



## **YEARLY STATUS REPORT - 2021-2022**

### **Part A**

#### **Data of the Institution**

<b>1.Name of the Institution</b>	
COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY	
• Name of the Head of the institution	Dr.K N Madhusoodhanan
• Designation	Vice- Chancellor
• Does the institution function from its own campus?	Yes
• Phone no./Alternate phone no.	04842577619
• Mobile no	9349406334
• Registered e-mail	iqaccusat@gmail.com
• Alternate e-mail address	iqac@cusat.ac.in
• City/Town	Kalamassery
• State/UT	Kerala
• Pin Code	682022
<b>2.Institutional status</b>	
• University	State
• Type of Institution	Co-education
• Location	Urban

• Name of the IQAC Co-ordinator/Director	<b>Dr. K. GIRISH KUMAR</b>
• Phone no./Alternate phone no	<b>04842862748</b>
• Mobile	<b>9847363660</b>
• IQAC e-mail address	<b>iqaccusat@gmail.com</b>
• Alternate Email address	<b>iqac@cusat.ac.in</b>
<b>3.Website address (Web link of the AQAR (Previous Academic Year)</b>	<a href="https://iqac.cusat.ac.in/assets/web/uploads/document/AQAR_2020-21_merged.pdf">https://iqac.cusat.ac.in/assets/web/uploads/document/AQAR_2020-21_merged.pdf</a>
<b>4.Whether Academic Calendar prepared during the year?</b>	<b>Yes</b>
• if yes, whether it is uploaded in the Institutional website Web link:	<a href="https://www.google.com/url?client=internal-element-cse&amp;cx=4ab7345f9d477cb88&amp;q=https://cusat.ac.in/uploads/ACADEMIC_CALENDAR_21_22.pdf&amp;sa=U&amp;ved=2ahUKEwj30KS5y66AAxVhk1YBHTR8DBsQFnoECAMQAg&amp;usg=AOvVaw0GL">https://www.google.com/url?client=internal-element-cse&amp;cx=4ab7345f9d477cb88&amp;q=https://cusat.ac.in/uploads/ACADEMIC_CALENDAR_21_22.pdf&amp;sa=U&amp;ved=2ahUKEwj30KS5y66AAxVhk1YBHTR8DBsQFnoECAMQAg&amp;usg=AOvVaw0GL</a>

**5.Accreditation Details**

Cycle	Grade	CGPA	Year of Accreditation	Validity from	Validity to
<b>Cycle 3</b>	<b>A+</b>	<b>3.39</b>	<b>2022</b>	<b>18/10/2022</b>	<b>17/10/2027</b>

<b>6.Date of Establishment of IQAC</b>	<b>10/04/2007</b>
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**7.Provide the list of Special Status conferred by Central/ State Government-UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.**

Institution/ Department/Faculty	Scheme	Funding agency	Year of award with duration	Amount
ACAAR	CSIR	CSIR	3 years	2,000,000
Applied Chemistry	DST- SERB	DST-	3 years	2,239,600
Department of Computer Application	DST-ICPS	DST	3 years	25,00,500
Atmospheric Science	FIST	DST	5 Years	16500000
International School of Photonics	FIST	DST	5 Years	9100000
Marine Biology, MicroBiology and BioChemistry	UGC -SAP-DRS-II	UGC	5 Years	88,00,000
School of Legal Studies	UGC SAP DRS II	UGC	5 Years	70,00,000
ACARR	ST Radar Facility	MoES	3 years	92572280
NCAAH	Bioinformatics Center	DBT	5 Years	7499200.00
NCAAH	Establishment of functional genomics	HIGHER EDUCATION DEPT	2 Years	37243000
NCAAH	CELL BIOLOGY PROJECT SCHEME	DBT	3 years	30122560
Biotechnology	GBA1-L444P mutation	DHR-HRD-NRI	3 years	7824806
Applied Chemistry	Centre for Sensor Device	HIGHER EDUCATION DEPT	2 Years	25375000

Mathematics	LIE GROUPS PROJECT	CSIR	3 years	2136000
Department of Computer Application	WOS-A-DYSGRAPHIA	DST	2 Years	1,148,083
Instrumentation	Development of a planar Multi layer Inductor	DST SERB	3 years	1,793,000
Marine Biology, MicroBiology and BioChemistry	UGC -SAP-DRS-II	UGC	5 Years	8,800,000
Ship Technology	FEM Analysis	NPOL	5 months	714,000

<b>8. Whether composition of IQAC as per latest NAAC guidelines</b>	<b>Yes</b>		
<ul style="list-style-type: none"> <li>Upload latest notification of formation of IQAC</li> </ul>	<a href="#">View File</a>		
<b>9. No. of IQAC meetings held during the year</b>	<b>10</b>		
<ul style="list-style-type: none"> <li>The minutes of IQAC meeting and compliance to the decisions have been uploaded on the institutional website. (Please upload, minutes of meetings and action taken report)</li> </ul>	<b>Yes</b>		
<ul style="list-style-type: none"> <li>(Please upload, minutes of meetings and action taken report)</li> </ul>	<a href="#">View File</a>		
<b>10. Whether IQAC received funding from any of the funding agency to support its activities during the year?</b>	<b>No</b>		
<ul style="list-style-type: none"> <li>If yes, mention the amount</li> </ul>			

<b>11. Significant contributions made by IQAC during the current year (maximum five bullets)</b>
Streamlined the Outcome Based Education
Conducted Sasthrayaan- CUSAT Open House programme for public, school/ college students
21 students have been provided financial assistance for participating in conferences abroad so far
The process of signing MoUs with various organizations is streamlined and regulations have been framed. The MoUs are verified by the IQAC for observing academic and research interests of the University.
Distinguished Young Faculty Award 2022 has been awarded to two faculty members of the University and Distinguished Researcher Award 2022 has been awarded to three research scholars of the University
Conducted Academic Audit
<b>12. Plan of action chalked out by the IQAC in the beginning of the Academic year towards Quality Enhancement and the outcome achieved by the end of the Academic year</b>

Plan of Action	Achievements/Outcomes
Self Study Report submission to NAAC accreditation of the University	University was accredited with A+ grade and 3.39 score in the NAAC accreditation
Steps for improving NIRF India Ranking	NIRF University Ranking of the University is improved to 37 from 41
To streamline the academic programmes	Outcome Based Education is implemented in all academic programmes of the University
Travel grant to students for presenting research papers at conferences abroad	21 students were provided financial assistance for presenting papers at conferences abroad so far
To conduct workshops	Conducted one day Workshop on Curriculum restructuring on 7th March 2023
To conduct seminars/conferences	Conducted a two day International Conference on Sustainable Technology and Innovation for Industry on 21 April 2022
To conduct Academic Audit	Conducted Academic Audit 2021
To invite eminent academicians to University under Chancellor's Chair programme	Dr.David Hunter, University of Adelaide, Australia was appointed as Chancellor's Chair professor
To strengthen activities of Green Campus Cell for sustainable development of the campus	CUSAT has won the prestigious Kerala State Biodiversity Awards of 2021-22, as a recognition to its efforts on sustainable environment initiatives and CUSAT has also won award instituted for Department of Agriculture and Farmers Welfare for Institutional Cultivation
13.Whether the AQAR was placed before statutory body?	Yes

- Name of the statutory body

Name	Date of meeting(s)
Syndicate	27/08/2021

**14. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to Assess the functioning?**

No

**15. Whether institutional data submitted to AISHE**

Year	Date of Submission
2021-22	15/02/2023

**16. Multidisciplinary / interdisciplinary**

The Vision of National Education Policy, to provide high quality education to develop human resources in our nation as global citizens, is well taken by the university. A discussion among the faculty members were initiated on the key principles of NEP such as diversity for all curriculum and pedagogy with technological innovations in teaching and learning, encouraging logical decision making and innovation, critical thinking and creativity. In view of the NEP, university has initiated new interdisciplinary centres integrating different departments in addition to the existing inter/multidisciplinary research and academics. Academic programmes are redesigned to include Multidisciplinary /Interdisciplinary courses as electives. All programmes are designed in such a way that students get maximum flexibility to choose elective courses offered by other Departments. It can be said that the University is proactively working towards implementation of the suggestions given in the NEP.

**17. Academic bank of credits (ABC):**

CUSAT is an official member of the National Academic Depository which is a government endeavour to offer an online repository for all academic awards under the Digital India Programme. From 2020 onwards, CUSAT is uploading students mark sheets and degree certificates through the nad.digitallocker.gov.in platform. The National Academic Bank of Credits (ABC) portal has now been integrated into the nad.digitallocker.gov.in platform and is currently live for the academic year 2021. CUSAT follows a choice-based credit system for all of its programmes and is now in the

process to pass a resolution related to the ABC in the Academic Council. CUSAT will formally register in the ABC portal as soon as the resolution is being approved by the higher academic bodies.

#### **18.Skill development:**

UGC has introduced DDU KAUSHAL KENDRAS (DDUKK) for promoting vocational education in continuation to its initiatives for introducing community colleges and B.Voc Programmes realizing the importance and the necessity for developing skills among students, and creating work ready manpower on large scale. CUSAT is one of the first state universities to implement this concept to start its own DDUKK. Vocational programmes are introduced based on National Skill Qualification Framework (NSQF). CUSAT aims at providing quality vocational education through DDUKK combining class room centered formal education and training with experience sharing of Industry practitioners and internships in business houses. The focus is towards integrated knowledge acquisition and upgrading human skill towards creating a new league of employable youth. Teaching and training methodology of courses offered under DDUKK are designed accordingly. Our MBA programme is designed in such a way to mould future managers thoroughly conversant with the application of tools and techniques of modern management practices in order to align with the Government of India's National Skills Qualification Framework (NSQF) and requirements of Industry 4.0. This newly adopted curriculum and the training imparted will help management programme aspirants to get fully trained in accordance with NSQF's National Occupational Standards (NOS) developed by Sector Skills Councils (SSC) and requirements of Industry 4.0 so as to enhance the employability for our graduates as per the industry's current human resources requirements. All these steps are marching towards the implementation of NEP in the real sense. The programme structure and contents adhere to the UGC guide lines for vocational programmes in line with National Skill Qualification Framework (NSQF). The programme offers multiple entry and exit options to students where each exit point is linked to a specific job role as specified in NSQF. Students who successfully complete the first year of the programme will be eligible for PG diploma in Technology and Management Consulting. Successful completion of all four semesters leads to M Voc degree. The two- year programme also provides two skill-certifications following the skill assessment tests by the Sector Skill Council recognized by National Skill Development Corporation (NSDC). Management, Entrepreneurship and Professional Skill Council (MEPSC) is the Sector Skill Council approved by NSDC for M Voc (TMC) programme.



**19.Appropriate integration of Indian Knowledge system (teaching in Indian Language, culture, using online course)**

CUSAT encourages learning of national language of Hindi by offering PG, MPhil, PhD, Post Doc degrees in Hindi. Programmes including webinars and seminars are offered to encourage Hindi learners and understand the cultural values permeated by the literary works in Hindi. Further, Indian Ethos and Business Ethics in curriculum of Business Administration, teaches cultural values in Indian tradition so a business students imbibe value orientation while in business.

**20.Focus on Outcome based education (OBE):Focus on Outcome based education (OBE):**

CUSAT offers 116 programmes across Engineering, Environmental Studies, Humanities, Law, Marine Sciences, Medical Sciences and Technology, Science, Social Sciences and Technology All these programmes are offered as outcomes-based education (OBE) which are designed keeping in mind the regional and global requirements. CUSAT has implemented outcome-based education with clearly stated Programme Outcomes, Programme Specific Outcomes and course outcomes. All courses are designed with outcomes centred on cognitive abilities namely Remembering, Understanding, Applying, Analysing, Evaluating and Creating. Apart from the domain-specific skills, learning outcomes at all levels ensure social responsiveness and ethics, as well as entrepreneurial skills so that student contribute proactively to economic, environmental and social well-being of the nation. The Course Objectives (COs) are also aligned to the PO-PSO philosophy. All course syllabus have been designed with due consideration to macro-economic and social needs at large so as to apply the spirit of NEP.

**21.Distance education/online education:**

Due to Covid -19 pandemic, educational institutions in the country has increasingly involved in using the digital platforms for engaging classes, conducting conferences and meetings. Keeping aside the negative impact of lack of face to face learning, online education has broken the geographical barriers creating interaction of experts and students from distant geographies. Opening up of the economy including that of educational institutions has paved the way of adopting hybrid mode of education called as 'PHYGITAL' combining online and offline resources. This can be considered as the new normal, which is envisaged in New Education Policy as well. Faculties are encouraged to offer MOOC courses at CUSAT which promotes the blended learning system of learning.

## Extended Profile

### 1.Programme

1.1 116

Number of programmes offered during the year:

File Description	Documents
Data Template	<a href="#">View File</a>

1.2 30

Number of departments offering academic programmes

### 2.Student

2.1 7161

Number of students during the year

File Description	Documents
Data Template	<a href="#">View File</a>

2.2 1938

Number of outgoing / final year students during the year:

File Description	Documents
Data Template	<a href="#">View File</a>

2.3 14322

Number of students appeared in the University examination during the year

File Description	Documents
Data Template	<a href="#">View File</a>

2.4 145

Number of revaluation applications during the year

### 3.Academic

3.1 2355

Number of courses in all Programmes during the year

File Description	Documents
Data Template	<a href="#">View File</a>

3.2 **460**

Number of full time teachers during the year

File Description	Documents
Data Template	<a href="#">View File</a>

3.3 **577**

Number of sanctioned posts during the year

File Description	Documents
Data Template	<a href="#">View File</a>

#### 4.Institution

4.1 **69234**

Number of eligible applications received for admissions to all the Programmes during the year

File Description	Documents
Data Template	<a href="#">View File</a>

4.2 **1140**

Number of seats earmarked for reserved category as per GOI/ State Govt. rule during the year

## Extended Profile

### 1.Programme

1.1 116

Number of programmes offered during the year:

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Data Template	<a href="#">View File</a>

1.2 30

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Data Template	<a href="#">View File</a>
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File Description	Documents
Data Template	<a href="#">View File</a>
<b>4.Institution</b>	
4.1	69234
Number of eligible applications received for admissions to all the Programmes during the year	
File Description	Documents
Data Template	<a href="#">View File</a>
4.2	1140
Number of seats earmarked for reserved category as per GOI/ State Govt. rule during the year	
File Description	Documents
Data Template	<a href="#">View File</a>
4.3	220
Total number of classrooms and seminar halls	
4.4	2092
Total number of computers in the campus for academic purpose	

4.5	3517.21
Total expenditure excluding salary during the year (INR in lakhs)	

## 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 is reflected in Programme outcomes (POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the Programmes offered by the University

The curriculum of our academic programmes is designed with the local, national and international developmental needs in mind. Centres of excellence established in areas of global and national importance contribute to enhancing the quality of the academic programmes in departments. All 116 programmes offered at CUSAT are in Outcomes-based Education (OBE) manner which caters for the regional and global requirements.

These aspirations to develop to globally competent and locally responsive manpower are well reflected in the Programme Objectives (POs) and Programme Specific Objectives (PSOs). Apart from the domain- specific skills, learning outcomes at all levels ensure social responsiveness and ethics, as well as entrepreneurial skills so that students contribute proactively to economic, environmental and social well- being of the nation. Illustrations are shown below:

The Course Objectives (COs) are also aligned to the PO-PSO philosophy. All course syllabi have been designed to meet the industry requirements both at the local level and global level- with due consideration for macro-economic and social needs at large.

Special care is taken by the University and its academic bodies to start new departments and programmes responding to the changes in technology or local / societal needs.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

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

**13**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

### 1.1.3 - Total number of courses having focus on employability/ entrepreneurship/ skill development offered by the University during the year

#### 1.1.3.1 - Number of courses having focus on employability/ entrepreneurship/ skill development during the year

**416**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

### 1.2 - Academic Flexibility

#### 1.2.1 - Number of new courses introduced of the total number of courses across all programs offered during the year

**416**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

#### 1.2.2 - Number of Programmes in which Choice Based Credit System (CBCS)/elective course system has been implemented during the year

**74**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

### 1.3 - Curriculum Enrichment

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

CUSAT is committed to offering research and training activities so as to contribute positively to the progress of the society and the nation. In line with this thinking, diverse courses with innovative teaching-learning pedagogies have been introduced for the inculcation of human values, gender equality, professional ethics, environmental concern and sustainable development among the students. Courses with aligned Course Objectives are incorporated into these programmes to meet these objectives.

#### Environment and Sustainability

There are 130 courses across all programmes discussing issues concerned with Environment and sustainability. We have a specialized school named Environmental Studies which offers an M Sc. Environmental Science and Technology.

#### Professional Ethics

A compulsory course on Research ethics is offered to all research scholars as part of the course work. In line with its vision of molding managers for mankind, the MBA programme offer core courses in Indian Ethos, Business Ethics and Managerial Skill Development. Professional Ethics as a core course is taught in all engineering programmes.

#### Human Values and Gender Equity

We have a Centre for Study of Social Exclusion and Inclusive Policy committed to fostering research in the broad agenda of social exclusion and Women's Studies Centre to do research in gender related issues.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

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

46



File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

**1.3.3 - Total number of students enrolled in the courses under 1.3.2 above****1.3.3.1 - Number of students enrolled in value-added courses imparting transferable and life skills offered during the year****1812**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

**1.3.4 - Number of students undertaking field projects / research projects / internships during the year****1759**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

**1.4 - Feedback System****1.4.1 - Structured feedback for design and review of syllabus – semester wise / is received from Students Teachers Employers Alumni**

- All 4 of the above

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

**1.4.2 - Feedback processes of the institution may be classified as follows**

- Feedback collected, analysed and action taken and feedback available on website

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

## TEACHING-LEARNING AND EVALUATION

### 2.1 - Student Enrollment and Profile

#### 2.1.1 - Demand Ratio

##### 2.1.1.1 - Number of seats available during the year

2522

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

#### 2.1.2 - Total number of seats filled against reserved categories (SC, ST, OBC, Divyangjan, etc.) as per applicable reservation policy during the year (Excluding Supernumerary Seats)

##### 2.1.2.1 - Number of actual students admitted from the reserved categories during the year

907

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

### 2.2 - Catering to Student Diversity

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

A systematic evaluation process through continuous assessments consisting of written examination, group presentation, Individual seminar presentation, mini project, practical examination with viva, minor projects and written assignments is executed. The continuous evaluation scheme helps to identify both advanced learners and slow learners and initiate measures accordingly.

Each student has a mentor advice the student looking at his learning abilities and interests.

The advanced learners are encouraged to take extra credits either as part of CBCS or as audit courses apart from online courses under MOOC platform, Courseera ,Swayam Prabha, NPTEL etc.

The University has adopted many approaches for mentoring and handholding of the slow learner.

1. There are regular remedial classes for slow learners.
2. Examination regulations of CUSAT for all programs except PhD, admits makeover examinations to accommodate slow learners giving them one more chance in end semester examinations.
3. The Equal Opportunity Cell (EOC) of the university runs regular remedial classes. The EOC holds regular orientation programs on various opportunities, scholarship and fellowships available for the marginalised section of students benefitting many of the students to pursue higher studies.
4. The Skill Orientation Centre for Engineering focuses on developing the employability of weak students belonging to SC/ST category.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>
Link For Additional Information	Nil

### 2.2.2 - Student - Full time teacher ratio during the year

Number of Students	Number of Teachers
7161	460

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

### 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

The University ensures the holistic development of the students through a student-centric learning process and suitable curriculum

design.Choice Based Credit System (CBCS)is adopted in the University. In order to impart an enhanced learning experience, students are encouraged to choose inter-disciplinary, intra-disciplinary and skill-based courses in CBCS according to their interests.

The University has also revised the syllabus by giving importance to Outcome Based Education (OBE). University provides innovative methods for enriching the learning experience by developing Analytical Skills, expanding thought process, developing tproblem-solving skills and soft skills.

Experiential Learning, Assignments, Guided Projects & Participative Learning are a part of the curriculum for every program in CUSAT.

1. Knowledge Forum and Journal Clubs:Students can present their research or present a review paper in their area of research in order to develop research aptitude and inculcate research ideas at an early stage.

2. Unrestricted access to Labs: Students are given maximum academic freedom at the lab. Apart from the experiments prescribed in the syllabus students can perform any other experiment they wish to do as a part of a project assignment or competitions.

3. Internships: Students are encouraged to take up internships during their vacations thereby translating the classroom knowledge into practice.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

2.3.2 - Teachers use ICT enabled tools including online resources for effective teaching and learning processes during the year

The use of Information and Communication Technology based learning has greater importance in the current situation.

1. ICT enabled Classrooms: Every department in the University has ICT enabled classrooms with smart board facilities.Teachers uses ICT enabled tools for effective teaching and learning processes.

2. Virtual Classrooms: Virtual workshops and research collaborations were conducted from 2017. Virtual class rooms like

Google Classrooms are also used for discussions and announcements apart from classroom teaching. This made it very easy for the University to handle the challenges of the Pandemic in 2020 and shift to online mode. Online Class/Lectures: Moodle Blue-button plugins are utilised as Meet@CUSAT for conducting online classes and lectures. Interactive sessions are also conducted with the help of Collaborative whiteboard environment.

Moodle@CUSAT for the teaching-learning process. Students are enrolled into each subject specific portal where students can understand their Subject Specific Pre-requisites, Course Description, Objectives and Course Specific Outcomes and Syllabus of the subject. Course Plan can be referred from Moodle so that they can plan their studies and assignments and term work accordingly. In addition to the MOOCs facilitated via the university's website portal, the university also took initiative to provide access to online courses via the Campus programme of Coursera.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

### 2.3.3 - Ratio of students to mentor for academic and other related issues during the year

#### 2.3.3.1 - Number of mentors

460

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

### 2.4 - Teacher Profile and Quality

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

460

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

#### 2.4.2 - Total Number of full time teachers with Ph.D./D.M/M.Ch./D.N.B Superspeciality/D.Sc./D'Lit. during the year

**247**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

**2.4.3 - Total teaching experience of full time teachers in the same institution during the year****2.4.3.1 - Total experience of full-time teachers****2676.7**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

**2.4.4 - Total number of full time teachers who received awards, recognition, fellowships at State, National, International level from Government/Govt. recognised bodies during the year****47**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

**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****39****2.5.1.1 - Number of days from the date of last semester-end/ year- end examination till the declaration of results year wise during the year****39**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

**2.5.2 - Total number of student complaints/grievances about evaluation against total number appeared in the examinations during the year****145**

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

2.5.3 - IT integration and reforms in the examination procedures and processes (continuous internal assessment and end-semester assessment) have brought in considerable improvement in examination management system of the institution

1. Timely completion of course, conduct of examinations and publication of results as per the Academic Calendar.

2. Question papers are designed to test the capability in understanding concepts, analysis, application, and evaluation of these concepts, along with creativity skills of the student ensuring pre defined standards, covering all modules, and following Bloom's Revised Taxonomy. All students are subject to both Continuous and End semester evaluations.

3. Evaluation process for post graduation programmes have been made internal resulting in effective evaluation of students especially in specialised topics. It has reduced the gap between examination and result declaration

4. University ensures accountability and transparency in evaluation by providing the students opportunity to check answer sheets along with mark entry sheet and scheme of evaluation.

5. Complete Automation of the entire Examination division and implementation of the in house developed Examination Management System (EMS) enables integration of all the activities in the Examination Wing.

6. The pre and post examination activities are automated starting with the Student registration which creates a master database of the students in a particular academic year for different courses. SMS alert facilities are also automated.

File Description	Documents
Upload relevant supporting document	No File Uploaded

2.5.4 - Status of automation of Examination division along with approved Examination Manual	A. 100% automation of entire division & implementation of Examination Management System (EMS)
File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded
2.6 - Student Performance and Learning Outcomes	
2.6.1 - The institution has stated learning outcomes (generic and programme specific)/graduate attributes which are integrated into the assessment process and widely publicized through the website and other documents	
<p>Our vision is to impart innovation-oriented education, to build globally competent and socially committed professionals. All programmes offered by the University have been converted to outcome based. Our faculty members are empowered with outcome-based teaching, learning and assessment strategies. Every student is subject to a continuous assessment and an end semester assessment. The various assessment process is formulated in such a way that the cognitive skills in particular Knowledge, Comprehension, Application, Analysis, Evaluation and creation can be assessed. A systematic evaluation process through continuous assessments consisting of written examination, group presentation, Individual seminar presentation, mini project, practical examination with viva, minor projects and written assignments. The end semester question paper is scrutinised by the Department council carefully to see that each question paper adheres to standards expected. The knowledge and analytical skills are assessed through mini projects associated to confirm attainment of Course Outcomes.</p> <p>Attainment Calculation</p> <p>Assessment tools include the direct and indirect tools. Direct tools include the two tests, assignments which include seminars, group presentations, minor projects etc and an end semester exam. Indirect tool include the course end survey, faculty survey, program exit survey, parent survey and alumni survey.</p>	



File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

2.6.2 - Attainment of Programme outcomes, Programme specific outcomes and course outcomes are evaluated by the institution during the year

Apart from the continuous assessments, the university conducts end semester examinations and assignments are given during the semester. Two mid examinations are conducted per semester, to ensure that students have achieved desired level of competencies at module level. According to the performance of the student in answering each question, mapping is carried out with the respective COs for assessing the attainment level of the specific CO of the subject. Assessment tools include direct and indirect tools. Direct tools include two tests, assignments which include seminars, group presentations, minor projects etc and an end semester exam. Indirect tool include course end survey, faculty survey, program exit survey, parent survey and alumni survey. The weightage of each of the tool is

Internal Exam

Assignment

End Sem Exam

Course End Survey (CES)

Parent Survey, Alumni Survey, Program Exit Survey, Faculty Survey

CO

20%

10%

50%

8%

3% each

The programme outcomes are verified by the Department council and

take necessary corrective actions. Over and above this continuous and end semester evaluation, the course and program goals directly reflect on the performance of the students and the various achievements they make in various academic activities.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

### 2.6.3 - Number of students passed during the year

#### 2.6.3.1 - Total number of final year students who passed the university examination during the year

1838

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

### 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 web link)

<https://cusat.ac.in/naac/feedback/feedback.html>

## RESEARCH, INNOVATIONS AND EXTENSION

### 3.1 - Promotion of Research and Facilities

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

The University has a well-established mechanism to foster research for the contribution to societal benefits, through which all R&D activities are promoted, encouraged and appraised. The University has structured guidelines for quality research and the research facilities are enhanced periodically to support faculty and Research Scholars. The Departmental Research Committee forms the apex of the research activities of the department. There is a Doctoral Committee to monitor the progress of each student registered for research in the University and its recognized Institution. Additionally, there is Research Advisory Committee for the entire University which meets regularly to assess the progress of all the sponsored research projects running in the campus.

The major initiatives for promoting research are

- Research facilities are regularly upgraded subsequent to the developments in the corresponding research area and allow the departments either to set up new laboratories or to upgrade the existing laboratories on the need basis.
- Newly recruited faculty members are encouraged to start their research career by providing seed money from the university.
- Assisting faculty to establish network with other Universities within India as well as abroad and go for MoU's for the benefit of faculty and students for research activities.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

**3.1.2 - The institution provides seed money to its teachers for research (amount INR in Lakhs)**

**76.40**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

**3.1.3 - Number of teachers receiving national/ international fellowship/financial support by various agencies for advanced studies/ research during the year**

**22**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

**3.1.4 - Number of JRFs, SRFs, Post-Doctoral Fellows, Research Associates and other research fellows enrolled in the institution during the year**

**164**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

  

<b>3.1.5 - Institution has the following facilities to support research</b> <b>Central Instrumentation</b> <b>Centre Animal House/Green House Museum</b> <b>Media laboratory/Studios Business Lab</b> <b>Research/Statistical Databases Moot court</b> <b>Theatre Art Gallery</b>	<b>A. Any 4 or more of the above</b>
--	--------------------------------------

  

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

  

<b>3.1.6 - Number of departments with UGC-SAP, CAS, DST-FIST, DBT, ICSSR and other recognitions by national and international agencies during the year</b>
<b>27</b>

  

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

  

<b>3.2 - Resource Mobilization for Research</b>
<b>3.2.1 - Extramural funding for Research (Grants sponsored by the non-government sources such as industry, corporate houses, international bodies for research projects) endowments, Chairs in the University during the year (INR in Lakhs)</b>
<b>565.58</b>

  

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

  

<b>3.2.2 - Grants for research projects sponsored by the government agencies during the year (INR in Lakhs)</b>
<b>2668.75</b>

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

### 3.2.3 - Number of research projects per teacher funded by government and non-government agencies during the year

72

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

## 3.3 - Innovation Ecosystem

3.3.1 - Institution has created an eco-system for innovations including Incubation centre and other initiatives for creation and transfer of knowledge

Cochin University ensures a conducive environment for research leading to innovations. This is achieved by recruiting dynamic and vibrant faculties on the one hand, and by establishing an excellent infrastructure containing the necessary facilities for research on the other. The innovation is promoted in three ways: one by providing and promoting research, which leads to innovations through assistance of the legal aspects about the norms of research ethics, second by providing infrastructure facilities, financial support and expert guidance for developing innovative products or services, and the third by helping in filing patent applications and to get the legal protection for the innovations. 7000 sq ft incubation facilities are available for start-ups at the TBIs- Centre for Technology Transfer and Industrial Collaborations (CITTIC) and RUSA Innovations and Start up Ecosystem (RISE) from which 121 start ups have been incubated so far.

Each department of the University encourages teachers and students to actively involve in research and provides the necessary supports such as expert guidance, documentation and filing of patent applications and university have an exclusive centre for for patent filing - Inter University Centre for Intellectual Property Rights.

File Description	Documents
Upload relevant supporting document	No File Uploaded

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

132

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

132

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

### 3.3.3 - Number of awards / recognitions received for research/innovations by the institution/teachers/research scholars/students during the year

#### 3.3.3.1 - Total number of awards / recognitions received for research/innovations won by institution/teachers/research scholars/students year wise during the year

80

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

### 3.4 - Research Publications and Awards

#### 3.4.1 - The institution ensures implementation of its stated Code of Ethics for research

##### 3.4.1.1 - The institution has a stated Code of Ethics for research and the implementation of which is ensured through the following

1. Inclusion of research ethics in the research methodology course work
2. Presence of institutional Ethics committees (Animal, chemical, bio-ethics etc)

A. All of the above

<b>3. Plagiarism check</b> <b>4. Research Advisory Committee</b>	
File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>
<b>3.4.2 - The institution provides incentives to teachers who receive state, national and international recognitions/awards Commendation and monetary incentive at a University function Commendation and medal at a University function Certificate of honor Announcement in the Newsletter / website</b>	<b>A. All of the above</b>
File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	<b>No File Uploaded</b>
<b>3.4.3 - Number of Patents published/awarded during the year</b>	
<b>3.4.3.1 - Total number of Patents published/awarded year wise during the year</b>	
<b>15</b>	
File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	<b>No File Uploaded</b>
<b>3.4.4 - Number of Ph.D's awarded per teacher during the year</b>	
<b>3.4.4.1 - How many Ph.D's are awarded during the year</b>	
<b>147</b>	
File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	<b>No File Uploaded</b>
<b>3.4.5 - Number of research papers per teacher in the Journals notified on UGC website</b>	

**during the year****682**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	<b>No File Uploaded</b>

**3.4.6 - Number of books and chapters in edited volumes published per teacher during the year****3.4.6.1 - Total number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings during the year****83**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	<b>No File Uploaded</b>

**3.4.7 - E-content is developed by teachers For e-PG-Pathshala For CEC (Under Graduate) For SWAYAM For other MOOCs platform For NPTEL/NMEICT/any other Government Initiatives For Institutional LMS****A. Any 5 or all of the above**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	<b>No File Uploaded</b>

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

Scopus	Web of Science
<b>5753</b>	<b>3495</b>

File Description	Documents
Any additional information	<b>No File Uploaded</b>
Bibliometrics of the publications during the year	<a href="#">View File</a>



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

Scopus	Web of Science
26	21

File Description	Documents
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	No File Uploaded
Any additional information	No File Uploaded

**3.5 - Consultancy**

3.5.1 - Institution has a policy on consultancy including revenue sharing between the institution and the individual and encourages its faculty to undertake consultancy

Academic, industry and research interactions are promoted through consultancy policy. The consultancy policy of the University encourage and facilitate faculty to provide knowledge inputs sought by industry, government agencies or other academic / research organizations. It is an effective way for universities to disseminate knowledge and make an early and direct impact on society. The University motivates the professionally qualified faculty to utilize their expertise for consultancy services, which gives the chance to the faculty to use expertise in the industry and obtain real life experiences. The decision process for whether an individual faculty member is permitted to undertake consultancy is taken at the department level where all consultancy proposals is addressed to the appropriate Head of department. Any remuneration received on these assignments is mainly used in advancing infrastructure and other facilities.

The University guidelines specify the revenue sharing between the concerned faculty, department and the University, regarding the income generated through consultancy projects. As per the Institutional policy, 30% of this revenue is to be shared with the institution in the ratio 1: 5; one part (5% of total) goes to the Cochin University Fund and the remaining 5 parts (25% of total) to the Department Development Fund.

File Description	Documents
Upload relevant supporting document	No File Uploaded

### 3.5.2 - Revenue generated from consultancy and corporate training during the year (INR in Lakhs)

#### 3.5.2.1 - Total amount generated from consultancy and corporate training during the year (INR in lakhs)

120.206

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

### 3.6 - Extension Activities

#### 3.6.1 - Extension activities in the neighbourhood community in terms of impact and sensitising students to social issues and holistic development during the year

CUSAT is committed towards social issues and plays an active role in sensitising the students and the neighbourhood communities about various social issues with a social responsibility. The CUSAT NSS Unit and the Department of Youth Welfare are the forerunners in the University for coordinating various activities for students and the general public. The individual Departments, Centres and Schools of the University also play an active role in organising various extension activities covering different social issues for the benefit of students and the neighbouring communities.

Each individual department has organised large number of awareness programmes for the general public in the neighbouring area and for school children. Various activities in connection with National Science Day; World Environment Day; Women's Day; Yoga Day; etc. are conducted.

Major extension programmes conducted are

1. Programs for school students to inculcate scientific temper
2. Community intervention programmes related to community based care and support for people living with dementia
3. Testing of water quality and Community intervention for solid waste management

4. Gender sensitization programmes
5. Village adoption
6. Health camps
7. Vegetable cultivation under idle to ideal programme
8. Cleanliness Drive as part clean Campus programme
9. Blood Donation Camps

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

**3.6.2 - Number of awards received by the Institution, its teachers and students from Government /Government recognised bodies in recognition of the extension activities carried out during the year**

**3.6.2.1 - Total number of awards and recognition received for extension activities from Government / Government recognised bodies during the year**

15

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

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

44

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

**3.6.4 - Total number of students participating in extension activities listed at 3.6.3 above during the year**

1650

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

### 3.7 - Collaboration

**3.7.1 - Number of collaborative activities with other institutions/ research establishment/industry for research and academic development of faculty and students during the year**

**3.7.1.1 - Total number of Collaborative activities with other institutions/ research establishment/industry for research and academic development of faculty and students during the year**

105

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

**3.7.2 - Number of functional MoUs with institutions/ industries in India and abroad for internship, on-the-job training, project work, student / faculty exchange and collaborative research during the year**

42

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

### INFRASTRUCTURE AND LEARNING RESOURCES

#### 4.1 - Physical Facilities

4.1.1 - The institution has adequate facilities for teaching - learning. viz., classrooms, laboratories, computing equipment, etc.

The availability of space, infra-structure, classrooms, faculty strength, research laboratories, etc. are taken into consideration while initiating new academic programmes and increasing the student strength. This has enabled us to optimize the utilization of available space in a well-planned manner. The classrooms

/laboratories /seminar halls and meeting rooms of Departments /Schools/Centres are sufficient in number and are well equipped with ICT tools. The Science/Technology/Engineering departments have set up well equipped laboratories of their own. The class rooms/seminar halls / laboratories are provided with LCD projectors. At least one class room in each department is equipped with interactive smart board in addition to white/black boards. Dedicated computer labs are available at various departments/schools and computing facilities are available as per the needs of courses/research. University Central Library has excellent centralized library resources and reading hall. Subject-specific libraries with specialized books, volumes/ periodicals and other essential resources are available for students at Departments.

The departmental laboratories and the facilities available at the Sophisticated Test and Instrumentation Centre (STIC), the only one Central Instrumentation laboratory, testify to the exercise of scientific knowledge and experiments of the blooming scholars of the University.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

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

CUSAT has created and been maintaining excellent facilities for sports and games, both indoor and outdoor. The Director of Physical Education plays a supervisory role to initiate, execute, coordinate, and supervise physical education, sports activities and programmes that enhance general/specific interest in sports, which are conducted throughout the year. The outreach of our infrastructure has grown regularly and is used not only by students/faculty/staff but also by corporate houses, NGOs, amateur and professional Sports Associations and Clubs.

The following facilities are available on the campus for sports and games:

1. Multi purpose Track and Field (outdoor), Foot ball, Cricket
2. Indoor Stadium for Shuttle Badminton and Table Tennis
3. Basket ball court (outdoor - 2 nos.)

4.Volley ball court (outdoor - 2 nos.)

5.Health and Fitness Centre

6. Gym for Ladies

Cultural activities are an intrinsic part of the University life which provides the platform for enhancing the creativity, personality, world view of the students and retaining the national and regional cultural legacy. The Open Air Auditorium on the campus hosts most of the cultural events that take place on the campus. Competitions for various art forms like music, dance, drama, painting, etc. are held as part of various cultural festivals.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

#### 4.1.3 - Availability of general campus facilities and overall ambience

The overall ambience of the campus reflects the sustainable foundations of the institution - calmness, proximity to nature, lush green landscape, and open spaces; besides it serves to attract for social gatheringsthat underscore the youthful vibrancy of a campus.The campuses of CUSAT provide comprehensive facilities for all aspects of student life and personalitydevelopment. These facilities can be categorised into the following main functional divisions:

##### Accommodation:

The University provides on campus accommodation for over 2300 students in14 hostels which are fully well furnished to double for a home away from home to the students. There arededicated hostels for boys and girls, and for students. There are eight hostels for boys and sixhostels for girls. In addition to these hostels, there is an International Hostel to accommodate students from other countries. Messes are provided in the hostels and they are run by students' committees under thesupervision of hostel wardens/managers/matrons.The University Guest House and the Visiting Faculty Complex consist of 15 fully furnished rooms to caterto the needs of visitors. The University quarters provide accommodation to facultymembers and staff. Hostels for bachelor facultymembers and staff members have also been set up.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

#### 4.1.4 - Total expenditure excluding salary for infrastructure augmentation during the year (INR in Lakhs)

**2021.65**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

#### 4.2 - Library as a Learning Resource

4.2.1 - Library is automated using Integrated Library Management System (ILMS) and has digitisation facility

The University Library is fully automated using integrated library management system. In addition to the central library, departmental libraries cater to the resources pertaining to specialised knowledge areas. The Cochin University library became the first university library in the state of Kerala to be fully automated in the year 2000. Located centrally on the campus, the resources of the library are open to all the departments of the university. One of the best libraries of science and technology in the country, the university library also maintains a balanced collection of books for general reading and references. The library has been using the open source platform KOHA for library automation. It has modules for classification and access for books and journals.

The library has campus wide- IP enabled access to a wide range of electronic databases, e-journals and online books which in turn assist the productivity of the university academics to a great extent. The Library provides access to around 60 print periodicals, 9247 e-journals, J-Gate Access journals (7900 numbers), 11 databases, and 1500 e-books. The academic community of CUSAT can access e-books, theses database, journal database, e-journals and other e-resources from any terminal within the University campus.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

  

<b>4.2.2 - Institution has subscription for e-Library resources Library has regular subscription for the following: e – journals e-books e-ShodhSindhu Shodhganga Databases</b>	<b>A. Any 4 or all of the above</b>
---	-------------------------------------

  

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

  

<b>4.2.3 - Annual expenditure for purchase of books/ e-books and subscription to journals/e-journals during the year (INR in Lakhs)</b>
<b>322.43</b>

  

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	<b>No File Uploaded</b>

  

<b>4.2.4 - Number of usage of library by teachers and students per day (foot falls and login data for online access)</b>
<b>3804</b>

  

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

  

<b>4.3 - IT Infrastructure</b>
<b>4.3.1 - Number of classrooms and seminar halls with ICT - enabled facilities such as LCD, smart board, Wi-Fi/LAN, audio video recording facilities during the year</b>
<b>178</b>

  

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	<b>No File Uploaded</b>



4.3.2 - Institution has an IT policy, makes appropriate budgetary provision and updates its IT facilities including Wi-Fi facility

Cochin University of Science and Technology has formulated an IT policy and has made adequate budgetary provisions for updating the IT infrastructure including internet connectivity. The Centre for Information Resources and Management (CIRM) is the nodal point in CUSAT, which caters to ICT requirements of the University. The entire University campus has a Fiber Optic LAN of 12 KM and UTP cable of 250 KM length providing network to over 1200 PCs/ Workstations/Thin Clients/ Laptops other than Wi-Fi connections across the campus. As of today, 100% campus is Wi-Fi enabled, providing secured access to all the students, faculty and other staff through a state-of-the art hardware firewall (Universal Threat Management box) system.

CIRM offers essential ICT services including a state-of-the-art data center, hosting of servers including university and department websites, computing services, online teaching-learning services, Internet Access, IP based Intercom, Email, e-Governance services, MIS, IT security, campus Wi-Fi, In-house software development and maintenance, problem diagnostics and troubleshooting, etc. through a network comprising approximately 30 physical servers, 5 core switches, and 120 distribution switches. The Centre administers a 1Gbps link to National Knowledge Network (NKN) to provide smooth internet facility and access to online learning materials.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

#### 4.3.3 - Student - Computer ratio during the year

Number of students	Number of Computers available to students for academic purposes
7161	2192

#### 4.3.4 - Available bandwidth of internet connection in the Institution (Leased line)

- 21 GBPS

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

<b>4.3.5 - Institution has the following Facilities for e-content development Media centre Audio visual centre Lecture Capturing System(LCS) Mixing equipment's and softwares for editing</b>	<b>A. All of the above</b>						
<table border="1"> <thead> <tr> <th>File Description</th><th>Documents</th></tr> </thead> <tbody> <tr> <td>Upload relevant supporting document</td><td>No File Uploaded</td></tr> <tr> <td>Upload the data template</td><td><a href="#">View File</a></td></tr> </tbody> </table>	File Description	Documents	Upload relevant supporting document	No File Uploaded	Upload the data template	<a href="#">View File</a>	
File Description	Documents						
Upload relevant supporting document	No File Uploaded						
Upload the data template	<a href="#">View File</a>						
<b>4.4 - Maintenance of Campus Infrastructure</b>							
<b>4.4.1 - Total expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the year</b>							
<b>22,13,36,393</b>							
<table border="1"> <thead> <tr> <th>File Description</th><th>Documents</th></tr> </thead> <tbody> <tr> <td>Upload the data template</td><td><a href="#">View File</a></td></tr> <tr> <td>Upload relevant supporting document</td><td>No File Uploaded</td></tr> </tbody> </table>	File Description	Documents	Upload the data template	<a href="#">View File</a>	Upload relevant supporting document	No File Uploaded	
File Description	Documents						
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Upload relevant supporting document	No File Uploaded						
<b>4.4.2 - There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.</b>							
<p>Cochin University of Science and Technology has developed a maintenance manual which gives the procedures for maintaining and utilising physical, academic and support facilities. The University follows three-tiered system for maintenance, in-house maintenance support, AMC to OEMs/reputed service providers and outsourcing to expert agencies. The maintenance of all the University properties, including classrooms and laboratories, is done by the Engineering Department of the University headed by the University Engineer. The team looks after the repair and maintenance of the University buildings/Power Stations, supply and connections from maintenance fund allocated by the university. . The Physical Education Department and the Engineering Department working tandem to maintain the Sports Complex, play grounds etc.</p> <p>The Purchase sections at the Departments/Schools/Centres deal with purchase and procurement related issues and procedures including e-tenders. It also maintains records of the machine/equipment and other belongings of the University and deals with annual maintenance contract of each equipment/instrument For specific</p>							

equipment at departments/ schools/ centres, maintenance/repair is undertaken by the head/director concerned of the

department/ school/ centre as per laid down procedures of General Financial Rules (GFR) in accordance with applicable rules of the University. The maintenance of equipment is done through Annual Maintenance Contract or similar processes.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

## STUDENT SUPPORT AND PROGRESSION

### 5.1 - Student Support

**5.1.1 - Total number of students benefited by scholarships and free ships provided by the institution, Government and non-government agencies (NGOs) during the year (other than the students receiving scholarships under the government schemes for reserved categories)**

860

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

**5.1.2 - Total number of students benefited by career counselling and guidance for competitive examinations offered by the Institution during the year**

305

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

**5.1.3 - Following Capacity development and skills enhancement initiatives are taken by the institution 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
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

  

<b>5.1.4 - The Institution adopts the following for redressal of student grievances including sexual harassment and ragging cases</b> <b>Implementation of guidelines of statutory/regulatory bodies</b> <b>Organisation wide awareness and undertakings on policies with zero tolerance</b> <b>Mechanisms for submission of online/offline students' grievances</b> <b>Timely redressal of the grievances through appropriate committees</b>	<ul style="list-style-type: none"> <li>• All of the above</li> </ul>
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File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

  
**5.2 - Student Progression**
  
**5.2.1 - Number of students qualifying in state/ national/ international level examinations during the year (eg:NET/SLET/GATE/GMAT/CAT/ GRE/TOEFL/Civil Services/State government examinations)**
  
**5.2.1.1 - 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**
  
**29**
  

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

  
**5.2.2 - Total number of placement of outgoing students during the year**
  
**1033**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

### 5.2.3 - Number of recently graduated students who have progressed to higher education (previous graduating batch) during the year

126

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

## 5.3 - Student Participation and Activities

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

63

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

### 5.3.2 - Presence of Student Council and its activities for institutional development and student welfare

#### Activity of Student Council

#### Students Union

Democratically elected student's union and its activities are the highlight of the student-centered activities in the campus. Students union functions as the democratic representative body of students. One representative from each of the programme (from each of the batches) run at various departments of the University forms the university union. Students union serves as a via-media for representing the interests and grievances of the student community before the authorities and also promotes academic deliberations as well as extra curricular activities in the university. Funding to

student's union is earmarked through university budget allocation. Every year, an amount is earmarked from the University budget for the student's union activities. Funding from the University helps the seamless conduct of University Union activities.

Student representatives in academic and administrative bodies

Students have an active involvement in academic and administrative bodies of the University. Student representatives are present in the administrative bodies like Syndicate, Senate and academic Bodies including academic council, Internal Quality Assurance Committee and other committees like anti-ragging committee and committee for student grievances. Student requirements and grievances are brought to light to authorities through deliberations in these bodies.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

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

82

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

## 5.4 - Alumni Engagement

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

University has very strong and vibrant alumni network organised under the respective departments. University alumni adorn key positions as renowned educators, engineers, researchers, industrialists, team leaders, inventors, entrepreneurs etc in India/abroad.

In addition to financially contributing for the development, alumni help, guide and participate in various activities of the Departments and University. Support of alumni include:

- Alumni associations receive financial contributions in terms of alumni registration fee and donations.
- Alumni supports the departments in organizing conferences/seminars and competitions by providing financial support.
- Some of the departments have instituted endowments for promoting student excellence in learning as well as research. Many of these awards are instituted in the names of retiring teachers.
- Support to financially backward students is also envisaged by alumni support.
- University has initiated adjunct alumni faculty position and distinguished alumni lecture series to share personal, research and industrial experiences and insights of distinguished members.
- Continuous support to students for internships/placements and mentoring support for personality development.
- Suggestions are solicited for improving current trends in academic activities including syllabus revision and course design to improve the quality.
- University has initiated award to distinguished alumni who have proved their mettle in academia/research/business/society.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

#### 5.4.2 - Alumni contribution during the year (INR in Lakhs)

A. ? 5Lakhs

File Description	Documents
Upload relevant supporting document	No File Uploaded

### GOVERNANCE, LEADERSHIP AND MANAGEMENT

#### 6.1 - Institutional Vision and Leadership

6.1.1 - The institution has a clearly stated vision and mission which are reflected in its academic and administrative governance

Cochin University was established as a unitary University with an objective to offer state of the art programmes across a spectrum of disciplines in frontier areas ranging from engineering, science and technology to humanities, law and management with main focus

on Postgraduate studies and research. The University's basic philosophy and goals find eloquent expression in its Coat of Arms emblazoning the motto "Tejaswinavadhita mastu" which in essence means may the wisdom accrued deify us both the teacher and the taught and percolate to the Universe in its totality.

The pursuit of excellence as articulated in the vision and mission statements are reflected in the academic and administrative policies and programmes of the university.

#### Vision

The University aims to become an Institution of Global Standard by continuously improving its quality of academic activities, taking up research and innovation in the frontier areas and by ensuring conducive state-of-the-art infrastructural facilities.

#### Mission

CUSAT will continuously strive to generate a human resource of global competence by imparting most modern knowledge and training to its student community and to take up Research and Development activities in the frontier areas so as to contribute positively to the progress of the society and the Nation.

File Description	Documents
Upload relevant supporting document	No File Uploaded

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

#### Administrative Structure

(i) Honorable Governor of Kerala is the Chancellor

(ii) Honorable Minister of Higher Education is the Pro Chancellor

(iii) Syndicate is the chief executive body of the University representing members from Academics, Industry, Deans etc., with Vice Chancellor as the Chairman.

(iv) Senate comprise members from various academic, non academic, industry and local bodies and reviews general policies and suggests measures for improvement.



(v) Academic Council consist all Deans and Head of Departments, Chairmen of Board of Studies etc., is the principal academic body of the university.

(vi) Faculties and Board of Studies recommends revision of syllabi, new courses, new specializations etc., with input from various stake holders.

(vii) The department governance is decentralized with Department Council and Department Research Committee.

Vice Chancellor is the Chairman of syndicate, the chief executive body of the university. Pro-Vice-Chancellor, Registrar, Controller of Examinations and Finance Officer are other statutory Officers of the university. Different representatives from government, accomplished academicians, experts from industries, local bodies, students etc are participated in statutory bodies like syndicate, senate, and academic council.

Department council, comprising all permanent faculty members takes a decisive role in all matters regarding the administrative policies and academic activities of the Department

File Description	Documents
Upload relevant supporting document	No File Uploaded

## 6.2 - Strategy Development and Deployment

### 6.2.1 - The institutional Strategic plan is effectively deployed

Institutional Strategic Plan of CUSAT is guided by its vision and mission statements. The university has identified several objectives taking stakeholders like students, faculty, non-teaching staff, alumni, Industry partners into confidence and effective strategic plans are deployed for attaining these objectives. The objectives can be broadly classified as

#### 1. ACADEMIC EXCELLENCE

- Outcome Based Education based syllabus has been adopted and lesson plans are prepared to map to COs and POs.
- The University publishes detailed academic calendar and course plans before the start of semesters

- Mentoring system has been introduced where a small set of students are mentored by a faculty.
- The syllabus has been prepared in consultation with leading industry and experts in research establishments in the relevant area.
- Setting up a flexible and responsive structure to launch new programmes/ modify programmes in response to the global and local needs.
- Better involvement of Alumni in improving academic quality of the programmes

## 2. INNOVATION EXCELLENCE

- Accelerating research activities among faculty by providing research grants and support facilities
- Building up advanced research facilities for the university
- Inculcate a culture of entrepreneurship among faculty students
- Build up partnership with Industry and R&D labs.

File Description	Documents
Upload relevant supporting document	No File Uploaded

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

The University is generally administered through the decisions taken by the Syndicate, Senate and Academic Council of various establishments and academic matters. Deans of various faculties, Heads/ Directors of various academic departments and Boards of studies consisting of academics from various fields makes recommendations for various academic activities.

All matters regarding the administrative policies and academic activities of the Department shall be decided by the Department Council which comprises all the permanent faculty members. Detailed minutes of the Syndicate, Senate, Academic Council, Department Council, etc. are circulated among the members and actions are taken based on the same.

All India notifications are given through the University website for faculty recruitment and in national dailies for the faculty recruitment and the recruitments are made from candidates on an all India basis. The method of selection is strictly in conformity with the UGC/AICTE regulations and also as per the reservation policies of the state governments from time to time. Non teaching/Administrative staff members are appointed through the State Public Service Commission. Kerala State Service Rules are binding on all employees.

All the reservation policies are observed for all recruitments including contract appointments.

File Description	Documents
Upload relevant supporting document	No File Uploaded

### 6.2.3 - Institution Implements e-governance in its areas of operations

#### 6.2.3.1 - e-governance is implemented covering following areas of operation

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

A. All of the above

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	<a href="#">View File</a>

### 6.3 - Faculty Empowerment Strategies

6.3.1 - The institution has a performance appraisal system, promotional avenues and effective welfare measures for teaching and non-teaching staff

A performance appraisal system as envisaged by UGC is introduced in the University and annual appraisal feedback of the teachers and the course offered is regularly taken on a semester basis which is evaluated by the IQAC and possible improvements/remedial steps are taken at the Departmental level. Promotional avenues are strictly in accordance with the UGC career advancement schemes as per the UGC regulations from time to time. The university offers all its

support to promote research and publications of its faculty members. The university also runs short term programmes for enhancing the skills/expertise of its faculty members.

All the faculty members and non-teaching staff are eligible for various welfare schemes that are introduced by University periodically. Some of the welfare schemes available are as under.

Staff accommodation / HRA facility in lieu of accommodation

Group Insurance Scheme

Statutory / mandatory scheme subscription (PF / EPF / Insurance / Gratuity)

All the staffs are eligible for various types of leaves specified under Kerala Service Rules like maternity/Paternity leave. Faculty members are provided with yearly 15 days of special casual leave to attend seminars/workshops etc. They are also eligible for sabbatical leave.

Earned leave encashment facility

Healthcare - Medicare facility to all the employees and dependents.

Medical Reimbursement Scheme.

File Description	Documents
Upload relevant supporting document	No File Uploaded

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

29

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

### 6.3.3 - Number of professional development / administrative training Programmes organized

**by the institution for teaching and non-teaching staff during the year****21**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

**6.3.4 - Total number of teachers undergoing online/ face-to-face Faculty Development Programmes (FDP)during the year(Professional Development Programmes, Orientation / Induction Programmes Refresher Course, Short Term Course)****208**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

**6.4 - Financial Management and Resource Mobilization****6.4.1 - Institutional strategies for mobilisation of funds and the optimal utilisation of resources**

A performance appraisal system as envisaged by UGC is introduced in the University and annual appraisalfeedback of the teachers and the course offered is regularly taken on a semester basis which is evaluated bythe IQAC and possible improvements/remedial steps are taken at the Departmental level.Promotionalavenues are strictly in accordance with the UGC carrier advancement schemes as per the UGC regulationsfrom time to time. The university offers all its support to promote research and publications of its facultymembers. The university also runs short term programmes for enhancing the skills/expertise of its facultymembers.

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a) Staff accommodation / HRA facility in lieu of accommodation

b) Group Insurance Scheme

c)Statutory / mandatory scheme subscription (PF / EPF / Insurance / Gratuity)

d)All the staffs are eligible for various types of leaves specified under Kerala Service Rules like maternity/Paternity leave.Faculty members are provided with yearly 15 days of special casual leave to attend seminars/workshops etc. They are also eligible for sabbatical leave.

e)Earned leave encashment facility

f)Healthcare - Medicare facility to all the employees and dependents.

g) MedicalReimbursementScheme.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

#### 6.4.2 - Funds / Grants received from government bodies during the year for development and maintenance of infrastructure (not covered under Criteria III and V) (INR in Lakhs)

15 lakhs

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

#### 6.4.3 - Funds / Grants received from non-government bodies, individuals,philanthropists during the year for development and maintenance of infrastructure (not covered under Criteria III and V)(INR in Lakhs)

1.87504 lakhs

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

#### 6.4.4 - Institution conducts internal and external financial audits regularly

**Response:** 1.CUSAT has an Internal Audit section called Internal Audit & Inspection Section in Finance Wing under the control of Finance Officer.

2. Through this IA&I Section, University is conducting internal inspection of different offices periodically on an annual basis and timely alerting of shortfalls, if any to the concerned.

3. In addition, the audit sections are often sending reminder letters to all concerned alerting them to settle the advance drawn in time or otherwise failing to do so penal interest would be levied.

4. While carry out the audit of bills with observing audit rules, any shortfall is found, the bill would be summarily rejected with direction to resubmit the same after correcting the objection.

5. Above all, the Accounts Section in the Finance Wing prepares the monthly bank reconciliation statement as well as collection statements and making the necessary scrutiny and verification.

6. Apart from the above, Kerala State Audit Dept is undertaking the mandatory concurrent audit of university accounts periodically on an annual basis.

7. Besides KSAD Audit, there will have another audit, the Accountant General of India Audit, which also undertake the audit of the University every year and prepare and submit the report to the competent authority.

File Description	Documents
Upload relevant supporting document	No File Uploaded

## 6.5 - Internal Quality Assurance System

6.5.1 - Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes by constantly reviewing the teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals

**Response:** The IQAC guides the University for developing quality culture and achieving benchmarks in its various activities including teaching learning and research processes. The practices institutionalized by IQAC involve periodic academic and administrative auditing, feedback system, periodic revision of the syllabi and implementation of outcome based education in the University. The contributions of IQAC towards quality assurance and sustenance are detailed below.

1.The IQAC conducted academic audit of the University departments in 2018 and 2020 and administrative audit in 2020. These significantly contributed to the constant review of the various processes of the University.

2.Syllabus revision is being carried out regularly and the syllabi of all programmes have been revised in the last five years.

3.The outcome based education has been implemented in the university with effect from the academic year 2020-21.

4.Feedback from stakeholders are collected and analysed regularly in the University departments as per instructions from the IQAC.

5.IQAC was instrumental towards formation of University level Alumni Association and preparation of guidelines for functioning of University level as well as department level alumni associations

File Description	Documents
Upload relevant supporting document	No File Uploaded

**6.5.2 - Institution has adopted the following for Quality assurance Academic Administrative Audit (AAA) and follow up action taken Conferences, Seminars, Workshops on quality conducted Collaborative quality initiatives with other institution(s) Orientation programme on quality issues for teachers and students Participation in NIRF Any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)**

**A. Any 5 or all of the above**

File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

**6.5.3 - Incremental improvements made for the preceding during the year with regard to quality (in case of first cycle) Post accreditation quality initiatives(second and subsequent cycles)**

**Response: 1.Post Accreditation Quality**



a) **Initiatives of the University Implementation of Outcome Based Education:** As per the recommendation and initiation of IQAC, the outcome based education has been implemented in the University. The syllabi of all programmes have been revised according to OBE. Programme Outcomes, Programme Specific Outcomes and Course Outcomes are defined and included in the syllabus.

b) **Excellence in Entrepreneurship and Start Ups:** The University promotes students entrepreneurship through the Centre for Innovation, Technology Transfer & Industrial Collaboration (CITTIC) and its Technology Business Incubator. CITTIC started incubating start-up companies from February 2017 by mothering 2 startups and 98 companies have been incubated since then. Moreover, a new 3000 sq. ft. Technology Business Incubator (TBI) named RUSA Innovation Startup Ecosystem (RISE ) has been established with financial support from RUSA, for providing necessary infrastructure support for IT, Electronics and Biotech startups.

c) **Academic Audit:** The Academic Audit is conducted to review the academic and administrative processes in the University and to take necessary corrective measures. The Academic Audit is conducted once in two years with the help of external experts, based on the parameters/benchmarks set by the IQAC. The experts physically verify the processes, documents and facilities and submit reports with their suggestions for individual departments.

File Description	Documents
Upload relevant supporting document	No File Uploaded

## 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

**Response:** There is an annual gender sensitization action plan for the university.

**Safety and security** 1. The campus is amply secured with round-the-clock professional security. Many of the Departments have installed CCTV cameras in the common areas. Continuous availability of security staff at various locations is also

ensured.

Counselling 1. Mind behaviour studio, a counselling centre is also available at the Students' Amenity Centre for providing psycho social support to students.

3. Anti ragging talks and campaigns are organised at the beginning of each semester to sensitize the students. Provisions for lodging complaints and the details of helpline numbers are displayed very prominently in every Department.

Common Rooms 1. Most of the departments are having rest rooms for students. 2. Unisex Gymnasium is working in the students amenity centre. A gymnasium solely for the ladies is also functioning near their hostels.

Day care centre for children of the staff

A day-care is functioning on the campus to help young mothers working in the university.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>
Annual gender sensitization action plan(s)	Nil
Specific facilities provided for women in terms of: a. Safety and security b. Counseling c. Common rooms d. Daycare Centre e. Any other relevant information	Nil

**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
Upload relevant supporting document	<a href="#">View File</a>

7.1.3 - Describe the facilities in the Institution for the management of the following types of degradable and non-degradable waste (within 200 words) Solid waste management Liquid waste management Biomedical waste management E-waste management Waste recycling system Hazardous chemicals and radioactive waste management

**Response: 1. Solid Waste Management**

Bio waste is managed by converting them into vermicompost which is used to support the vegetable gardens on the campus.

**2. Liquid Waste Management.**

A sewage treatment plant of 200 m<sup>3</sup>/day capacity is installed KMSME to manage the sewage from the hostel and the administrative building. The treated effluent is odour-free and meets the standards as per the norms of Pollution Control Board of the Government of Kerala.

**3. Biomedical Waste Management**

Biowaste and non-biowaste are segregated and stored in different containers. Biowaste are decontaminated by autoclaving at 121 degree C at 15 Psi for 60 minutes and air dried. The segregated waste is collected and disposed in an eco-friendly manner by Ms Ecoveplus Waste Management Pvt.Ltd, Cochin

**4. E-waste Management** Electronic wastes are recycled at regular intervals. Old computers are transferred for use for lesser demanding uses in other divisions of the University. Some of the obsolete machines are used for demonstration in workshops.

**5. Waste Recycling System**

The effluent of the sewage treatment plant is used for irrigation of landscapes on the campus.

**6. Hazardous chemicals and radioactive waste management**

Acidic samples waste is neutralized prior to their disposal. The organic and aqueous wastes are collected in separate containers for disposal.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

<b>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</b>	<b>A. Any 4 or all of the above</b>
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File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

<b>7.1.5 - Green campus initiatives include</b>	
<b>7.1.5.1 - The institutional initiatives for greening the campus are as follows:</b>	<b>A. Any 4 or All of the above</b>
<ol style="list-style-type: none"> <li>1.Restricted entry of automobiles</li> <li>2.Use of bicycles/ Battery-powered vehicles</li> <li>3.Pedestrian-friendly pathways</li> <li>4.Ban on use of plastic</li> <li>5.Landscaping</li> </ol>	

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

<b>7.1.6 - Quality audits on environment and energy are regularly undertaken by the institution</b>	
<b>7.1.6.1 - The institution's initiatives to preserve and improve the environment and harness energy are confirmed through the following:</b>	<b>A. Any 4 or all of the above</b>
<ol style="list-style-type: none"> <li>1. Green audit</li> <li>2. Energy audit</li> <li>3.Environment audit</li> <li>4.Clean and green campus recognitions/awards</li> <li>5.Beyond the campus environmental promotional activities</li> </ol>	

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

<p><b>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.</b></p>	<p><b>A. Any 4 or all of the above</b></p>
File Description	Documents
<p>Upload relevant supporting document</p>	<p><a href="#">View File</a></p>
<p><b>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)</b></p> <p>The University is a kind of home to students and faculty members from different parts of the country. The campus provides to them a wholly cultural, regional and linguistic inclusiveness. This is based on mutual respect, effective relationships, clear communication, explicit understandings about expectations and critical self-reflection.</p> <p>The University has reserved 50% of the BTech seats under All-India quota in which students from across the country can apply. The selection is through an All- India entrance examination for which more than thirty thousand students apply. Most of the courses on the campus have seats reserved for international students admitted through Indian Council for Cultural Relations (ICCR) or by applying directly to the University. There is one hostel exclusively for the international students functioning on the campus.</p> <p>The symposia, celebrations of various festivals, etc. organised by the Departments usually include cultural programmes in which the students and research scholars of the Departments actively participate. Such occasions create an environment of camaraderie.</p> <p>The students of the Departments organise Freshers Day to welcome new students to campus. Farewell Function is organised every year to bid goodbye to the outgoing batch of students.</p>	

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

  

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

The inventiveness of the University brings out various activities and offers a constructive environment to sensitize students and employees to the constitutional obligations. Teacher's day, National Integration Day, National Voters' Day, etc. are celebrated on the campus with due regard. The University celebrates Independence Day, Constitution Day and Republic Day on August 15, November 26 and January 26 respectively. The University holds flag hoisting ceremonies on the campus every year on Independence Day. This day is celebrated to highlight the struggle for freedom and as a day of national pride and honour. Constitution Day is celebrated to make the students aware of their responsibilities towards the constitutional values, rights, duties as citizens.

The activities featuring the importance of the Indian Constitution are organized on Republic Day. The celebrations are attended by students, teaching and non-teaching staff, invitees, guests and many others. Flag hoisting accompanied by the National Anthem and oath of national integrity are a regular feature of the programme. The employees and the students take pledge together and the importance of freedom, rights, responsibilities and duties of a citizen are reiterated.

<b>7.1.10 - The Institution has a prescribed code of conduct for students, teachers, administrators and other staff and conducts periodic programmes in this regard. 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 Code of Conduct are organized</b>	All of the above
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File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

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

**Response:** The University celebrates national and international commemorative days in a befitting manner. On 26th January, Republic Day is celebrated to commemorate the adoption of the Constitution. The formal flag hoisting is followed by a "Constitution Awareness Programme" in which students and staff members are sensitised on their duties and rights.

Independence Day is celebrated on the 15th of August with the flag hoisting by the Vice-Chancellor. , Dr.Radhakrishnan's birthday, 5th September , is celebrated as Teacher's Day with utmost fervour. The students organize a programme for the teachers.. Mahatma Gandhi's birth anniversary, 2nd October, is celebrated in Departments as the Sramadhan Day. Sramadhan is a voluntary contribution of labour by the staff and students of the Department.. 31st October, birth anniversary of Sardar Patel) is Ekata Divas which is celebrated as National Unity Day. On 15th September, Engineer's Day (Birth anniversary of Sir Visvesvaraya) is celebrated as an exceptional tribute to the best Indian Engineer Bharat Ratna Mokshagundam Visvesvaraya.

On the National Constitution Day, 26th November, the University holds a pledge taking ceremony.

File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>

## 7.2 - Best Practices

7.2.1 - Describe one best practice successfully implemented by the Institution as per NAAC format provided in the Manual

### BEST PRACTICE 1 1. Title of the Practice

Practicing translational research and extension as a commitment to the Society

### 2. Objectives of the Practice

Commitment to society is envisaged by orienting the research and academic activities appropriately. The objectives are • To

undertake research in response to the problems faced by the society • To undertake communication of scientific temper to the society

### 3. The Context

To achieve the aforementioned objectives, the pressing needs of the society to which university could offer solutions through its research interventions. On the first hand, the areas of expertise of the university and priority areas and challenges were mapped.

- As the university is situated near the coastal belt of Kerala, marine ecosystem is one of the priority areas where interventions could be offered.
- Climate change is one of the main challenges and it has been severely affecting the weather conditions of the state of Kerala.

### 4. The Practice

Outputs from research institutions and centres of higher education should be aligned towards achieving community oriented outcomes by translating research for use of industry/common man.

### 5. Evidence of Success

- More than two lakh students and 8000 teachers have been trained by CSiS so far.

## 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)

Established in 1971 and reorganised in 1986, the Cochin University of Science and Technology (CUSAT) is a State University, supported by the Government of Kerala. As enshrined in the name and in the Acts and Statutes, the mandate of the University is for giving an impetus to the post -graduate studies as well as to research and development in areas specifically significant for the region. Kerala is unique with its diverse natural resources, climatic and geographical conditions, socio-economic and cultural background of the people. Marine and agricultural products are the major means of livelihood of the population in the state.. With a long coast of 580 km, a combination of hills and planes through the length and breadth of the state, there are both challenges and opportunities.



No wonder then that there are seven Departments working on the marine-related subjects, such as Marine Biology, Marine Geology, Oceanography, Atmospheric Science and Industrial Fisheries. Other region-specific areas include subjects like Naval Architecture and Ship Building, Marine Engineering, Polymer Science and Rubber Technology. These subjects were introduced considering the fact that the India largest ship building facility is at Cochin and that more than 90% of the natural rubber produced in India is from Kerala.

### 7.3.2 - Plan of action for the next academic year

Plan of action chalked out by the University for 2021-22 include the following:

1. Instituting Translational Reserch Centre
2. Commencement of new programmes in emerging ares such as Data Science and Artificial Intelligence
3. Increasing the faculty strength by appointing more faculty members with academic/research excellence and international exposure
4. Construction of International Hostels along with Hostels for Boys and Girls.
5. Inviting eminent international scholars to the university through the Chancellor's Chair programme
6. Strengthening entrepreneurship activities by strating aEmployment Entrepreneurship Centre with
7. Strengthening Green Campus activities and establishing solar roof top panels to meet energy needs
8. Conduct National Level Science Lecture in order to increase the aptitudes towards science and to promote and share latest achievements in the field of Science
9. To start a National Hackathon to build new web and mobile services and to promote new ideas among the student
10. Towards promoting patent filing, a Patent Enhancement Schemeshall be introduced
11. A Science Exhibition will be organized as an outreach programme for public awareness about the researches and studies undergoing in CUSAT