



## YEARLY STATUS REPORT - 2022-2023

### 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.M Junaid Bushiri
• Designation	Vice-Chancellor
• Does the institution function from its own campus?	Yes
• Phone no./Alternate phone no.	04842577619
• Mobile no	9495348631
• 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.Sam Thomas</b>
• Phone no./Alternate phone no	<b>04842862748</b>
• Mobile	<b>9846152127</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_2021-2022.pdf">https://iqac.cusat.ac.in/assets/web/uploads/document/AQAR_2021-2022.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://cusat.ac.in/uploads/Academic_Calendar_2022_2023.pdf">https://cusat.ac.in/uploads/Academic_Calendar_2022_2023.pdf</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>17/10/2025</b>

**6.Date of Establishment of IQAC****10/04/2007****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
<b>Applied Chemistry</b>	<b>DST/GITA</b>	<b>DST</b>	<b>2020, 4 years</b>	<b>₹622,500.00</b>
<b>ACARR</b>	<b>ST Radar Facility</b>	<b>Ministry of Earth Sciences</b>	<b>2019,4 years</b>	<b>₹92,572,280.00</b>
<b>Biotechnology</b>	<b>WOS -A</b>	<b>DST</b>	<b>2023, 3 years</b>	<b>₹633,960.00</b>
<b>Biotechnology</b>	<b>ICMR</b>	<b>DHR</b>	<b>2021,4 years</b>	<b>₹1,050,000.00</b>
<b>School of Engineering</b>	<b>WOS -A</b>	<b>DST</b>	<b>2022,2 years</b>	<b>₹521,563.00</b>

Computer Applications	WOS -A	DST	2022,3 years	?976,104.00
Marine Biology, Biochemistry & Microbiology	SAC	ISRO	2020,3 years	?787,000.00
Marine Biology, Biochemistry & Microbiology	CSIR	CSIR	2023, 3 years	?757,840.00
Marine Biology, Biochemistry & Microbiology	ICMR	ICMR	2023, 3 years	?1,400,000.00
NCAAH	Bioinformatics Center	DBT	2021,5 years	?1,188,240.00
Department of Physics	DAE CRS	UGC-	2022,2 years	?45,000.00
Department of Physics	DAAD	DST	2021,2 years	?240,000.00
Ship Technology	CSL	Cochin Shipyard Limited	2023,1 year	?1,584,150.00
Marine Geology & Geophysics	SAC	ISRO	2021,3 years	?1,058,000.00

<b>8. Whether composition of IQAC as per latest NAAC guidelines</b>	Yes		
<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>	10		
<ul style="list-style-type: none"> <li>The minutes of IQAC meeting and compliance to the decisions have been</li> </ul>	Yes		

<p>uploaded on the institutional website. (Please upload, minutes of meetings and action taken report)</p>	
<ul style="list-style-type: none"> <li>(Please upload, minutes of meetings and action taken report)</li> </ul>	<p><a href="#">View File</a></p>
<p><b>10. Whether IQAC received funding from any of the funding agency to support its activities during the year?</b></p>	<p>No</p>
<ul style="list-style-type: none"> <li>If yes, mention the amount</li> </ul>	
<p><b>11. Significant contributions made by IQAC during the current year (maximum five bullets)</b></p>	
<p>NAAC accredited the University with grade A and score 3.39.</p>	
<p>IQAC conducted third edition of CUSAT open house program SASTHRAYAAN 2023, to showcase the vibrant research facilities and activities of various departments and centres of CUSAT. These three days, all the departments and facilities of CUSAT were open to the general public and a special focus is given to school and college students. As part of the event, a programme "Fostering Industry Academia Partnership" with representatives from Industries was conducted which was very beneficial in terms of developing fruitful collaborations with industries.</p>	
<p>Academic Restructuring of programmes has been commenced by constituting an expert committee consisting of eminent academicians has been constituted to critically evaluate the existing academic and research activities of the university and develop a vision document for academic excellence.</p>	
<p>IQAC conducted an Energy Audit in 2023 and published the report.</p>	
<p>Research performance of the university has been analyzed, and identified key strengths and areas that require improvement. Suggestions for improvement have been submitted and necessary measures have been initiated to enhance the overall quality and impact of the university's research activities</p>	
<p><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></p>	

Plan of Action	Achievements/Outcomes
Accreditation by NAAC	NAAC peer team visited CUSAT during 12-10 October 2022 and accredited the university with grade A+ and score 3.39
Conduct of third edition of Sasthryan - CUSAT Open House programme	Sasthryan programme conducted during 23-25 January 2023
Conduct of Workshop on Curriculum Restructuring	Curriculum Restructuring Workshop was conducted on 07 March 2023
Restructuring of academic programmes	An expert committee consisting of eminent academicians has been constituted to critically evaluate the existing academic and research activities of the university and develop a vision document for academic excellence.
Recognise outstanding faculty members and researchers	Distinguished Faculty / Researcher Awards were bestowed to two faculty members and a research scholar
Strengthening MoU activities with renowned national/international institutes	31 new MoUs were signed with 11 foreign institutions and 20 national institutes during 2022-23
Supporting researchers/ students to present their research work at conferences held at foreign institutions	9 researchers/students were given financial support to present their research papers at conferences held abroad
Conduct of Energy Audit	IQAC conducted an Energy Audit in 2023
Conduct of Workshop on Sustainable Development Goals (SDGs)	Conducted a one day Workshop on Sustainable Development Goals (SDGs) on 29/03/2023
<b>13. Whether the AQAR was placed before statutory body?</b>	Yes

- Name of the statutory body

Name	Date of meeting(s)
Syndicate	24/11/2023

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

Yes

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

Year	Date of Submission
2022-23	20/03/2024

**16. Multidisciplinary / interdisciplinary**

Cochin University of Science and Technology (CUSAT) is a comprehensive higher education institution that offers a diverse array of programs. It consists of 9 faculties, 33 academic departments, and various research centers across fields such as sciences, marine sciences, environmental sciences, engineering, technology, humanities, social sciences, and law. CUSAT provides a total of 107 academic programs, many of which are multidisciplinary and promote the integration of various fields of study. Some of the Multidisciplinary Programs at CUSAT:

**Integrated M.Sc in Computer Science (Artificial Intelligence and Data Science):** This five-year program is designed to equip students with a comprehensive skill set in computer science, machine learning, statistics, and logic. It combines multiple disciplines to offer a well-rounded education in the field of computer science.

**M.Tech in Computer Science and Engineering with a specialization in Data Science and Artificial Intelligence:** This AICTE-approved program emphasizes advanced studies in data science and artificial intelligence within the framework of computer science and engineering.

**M.Tech. in Computer Science and Engineering with a focus on Artificial Intelligence and Software Engineering** is an AICTE-approved program that explores the intersection of artificial intelligence and software engineering.

**M.Tech. in Computer Science and Engineering (Data Science and Artificial Intelligence) [Part-Time]:** This part-time program provides flexibility for working professionals to pursue advanced studies in data science and artificial intelligence.

**Multidisciplinary Centers at CUSAT:** The Inter University Centre for Nanomaterials and Devices (IUCND) focuses on research and

development in nanomaterials and devices. It promotes collaborative multi-disciplinary research in key areas such as: ? Energy ? Environment ? Medicine ? Electronic and Photonic Materials \*\*The Inter University Centre for IPR Studies (IUCIPRS)\*\* IUCIPRS aims to be a leading research hub and resource center specializing in Intellectual Property Rights (IPR) and related fields. Its goals include: - Fostering collaboration among researchers from various universities and research institutions, both in India and internationally. - Promoting multidisciplinary teaching and research in IPR and related areas. National Centre for Aquatic Animal Health (NCAAH) The Centre focuses on research and development to introduce innovative solutions for sustainable aquaculture in India, utilizing cutting-edge technologies. A distinctive aspect of the Centre is its multi-disciplinary approach which caters to the needs of the aquaculture industry. The Interdisciplinary Centre for Research Ethics and Protocols (ICREP), led by Prof. N. R. Madhava Menon, focuses on promoting ethical conduct in research across all fields of knowledge, especially in scientific inquiries. The center aims to encourage creative thinking among young researchers to develop new ethical codes of conduct relevant to various multi-disciplinary research areas. CUSAT actively promotes interdisciplinary approaches through an array of its programs and centers, showcasing the university's deep understanding of the dynamic nature of modern knowledge. This commitment not only reflects a recognition of the interconnectedness of various fields but also emphasizes the importance of applying this knowledge in practical, real-world contexts. By fostering collaboration across disciplines, CUSAT prepares students and researchers to tackle complex challenges and innovate in an ever-evolving landscape.

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

The University has taken significant strides by registering with the Academic Bank of Credits (ABC) Portal, making it imperative for all enrolled students across various programs to complete their registration. This initiative aims to enhance the academic experience and streamline the management of credits. As an official member of the National Academic Depository, a crucial government initiative, CUSAT plays a key role in the Digital India Programme. This platform serves as an online repository for all academic awards, ensuring that students have easy access to their records. Since 2020, CUSAT has been diligently uploading students' mark sheets and degree certificates to the digitallocker website, [nad.digitallocker.gov.in](http://nad.digitallocker.gov.in). The integration of the ABC Portal with this platform is a significant development, enabling seamless access to academic information for the current academic year 2022.



Moreover, the University has expanded its academic offerings by launching innovative twinning and dual degree programs in collaboration with reputable foreign universities. These programs not only broaden the horizons for students but also simplify the credit transfer process through the ABC, allowing for a more flexible and enriched educational journey.

### **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. Among the pioneers in this movement, Cochin University of Science and Technology (CUSAT) stands out as one of the first state universities to implement its own DDUKK. The vocational programmes offered are meticulously crafted according to the National Skill Qualification Framework (NSQF), ensuring that they meet industry standards and fulfill the workforce's demands. CUSAT's DDUKK aspires to deliver high-quality vocational education by seamlessly integrating classroom-based formal education with valuable experience and insights from industry practitioners. This hands-on approach also includes internships at various business establishments, allowing students to immerse themselves in real-world scenarios. The focus on integrated knowledge acquisition aims to enhance human skills and cultivate a new generation of employable youth equipped for the evolving job market. In line with this vision, our MBA programme is thoughtfully designed to groom future managers who are not only adept at modern management practices but also deeply understand their application in today's dynamic environment. This programme aligns with the Government of India's NSQF and the ever-changing landscape of Industry 4.0. By implementing an innovative curriculum, we ensure that our management programme aspirants receive comprehensive training based on the National Occupational Standards (NOS) established by Sector Skills Councils (SSC). This training directly addresses the workforce requirements of various industries, thereby enhancing graduate employability. These initiatives are pivotal in realizing the ethos of the National Education Policy (NEP). The structure and content of our programmes strictly adhere to UGC guidelines for vocational education, staying in harmony with the NSQF. Students are provided with multiple entry and exit options, each linked to specific job roles defined by the NSQF. Those who successfully complete the first year of the programme will earn a Postgraduate Diploma in Technology and Management Consulting, while completing all four semesters will culminate in the



prestigious M Voc degree. Furthermore, the two-year programme offers two skill certifications, validated through assessments conducted by the Sector Skill Council, which is recognized by the National Skill Development Corporation (NSDC). The Management, Entrepreneurship and Professional Skill Council (MEPSC) has been designated as the approved Sector Skill Council for the M Voc (TMC) programme, ensuring that students receive industry-recognized qualifications that enhance their career prospects.

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

CUSAT actively promotes the study of Hindi, the national language of India, by offering a range of advanced academic programs, including postgraduate degrees, PhD programs, and postdoctoral opportunities in Hindi studies. The university enhances this educational experience through engaging initiatives, such as webinars and seminars, designed to inspire students to delve deeper into the language and appreciate the rich cultural values expressed in Hindi literature. Furthermore, the Business Administration curriculum thoughtfully incorporates courses on Indian Ethos and Business Ethics. These courses aim to instill a profound understanding of the cultural values rooted in Indian traditions. By doing so, the program equips students with the ethical framework necessary to navigate the business landscape, ensuring they cultivate a value-oriented perspective as they embark on their professional journeys.

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

CUSAT offers an extensive array of 107 programs across a diverse range of disciplines, including Engineering, Environmental Studies, Humanities, Law, Marine Sciences, Science, Social Sciences, and Technology. Each program is meticulously structured around an outcomes-based education (OBE) model, which is thoughtfully designed to address both regional and global needs. The adoption of OBE at CUSAT involves a comprehensive framework that includes clearly articulated Program Outcomes (POs), program-specific outcomes (PSOs), and course outcomes (COs). This approach ensures that every course is developed with a strong focus on enhancing cognitive skills. Students are guided through a learning journey that emphasizes key abilities such as Remembering, Understanding, Applying, Analyzing, Evaluating, and Creating. Beyond acquiring domain-specific knowledge, the educational outcomes at CUSAT promote social responsibility, ethical practices, and entrepreneurial skills. This holistic development empowers students to make meaningful contributions towards the economic, environmental, and social advancement of their communities and the nation as a whole.

Moreover, the Course Objectives (COs) are strategically aligned with the PO-PSO philosophy, ensuring coherence in the learning process. Every course syllabus is crafted with careful consideration of wider macroeconomic and societal factors, embodying the spirit of the National Education Policy (NEP) and fostering a curriculum that is both relevant and responsive to real-world challenges.

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

The Center for Development of e-Content (CDeC) at Cochin University of Science and Technology (CUSAT) is dedicated to transforming the landscape of education through the innovative power of digital learning. With a clear and ambitious mission, CDeC strives to provide every student with access to superior teaching and learning resources, ultimately enhancing the educational experience. To realize this vision, CUSAT established CDeC as a specialized center focused on developing skill-oriented and job-ready Massive Open Online Courses (MOOCs). These courses are crafted not just to impart theoretical knowledge, but also to equip individuals with practical and industry-relevant skills that can boost their career prospects. As part of its commitment to digital education, CUSAT has successfully launched eighteen specialized online courses across a diverse array of fields. These subjects include marine science, applied chemistry, management, law, Hindi, safety engineering, environmental science, and industrial fisheries. By offering such a wide-ranging selection, CDeC is able to cater to the varied educational interests and needs of learners from different backgrounds. The significance of MOOCs is increasingly recognized, especially with their endorsement by the National Education Policy (NEP). CUSAT is proud to be leading this educational revolution, making quality education more accessible through the latest technological advancements. To enhance the experience of online learning, CUSAT has implemented a requirement for all students: each student must enroll in at least one online course, either through SWAYAM or other MOOC platforms, during their time at the university. By completing a course worth at least three credits, which will be added to their academic credentials, students not only broaden their knowledge but also enhance their employability. It is important that they complete the certification process before the conclusion of their final semester. These online courses are offered at no cost and provide flexible learning opportunities that allow students to acquire new skills, helping them fast-track their career advancement. Learners can choose from a host of options, including courses available on Swayam, NPTEL, MOOCs recognized by the UGC, or the CUSAT MOOC portal.

### **Extended Profile**

**1.Programme**1.1 107

Number of programmes offered during the year:

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

1.2 33

Number of departments offering academic programmes

**2.Student**2.1 7392

Number of students during the year

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

2.2 2062

Number of outgoing / final year students during the year:

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

2.3 7450

Number of students appeared in the University examination during the year

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

2.4 1560

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>

3.2 449

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 68367

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 1162

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

<b>Extended Profile</b>	
<b>1.Programme</b>	
1.1 Number of programmes offered during the year:	<b>107</b>
File Description	Documents
Data Template	<a href="#">View File</a>
1.2 Number of departments offering academic programmes	<b>33</b>
<b>2.Student</b>	
2.1 Number of students during the year	<b>7392</b>
File Description	Documents
Data Template	<a href="#">View File</a>
2.2 Number of outgoing / final year students during the year:	<b>2062</b>
File Description	Documents
Data Template	<a href="#">View File</a>
2.3 Number of students appeared in the University examination during the year	<b>7450</b>
File Description	Documents
Data Template	<a href="#">View File</a>
2.4 Number of revaluation applications during the year	<b>1560</b>
<b>3.Academic</b>	
3.1	<b>2355</b>

Number of courses in all Programmes during the year						
<table border="1"> <thead> <tr> <th>File Description</th> <th>Documents</th> </tr> </thead> <tbody> <tr> <td>Data Template</td> <td><a href="#">View File</a></td> </tr> </tbody> </table>			File Description	Documents	Data Template	<a href="#">View File</a>
File Description	Documents					
Data Template	<a href="#">View File</a>					
3.2	Number of full time teachers during the year	<b>449</b>				
<table border="1"> <thead> <tr> <th>File Description</th> <th>Documents</th> </tr> </thead> <tbody> <tr> <td>Data Template</td> <td><a href="#">View File</a></td> </tr> </tbody> </table>			File Description	Documents	Data Template	<a href="#">View File</a>
File Description	Documents					
Data Template	<a href="#">View File</a>					
3.3	Number of sanctioned posts during the year	<b>577</b>				
<table border="1"> <thead> <tr> <th>File Description</th> <th>Documents</th> </tr> </thead> <tbody> <tr> <td>Data Template</td> <td><a href="#">View File</a></td> </tr> </tbody> </table>			File Description	Documents	Data Template	<a href="#">View File</a>
File Description	Documents					
Data Template	<a href="#">View File</a>					
<b>4.Institution</b>						
4.1	Number of eligible applications received for admissions to all the Programmes during the year	<b>68367</b>				
<table border="1"> <thead> <tr> <th>File Description</th> <th>Documents</th> </tr> </thead> <tbody> <tr> <td>Data Template</td> <td><a href="#">View File</a></td> </tr> </tbody> </table>			File Description	Documents	Data Template	<a href="#">View File</a>
File Description	Documents					
Data Template	<a href="#">View File</a>					
4.2	Number of seats earmarked for reserved category as per GOI/ State Govt. rule during the year	<b>1162</b>				
<table border="1"> <thead> <tr> <th>File Description</th> <th>Documents</th> </tr> </thead> <tbody> <tr> <td>Data Template</td> <td><a href="#">View File</a></td> </tr> </tbody> </table>			File Description	Documents	Data Template	<a href="#">View File</a>
File Description	Documents					
Data Template	<a href="#">View File</a>					
4.3	Total number of classrooms and seminar halls	<b>254</b>				
4.4	Total number of computers in the campus for academic purpose	<b>2231</b>				

4.5	24282.33
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	No File Uploaded

#### 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

447

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

447

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

114

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 MSc. 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	No File Uploaded

### 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**

**1793**

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**

**2080**

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

2563

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

2369

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	No File Uploaded
Link For Additional Information	Nil

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

Number of Students	Number of Teachers
7392	442

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	No File Uploaded

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	No File Uploaded

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

#### 2.3.3.1 - Number of mentors

442

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

442

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

262



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

4138

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

16

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

41

#### 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

41

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**

158

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

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.

Attainment Calculation

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.

File Description	Documents
Upload relevant supporting document	No File Uploaded

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	No File Uploaded

### 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

2210

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	No File Uploaded

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

22.35

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

41

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****1329**

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

**3.1.5 - Institution has the following facilities to support research**  
**Central Instrumentation Centre**  
**Animal House/Green House Museum**  
**Media laboratory/Studios**  
**Business Lab**  
**Research/Statistical Databases**  
**Moot court**  
**Theatre**  
**Art Gallery**

**A. Any 4 or more of the above**

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

**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****29**

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

**3.2 - Resource Mobilization for Research**

**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)**

**513.46**

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



**3.2.2 - Grants for research projects sponsored by the government agencies during the year (INR in Lakhs)**

2905

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**

137

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**

103

**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**

103

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**

76

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**

**A. All of the above**

- research methodology course work**
- 2. Presence of institutional Ethics committees (Animal, chemical, bio-ethics etc)**
- 3. Plagiarism check**
- 4. Research Advisory Committee**

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

**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**

**A. 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>

**3.4.3 - Number of Patents published/awarded during the year**

**3.4.3.1 - Total number of Patents published/awarded year wise during the year**

**24**

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

**3.4.4 - Number of Ph.D's awarded per teacher during the year**

**3.4.4.1 - How many Ph.D's are awarded during the year**

**215**

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

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

1631

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

### 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

84

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

#### 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	No File Uploaded

### 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
2122	1232

File Description	Documents
Any additional information	No File Uploaded
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	22

File Description	Documents
Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution	<a href="#">View File</a>
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)

521

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	No File Uploaded

**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**

2

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)**

161

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**

1820

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

216

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

34

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. Subjectspecific 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 ofthe University.

File Description	Documents
Upload relevant supporting document	No File Uploaded

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	No File Uploaded

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

At CUSAT, the facilities available on campus are designed to holistically support student life and personal growth. These amenities can be organized into several key functional areas:

#### Accommodation:

The university proudly provides on-campus living arrangements for more than 2,300 students across 14 fully furnished hostels, designed to offer a nurturing home away from home. There are dedicated accommodations for both male and female students, comprising eight hostels for boys and six for girls.

Each hostel is equipped with mess facilities, managed by student committees who work under the guidance of attentive hostel wardens, managers, or matrons. Additionally, the university features a Guest House and a Visiting Faculty Complex, offering 15 well-appointed rooms to accommodate visitors seamlessly.

Furthermore, the campus includes university quarters designed to house faculty members and staff. This provision even extends to dedicated hostels for bachelor faculty and staff, ensuring that all individuals associated with the university have access to comfortable living arrangements.

An international hostel is available, specifically catering to students from various countries, ensuring they feel welcomed and

comfortable during their studies.

File Description	Documents
Upload relevant supporting document	No File Uploaded

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

1421.50

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, ejournals and other e-resources from any terminal within the University campus.

File Description	Documents
Upload relevant supporting document	No File Uploaded
<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>51.63</b>	
File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded
<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>3865</b>	
File Description	Documents
Upload relevant supporting document	No File Uploaded
<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>254</b>	
File Description	Documents
Upload the data template	<a href="#">View File</a>
Upload relevant supporting document	No File Uploaded

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 1250 PCs/ Workstations/Thin Clients/ Laptops other than Wi-Fi connections across the campus. As of today, 100% of 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 the National Knowledge Network (NKN) to provide a smooth internet facility and access to online learning materials.

File Description	Documents
Upload relevant supporting document	No File Uploaded

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

Number of students	Number of Computers available to students for academic purposes
7392	2231

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

- ?1 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>
---	----------------------------

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

#### 4.4 - Maintenance of Campus Infrastructure

##### 4.4.1 - Total expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component during the year

54,25,78,126.00

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

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.

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.

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 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	No File Uploaded

## 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)**

2209

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**

2679

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

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

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**

**71**

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**

**1195**

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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

186

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

29

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	No File Uploaded

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

10

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	No File Uploaded

<b>5.4.2 - Alumni contribution during the year (INR in Lakhs)</b>	<b>A. ? 5Lakhs</b>
<b>File Description</b>	<b>Documents</b>
Upload relevant supporting document	<a href="#">View File</a>
<b>GOVERNANCE, LEADERSHIP AND MANAGEMENT</b>	
<b>6.1 - Institutional Vision and Leadership</b>	
6.1.1 - The institution has a clearly stated vision and mission which are reflected in its academic and administrative governance	
<p>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 "Tejaswinavadhitamastu" which in essence means may the wisdom accrued deify us both the teacher and the taught and percolate to the Universe in its totality.</p> <p>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</p> <p><b>Vision</b></p> <p>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.</p> <p><b>Mission</b></p> <p>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.</p>	
<b>File Description</b>	<b>Documents</b>
Upload relevant supporting document	<b>No File Uploaded</b>

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	No File Uploaded

### 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**

5

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**

25



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)

152

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. Promotional avenues are strictly in accordance with the UGC carrier advancement schemes as per the UGC regulations from 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 faculty members. All the faculty members and non-teaching staff are eligible for various welfare schemes that areintroducedby University periodically. Some of the welfare schemes available are as under.

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) Medical Reimbursement Scheme.

File Description	Documents
Upload relevant supporting document	No File Uploaded

**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)**

5415.86

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)**

24.75

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

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

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. IQAC conducted third edition of CUSAT open house program SASTHRAYAAN 2023, to showcase the vibrant research facilities and activities of various departments and centres of CUSAT.
2. Academic Restructuring of programmes has been commenced by constituting an expert committee consisting of eminent academicians has been constituted to critically evaluate the existing academic and research activities of the university and develop a vision document for academic excellence.
3. Feedback from stakeholders are collected and analysed regularly in the University departments as per instructions from the IQAC.
4. IQAC conducted an Energy Audit in 2023 and published the report.
5. Research performance of the university has been analyzed, and identified key strengths and areas that require

improvement. Suggestions for improvement have been submitted and necessary measures have been initiated to enhance the overall quality and impact of the university's research activities

File Description	Documents
Upload relevant supporting document	No File Uploaded

<p><b>6.5.2 - Institution has adopted the following for Quality assurance Academic Administrative Audit (AAA) and follow up action taken Confernces, Seminars, Workshops on quality conducted Collaborative quality initiatives with other institution(s) Orientation programme on quality issues for teachers and studens Participation in NIRF Any other quality audit recognized by state, national or international agencies (ISO Certification, NBA)</b></p>	<p>A. Any 5 or all of the above</p>
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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)

1. Restructuring of academic programmes :An expert committee consisting of eminent academicians has been constituted to critically evaluate the existing academic and research activities of the university and develop a vision document for academic excellence.
2. Conducted Workshop on Curriculum Restructuring:Curriculum Restructuring Workshop was conducted on 07 March 2023
3. Recognising outstanding faculty members and researchers :Distinguished Faculty / Researcher Awards were bestowed to two faculty members and a research scholar
4. Strengthening MoU activities with renowned national/international institutes:31 new MoUs were signed with 11 foreign institutions and 20 national institutes during 2022-23
5. Supporting researchers/ students to present their research

work at conferences held at foreign institutions:9  
researchers/students were given financial support to present their research papers at conferences held abroad

6. IQAC conducted an Energy Audit in 2023

7. Conducted a one day Workshop on Sustainable Development Goals (SDGs) on 29/03/2023

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

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	No File Uploaded
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 15Psi 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>

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

A. Any 4 or all of the above

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

#### 7.1.5 - Green campus initiatives include

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

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

A. Any 4 or All of the above

5.Landscaping	
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>	
<p><b>7.1.6.1 - The institution's initiatives to preserve and improve the environment and harness energy are confirmed through the following:</b></p> <ol style="list-style-type: none"> <li><b>1. Green audit</b></li> <li><b>2. Energy audit</b></li> <li><b>3.Environment audit</b></li> <li><b>4.Clean and green campus recognitions/awards</b></li> <li><b>5.Beyond the campus environmental promotional activities</b></li> </ol>	<b>A. Any 4 or all of the above</b>
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>	<b>A. Any 4 or all of the above</b>
File Description	Documents
Upload relevant supporting document	<a href="#">View File</a>
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)	



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.

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.

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.

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.

File Description	Documents
Upload relevant supporting document	No File Uploaded

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 acitizen are reiterated.

**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**

All of the above

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	No File Uploaded

## 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 afore mentioned 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 plains 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 2023-24 include the following:

#### Academic Restructuring

University has already appointed an Academic Restructuring Committee consisting of eminent and experienced academicians of the well-known institutions outside Kerala. To implement recommendations of the Committee which are of short-term nature, an amount of Rupees 100 Lakh is earmarked in the budget of the university

### Faculty and Student Mobility Scheme and Travel Assistance

The university plans to introduce a faculty and student mobility scheme designed to enhance collaboration and exchange within our academic community

### Seed Money for New Research Initiatives

The university allocates Rs.36 Lakh in the budget for encouraging young teachers to take up research in a big way by providing seed money.

### Scholarship and Incentives to Research Scholars and Post Doctoral Fellows

To attract talented students to pursue research, the university proposes to offer scholarships and incentives to research scholars (JRF & SRF) and Post Doctoral Fellows. Rs. 933 Lakh is allotted for this in the budget

### Lifts for differently abled students

In order to ensure accessibility and inclusivity for differently-abled students, University plans to implement lift facilities in nine department buildings in our campus. For this, an amount of Rs.306Lakh is earmarked.