.2 - Presence of an active Student Council and representation of students in academic and administrative bodies/committees of the institution

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. 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 and thereby aims at holistic development of the individual students.

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. 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.

KCT establishes necessary infrastructure facilities in terms of work space 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.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.kct.ac.in/S60/

5.3.3 - Number of sports and cultural events / competitions organised by the institution

113

File Description	Documents
Report of the event	View File
List of sports and cultural events / competitions organised per year	View File
Upload any additional information	No File Uploaded

5.4 - Alumni Engagement

5.4.1 - The Alumni Association and its Chapters (registered and functional) contribute significantly to the development of the institution through financial and other support services

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 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) Sports Meet,(vii) Coffee Table Talk,(viii) Publishing Alumni Newsletter, (ix) Outreach/Extension Activities,

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.

Meets conducted virtually in 2020-21:

Silver Jubilee Celebration of 1991 - 1995 batch, KCT Alumni Merge - Chennai, KCT Hockey Alumni Meet, KCT Alumni Merge - France 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 KARE Contribution, Mentorship, Scholarships & Contributions, Academic and International Interaction.

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	http://www.kctalumni.com/newsletter

5.4.2 - Alumni's financial contribution during the year A. ? 15 Lakhs

File Description	Documents
Upload any additional information	View File

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

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".

Organisational Structure

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.

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	www.kct.ac.in

6.1.2 - Effective leadership is reflected in various institutional practices such as decentralization and participative management

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, to look after activities pertaining to Student Admission-to-Graduation and strive to achieve satisfactory results.

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	Documents
Upload strategic plan and deployment documents on the website	View File
Upload any additional information	View File
Paste link for additional Information	Nil

6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic/ Perspective plan has been clearly articulated and implemented

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.

Every year, students 15% of the students belong to First Graduate category, 23 % of students belong to low income and middle-income

categories are admitted

KCT, on its own and through NGOs (Maatram, Agaram), identify meritorious students and provide admission scholarship, ranging up to 100%. Besides, KCT through Tuition Fee Waiver scheme under AICTE admits students. Students performing better in academics, research, extra/co-curricular and outreach activities are selected and provided 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. Students with unique skills and potential are inducted as short-term, part-time interns with stipend ranging up to Rs 10,000/month.

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	Documents
Strategic Plan and deployment documents on the website	View File
Paste link for additional information	Nil
Upload any additional information	View File

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

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

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

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.

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	Documents
Paste link to Organogram on the institution webpage	https://www.kct.ac.in/wp-content/themes/twentytwenty/assets/pdf/Mandatory-Disclosure-2020-21.pdf
Upload any additional information	No File Uploaded
Paste link for additional Information	https://naac.kct.ac.in/6/ssr/6.2.2/6.2.2%20policy%20new.pdf

6.2.3 - Implementation of e-governance in areas of operation: Administration Finance and Accounts Student Admission and Support Examination

A. All of the above

File Description	Documents
ERP (Enterprise Resource Planning) Document	View File
Screen shots of user interfaces	View File
Details of implementation of e-governance in areas of operation	View File
Any additional information	No File Uploaded

6.3 - Faculty Empowerment Strategies

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

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.

Following Welfare Measures are provided to Faculty and Staff Members.

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. Subsidized 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	Documents
Upload any additional information	View File
Paste link for additional information	Nil

6.3.2 - Number of teachers provided with financial support to attend conferences / workshops and towards payment of membership fee of professional bodies during the year

334

File Description	Documents
Upload any additional information	No File Uploaded
Details of teachers provided with financial support to attend conference, workshops etc during the year (Data Template)	View File

6.3.3 - Number of professional development / administrative training programmes organized by the Institution for its teaching and non-teaching staff during the year

78

File Description	Documents
Reports of the Human Resource Development Centres (UGC HRDC/ASC or other relevant centres)	View File
Upload any additional information	View File

6.3.4 - Number of teachers who have undergone online/ face-to-face Faculty Development Programmes during the year: (Professional Development Programmes, Orientation / Induction Programmes, Refresher Courses, Short-Term Course, etc.)

286

File Description	Documents
Summary of the IQAC report	View File
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	View File
Upload any additional information	View File

6.4 - Financial Management and Resource Mobilization

6.4.1 - Institution conducts internal and external financial audits regularly

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.

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	Documents
Upload any additional information	View File
Paste link for additional information	Nil

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

Nil

File Description	Documents
Annual statements of accounts	No File Uploaded
Details of funds / grants received from non-government bodies, individuals, philanthropists during the year	No File Uploaded
Any additional information	No File Uploaded

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

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 optimization 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.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional Information	https://www.kct.ac.in/financial-statements/

6.5 - Internal Quality Assurance System

6.5.1 - Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing quality assurance strategies and processes visible in terms of incremental improvements made during the preceding year with regard to quality (in case of the First Cycle): Incremental improvements made during the preceding year with regard to quality and post-accreditation quality initiatives (Second and subsequent cycles)

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.

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

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.

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)

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

6.5.2 - The institution reviews its teaching-learning process, structures and methodologies of operation and learning outcomes at periodic intervals through its IQAC as per norms

Case 1: QUALITY ASSURANCE - ACADEMIC AUDIT

Academic audit is process of quality improvement in academic system, leading to student success. Major audit points and audit documents are shown

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.

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 Clinicas a credit course in curriculum.

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.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

6.5.3 - Quality assurance initiatives of the institution include Regular meeting of the IQAC Feedback collected, analysed and used for improvement of the institution Collaborative quality initiatives with other institution(s) Participation in NIRF Any other quality audit recognized by state, national or international agencies (such as ISO Certification)

A. Any 4 or all of the above

File Description	Documents
Paste the web link of annual reports of the Institution	Nil
Upload e-copies of accreditations and certification	View File
Upload details of quality assurance initiatives of the institution	View File
Upload any additional information	View File

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 year

Kumaraguru College of Technology (KCT) has always been a touch bearer of raising awareness towards gender equality between young men and women. Linked with gender empowerment, KCT has always pioneering itself in organizing and conducting various gender equity programs. To this essence, the institution has embarked upon to

- Conduct gender equity programs for the students to understand the fact that equality is the essence of democracy.
- Maintain a good workplace free from discrimination.
- Enable and encourage young women to have a wider role in decision-making.
- Preventing and responding to gender-based violence.
- Foster gender equality in teaching and education systems.
- Supporting teachers to create gender inclusive learning environment.

To ensure and proceed with the above given objectives:

a. KCT is proud to hoist its dynamic "Woman empowerment Cell", which organizes different mindful programs and social occasions for young girl students at our institution during regular spans.

b. Pudhu Paavai club (New age Woman club) is an emerging exclusive

club for girl students.

c. A Full time Counsellor is available on campus to attend gender and psychic related issues faced by both women faculty and girl students

. d. Separate GYM facilities for girls' students are available in the college premise.

e. A Full-time Women Physical Education Director is available to train and host sports events inside and outside the college premises.

The programmes conducted in the institution in the academic year 2020-2021 is attached.

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	https://naac.kct.ac.in/7/ssr/7_1_1/7.1.1%20%20Specific%20facilities%20provided%20for%20women%20.pdf

7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation: Solar energy Biogas plant Wheeling to the Grid Sensor-based energy conservation Use of LED bulbs/ power-efficient equipment

A. Any 4 or All of the above

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

7.1.3 - Describe the facilities in the institution for the management of the following types of degradable and non-degradable waste (within a maximum of 200 words)

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.

File Description	Documents
Relevant documents like agreements/MoUs with Government and other approved agencies	No File Uploaded
Geotagged photographs of the facilities	View File
Any other relevant information	View File

7.1.4 - Water conservation facilities available in the Institution: Rain water harvesting Bore well /Open well recharge Construction of tanks and bunds Waste water recycling Maintenance of water bodies and distribution system in the campus A. Any 4 or all of the above

File Description	Documents
Geotagged photographs / videos of the facilities	View File
Any other relevant information	View File

7.1.5 - Green campus initiatives include

7.1.5.1 - The institutional initiatives for greening the campus are as follows: A. Any 4 or All of the above

1. Restricted entry of automobiles

2. Use of bicycles/ Battery-powered vehicles
3. Pedestrian-friendly pathways
4. Ban on use of plastic
5. Landscaping

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

7.1.6 - Quality audits on environment and energy undertaken by the institution

7.1.6.1 - The institution's initiatives to preserve and improve the environment and harness energy are confirmed through the following:

A. Any 4 or all of the above

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

File Description	Documents
Reports on environment and energy audits submitted by the auditing agency	No File Uploaded
Certification by the auditing agency	View File
Certificates of the awards received	View File
Any other relevant information	View File

7.1.7 - The Institution has a disabled-friendly and barrier-free environment: Ramps/lifts for easy access to classrooms and centres Disabled-friendly washrooms Signage including tactile

A. Any 4 or all of the above

path lights, display boards and signposts**Assistive technology and facilities for persons****with disabilities: accessible website, screen-reading software, mechanized equipment, etc.****Provision for enquiry and information:****Human assistance, reader, scribe, soft copies of reading materials, screen reading, etc.**

File Description	Documents
Geotagged photographs / videos of facilities	View File
Policy documents and brochures on the support to be provided	No File Uploaded
Details of the software procured for providing assistance	View File
Any other relevant information	View File

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e. tolerance and harmony towards cultural, regional, linguistic, communal, socio-economic and other diversities (within a maximum of 200 words).

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.

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 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.

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

7.1.9 - Sensitization of students and employees of the institution to constitutional obligations: values, rights, duties and responsibilities of citizens:

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.

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.

File Description	Documents
Details of activities that inculcate values necessary to transform students into responsible citizens	View File
Any other relevant information	No File Uploaded

7.1.10 - The institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic sensitization programmes in this regard: The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff Annual awareness programmes on the Code of Conduct are organized

A. All of the above

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

7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

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 Mahalingam himself was an ardent follower of Gandhian Principles and Swami Vivekananda'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, Youth Day, World Student Day on October 15th every year that marks the birth anniversary of APJ. Abdul Kalam are celebrated. Pongalis a traditional festival celebrated to acknowledge the sun, rain, soil, water, and cattle.

File Description	Documents
Annual report of the celebrations and commemorative events for during the year	View File
Geotagged photographs of some of the events	No File Uploaded
Any other relevant information	No File Uploaded

7.2 - Best Practices

7.2.1 - Provide the weblink on the Institutional website regarding the Best practices as per the prescribed format of NAAC

Best Practice I- ProtoSem- Prototype Semester

Best Practice II - The Huddle - Forum for senior Leadership Meet

File Description	Documents
Best practices in the Institutional website	https://www.kct.ac.in/wp-content/uploads/2021/12/Best-Practice-I-.pdf
Any other relevant information	https://www.kct.ac.in/wp-content/uploads/2021/12/Best-Practices-II-.pdf

7.3 - Institutional Distinctiveness

7.3.1 - Highlight the performance of the institution in an area distinct to its priority and thrust (within a maximum of 200 words)

KCT has the vision set as "to become a technical university of International Standards through continuous improvement". 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.

Innovations in Education

Introducing innovative features in the Regulation and Curriculum like Flexible and Comprehensive Learning Framework for Open Electives, Embedded Courses, Engineering Clinics for learning Innovation through hands-on activities, Project Based and Problem Based Learning, Protosem and Value Added Courses. KCT has started distinct programmes, MBA - Innovation, Entrepreneurship and Venture Development, MTech - Technology Management

Innovations for Research

KCT started its efforts by establishing research laboratories, support systems and different centres for research such as Re, iQube, Garage, KC.IRI and Forge Accelerator. KCT has instituted Seed Grant for young faculty members to carry out initial research works. Financial incentives are provided for quality publication, research works and IP created by students and faculty members. 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 (Microcosm) 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.

Part B

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 are reflected in Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of the various Programmes offered by the Institution.

Kumaraguru College of Technology 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. Accordingly, Programme Educational Objectives (PEO), Programme Outcomes (POs), Programme Specific Outcomes (PSO) are framed to match the emerging trends and industry-demanded skills.

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.

PSOs are designed considering Knowledge - Skill - Attitude, recommended by Professional Bodies focusing on technical, societal and global needs. POs and PSOs are delineated into different courses, characterised by relevant Course Outcomes (CO).

Curriculum Design and Development process includes benchmarking the content with premier institutions and syllabi are revised at regular intervals to update the contents and accommodate the emerging trends in science, engineering and technology.

File Description	Documents
Upload additional information, if any	View File
Link for additional information	https://naac.kct.ac.in/1/ssr/1_1_1/1.1.1_PEOs-POs-COs_Needs_and_relevance.xlsx

1.1.2 - Number of Programmes where syllabus revision was carried out during the year

4

File Description	Documents
Minutes of relevant Academic Council/BOS meeting	View File
Details of syllabus revision during the year	View File
Any additional information	No File Uploaded

1.1.3 - Number of courses focusing on employability/entrepreneurship/ skill development offered by the Institution during the year

798

File Description	Documents
Curriculum / Syllabus of such courses	View File
Minutes of the Boards of Studies/ Academic Council meetings with approval for these courses	No File Uploaded
MoUs with relevant organizations for these courses, if any	View File
Any additional information	View File

1.2 - Academic Flexibility**1.2.1 - Number of new courses introduced across all programmes offered during the year**

129

File Description	Documents
Minutes of relevant Academic Council/BoS meetings	View File
Any additional information	No File Uploaded
Institutional data in prescribed format (Data Template)	View File

1.2.2 - Number of Programmes offered through Choice Based Credit System (CBCS)/Elective Course System

29

File Description	Documents
Minutes of relevant Academic Council/BoS meetings	View File
Any additional information	No File Uploaded
List of Add on /Certificate programs (Data Template)	View File

1.3 - Curriculum Enrichment

1.3.1 - Institution integrates cross-cutting issues relevant to Professional Ethics, Gender, Human Values, Environment and Sustainability, and Human Values into the curriculum

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, Human Values, Society - Gender Issues, Environmental Science and Sustainability form a part of the curriculum under Regulation 2018.

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, responsible consumption and production are offered as the disciplinary

courses.

KCT offers Gender and Human Values related courses from First Semester to Seventh Semester, by Department of Human Excellence, focussing on sathya, dharma, prema, shanthi and ahimsa. Ethics, Leadership Development Courses offered as a part of Flexible Comprehensive Framework for Learning focussing on Humanities, Social Sciences, Management & Leadership.

File Description	Documents
Upload the list and description of the courses which address issues related to Gender, Environment and Sustainability, Human Values and Professional Ethics in the curriculum	View File
Any additional information	View File

1.3.2 - Number of value-added courses for imparting transferable and life skills offered during the year

46

File Description	Documents
List of value-added courses	View File
Brochure or any other document relating to value-added courses	View File
Any additional information	No File Uploaded

1.3.3 - Number of students enrolled in the courses under 1.3.2 above

3359

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

1.3.4 - Number of students undertaking field work/projects/ internships / student projects

4891

File Description	Documents
List of programmes and number of students undertaking field projects / internships / student projects	View File
Any additional information	No File Uploaded

1.4 - Feedback System

1.4.1 - Structured feedback and review of the syllabus (semester-wise / year-wise) is obtained from 1) Students 2) Teachers 3) Employers and 4) Alumni	A. All 4 of the above
---	------------------------------

File Description	Documents
Provide the URL for stakeholders' feedback report	https://www.kct.ac.in/igac/
Upload the Action Taken Report of the feedback as recorded by the Governing Council / Syndicate / Board of Management	View File
Any additional information	View File

1.4.2 - The feedback system of the Institution comprises the following	A. Feedback collected, analysed and action taken made available on the website
---	---

File Description	Documents
Provide URL for stakeholders' feedback report	https://www.kct.ac.in/igac/
Any additional information	View File

TEACHING-LEARNING AND EVALUATION

2.1 - Student Enrollment and Profile

2.1.1 - Enrolment of Students

2.1.1.1 - Number of students admitted (year-wise) during the year

1632

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

2.1.2 - Number of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as per the reservation policy during the year (exclusive of supernumerary seats)

689

File Description	Documents
Any additional information	View File
Number of seats filled against seats reserved (Data Template)	View File

2.2 - Catering to Student Diversity

2.2.1 - The institution assesses students' learning levels and organises special programmes for both slow and advanced learners.

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. 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 Re, iQube, Garage, KCIRI and Forge. CLED and Re` offers Lecture Series, Certificate Courses and sponsorships to attend various programmes on the basis of merit.

Support to Slow Learners (Bloomers)

Students with biology background are offered additional sessions related to software coding to cope-up with other students. Students are sensitized 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. Bridge courses were conducted for Lateral Entry Students. For the courses like Mathematics, Programming Languages, Digital Signal Processing, Strength of Materials, students are guided through remedial classes. Students

who are unable to complete the courses successfully in the end-semester examinations, are provided an opportunity to re-learn the course through Summer/Winter Tracks.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

2.2.2 - Student – Teacher (full-time) ratio

Year	Number of Students	Number of Teachers
30/09/2020	5735	365

File Description	Documents
Upload any additional information	View File

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:

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 to involve students in co-creation of various learning modules, delivering additional lectures/courses through peer-learning and build confidence levels of the students.

Experiential learning

1. Embedded courses
2. Simulation based experiments in laboratories, industry sponsored facilities with commercial scale experiments
3. Workshops with computer-based learning
4. Industrial visits/field visits / Internships

Participative learning

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, laboratory courses, preparation for competitive examinations,
3. Short courses, lectures, workshops and demonstration sessions

Problem Solving

1. Offering courses that leads to diagnosing a problem and providing solutions
2. Tutorial component is introduced in the analytical courses, wherever required.
3. Intramural hackathons a to enhance the learning experience, implement the understanding and improving abilities of students to provide solutions to complex problems.
4. Designing and developing new products to participate in various competitions
5. Pre-placement internships in companies to solve problems and Executing capstone projects

File Description	Documents
Upload any additional information	No File Uploaded
Link for additional Information	https://naac.kct.ac.in/2/ssr/2_3_1/2.3.1%20Student%20Centric%20Methods.pdf

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

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 provided, WiFi connectivity and optical fibre line for access to all in the campus.

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 interactions.

KCT has Institute-wide license with Microsoft 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 assignments.

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, The ICT tools are grouped into following categories.

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	Documents
Provide link for webpage describing ICT enabled tools including online resources for effective teaching and learning process	https://www.mycamu.co.in/#/
Upload any additional information	View File

2.3.3 - Ratio of students to mentor for academic and other related issues

2.3.3.1 - Number of mentors

317

File Description	Documents
Upload year-wise number of students enrolled and full-time teachers on roll	View File
Circulars with regard to assigning mentors to mentees	View File

2.3.4 - Preparation and adherence to Academic Calendar and Teaching Plans by the institution

Activities of the 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.

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.

File Description	Documents
Upload the Academic Calendar and Teaching Plans during the year	View File

2.4 - Teacher Profile and Quality

2.4.1 - Number of full-time teachers against sanctioned posts during the year

365

File Description	Documents
Year-wise full-time teachers and sanctioned posts for the year	View File
List of the faculty members authenticated by the Head of HEI	View File
Any additional information	No File Uploaded

2.4.2 - Number of full-time teachers with PhD/ D.M. / M.Ch. / D.N.B Super-Specialty / DSc / DLitt during the year

198

File Description	Documents
List of number of full-time teachers with PhD./ D.M. / M.Ch. / D.N.B Super-Specialty / D.Sc. / D.Litt. and number of full-time teachers for 5 years	View File
Any additional information	View File

2.4.3 - Total teaching experience of full-time teachers in the same institution: (Full-time teachers' total teaching experience in the current institution)

3955

File Description	Documents
List of teachers including their PAN, designation, Department and details of their experience	View File
Any additional information	View File

2.5 - Evaluation Process and Reforms

2.5.1 - Number of days from the date of last semester-end/ year- end examination till the declaration of results during the year

34

File Description	Documents
List of Programmes and the date of last semester-end / year-end examinations and the date of declaration of result	View File
Any additional information	View File

2.5.2 - Number of students' complaints/grievances against evaluation against the total number who appeared in the examinations during the year

2

File Description	Documents
Upload the number of complaints and total number of students who appeared for exams during the year	View File
Upload any additional information	No File Uploaded

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

KCT has implemented fully flexible choice based curricular system integrated with KITE portal. Each student has the option, enabled through software, to select their choice of courses, faculty, and timetable during the course enrolment. 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), processing of CAM with final evaluation, declaring results, submission of requests for revaluation are carried out through software system with complete transparency. Dissemination of information related to examination schedule, hall and seating arrangement and issue of Hall Ticket to students are sent through personalised modes for easy access.

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. Entire process may be

reviewed and audited in the digital form with continuous image capturing

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

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	Nil

2.6 - Student Performance and Learning Outcomes

2.6.1 - Programme Outcomes and Course Outcomes for all Programmes offered by the institution are stated and displayed on the website and communicated to teachers and students

Curriculum of a programme offered in KCT is designed and developed based on Program Educational Objectives, Program Outcomes/Program Specific Outcomes and Course 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.

Programme Outcomes recommended by the National Board of Accreditation and Programme Specific Outcomes are framed. Every outcome is then divided into smaller categories to form Course Outcomes, which are then converted into content of suitable courses. Course Outcomes defines the expectation from each student, who register 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.

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.

File Description	Documents
Upload COs for all courses (exemplars from the Glossary)	View File
Upload any additional information	No File Uploaded
Link for additional Information	https://www.kct.ac.in/departments/

2.6.2 - Attainment of Programme Outcomes and Course Outcomes as evaluated by the institution

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.

CO assessment matrix is prepared for every course based on assessment categories. 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. 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.

Attainments of POs and PSOs are evaluated through direct & indirect measures. If the POs/PSOs attainment is less than the target, DAB will 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.

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

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	Nil

2.6.3 - Pass Percentage of students

2.6.3.1 - Total number of final year students who passed in the examinations conducted by

Institution

1593

File Description	Documents
Upload list of Programmes and number of students appear for and passed in the final year examinations	View File
Upload any additional information	View File
Paste link for the annual report	https://naac.kct.ac.in/2/ssr/2_6_3/COE Annual Report - 2020 - 21.pdf

2.7 - Student Satisfaction Survey

2.7.1 - Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design its own questionnaire). Results and details need to be provided as a weblink

<https://www.kct.ac.in/wp-content/uploads/2022/03/Student-Satisfaction-Survey-on-Teaching-Learning-Process-2020-21-1.pdf>

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

Research culture in the campus is ensured - among students, faculty members and relevant stakeholders-through academic initiatives (Project Based Learning, Project, Protosem), introduction of thrust areas, forming Focused Research Groups, students research bodies (Re`, iQube, Garage), Special provision in the annual budget is provided to create Centres of Excellence, Centre for Research, Sponsored Laboratories with a focussed approach, recruitment of interns and sponsoring students, faculty members and technical staff for various training programmes. In order to facilitate the research activities, Research Cell has been established. IPR Cell facilitates the filing of IPR, generated through projects, research and collaborative works carried out between KCT and Industries.

KCT encourages faculty to carry out research through well-laid policies and procedures. Research Policy emphasis on the needs and means to carry out research, avenues available within KCT,

facilitation of activities including dissemination of information, facilitating preparation of proposal, offering internal reviews, recommending small-grant / seed-grants and post-project activities like preparation statements, filing IP and successful closure of projects, HR policy aims to enhance research activities in KCT, bring-in more faculty members into research group by incentivizing research related activities-travel, availing on-duty, publications, career progression, workload reduction and visiting various research laboratories.

File Description	Documents
Upload the Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	View File
Provide URL of policy document on promotion of research uploaded on the website	https://www.kct.ac.in/wp-content/uploads/2021/12/Research-policy.pdf
Any additional information	View File

3.1.2 - The institution provides seed money to its teachers for research

3.1.2.1 - Seed money provided by the institution to its teachers for research during the year (INR in lakhs)

11.86

File Description	Documents
Minutes of the relevant bodies of the institution regarding seed money	View File
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	View File
List of teachers receiving grant and details of grant received	View File
Any additional information	No File Uploaded

3.1.3 - Number of teachers who were awarded national / international fellowship(s) for advanced studies/research during the year

3

File Description	Documents
e-copies of the award letters of the teachers	View File
List of teachers and details of their international fellowship(s)	View File
Any additional information	No File Uploaded

3.2 - Resource Mobilization for Research

3.2.1 - Grants received from Government and Non-Governmental agencies for research projects, endowments, Chairs during the year (INR in Lakhs)

130.12

File Description	Documents
e-copies of the grant award letters for research projects sponsored by non-governmental agencies/organizations	View File
List of projects and grant details	View File
Any additional information	No File Uploaded

3.2.2 - Number of teachers having research projects during the year

53

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	Nil
List of research projects during the year	View File

3.2.3 - Number of teachers recognised as research guides

74

File Description	Documents
Upload copies of the letter of the university recognizing teachers as research guides	View File
Institutional data in Prescribed format	View File

3.2.4 - Number of departments having research projects funded by Government and Non-Government agencies during the year

13

File Description	Documents
Supporting document from Funding Agencies	View File
Paste link to funding agencies' website	Nil
Any additional information	View File

3.3 - Innovation Ecosystem

3.3.1 - Institution has created an ecosystem for innovations and creation and transfer of knowledge supported by dedicated centres for research, entrepreneurship, community orientation, incubation, etc.

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. IPR Cell facilitates filing of IPR generated through projects, research and collaborative works carried out between KCT and Industries.

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.

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.

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

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

3.3.2 - Number of workshops/seminars conducted on Research Methodology, Intellectual Property Rights (IPR), Entrepreneurship and Skill Development during the year

314

File Description	Documents
Report of the events	No File Uploaded
List of workshops/seminars conducted during the year	View File
Any additional information	View File

3.4 - Research Publications and Awards

3.4.1 - The Institution ensures implementation of its Code of Ethics for Research uploaded in the website through the following: Research Advisory Committee Ethics Committee Inclusion of Research Ethics in the research methodology course work Plagiarism check through authenticated software

A. All of the above

File Description	Documents
Code of Ethics for Research, Research Advisory Committee and Ethics Committee constitution and list of members of these committees, software used for plagiarism check	View File
Any additional information	No File Uploaded

3.4.2 - Number of PhD candidates registered per teacher (as per the data given with regard to recognized PhD guides/ supervisors provided in Metric No. 3.2.3) during the year

3.4.2.1 - Number of PhD students registered during the year

37

File Description	Documents
URL to the research page on HEI website	https://www.kct.ac.in/wp-content/uploads/2022/01/List-of-scholars.pdf
List of PhD scholars and details like name of the guide, title of thesis, and year of registration	View File
Any additional information	No File Uploaded

3.4.3 - Number of research papers per teacher in CARE Journals notified on UGC website during the year

183

File Description	Documents
List of research papers by title, author, department, and year of publication	View File
Any additional information	No File Uploaded

3.4.4 - Number of books and chapters in edited volumes / books published per teacher during the year

305

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

3.4.5 - Bibliometrics of the publications during the year based on average Citation Index in Scopus/ Web of Science/PubMed

3.4.5.1 - Total number of Citations in Scopus during the year

2566

File Description	Documents
Any additional information	No File Uploaded
Bibliometrics of the publications during the year	View File

3.4.6 - Bibliometrics of the publications during the year based on Scopus/ Web of Science – h-Index of the University

3.4.6.1 - h-index of Scopus during the year

44

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

3.5 - Consultancy

3.5.1 - Revenue generated from consultancy and corporate training during the year (INR in lakhs)

126.89

File Description	Documents
Audited statements of accounts indicating the revenue generated through consultancy and corporate training	View File
List of consultants and revenue generated by them	No File Uploaded
Any additional information	View File

3.5.2 - Total amount spent on developing facilities, training teachers and clerical/project staff for undertaking consultancy during the year

17.49

File Description	Documents
Audited statements of accounts indicating the expenditure incurred on developing facilities and training teachers and staff for undertaking consultancy	View File
List of training programmes, teachers and staff trained for undertaking consultancy	No File Uploaded
List of facilities and staff available for undertaking consultancy	View File
Any additional information	No File Uploaded

3.6 - Extension Activities

3.6.1 - Extension activities carried out in the neighbourhood sensitising students to social issues for their holistic development, and the impact thereof during the year

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

NamadhuPangu (NP)

- 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)

- 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)

National Cadet Corps (NCC)

Rotaract Club

- Voluntary activities .
- Blood donation
- Tree plantation

Covid Care Centre (CCC)

- Capacity of 800 nos. of bed
- COVID patients benefitted - 4000 nos.

Handloom Project

- 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

- Nature Club, PudhuPaavai, UYIR Club, Gandhian Youth Movement, ABLE Club of KCT dedicated to the grass root work in the society.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

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 the year

25

File Description	Documents
Number of awards for extension activities in during the year	View File
e-copy of the award letters	View File
Any additional information	No File Uploaded

3.6.3 - Number of extension and outreach programmes conducted by the institution through NSS/NCC/Red Cross/YRC, etc. during the year (including Government-initiated programmes such as Swachh Bharat, AIDS Awareness, and Gender Sensitization and those organised in collaboration with industry, community and NGOs)

89

File Description	Documents
Reports of the events organized	View File
Any additional information	View File

3.6.4 - Number of students participating in extension activities listed in 3.6.3 during the year

4178

File Description	Documents
Reports of the events	View File
Any additional information	View File

3.7 - Collaboration

3.7.1 - Number of collaborative activities during the year for research/ faculty exchange/ student exchange/ internship/ on-the-job training/ project work

648

File Description	Documents
Copies of documents highlighting collaboration	View File
Any additional information	No File Uploaded

3.7.2 - Number of functional MoUs with institutions of national and/or international importance, other universities, industries, corporate houses, etc. during the year (only functional MoUs with ongoing activities to be considered)

105

File Description	Documents
e-copies of the MoUs with institution/ industry/ corporate house	View File
Details of functional MoUs with institutions of national, international importance, other institutions etc. during the year	View File
Any additional information	View File

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 equipments, etc.

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. 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.

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.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

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

KCT has spaces earmarked for sports, games, yoga and cultural activities.

Sports Facilities

Indoor Sports

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.).

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. .

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. .

Cultural Activities and Clubs

Air-conditioned auditorium (1457sq.m.)has a capacity of1500 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.Yugam-Techno-cultural event features 130+ events, 60+ workshops, cultural performances, inspirational talks, competitions and contests, witnessed by 10,000+ audience annually.

File Description	Documents
Geotagged pictures	View File
Upload any additional information	View File
Paste link for additional information	Nil

4.1.3 - Number of classrooms and seminar halls with ICT-enabled facilities

135

File Description	Documents
Upload any additional information	No File Uploaded
Upload Number of classrooms and seminar halls with ICT enabled facilities (Data Template)	View File

4.1.4 - Expenditure for infrastructure augmentation, excluding salary, during the year (INR in Lakhs)

286.52

File Description	Documents
Upload audited utilization statements	View File
Details of Expenditure, excluding salary, during the years	View File
Any additional information	No File Uploaded

4.2 - Library as a Learning Resource

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

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.

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. WebOPAC (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.

The Central library has comprehensive collection of 110524 printed books, 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. MGCL has a collection of 7500 CD/DVDs, holds the membership with National Digital Library and NPTEL online courses (400 web and 500 video courses),

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

4.2.2 - Institution has access to the following: e-journals e-ShodhSindhu Shodhganga Membership e-books Databases Remote access to e-resources	A. Any 4 or more of the above
File Description	Documents
Details of subscriptions like e-journals, e-books, e-ShodhSindhu, Shodhganga membership	View File
Upload any additional information	View File
4.2.3 - Expenditure on purchase of books/ e-books and subscription to journals/e-journals during the year (INR in lakhs)	
52.26	
File Description	Documents
Audited statements of accounts	View File
Any additional information	No File Uploaded
Details of annual expenditure for purchase of books/e-books and journals/e- journals during the year (Data Template)	View File
4.2.4 - Usage of library by teachers and students (footfalls and login data for online access)	
4.2.4.1 - Number of teachers and students using the library per day during the year	
264	
File Description	Documents
Upload details of library usage by teachers and students	View File
Any additional information	No File Uploaded
4.3 - IT Infrastructure	
4.3.1 - Institution has an IT policy covering Wi-Fi, cyber security, etc. and has allocated budget for updating its IT facilities	
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.

Database storage, mining and maintenance are carried out using (i) Rack Servers of Dell Power Edge R740 -56 Core processor (28*2)- (ii) Blade servers of HP C7000 Blade Enclosure with 13 Nos of HP BL460c Blade Servers, (iii) HPE Proliant BL460c blade server (iv) Network-attached storage (NAS) server - HP NAS 1600 NAS. 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.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

4.3.2 - Student - Computer ratio

Number of Students	Number of Computers
5735	1874

File Description	Documents
Upload any additional information	View File

4.3.3 - Bandwidth of internet connection in the Institution and the number of students

A. 250 Mbps

on campus	
File Description	Documents
Details of bandwidth available in the Institution	View File
Upload any additional information	View File
4.3.4 - Institution has facilities for e-content development: Facilities available for e-content development Media Centre Audio-Visual Centre Lecture Capturing System (LCS) Mixing equipments and software for editing	A. All four of the above
File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil
List of facilities for e-content development (Data Template)	View File
4.4 - Maintenance of Campus Infrastructure	
4.4.1 - Expenditure incurred on maintenance of physical and academic support facilities, excluding salary component, during the year (INR in lakhs)	
1348.47	
File Description	Documents
Audited statements of accounts	View File
Upload any additional information	View File
4.4.2 - There are established systems and procedures for maintaining and utilizing physical, academic and support facilities – classrooms, laboratory, library, sports complex, computers, etc.	
The development and maintenance of infrastructural facilities in the campus has been one of the priority areas of activities in KCT. The management is committed to maintain and develop the campus as a user - friendly and eco - friendly space. The campus resources are administered by well established functional divisions with the defined responsibilities.	

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 throughonline 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.

Work System for Maintenance Activities

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

STUDENT SUPPORT AND PROGRESSION

5.1 - Student Support

5.1.1 - Number of students benefitted by scholarships and freeships provided by the Government during the year

2194

File Description	Documents
Upload self-attested letters with the list of students receiving scholarships	View File
Upload any additional information	No File Uploaded

5.1.2 - Number of students benefitted by scholarships and freeships provided by the institution and non-government agencies during the year

27

File Description	Documents
Upload any additional information	No File Uploaded
Institutional data in prescribed format	View File

5.1.3 - The following Capacity Development and Skill Enhancement activities are organised for improving students' capabilities Soft Skills Language and Communication Skills Life Skills (Yoga, Physical fitness, Health and Hygiene) Awareness of Trends in Technology

A. All of the above

File Description	Documents
Link to Institutional website	Nil
Details of capability development and schemes	View File
Any additional information	View File

5.1.4 - Number of students benefitted from guidance/coaching for competitive examinations and career counselling offered by the institution during the year

7879

File Description	Documents
Any additional information	No File Uploaded
Number of students benefitted by guidance for competitive examinations and career counseling during the year (Data Template)	View File

5.1.5 - The institution adopts the following mechanism for redressal of students' grievances, including sexual harassment and ragging: Implementation of guidelines of statutory/regulatory bodies Creating awareness and implementation of policies with zero tolerance Mechanism for submission of online/offline students' grievances Timely redressal of grievances

A. All of the above

through appropriate committees

File Description	Documents
Minutes of the meetings of students' grievance redressal committee, prevention of sexual harassment committee and Anti-ragging committee	View File
Details of student grievances including sexual harassment and ragging cases	No File Uploaded
Upload any additional information	View File

5.2 - Student Progression**5.2.1 - Number of outgoing students who got placement during the year**

849

File Description	Documents
Self-attested list of students placed	View File
Upload any additional information	No File Uploaded

5.2.2 - Number of outgoing students progressing to higher education

26

File Description	Documents
Upload supporting data for students/alumni	View File
Details of students who went for higher education	View File
Any additional information	No File Uploaded

5.2.3 - Number of students qualifying in state/ national/ international level examinations during the year**5.2.3.1 - Number of students who qualified in state/ national/ international examinations (e.g.: IIT-JAM/NET/SET/JRF/ GATE /GMAT /CAT/ GRE/ TOEFL/Civil Services/State government examinations) during the year**

113

File Description	Documents
Upload supporting data for students/alumni	View File
Any additional information	View File

5.3 - Student Participation and Activities

5.3.1 - Number of awards/medals for outstanding performance in sports and/or cultural activities at inter-university / state /national / international events (award for a team event should be counted as one) during the year

21

File Description	Documents
e-copies of award letters and certificates	View File
Any additional information	View File

5.3.2 - Presence of an active Student Council and representation of students in academic and administrative bodies/committees of the institution

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. 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 and thereby aims at holistic development of the individual students. 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. 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.

KCT establishes necessary infrastructure facilities in terms of work space 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.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	https://www.kct.ac.in/S60/

5.3.3 - Number of sports and cultural events / competitions organised by the institution

113

File Description	Documents
Report of the event	View File
List of sports and cultural events / competitions organised per year	View File
Upload any additional information	No File Uploaded

5.4 - Alumni Engagement

5.4.1 - The Alumni Association and its Chapters (registered and functional) contribute significantly to the development of the institution through financial and other support services

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 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) Sports Meet,(vii) Coffee Table Talk,(viii) Publishing Alumni Newsletter, (ix) Outreach/Extension Activities,

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.

Meets conducted virtually in 2020-21:

Silver Jubilee Celebration of 1991 - 1995 batch, KCT Alumni Merge - Chennai, KCT Hockey Alumni Meet, KCT Alumni Merge - France 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 KARE Contribution, Mentorship, Scholarships & Contributions, Academic and International Interaction.

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	http://www.kctalumni.com/newsletter

5.4.2 - Alumni's financial contribution during the year

A. ? 15 Lakhs

File Description	Documents
Upload any additional information	View File

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

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".

Organisational Structure

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.

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	www.kct.ac.in

6.1.2 - Effective leadership is reflected in various institutional practices such as decentralization and participative management

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, to look after activities pertaining to Student Admission-to-Graduation and strive to achieve satisfactory results.

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	Documents
Upload strategic plan and deployment documents on the website	View File
Upload any additional information	View File
Paste link for additional Information	Nil

6.2 - Strategy Development and Deployment

6.2.1 - The institutional Strategic/ Perspective plan has been clearly articulated and implemented

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.

Every year, students 15% of the students belong to First Graduate category, 23 % of students belong to low income and middle-income categories are admitted

KCT, on its own and through NGOs (Maatram, Agaram), identify meritorious students and provide admission scholarship, ranging up to 100%. Besides, KCT through Tuition Fee Waiver scheme under AICTE admits students. Students performing better in academics, research, extra/co-curricular and outreach activities are selected and provided 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. Students with unique skills and potential are inducted as short-term, part-time interns with stipend ranging up to Rs 10,000/month.

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	Documents
Strategic Plan and deployment documents on the website	View File
Paste link for additional information	Nil
Upload any additional information	View File

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

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

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

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.

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	Documents
Paste link to Organogram on the institution webpage	https://www.kct.ac.in/wp-content/themes/twentytwenty/assets/pdf/Mandatory-Disclosure-2020-21.pdf
Upload any additional information	No File Uploaded
Paste link for additional Information	https://naac.kct.ac.in/6/ssr/6_2_2/6.2.2%20policy%20new.pdf

6.2.3 - Implementation of e-governance in areas of operation: Administration Finance and Accounts Student Admission and Support Examination

A. All of the above

File Description	Documents
ERP (Enterprise Resource Planning) Document	View File
Screen shots of user interfaces	View File
Details of implementation of e-governance in areas of operation	View File
Any additional information	No File Uploaded

6.3 - Faculty Empowerment Strategies

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

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.

Following Welfare Measures are provided to Faculty and Staff Members.

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. Subsidized 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	Documents
Upload any additional information	View File
Paste link for additional information	Nil

6.3.2 - Number of teachers provided with financial support to attend conferences / workshops and towards payment of membership fee of professional bodies during the year

334

File Description	Documents
Upload any additional information	No File Uploaded
Details of teachers provided with financial support to attend conference, workshops etc during the year (Data Template)	View File

6.3.3 - Number of professional development / administrative training programmes organized by the Institution for its teaching and non-teaching staff during the year

78

File Description	Documents
Reports of the Human Resource Development Centres (UGC HRDC/ASC or other relevant centres)	View File
Upload any additional information	View File

6.3.4 - Number of teachers who have undergone online/ face-to-face Faculty Development Programmes during the year: (Professional Development Programmes, Orientation / Induction Programmes, Refresher Courses, Short-Term Course, etc.)

286

File Description	Documents
Summary of the IQAC report	View File
Reports of the Human Resource Development Centres (UGC ASC or other relevant centers)	View File
Upload any additional information	View File

6.4 - Financial Management and Resource Mobilization

6.4.1 - Institution conducts internal and external financial audits regularly

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.

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	Documents
Upload any additional information	View File
Paste link for additional information	Nil

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

Nil

File Description	Documents
Annual statements of accounts	No File Uploaded
Details of funds / grants received from non-government bodies, individuals, philanthropists during the year	No File Uploaded
Any additional information	No File Uploaded

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

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 optimization 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.

File Description	Documents
Upload any additional information	No File Uploaded
Paste link for additional Information	https://www.kct.ac.in/financial-statements/

6.5 - Internal Quality Assurance System

6.5.1 - Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing quality assurance strategies and processes visible in terms of incremental improvements made during the preceding year with regard to quality (in case of the First Cycle): Incremental improvements made during the preceding year with regard to quality and post-accreditation quality initiatives (Second and subsequent cycles)

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.

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

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.

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)

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

6.5.2 - The institution reviews its teaching-learning process, structures and methodologies of operation and learning outcomes at periodic intervals through its IQAC as per norms

Case 1: QUALITY ASSURANCE - ACADEMIC AUDIT

Academic audit is process of quality improvement in academic system, leading to student success. Major audit points and audit documents are shown

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.

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 Clinicas a credit course in curriculum.

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.

File Description	Documents
Upload any additional information	View File
Paste link for additional information	Nil

6.5.3 - Quality assurance initiatives of the institution include Regular meeting of the

A. Any 4 or all of the above

IQAC Feedback collected, analysed and used for improvement of the institution
Collaborative quality initiatives with other institution(s) Participation in NIRF Any other quality audit recognized by state, national or international agencies (such as ISO Certification)

File Description	Documents
Paste the web link of annual reports of the Institution	Nil
Upload e-copies of accreditations and certification	View File
Upload details of quality assurance initiatives of the institution	View File
Upload any additional information	View File

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 year

Kumaraguru College of Technology (KCT) has always been a touch bearer of raising awareness towards gender equality between young men and women. Linked with gender empowerment, KCT has always pioneering itself in organizing and conducting various gender equity programs. To this essence, the institution has embarked upon to

- Conduct gender equity programs for the students to understand the fact that equality is the essence of democracy.
- Maintain a good workplace free from discrimination.
- Enable and encourage young women to have a wider role in decision-making.
- Preventing and responding to gender-based violence.
- Foster gender equality in teaching and education systems.
- Supporting teachers to create gender inclusive learning

environment.

To ensure and proceed with the above given objectives:

a. KCT is proud to hoist its dynamic "Woman empowerment Cell", which organizes different mindful programs and social occasions for young girl students at our institution during regular spans.

b. Pudhu Paavai club (New age Woman club) is an emerging exclusive club for girl students.

c. A Full time Counsellor is available on campus to attend gender and psychic related issues faced by both women faculty and girl students

. d. Separate GYM facilities for girls' students are available in the college premise.

e. A Full-time Women Physical Education Directoris available to train and host sports events inside and outside the college premises.

The programmes conducted in the institution in the academic year 2020-2021 is attached.

File Description	Documents
Upload any additional information	View File
Paste link for additional Information	https://naac.kct.ac.in/7/ssr/7_1_1/7.1.1%20%20Specific%20facilities%20provided%20for%20women%20.pdf

7.1.2 - The Institution has facilities for alternate sources of energy and energy conservation: Solar energy Biogas plant Wheeling to the Grid Sensor-based energy conservation Use of LED bulbs/ power-efficient equipment

A. Any 4 or All of the above

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

7.1.3 - Describe the facilities in the institution for the management of the following types of degradable and non-degradable waste (within a maximum of 200 words)

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.

File Description	Documents
Relevant documents like agreements/MoUs with Government and other approved agencies	No File Uploaded
Geotagged photographs of the facilities	View File
Any other relevant information	View File

**7.1.4 - Water conservation facilities available in the Institution: Rain water harvesting
Bore well /Open well recharge Construction of tanks and bunds Waste water recycling
Maintenance of water bodies and distribution system in the campus**

A. Any 4 or all of the above

File Description	Documents
Geotagged photographs / videos of the facilities	View File
Any other relevant information	View File

7.1.5 - Green campus initiatives include

7.1.5.1 - The institutional initiatives for greening the campus are as follows:

- 1. Restricted entry of automobiles**
- 2. Use of bicycles/ Battery-powered vehicles**
- 3. Pedestrian-friendly pathways**
- 4. Ban on use of plastic**
- 5. Landscaping**

A. Any 4 or All of the above

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

7.1.6 - Quality audits on environment and energy undertaken by the institution

7.1.6.1 - The institution's initiatives to preserve and improve the environment and harness energy are confirmed through the following:

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

A. Any 4 or all of the above

File Description	Documents
Reports on environment and energy audits submitted by the auditing agency	No File Uploaded
Certification by the auditing agency	View File
Certificates of the awards received	View File
Any other relevant information	View File

7.1.7 - The Institution has a disabled-friendly and barrier-free environment: Ramps/lifts for easy access to classrooms and centres Disabled-friendly washrooms Signage including tactile path lights, display boards and signposts Assistive technology and facilities for persons with disabilities: accessible website, screen-reading software, mechanized equipment, etc. Provision for enquiry and information: Human assistance, reader, scribe, soft copies of reading materials, screen reading, etc.

A. Any 4 or all of the above

File Description	Documents
Geotagged photographs / videos of facilities	View File
Policy documents and brochures on the support to be provided	No File Uploaded
Details of the software procured for providing assistance	View File
Any other relevant information	View File

7.1.8 - Describe the Institutional efforts/initiatives in providing an inclusive environment i.e. tolerance and harmony towards cultural, regional, linguistic, communal, socio-economic and other diversities (within a maximum of 200 words).

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.

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 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.

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

7.1.9 - Sensitization of students and employees of the institution to constitutional obligations: values, rights, duties and responsibilities of citizens:

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, Bharathiarand events related to freedom struggle.

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.

File Description	Documents
Details of activities that inculcate values necessary to transform students into responsible citizens	View File
Any other relevant information	No File Uploaded

7.1.10 - The institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic sensitization programmes in this regard: The Code of Conduct is displayed on the website There is a committee to monitor adherence to the Code of Conduct Institution organizes professional ethics programmes for students, teachers, administrators and other staff Annual awareness programmes on the Code of Conduct are organized

A. All of the above

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

7.1.11 - Institution celebrates / organizes national and international commemorative days, events and festivals

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 Mahalingam himself was an ardent follower of Gandhian Principles and Swami Vivekananda'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, Youth Day, World Student Day on October 15th every year that marks the birth anniversary of APJ. Abdul Kalam are celebrated. Pongal is a traditional festival celebrated to acknowledge the sun, rain, soil, water, and cattle.

File Description	Documents
Annual report of the celebrations and commemorative events for during the year	View File
Geotagged photographs of some of the events	No File Uploaded
Any other relevant information	No File Uploaded

7.2 - Best Practices

7.2.1 - Provide the weblink on the Institutional website regarding the Best practices as per the prescribed format of NAAC

Best Practice I- ProtoSem- Prototype Semester

Best Practice II - The Huddle - Forum for senior Leadership Meet

File Description	Documents
Best practices in the Institutional website	https://www.kct.ac.in/wp-content/uploads/2021/12/Best-Practice-I-.pdf
Any other relevant information	https://www.kct.ac.in/wp-content/uploads/2021/12/Best-Practices-II-.pdf

7.3 - Institutional Distinctiveness

7.3.1 - Highlight the performance of the institution in an area distinct to its priority and thrust (within a maximum of 200 words)

KCT has the vision set as "to become a technical university of International Standards through continuous improvement". 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.

Innovations in Education

Introducing innovative features in the Regulation and Curriculum like Flexible and Comprehensive Learning Framework for Open Electives, Embedded Courses, Engineering Clinics for learning Innovation through hands-on activities, Project Based and Problem Based Learning, Protosem and Value Added Courses. KCT has started

distinct programmes, MBA - Innovation, Entrepreneurship and Venture Development, MTech - Technology Management

Innovations for Research

KCT started its efforts by establishing research laboratories, support systems and different centres for research such as Re, iQube, Garage, KC.IRI and Forge Accelerator. KCT has instituted Seed Grant for young faculty members to carry out initial research works. Financial incentives are provided for quality publication, research works and IP created by students and faculty members. 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 (Microcosm) 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.

File Description	Documents
Appropriate link in the institutional website	https://www.kct.ac.in/wp-content/uploads/2021/12/institutional-Distinctiveness.pdf
Any other relevant information	No File Uploaded

7.3.2 - Plan of action for the next academic year

- Introducing New programmes
- NBA Accreditation for all UG Programmes and 50% of PG Programmes
- To organize international Conferences
- To enhance number of patents and publications
- Increase placement of students in high profile companies with higher salary
- Motivate students to participate in competitive Examinations
- Introducing Minor Specialization