Yearly Status Report - 2019-2020

Part A	
Data of the Institution	
1. Name of the Institution	**COCHIN UNIVERSITY OF SCIENCE AND TECHNOLOGY**
Name of the head of the Institution	**Dr.K.N.Madhusoodanan**
Designation	**Vice Chancellor**
Does the Institution function from own campus	**Yes**
Phone no/Alternate Phone no.	**04842577619**
Mobile no.	**9349406334**
Registered Email	**iqaccusat@gmail.com**
Alternate Email	**iqac@cusat.ac.in**
Address	**Cochin University of Science and Technology, Kochi -682022**
City/Town	**Kalamassery**
State/UT	**Kerala**
Pincode	**682022**

2. Institutional Status

University	**State**
Type of Institution	**Co-education**
Location	**Urban**
Financial Status	**state**
Name of the IQAC co-ordinator/Director	**Dr.K.Girish Kumar**
Phone no/Alternate Phone no.	**04842862748**
Mobile no.	**9847363660**
Registered Email	**iqaccusat@gmail.com**
Alternate Email	**iqac@cusat.ac.in**

3. Website Address

Web-link of the AQAR: (Previous Academic Year)	https://iqac.cusat.ac.in/assets/web/uploads/document/CUSAT_-AQAR-2018-19-Submitted_to_NAAC-N.pdf

4. Whether Academic Calendar prepared during the year

4. Whether Academic Calendar prepared during the year	**Yes**
if yes,whether it is uploaded in the institutional website: Weblink :	https://www.cusat.ac.in/uploads/ACADEMIC_CALENDAR_2019_2020.pdf

5. Accrediation Details

Cycle	Grade	CGPA	Year of Accrediation	Validity	
				Period From	Period To
2	**A**	**3.09**	**2016**	**16-Sep-2016**	**15-Sep-2021**

6. Date of Establishment of IQAC	**10-Apr-2007**

7. Internal Quality Assurance System

Quality initiatives by IQAC during the year for promoting quality culture		
Item /Title of the quality initiative by IQAC	Date & Duration	Number of participants/ beneficiaries

Five day Faculty Development Progamme on Outcome Based Education	27-Nov-2019 5	65
View File		

8. 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
University	DST PURSE Programme I	DST	2011 1095	90000000
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9. Whether composition of IQAC as per latest NAAC guidelines:	Yes
Upload latest notification of formation of IQAC	View File
10. Number of IQAC meetings held during the year :	3
The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional website	Yes
Upload the minutes of meeting and action taken report	View File
11. Whether IQAC received funding from any of the funding agency to support its activities during the year?	Yes
If yes, mention the amount	75000
Year	2019

12. Significant contributions made by IQAC during the current year(maximum five bullets)

Implementation of Outcome Based Education in the University Conduct of Academic Audit Conduct of Administrative Audit Institution of Distinguished Young Faculty / Researcher Award Development of online system for collection and analysis of feedback from various stake holders

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13. Plan of action chalked out by the IQAC in the beginning of the academic year towards Quality Enhancement and outcome achieved by the end of the academic year

Plan of Action	Achivements/Outcomes
Academic Audit	The university conducts Academic Audit once in two years for assessing academic performance of its departments. In categorising the departments into five groups based on their faculty/nature of subject. The audit of each group was conducted by assessment committees comprising three external experts.
Performance Analysis of faculty and Departments	Reports from departments have been collected quarterly basis, analysed it and submitted to the Syndicate
Inviting academicians under Chancellor's Chair Scheme	One eminent academicians visited the University under this scheme
Scheme for providing financial assistance to students for participating in Seminars/ Conferences abroad	Seven meritorious students have got opportunity to present their research papers in international seminars at foreign institutes during this academic year.
To conduct a national seminar on "Assuring Quality in HEIs	conducted a NAAC sponsored national seminar on " Ensuring Quality in Higher Education : Opportunities and Challenges". 55 faculty members from various universities / colleges in india participated in the seminar. Eminent academician Prof. N.J. Rao, Prof. L.S. Ganesh and NAAC advisor Sri. B.S. Ponmudiraj were the invited speakers
Implementation of Outcome Based Education (OBE) in the University	Syallbi of all UG & PG programmes have been revised in outcome based education manner. Two faculty development programmes were conducted for providing necessary training to the faculty members.
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14. Whether AQAR was placed before statutory body ?	Yes

Name of Statutory Body	Meeting Date
The Syndicate	27-Aug-2021

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?	No

16. Whether institutional data submitted to AISHE:	Yes

Year of Submission	2020
Date of Submission	26-Jun-2020
17. Does the Institution have Management Information System ?	Yes
If yes, give a brief descripiton and a list of modules currently operational (maximum 500 words)	1. Following modules of Administrative Processes are Operational: i. Administration File flow Management System ii. Finance and Accounts University Service and payroll system(UniSPARK), Double entry accounting system, Miscellaneous Finance applications PF, SLI, GIS, GST, TDS , Form16 iii. Student Admission and Support iv. Examinations v. Video Conferencing System vi. Biometric attendance System vii. CUSAT Data Centre 2. IQAC has been actively engaged in collection and processing of data regarding teaching, learning and research conducted across all departments/schools/centers and other auxiliary bodies, which are used for making policy decisions and for taking quality enhancement initiatives. 3. In order to improve the quality, completeness and correctness of data, IQAC has developed a data acquisition web portal so that the report generation becomes highly effective. 4. The portal is http://iqac.cusat.ac.in/Login through which faculty members and university departments can directly upload their details of achievements and other details. 5. The portal has modules under the following broad aspects: i. University Departments/Centres ii. Faculty Members information on personal, academic, administrative activities iii. Research Activities and their output iv. Curriculum Activities v. Teaching Learning Processes and many more.

Part B

CRITERION I – CURRICULAR ASPECTS

1.1 – Curriculum Design and Development

1.1.1 – Programmes for which syllabus revision was carried out during the Academic year

Name of Programme	Programme Code	Programme Specialization	Date of Revision

MSc	341	Statistics	07/10/2019
Nill	Additional data attached	Additional data attached	Nill
[View File](#)			

1.1.2 – Programmes/ courses focussed on employability/ entrepreneurship/ skill development during the Academic year

Programme with Code	Programme Specialization	Date of Introduction	Course with Code	Date of Introduction
Mtech	M.Tech Computer Science and Engineering (Data Science and Artificial Intelligence) [Part-Time]	01/07/2019	Probability and Statistics for Data Science 19-475-0101	01/07/2019
Nill	Additional data attached	Nill	Additional data attached	Nill
[View File](#)				

1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the Academic year

Programme/Course	Programme Specialization	Dates of Introduction
Mtech	Computer Science Specialised in Data Science & Artificial Intelligence	01/07/2019
[View File](#)		

1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective Course System implemented at the University level during the Academic year.

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
Mtech	Computer Science Specialisation in Data Science Artificial Intelligence	01/07/2019

1.3 – Curriculum Enrichment

1.3.1 – Value-added courses imparting transferable and life skills offered during the year

Value Added Courses	Date of Introduction	Number of Students Enrolled
Chemistry Professional Development	01/07/2019	33
Additional data attached	Nill	Nill
[View File](#)		

1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships

MSc	Chemistry	24
Nill	Additional data attached	Nill
View File		

1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	Yes
Alumni	Yes
Parents	Yes

1.4.2 – How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words)

Feedback Obtained

Stakeholder Feedback has always been at the centre of the quality improvement initiatives at CUSAT. Feedback is collected department wise from all the important stakeholders namely students, teachers, parents, alumni and employers for improving the curriculum and the teaching learning process. The feedback is collected either online by providing a structured questionnaire or offline during the physical meetings like Parent Teacher meet or Alumni meet. In addition to curriculum aspects, feedback is also taken on University Infrastructure, campus facilities, Campus life etc. to get a comprehensive picture for making continuous improvements in the overall development of the institution as well. The student feedback on curriculumwill include suggestions on current teaching methodologies, approach of faculty, field/placement/extracurricular opportunities, lab and library facilities etc. The alumni are best equipped to give suggestions on improving the skills, knowledge and values to be imparted based on their personal experience during their tenure in the university. The faculty Feedback is very crucial in adding or modifying course content, realignment of modules, removing overlaps, revisiting few programme outcomes etc. Employer feedback is taken seriously to increase the practical component of the curricula so as to facilitate more employment opportunities for the students. The feedback is first summarised quantitatively and qualitatively at department level. The issues like pacing of the programmes, use of tools etc. are settled at the department level. The changes in the curriculum based on the feedback are proposed by department council. They are presented in the subsequent Board of Studies and then in the Academic Council for final approval. The BOS will have representation from Alumni and Industry to ensure smooth industry academic linkage. CUSAT also has an academic Committee which is empowered to approve new electives based on the department council recommendation without waiting for the BOS and AC approvals. Value add course can be designedand offered by the department council without waiting for any statutory approval from the University forums. Examples of specific outcomes that came out of the feedback analysis in 2019-20 include • Two new programmes started from 2019 • 100 new courses introduced in the existing programmes • New Industry collaborationsattained • Active involvement of alumni in the academic endeavourslike regular teaching, seminars and workshops • 20 value added courses designed and implemented in 2019-20 • Inclusion of Alumni and industry representatives in the restructured BOS • At least one value added course recommended in each department over and above the prescribed curriculum The stakeholder feedback on the functioning of the institution, student life, alumni performance were consolidated by department

and submitted to university for discussion and action by the executive bodies like syndicate. Construction of an academic block, new hostels, indoor stadium, subscription to new journal and industry databases etc. are the outcome of such efforts.

CRITERION II – TEACHING- LEARNING AND EVALUATION

2.1 – Student Enrolment and Profile

2.1.1 – Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
BTech	B.Tech Mechanical Engineering (CUCEK)	45	20876	26
Nill	Additional data attached	Nill	Nill	Nill
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2.2 – Catering to Student Diversity

2.2.1 – Student - Full time teacher ratio (current year data)

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of fulltime teachers available in the institution teaching only UG courses	Number of fulltime teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2019	1107	1177	Nill	164	283

2.3 – Teaching - Learning Process

2.3.1 – Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

Number of Teachers on Roll	Number of teachers using ICT (LMS, e-Resources)	ICT Tools and resources available	Number of ICT enabled Classrooms	Numberof smart classrooms	E-resources and techniques used
447	447	255	255	255	8
View File of ICT Tools and resources					
View File of E-resources and techniques used					

2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

The University has a deep culture of a warm student-teacher relationship. The University has adopted many formal approaches for mentoring too. The department along with various centres and bodies work in concurrence for the wholistic development of a student. Every faculty member is assigned as a mentor to a group of students. The mentors are usually chosen from the same discipline of study of the student. The Mentors and Mentees meet regularly. The mentees take guidance on academic matters like choice of electives, topic for project etc as well as non academic matters. These interactions are reflected in many levels of policy making of the University including formulations of courses and modification of syllabus. Since most of the students are in hostels, the mentors are in constant touch with the hostel Warden on issues related to hostels. The Asst Warden and Matron closely monitor students and work to create a homely ambience during the period of stay. Any disturbed student is identified immediately and guided appropriately. They play an important role in mentoring the inmates on self discipline and social skills. For the students who face concerns in emotional stability, personal counselling by faculty members or external experts through The Mind Behaviour Studio of the University is provided. Leading psychologists not only reassure the students but also mentor them to achieve their maximum abilities. The

Behaviour Studio functions in the student amenity centre and is directly approachable by students too. Apart from this, the Behaviour studio conducts regular motivational talks and programmes to mentor the students towards achieving the confidence to rise high and excel in academics and other activities. Measures for mentoring of students from the marginalised sections are given great importance .The Equal Opportunity Cell (EOC) of the university runs regular remedial classes for academically weak students. Apart from this the EOC effectively mentors by holding 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. The University has set up a Skill Orientation Centre for Engineering which mentors students belonging to the SC/ST category in developing their employability skills. The University Employment Information and Guidance Bureau conduct regular programmes focussed on career counselling, employment, soft skill development, short term courses and motivational talks. The NSS, Department of Youth Welfare and Department of Physical Education also conduct various activities to enhance the development of a student. Apart from these general programs conducted in the University level, every department holds motivating and mentoring programs in collaboration with Alumni members who are well established in most advanced industrial domains. Enthusiastic students have opportunities to pursue internships in reputed institutions, participate in conferences, competitions and other technical events. They are also motivated to organise and participate in science competitions, quizzes, exhibitions etc. All these mentoring activities ensure that a student is significantly improved both academically and personality wise after his/her tenure at COCHIN UNIVERSITY OF SCIENCE TECHNOLOGY.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
7151	447	1:16

2.4 – Teacher Profile and Quality

2.4.1 – Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
574	447	127	51	259

2.4.2 – Honours and recognition received by teachers (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year)

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2020	Dr. Sindhu Mathai	Assistant Professor	Resource Person, Catholicate College, Pathanamthitta
Nill	Additional data attached	Nill	Additional data attached
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2.5 – Evaluation Process and Reforms

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

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year- end examination
MSc	341	2020	05/06/2020	18/06/2020
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2.5.2 – Average percentage of Student complaints/grievances about evaluation against total number appeared in the examinations during the year

Number of complaints or grievances about evaluation	Total number of students appeared in the examination	Percentage
907	13398	6.7%

2.6 – Student Performance and Learning Outcomes

2.6.1 – Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

https://iqac.cusat.ac.in/report/ProgrammeOutcomes.pdf

2.6.2 – Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
MSMGO	MSc	Marine Geology	9	9	100
Additional data attached	MSc	Additional data attached	Nill	Nill	0

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2.7 – Student Satisfaction Survey

2.7.1 – Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

https://iqac.cusat.ac.in/uploads/web/audit/STUDENT_SATISFACTION_SURVEY_ANALYSIS.pdf

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 – Promotion of Research and Facilities

3.1.1 – Teachers awarded National/International fellowship for advanced studies/ research during the year

Type	Name of the teacher awarded the fellowship	Name of the award	Date of award	Awarding agency
International	Dr.Sebastian Nybin Remello	Follow Up Research Fellowship-Tokyo MeteropolitanUniveristy.	Nill	Tokyo Meteropolitan Univeristy.
Nill	Additional Data attached	Additional Data attached	Nill	Additional Data attached

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3.1.2 – Number of JRFs, SRFs, Post Doctoral Fellows, Research Associates and other fellows in the Institution enrolled during the year

Name of Research fellowship	Duration of the fellowship	Funding Agency
Junior Research Fellowship	1825	UGC
Additional data attached	00	Additional data attached

3.2 – Resource Mobilization for Research

3.2.1 – Research funds sanctioned and received from various agencies, industry and other organisations

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
Any Other (Specify)	00	MHRD	5000	5000
Any Other (Specify)	00	Additional data attached	0	0

3.3 – Innovation Ecosystem

3.3.1 – Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

Title of workshop/seminar	Name of the Dept.	Date
CTRIC-2020	Applied Chemistry	06/02/2020
Additional Data attached	Additional Data attached	Nill

3.3.2 – Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
Additional Data attached	Additional Data attached	Additional Data attached	Nill	Additional Data attached
Kerala Karate-do Championship	Mohammed Sadik N K	Kerala Karate-do Championship event held at Kochi by Kerala Karate Do Association	Nill	Research scholar

3.3.3 – No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Center	Name	Sponsored By	Name of the Start-up	Nature of Start-up	Date of Commencement
Technology Business Incubator	Centre for Innovation Technology Transfer and Industrial Collaboration (CITTIC)	State Government	Redrawlife Online Solutions	Messaging platform for business applications	01/07/2019
Additional data attached	Additional data attached	Additional data attached	Additional data attached	Additional data attached	Nill

3.4 – Research Publications and Awards

3.4.1 – Ph. Ds awarded during the year

Name of the Department	Number of PhD's Awarded
Physical Oceanography	1
Physics	12
Polymer Science and Rubber Technology	2
School of Engineering	20
School of Environmental Studies	8
School of Industrial Fisheries	2
School of Legal Studies	1
School of Management Studies	13
Statistics	3
Recognised Research Centres	23
Applied Chemistry	12
Applied Economics	11
Atmospheric Science	1
Chemical Oceanography	3
Computer Application	5
Computer Science	5
Electronics	8
Hindi	6
International School of Photonics	1
Instrumentation	1
Inter University Centre for IPR Studies	1
Marine Biology Microbiology and Biochemistry	5
Marine Geology and Geophysics	2
Mathematics	5

3.4.2 – Research Publications in the Journals notified on UGC website during the year

Type	Department	Number of Publication	Average Impact Factor (if any)
International	Department of Applied Chemistry	87	Nill
Nill	Additional data attached	Nill	Nill
[View File](#)			

3.4.3 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication
Applied Chemistry	11
Additional data attached	Nill
[View File](#)	

3.4.4 – Patents published/awarded/applied during the year

Patent Details	Patent status	Patent Number	Date of Award
Dr. Sunilkumar N., Portable Agriculture Towing System	Published	201741041303 A	Nill
Additional data attached	Nill	00	Nill

View File

3.4.5 – Bibliometrics of the publications during the last academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
Synthesis, spectral characterization and crystal strctures of Dioxido molybdenum (VI) complexes derived from Nicotinoyl hydrazone	T.M. Asha, M.R. Prathapachandra Kurup	Journal of chemical crystallography	2019	0	Cochin University of Science and Technology	Nill
Additional data attached	Additional data attached	Additional data attached	Nill	0	Additional data attached	Nill

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3.4.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
Synthesis, spectral characterization and crystal strctures of Dioxido molybdenum (VI) complexes derived	T.M. Asha, M.R. Prathapachandra Kurup	Journal of chemical crystallography	2019	Nill	Nill	Cochin University of Science and Technology

from Nicotinoyl hydrazone						
			Nill	Nill	Nill	
Additional data attached	Additional data attached	Additional data attached				Additional data attached

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3.4.7 – Faculty participation in Seminars/Conferences and Symposia during the year

Number of Faculty	International	National	State	Local
Presented papers	239	126	2	Nill

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3.5 – Consultancy

3.5.1 – Revenue generated from Consultancy during the year

Name of the Consultan(s) department	Name of consultancy project	Consulting/Sponsoring Agency	Revenue generated (amount in rupees)
Biotechnology	Myochitin Production and Other Projects	Pelican Thermogenics Pvt. Ltd	100000
Additional data attached	Additional data attached	Additional data attached	0

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3.5.2 – Revenue generated from Corporate Training by the institution during the year

Name of the Consultan(s) department	Title of the programme	Agency seeking / training	Revenue generated (amount in rupees)	Number of trainees
Kunjali Marakkar School of Marine Engineering	SIMULATOR Course	Seafarers	953106	Nill
Additional data attached	Additional data attached	Additional data attached	0	0

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3.6 – Extension Activities

3.6.1 – Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such activities	Number of students participated in such activities
Workshop, ???????? – ??? ??????????	Cochin University of Science and Technology (CUSAT) in association with Kerala Matsya Thozhilalil Iykkavedi (TUCI),	2	72

Coastal Area Development Agency For Liberation (CADAL)			
Additional data attached	Additional data attached	Nill	Nill

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3.6.2 – Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited
Public awareness, Advisory committee member in Govt.and local body organisation	Best Young Faculty Award of CUSAT to Dr.Aneesh V.Pillai, Assistant Professor	CUSAT	Nill
Additional data attached	Additional data attached	Additional data attached	Nill

View File

3.6.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activites	Number of students participated in such activites
???????? – ??? ??????????	Cochin University of Science and Technology (CUSAT) in association with Kerala Matsya Thozhilalil Iykkavedi (TUCI), Coastal Area Development Agency For Liberation (CADAL)	Workshop	2	72
Additional data attached	Additional data attached	Additional data attached	Nill	Nill

View File

3.7 – Collaborations

3.7.1 – Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of activity	Participant	Source of financial support	Duration
COLLABORATIVE PROJECT	Dr. K. Girish kumar	Polish Academy Of Sciences, Olsztyn	730
Additional data attached	Additional data attached	Additional data attached	0

3.7.2 – Linkages with institutions/industries for internship, on-the- job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
Research Activity	M. Tech Dissertation	IITM, Pune, India	Nill	Nill	7
Additional data attached	Additional data attached	Additional data attached	Nill	Nill	0

3.7.3 – MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
AKAY Natural Ingredients Pvt. Ltd.	Nill	research activities for drug discovery	2
Additional data attached	Nill	Additional data attached	Nill

CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

4.1 – Physical Facilities

4.1.1 – Budget allocation, excluding salary for infrastructure augmentation during the year

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
244381733	114625905

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Classrooms with Wi-Fi OR LAN	Newly Added
Number of important equipments purchased (Greater than 1-0 lakh) during the current year	Newly Added
Others	Existing
Value of the equipment purchased during the year (rs. in lakhs)	Newly Added
Video Centre	Existing
Seminar halls with ICT facilities	Newly Added
Classrooms with LCD facilities	Newly Added
Seminar Halls	Newly Added

Laboratories	Newly Added
Class rooms	Newly Added
Campus Area	Existing
View File	

4.2 – Library as a Learning Resource

4.2.1 – Library is automated {Integrated Library Management System (ILMS)}

Name of the ILMS software	Nature of automation (fully or patially)	Version	Year of automation
KOHA	Fully	17.11	1999

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	264167	319396058	6357	5603024	270524	324999082
Reference Books	50451	9294398	992	1308202	51443	10602600
e-Books	1600	12601927	Nill	Nill	1600	12601927
Journals	1362	904106	101	203874	1463	1107980
e-Journals	17333	6489420	14	80967	17347	6570387
Digital Database	71	804518	14	21437821	85	22242339
CD & Video	779	Nill	39	Nill	818	Nill
Library Automation	Nill	Nill	Nill	Nill	Nill	Nill
Weeding (hard & soft)	Nill	Nill	Nill	Nill	Nill	Nill
Others(specify)	335763	336888500	7665	28633888	343428	365522388
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4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e-content
Dr Sabeena	PHY 1504 Basic Solid State Physics	moodle@CUSAT	10/12/2019
Additional data attached	Nill	Nill	Nill
View File			

4.3 – IT Infrastructure

4.3.1 – Technology Upgradation (overall)

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth (MBPS/GBPS)	Others
Existing	1972	51	1216	41	67	341	1602	1000	0
Added	85	1	20	1	5	20	10	0	0
Total	2057	52	1236	42	72	361	1612	1000	0

4.3.2 – Bandwidth available of internet connection in the Institution (Leased line)

1000 MBPS/ GBPS

4.3.3 – Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
Massive Open Online Courses	https://cusat.ac.in/mooc.php
moodle@CUSAT	https://moodle.cusat.ac.in/

4.4 – Maintenance of Campus Infrastructure

4.4.1 – Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurredon maintenance of physical facilites
40000000	38424057	50000000	46278755

4.4.2 – Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website, provide link)

The broad purpose of the policy is to ensure proper maintenance of the infrastructural resources and their effective utilization for the promotion of academic interests of the university. The maintenance and utilization of the infrastructure will be done in an environment-friendly manner with due regard to hygiene, safety and sustainability. Civil Maintenance: Civil maintenance will cover all building blocks including hostels and the staff quarters. The building maintenance will comprise all such services as plumbing, repairs, painting, carpentry, minor construction and associated works. University Engineer will be responsible for getting building inspection conducted from time to time as per prescribed regulatory norms. The inspection observations will beduly recorded and the necessary actions will be initiated. In addition, a complaint-cum-suggestions register will be maintained and acted upon by the Maintenance Section. Electrical Maintenance: All electrical installations, equipment and devices will be regularly checked and maintained for quality and safety. Quality and adequacy of power distribution will be maintained on a continuous basis for uninterrupted working in the campus. All breakdowns and failures will be attended on urgent basis. Electrical maintenance unit will keep maintenance schedule for all electrical equipments and devices and maintain proper records as per norms. All replacements will be of prescribed quality. Laboratory Maintenance: All labs will adequately meet the academic requirements including teaching, research, innovation and entrepreneurship and will be kept updated from time to time in the interest of best standards of education. The lab requirements for a department/school will be ascertained by

the concerned head/director in consultation with the department council and will be met through the due administrative processes of the university. Each lab will be adequately staffed and will have proper lab manuals to be followed and follow due safety norms, procedures and user instructions. Arrangements will be made for proper training of the lab staff. Physical Facilities, Security and Transport: The playgrounds will be well maintained with adequate sports facilities. Sanitation facilities including washrooms will be adequate and well-maintained. For security reasons, the CCTVs on the campus will be adequate and fully-functional 24x7. All security personnel will be well-trained and qualified as per norms. Classroom Infrastructure: Maintenance and utilization of classrooms and other academic facilities will meet the requirement of various regulatory bodies. Classrooms will be adequate in relation to academic requirements and will have modern audio-visual aids for effective teaching-learning. Library Facilities: The library will provide full and equitable access to all the students, faculty, researchers and staff commensurate with the learning requirements. All the library services will be based on latest available technology for effective access and use. The library systems will be fully compliant to the norms of various regulatory bodies. Feedback and Review: The maintenance and utilization policy will be reviewed from time to time keeping in view the changing regulatory norms and academic requirements. Suitable measures will be initiated for continuous improvement in the quality of services. Such measures will be based on the regular feedback obtained from different user segments.

https://www.cusat.ac.in/campus.php

CRITERION V – STUDENT SUPPORT AND PROGRESSION

5.1 – Student Support

5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees
Financial Support from institution	Various fellowships/scholarships	3512	194081196
Financial Support from Other Sources			
a) National	Various fellowships/scholarships	207	33443189
b)International	Various fellowships/scholarships	3	667260
View File			

5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implemetation	Number of students enrolled	Agencies involved
Additional data attached	Nill	Nill	Additional data attached
KODE4KOCHI HACKATHON	15/10/2019	70	Cochin University
View File			

5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited	Number of benefited	Number of students who	Number of studentsp placed

2019	Career Orientation Program 2019	Nill	22	Nill	3
Nill	Additional data attached	Nill	Nill	Nill	Nill

View File

5.1.4 – Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual harassment and ragging cases during the year

Total grievances received	Number of grievances redressed	Avg. number of days for grievance redressal
4	2	60

5.2 – Student Progression

5.2.1 – Details of campus placement during the year

On campus			Off campus		
Nameof organizations visited	Number of students participated	Number of stduents placed	Nameof organizations visited	Number of students participated	Number of stduents placed
Albwardy Damen	45	2	Amazon (Rajagiri)	50	3

View File

5.2.2 – Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Depratment graduated from	Name of institution joined	Name of programme admitted to
2020	1	M.Sc Chemistry	Applied Chemistry	IIT Madrass	Ph.D
2020	1	M.Sc Chemistry	Applied Chemistry	CSIR NIIST	Ph.D

View File

5.2.3 – Students qualifying in state/ national/ international level examinations during the year (eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	Number of students selected/ qualifying
CAT	3
GATE	76
NET	18
Any Other	13
Any Other	9
Any Other	1
Any Other	2

Any Other	8
Any Other	6
Any Other	40
View File	

5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants
Additional data attached	Nill	Nill
Fresher's day celebration	Department Level	1
Science day celebration	Department Level	1
View File		

5.3 – Student Participation and Activities

5.3.1 – Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one)

Year	Name of the award/medal	National/ Internaional	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
2020	Third Prize, Conclave 18	National	Nill	Nill	Nill	Aspin P Raj
2020	Additional data attached	Nill	Nill	Nill	Nill	Additional data attached
View File						

5.3.2 – Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

Administrative academic bodies: Students have an active involvement in academic and administrative bodies of the University. Student representatives are present in the Syndicate, Senate(administrative bodies), academic council and IQAC (academic bodies). Student ideas, requirements and grievances are brought to light to authorities through deliberations in these bodies. Student committees in University : • Democratically functioning 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 presenting the interests and grievances of the student community before the authorities and also promotes academic deliberations, arts, sports and cultural activities in the university. Funding to student's union is earmarked through budget allocation.Every year, an appreciable amount is earmarked from the University budget for the student's union activities. The generous funding from the University helps the seamless conduct of University Union activities. Activities of student's union includes : • Organizing of sports, cultural events etc. Departmental student councils conduct annual meet (tech fest, talent time etc), freshers' day and farewell to graduating students etc. o Sargam is the annual arts and cultural fest of CUSAT

organized by the student's union with an aim of nurturing the talents of students. It is a five-day program comprising various arts and cultural activities including onstage and offstage events. o Union also organizes "MEDHA", an academic festival which hosts several seminars, workshops and webinar series to discuss emerging social issues. • The student's union provides a forum for student opinions, interests and desires so these may be understood by the entire student body, faculty, administration and community thus contributing to the total educational growth of all students in the university. Regular interactions of union create harmonious relationships among faculty, administration and the community. • The student's union provides opportunities for leadership development among students. • Students union took an active role in involving in socially relevant activities like involving in flood related rehabilitation and disaster mitigation activities over the previous three years when unexpected floods hit Kerala in 2018. Student supporting activities: NSS and Department of Youth welfare activities • NSS units in the university is also manned by student NSS secretaries in addition to a faculty programme officer. Safe to eat vegetable cultivation, environment friendly activities, personality development programmes and community outreach activities are undertaken by the NSS volunteers. • The university has a youth welfare department which aims at organizing programmes for the students of the university. It also conducts short term training programs aiming at soft skills and personality development. Activities like anti ragging awareness campaign, flood relief activities, music workshops and actor training workshops are being organized during the past few years. 'Monsoon Madness – Experiencing Nature' – a three days residential monsoon camp was also conducted to provide students with an opportunity to immerse them into nature.

5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

CUSAT finds itself in an enviable position of having its Alumni holding very important positions in many academic, research, industry and government organizations. The University has University level alumni association and department alumni associations. The activities of the department alumni associations are carrying out the respective departments. Batches are seen to organise special events with respective departments commemorative of their silver/golden jubilees. University has an enriched alumni asset illuminating various parts of the world as renowned educators, engineers, researchers, industrialists, team leaders, inventors, entrepreneurs, CEOs etc. In India, our alumni occupy prestigious positions in educational organizations, Industries, Public sector/ Research institutes, Govt./Aided Colleges and so on. There are several distinguished alumni of CUSAT who are placed as CEOs/ in top most positions in Government machineries and private/public sector undertakings. The Alumni association fosters and promote a cordial relationship with the Alumni, teachers and current students of the department. They help, guide and participate in various developmental activities of the Departments and university. They also encourage and promote the study of concerned discipline, the progress and development of the departments. Following support of alumni are utilised by various departments • Personal, research and industrial experiences and insights of distinguished members are shared with existing batch of students. • Mentoring support for students by organising personality development sessions • Alumni association provides continuous support to students for internships and placements. • Alumni suggestions are solicited for improving current trends in academic activities including syllabus revision and course design to improve the quality. • Alumni association supports the department by support in organizing and financially contributing to conferences and seminars • Alumni association supports the department by financially

contributing to improving infrastructure. • Some of the departments have instituted endowments for promoting student excellence in learning as well as research. For example, Alumni Association of department of Physics sponsors an ever-rolling trophy to the State Level Quiz competition conducted by the department as a part of the National Science Day Celebrations. Other awards for the students include the best thesis award both experimental and theory, Best M.Sc. project award experimental and theory, Prof. M.R. Anantharaman endowment award for Best research paper published in the academic year. Endowments for the top scorers in different subjects which includes, Prof M. Sabir endowment award for Mathematical Physics, Prof. Ramesh Babu Endowment award for Electrodynamics and Classical Mechanics, Prof K.P Vijayakumar Prof C. Sudha Kartha endowment award to Solid State Physics, Prof. S. Jayalekshmi endowment award for Statistical Mechanics. Alumni also serves as a point of contact as a significant stakeholder benefitting from the current developments of the University.

5.4.2 – No. of registered Alumni:

40093

5.4.3 – Alumni contribution during the year (in Rupees) :

767076

5.4.4 – Meetings/activities organized by Alumni Association :

Annual general body meetings of University alumni association as well as department alumni associations are convened by the University alumni association as well as by the respective departments once in a year. The association raises funds through contributions of alumni for activities such as instituting endowments, charity, support of weak students in the current batches and development of institutional infrastructure. The department alumni association celebrated alumni general body meeting during 2019-20 with various programmes including special lecture series by the prominent alumni members. The University alumni association conducted its annual meeting "Global Alumni Conclave" on 12/09/2020. Meetings organised by selected departments are mentioned below • Department of Electronics Alumni Association following the guidelines and byelaws of the University has been constituted in the alumni meeting held at Department of Electronics, auditorium on 31st August 2019. • Alumni Association of the Department of Instrumentation was restructured as per the University order No. IQAC/Alumni Association/2018 dated 27/05/2019, under the apex body "CUSAT Alumni Network" • Polymer Science and Rubber Technology alumni association was reconstituted during the alumni meet held on 28th September 2019 with new executive members Activities organised by selected departments • In almost all departments, alumni worked actively with departments in designing OBE curriculum. • The alumni association of Department of Instrumentation raised a fund of Rs. 2,96,261 during the 2019 Kerala flood and distributed as varies items such as cloths, food and other house hold items to the flood affected people • The second Saturday of October is being celebrated as the alumni day of the Physics department. The alumni day celebration includes talk by eminent alumni, cultural programs by the students of the department, annual general body meeting and a lunch. The alumni association of the department maintains an official website https://physicsalumnicusat.org. • School of Legal Studies has got a registered alumni association which holds various special lecture series for practical subjects. The resources persons being prominent alumni members. The alumni association has instituted Gold medals for LLB LLM Courses and support Yukthi Legal Fest financially as well as, as a part of judging panel. Alumni also provides evening internships as well as summer internships during summer vacation. Financial support was also given for establishing Tele Legal Aid

Clinic

CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 – Institutional Vision and Leadership

6.1.1 – Mention two practices of decentralization and participative management during the last year (maximum 500 words)

The Department governance is decentralised through an all-inclusive strategy of multiple hierarchies. The Department Council (DC) forms the core of this structure/hierarchy. The DC consists of all the permanent faculty of the Department, chaired by the Head of the Department. The Council shalldecide all matters regarding the administrative policies and academic activities of the Department. The Council shall be the decisive body for the assignment of the academic work and allocationof infrastructural facilities. The Council shall approve the budget and developmental proposals. In the Departments, Faculty members are assignedwith various responsibilities including academic, administrative, mentoring, placement, repair and maintenance, etc.To support the department council in all research related activities, the following decentralised strategy is followed. Each research scholar is assigned toa doctoral committee consisting of therespective research guide and one or two members of the approved research guides of the department . All the progress of the respective student is monitored by the research committee, which will meet on a regular basis. The Research committee of the department consisting of all the approved guides regularly meet and discuss minutes of various doctoral committees, to take final recommendations on all matters related to research scholars. This committee also decides the modalities for admission to PhD programmes. The recommendations of the research committee is generally approved and implemented by the university. The curriculum related activitiesincluding syllabus revisions in the teaching departments of the University are meticulously done on a decentralised fashion. Respective board of studies will meet at least once in a semester and the recommendations of the board of studies on different academic matters will be placed before the faculty, whichis the next higher statutory body. The recommendations of the faculty, then will be placed in the academic council, the highest academic body of the University. With the approval of the academic council, the syndicate does the implementation, which is the highest administrative, decision-making body of the University.

6.1.2 – Does the institution have a Management Information System (MIS)?

Yes

6.2 – Strategy Development and Deployment

6.2.1 – Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

Strategy Type	Details
Examination and Evaluation	1. Introduced Examination Calendar. Specifying time frame for various exam -related activities. • Regular and supplementary examinations are streamlined. • Loss of class days is totally avoided. • It allows for planning and conducting various examinations as per schedule published in examination calendar. Now the examinations are conducted only in November for odd semesters and April/ May for even semester. 2 Certificate

application process was automated. • The backlog of 3-4 months is completely removed. Now Degree Certificate processing and printing is completely online. • Degree certificate dispatch and follow up is also online.The backlog is completely removed in this section also. 3. OT application was made online. Payment is now through payment gateway • Students can apply for OT online and make payment online. • They do not have to come to the University for making application • They can track online apart from getting SMS alerts. 4 Introduced Statement of Marks • Students can now use this to apply to multiple institutions with just one SM. (Previously they needed to get separate OT for applying for multiple institutions requiring payment for each) 5 Streamlined the database and software • Data is now available in a format suitable for uploading to National Academic Depository • More than 3000 DCs, digitally signed by the VC, have been uploaded so far . • Mark lists, digitally signed by CE and up loaded. 6 Automated PG examination results processing. (The whole process has been computerized now with introduction of a software developed in house under my sole direction and supervision). • Now the results are published on the same day when the valuation of the answer books is completed and marks are uploaded individually by the teachers who did the valuation is completed. • Every student is provided with a Dashboard from where they can see results and download marklists on pap. • Students can register for examination and download Hall ticket online • Marklist printing is automated. • Hand written TRs is stopped. System generated TR is used. • SMS gateway alerts students regarding announcement of examination notifications and results. 7 Centralised valuation camp was redesigned (The examination results are mostly delayed due to delay in start of the centralized valuation camp. This delay was looked into and the unwanted steps were removed and the workflow was redesigned). • Now the camp starts within four days since the start of the examination. • The wait for the

		completion of the whole examination to be over is now completely avoided. 8 Preparation of Question papers automated. (The question papers are collected from the teachers online under secure environment and with password protection. The scheme of valuation is also collected along with the question papers from the teachers). • Reduced the delay in starting of CV camp as the scheme for valuations is already available. • Reduced the workload in the sections and corresponding amount of manpower could be reduced. On an average the University prepares roughly 1450 different question papers for B. Tech programs annually. Collecting, processing and printing so many question used to be very labour intensive process. 9 Developed a website for the examination wing of the University • All relevant information, notification and results are published. • It also integrates different exam – related websites of the University. 10 New Program IDs have been allotted to the entire 219 programs currently being offered. • Helped in uploading of DC and ML to NAD • Every course under 219 programs could be give unique ID derived from PID which reflected the year of last revision as well • Student Registration Number could be derived from PID
	Research and Development	• During this period, 114 research projects which are being funded by various agencies are ongoing. Total grant received for research projects during the period 2019-20 is ` 10,72.48 lakhs. • The University has instituted a global scholar network scheme namely Chancellor's Chair through which eminent academicians/ scientists from foreign institutions having ranking, preferably, within 500 in the World University Ranking, are invited to the University to interact with the students, scholars and faculty members and to offer at least one course which is of interdisciplinary in nature. This scheme facilitates an opportunity to utilise the expertise of global scholars for a long term in the campus.. • The h- index of our research publications is 86, which is considered as a remarkably high value for scientific publications. • The

	University has started five new virtual centres to promote interdisciplinary collaborative research in the frontier areas. The various research groups under these centres are identified many research problems in tune with the societal needs. • As a move to promote the research activities and to appreciate the esteemed researchers, the University hase instituted "Distinguished Young Faculty Award" for recognizing five faculty members who have contributed significantly to the teaching and research activities of the University and "Distinguished Researcher Award" for recognizing five research scholars who are excel in their area of research, every year utilizing a portion of the prize money of Chancellor's Award. • The University provides financial support to the newly recruited faculty members for initiating research activities under the scheme Seed Money for New Research Initiative (SMNRI) and 43 faculty members have been given funding under this scheme since its inception at 2017-18. • Inter University Centre for IPR Studies (IUCIPRS) of the University, has established Patent Facilitation Cell, first of its kind in Kerala State primarily to cater to the IP requirement of various Universities in Kerala. IPR cell was set up with the objective of enabling Innovators/researchers in Universities in understanding, Identifying using Intellectual Property for Competitive Advantage. The functions of the cell are focussed on facilitation of IP Protection and creating IP awareness among scholars and teachers.
Teaching and Learning	• University has a pool of highly qualified and internationally recognized faculty members • Well qualified faculty members having international exposure are being appointed and 14 new faculty members were appointed during 2019-20 • All classrooms of the university are equipped with modern technologies to facilitate smart class. • The revision of syllabi is strictly monitored. • The University conducts Academic Audit once in two years and it was conducted during February- March 2020, with the help of eminent academicians from outside the University.

Curriculum Development	• As in previous years, this year too meticulous follow up has been initiated to restructuring of syllabi. • All UG and PG programmes have been revised in Outcome Based Education (OBE) manner and this come into effect with effect from the academic year 2020-21 • Started new academic programmes : M Tech Computer Science and Engineering (Data Science and Artificial o M Tech Computer Science and Engineering in Data Science and Artificial Intelligence (Part-Time) w.e.f the academic year 2019-20 o M Phil in Social Exclusion and Inclusive Policy Studies w.e.f the academic year 2019-20 o M Sc Forensic Science w.e.f the academic year 2020-21
Library, ICT and Physical Infrastructure / Instrumentation	Library: As in any world class university library, services in Cochin University of Science and Technology are the core of its academic services and the Central Library of CUSAT finds a unique place in Academic service centres. Besides Central Library, every academic department has its own departmental library which contains the core collection required by the students and faculty of the department. Besides conventional services, library offers e-services such as Institutional Repository- e-thesis (dyuthi.cusat.ac.in), online databases and journals, media repository (media.cusat.ac.in), bibliographic repository (yuj.cusat.ac.in) etc. Databases are available through the campus wide networks to all users in the University. CUSAT Library is a member of various e-journal consortia such as E-ShodhSindhu consortium, DELNET consortium, National Digital Library, World e-Books Library and South Asia Archives (SAA). More than 1300 electronic journals are available through the campus wide network. The University Library has completed the digitization process of all theses produced by CUSAT and made available online through the institutional repository- DYUTHI and the UGC national repository – SHODHGANGA. All the housekeeping and information management systems in the University Library are powered by open source software such as KOHA, DSpace, BibApp and Media core. University Library is conducting various sponsored research projects and

	workshops for knowledge discovery and knowledge management to meet the contemporary information needs of its clients. ICT: • All classrooms of the university are equipped with modern technologies moreover, multi-media facilities are regularly used in course delivery by teachers. o The university has subscribed to NPTEL video lectures, which is aimed at providing E-learning through online Web and Video courses. o Learning Management System, Edmodo is used for some courses to communicate with students for sharing study materials, access and grade assignments etc. o The instructional pedagogy of flipped classroom is rigorously adopted in some courses. o Assignments and gradings for few courses are entirely paperless and this helps in improving transparency and quality of internal assessments. o Departments offer courses through MOODLE (http://moodle.cusat.ac.in/moodle/), the students access the course materials, assignments, announcements etc. through this system which is available anywhere anytime. Courses by the faculty members, in almost all disciplines under Science, Technology, Social Science, Law, Humanities, Environmental Science, Engineering, Marine Sciences, vocational courses in DDU Kaushal Kendra have been uploaded in the platform. Physical Infrastructure / Instrumentation • The work of setting up of State of the Art Research Laboratory and Academic Block at an estimated cost of `240 crore, utilizing funds mobilized through its Kerala Infrastructure Investment Fund Board (KIIFB) is ongoing. • Students' residential facilities are being enhanced by constructing a new Ladies Hostel for students using a portion of the Chancellor's Award prize money/RUSA fund/KIIFB fund.
Human Resource Management	• The faculty members are facilitated to participate in conferences, interact with experts in the relevant fields in order to further enrich research, deliver invited talks in national and international conferences. In this connection, the University departments/schools as well as research centres regularly conducts workshops/seminars/ conferences/ lecture series by eminent

	academicians/scientists etc. • Training programme for teaching/ non teaching staff are regularly conducted by the Centre for Employee Empowerment and Skill Acquisition Centre.
Industry Interaction / Collaboration	Centre for Innovation, Technology Transfer Industrial Collaboration (CITTIC) was set up in the year 2014 with the mission of providing a vibrant, innovative, and entrepreneurial environment for faculty and students to run university-connected start-up companies. CITTIC started incubating startup companies from February 2017 and 84 companies have been incubated in CITTIC since then. 25 new start-ups incubated during 2019-20. Some of them have made successful exit. We also organized a range of programmes to encourage the spirit of innovation, entrepreneurship and maker culture. They include: GNU/LINUX installation camp – 7th August 2019, TinkerDay meetups – August 31st 2019, Three day boot camp for school students - SEPTEMBER 7 TO 9, ML from Scratch Programme –From September2019 to February 2020, Web Development Bootcamp on 31st August, 1st September and 28th September 2019, One-day workshop on Development on Flutter on 20th December 2019, A workshop on Google Explore ML India on 21st and 22nd December 2019, A two-day program on Machine Learning on January 4 and 5, 2020 and Workshop TinkerHub Foundation on February 21 22, 2020. The interaction with the industry is strengthened by consultancy services offered by the University and also experts from the industries are in the Board of Studies which helps the university in utilizing their expertise in curriculum designing and development. The experts from the industry are being invited to deliver lectures/talks.
Admission of Students	Through effective application of information and communication technology (ICT), the University is fully equipped to deliver all the admission related Services to the student community in a very convenient, efficient, and transparent manner. Exchange of information, communication transactions and integration of various stand-alone systems through e-

Governance has made the University capable of delivering quality service to the society at par with world class Universities across the globe. The Complete admission process of the University is computerised since 2016. The various automated processes involved are: o Online Application Registration o Online Common Admission Test (CAT) o Email and SMS alerts o Online Option Registration. o Online admission and online payment o Candidate portal o Information exchange services The Computer based Common Admission Test is conducted in 30 major cities across India and also at selected centres in the UAE for admission to the various academic programmes of the University every year. The response sheets of the candidate and answer keys are made available in the candidate's portal/email within 24 hours of completion of the test. The candidate feedback registering services are activated immediately and will be open for three days. The rank position of the candidate for each academic programme will be available in the candidate's home page within 10 days of completion of the CAT. The allotment of candidates to various programmes is processed automatically based on the options registered by the candidates online. The details of allotments will be made available through candidate's home page and through sms within no time. The candidates have the facility to pay the course fee online and confirm their admission. The admitted students will be issued student identity card upon successful verification of their qualification certificates at centralised councelling venue. Fully in-house developed software is used for the entire process like student registration, allotment, payment, counselling etc. Through the effective use of ICT, the University has successfully managed to reach the beneficiary and to ensure that their service needs are met.

6.2.2 – Implementation of e-governance in areas of operations:

E-governace area	Details
Student Admission and Support	The Directorate of Academic Admissions (DoA) of the University manages the entire admission process of

the University. Through effective application of information and communication technology (ICT), DoA is fully equipped to deliver all the admission related Services of the University to the student community in a very convenient, efficient, and transparent manner. Exchange of information, communication transactions and integration of various standalone systems through eGovernance has made the University capable of delivering quality service to the society at par with world class Universities across the globe. The Complete admission process of the University is computerised since 2016. The various automated processes involved are: 1. Online Application Registration 2. Online Common Admission Test (CAT) 3. Email and SMS alerts 4. Online Option Registration. 5. Online admission and online payment 6. Candidate portal 7. Information exchange services The Computer based Common Admission Test is conducted in 30 major cities across India and also at selected centres in the UAE for admission to the various academic programmes of the University every year. The response sheets of the candidate and answer keys are made available in the candidate's portal/email within 24 hours of completion of the test. The candidate feedback registering services are activated immediately and will be open for three days. The rank position of the candidate for each academic programme will be available in the candidate's home page within 10 days of completion of the CAT. The allotment of candidates to various programmes is processed automatically based on the options registered by the candidates online. The details of allotments will be made available through candidate's home page and through sms within no time. The candidates have the facility to pay the course fee online and confirm their admission. The admitted students will be issued student identity card upon successful verification of their qualification certificates at centralised councelling venue. Fully inhouse developed software is used for the entire process like student registration, allotment, payment, counselling etc. Through the

	effective use of ICT, the University has successfully managed to reach the beneficiary and to ensure that their service needs are met. II. STUDENT PORTAL The student admission data is ported from IRAA software to Examination software. Payment Gateway is integrated with online application of Migration certificate. Also SMS gateway for Examination activities are Live now.
Administration	I. File Flow Management System (FFMS) File Flow Management System (FFMS) has been successfully implemented in CUSAT. Currently majority of the files are routed through FFMS (http://ffms.cusat.ac.in/ddfs/login.do), in administrative office as well as in departments. All administrative processes from File Creation to Approval are being done through FFMS. CUSAT EGovernance Cell is coordinating and streamlining the activities related to FFMS. II. Biometric Attendance System Biometric Attendance System has been used effectively in the University since 2014 and all related processes such as marking of attendance, marking of leave etc. are being done through this system.
Finance and Accounts	Financial Management System A robust Finance Management System is in place the University had already digitized the pay roll and accounting systems. The updating of existing Payroll Software with UNISPARK system is nearing to end. The Development of Academic and Finance Module has entrusted with the National Informatics Centre (NIC), which are now in their final stages of implementation. Also the State Government has approved our proposal to customize the Payroll Software SPARK used in the Government departments through NIC. Accordingly, NIC has customized the SPARK for our purpose and named it UNISPARK. It is under testing phase. After successful implementation in CUSAT, the State Government has decided to implement it in all other Universities. UniSPARK UniSPARK is now in parallel run. Salary bills of all permanent employees upto July are processed. The master details (Service Book entry) of the employees are being entered. Service books of employees are taken now to update

	service history. The work is started and is in progress. Double Entry Accounting System The existing Accounting System is being transformed to the accrual based Double Entry System in association with NIC. Receipts of 20192020 are being entered.
Examination	The examination processes such as registration, hall ticket downloading, evaluation, publication of results etc. are automated. Streamlined the examination database and software. Data is now available in a format suitable for uploading to National Academic Depository. • The registration for National Academic Depository (NAD) is over. The degree certificates are already available on NAD though which the students can download and print their copies. The verification agencies can verify the documents online which save a lot of time and effort. • More than 3000 degree certificates, digitally signed by the Vice Chancellor, have been uploaded so far. • Mark lists, digitally signed by Controller of Examinations and uploaded. • Automated PG examination results processing. The whole process has been computerized now with introduction of a software developed in house. Now the results are published on the same day when the valuation of the answer books is completed and marks are uploaded individually by the teachers who did the valuation, as and when this is completed. • Every student is provided with a Dashboard from where they can see results and download marklists on pop. • Students can register for examination and download hall ticket online • Mark list printing is automated. • Hand written Tabulation Register is stopped. System generated Tabulation Register is used. • SMS gateway alerts to students regarding announcement of examination notifications and results • Preparation of Question papers automated. The question papers are collected from the teachers online under secure environment and with password protection. The scheme of valuation is also collected along with the question papers from the teachers. • Certificate application process was automated. • Official Transcript application was made online. Payment is now through

payment gateway. They can track online apart from getting SMS alerts. • Streamlined the examination database and software. Data is now available in a format suitable for uploading to National Academic Depository. • The registration for National Academic Depository (NAD) is over. The degree certificates are already available on NAD though which the students can download and print their copies. The verification agencies can verify the documents online which save a lot of time and effort. • More than 3000 degree certificates, digitally signed by the Vice Chancellor, have been uploaded so far. • Mark lists, digitally signed by Controller of Examinations and uploaded. • Automated PG examination results processing. The whole process has been computerized now with introduction of a software developed in house. Now the results are published on the same day when the valuation of the answer books is completed and marks are uploaded individually by the teachers who did the valuation, as and when this is completed. • Every student is provided with a Dashboard from where they can see results and download marklists on pop.

6.3 – Faculty Empowerment Strategies

6.3.1 – Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

Year	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2020	RATHEESH P M	National Symposium on Instrumentation (NSI-42) December 28th 29th, 2020	Instrument Society of India (ISO)	950
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6.3.2 – Number of professional development / administrative training programmes organized by the University for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)

| 2019 | FDP on outcome based teaching, learning and assessment strategies | FDP on outcome based teaching, learning and assessment strategies | 27/11/2019 | 01/12/2019 | | 37 | 37 |
| Nill | Additional data attached | Additional data attached | Nill | Nill | | Nill | Nill |

View File

6.3.3 – No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	From Date	To date	Duration
Additional data attached	Nill	Nill	Nill	Nill
Learning Physics through simple experiments, , by IIT Kanpur	1	02/04/2020	10/06/2020	Nill

View File

6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
261	447	741	765

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
1. Pension and Family Pension 2.Medical Reimbursement Facility 3.Leave Travel Allowance 4.Cochin University Employees Society and Employees Welfare Fund are centred around the financial needs of the staffs	1. Pension and Family Pension 2.Medical Reimbursement Facility 3.Leave Travel Allowance 4.Cochin University Employees Society and Employees Welfare Fund are centred around the financial needs of the staffs	1.Students Aid Fund: a scheme for giving financial assistance to the deserving students with low financial background but with good academic records. 2.University is providing post doctoral fellowship of Rs.25,000/- per month with contingent grant of 20,000/- p.a. 3.The University is providing 150 research fellowships at a rate of Rs.12,500/- per month in the first two years and Rs.15,000/- per month for the next

		1and ½ years with a contingent grant of Rs 10,000/- per annum. 4.Monthly stipend of Rs 5000/- is being provided to students undertaking projects outside University departments / schools. 5.Department of Youth Welfare is a formal platform in the University to design and implement youth policy which includes the issues related to motivation, participation, promotion and socio-economic and cultural settings within which young people grow up. The Department has organized a lot of programmes in the year 2016-17 for the purpose of building confidence, creativity and compassion among the students. 6.The University have a Students Amenity Centre in which the Dept of Youth Aelfare as well as Dept of Physical Education is functioning. In addition, a multi-Gym, Tennis court, Shuttle courts, Basketball courts Playground for football and Cricket. Yoga Centre, Health Centre and a Mind Clinic are also available for students. There are eight men's hostels and six women's hostels for meeting the residential needs of students.

6.4 – Financial Management and Resource Mobilization

6.4.1 – Institution conducts internal and external financial audits regularly (with in 100 words each)

The accounts of the university are being audited regularly. There is a Pre-Audit wing of the University for auditing all the expenditure bills internally. All bills are being verified by the Audit wing before approval of the same. The Local Fund Audit wing of the Govt. of Kerala also audits the accounts of CUSAT externally. They also verify all expenditure bills and related documents regularly. Audit report for each year are then placed before the Syndicate and along with the remarks of the Syndicate, the Audit Reports will be forwarded to the Higher Education Dept., Govt. of Kerala, which will then be placed before the Legislative Assembly. The Principal Accountant General (Audit), Indian Audit and Accounts Dept. also audit the accounts of CUSAT.

6.4.2 – Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)

Name of the non government funding agencies /individuals	Funds/ Grnats received in Rs.	Purpose
Grants from various nongovernment agencies	4968572	Funding for developmental activities/seminars
[View File](#)		

6.4.3 – Total corpus fund generated

926100000

6.5 – Internal Quality Assurance System

6.5.1 – Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	External experts	Yes	IQAC
Administrative	Yes	External experts	Yes	IQAC Audit Wing of University

6.5.2 – What efforts are made by the University to promote autonomy in the affiliated/constituent colleges? (if applicable)

Not Applicable

6.5.3 – Activities and support from the Parent – Teacher Association (at least three)

i. Departmental PTA extends financial support to conducts seminars, workshops etc in the Departments. ii. Departmental PTA extends financial support for the upgradation of laboratory and infrastructure facilities like LCD, smart boards etc. iii. Some of the Departmental PTA extends financial support in the form of merit awards and extends merit scholarships for economically weaker students.

6.5.4 – Development programmes for support staff (at least three)

i. Periodic training programmes in service rules, financial code and digital literacy are conducted for the supporting administrative staff. ii. Training programmes to technical supporting staff are being conducted whenever new sophisticated instruments are procured. iii. Skill development and digital literacy programmes are conducted regularly for the library staff.

6.5.5 – Post Accreditation initiative(s) (mention at least three)

1. Academic Audit is conducted once in two years. First audit was conducted in 2018 in the University Departments with external experts and the necessary corrective measures are being taken. The Academic Audit 2020 has been conducted in the University Departments with the help of eminent academician outside the University 2. Management Information System is in place and webportal has been developed for this process (https://iqac.cusat.ac.in/Portal). 3. Activities of Alumni Associations have been strengthened

6.5.6 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b)Participation in NIRF	Yes

c)ISO certification	**Yes**
d)NBA or any other quality audit	**Yes**

6.5.7 – Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting IQAC	Duration From	Duration To	Number of participants
2019	**Five day Faculty Development Progamme on Outcome Based Education**	**27/11/2019**	**27/11/2019**	**01/12/2019**	**65**
Nill	**Additional data attached**	**Nill**	**Nill**	**Nill**	**Nill**

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CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 – Institutional Values and Social Responsibilities

7.1.1 – Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)

Title of the programme	Period from	Period To	Number of Participants	
			Female	Male
Two day National seminar on Discussing Gender Roles in India- Perspectives and Challenges	**07/03/2020**	**08/03/2020**	**112**	**87**
Physical fitness Awareness Drive cum Demonstrations on Salsa, Boxing, Shaolin Kung Fu, Zumba, Yoga and Taekwonda	**14/02/2020**	**14/02/2020**	**114**	**73**
Awareness programme on safety of women and Demo classes on Self Defense, included a talk delivered by S. Sreejith IPS	**13/12/2019**	**13/12/2019**	**147**	**Nill**

Panel discussion on 'Pralayakalathe Pennanubavangal'	29/10/2019	29/10/2019	96	78
National Conference titled ''Crisis Management through a Gendered Lens''	19/08/2019	19/08/2019	57	42
An awareness cum interactive session titled Politics of Breastfeeding	06/08/2019	06/08/2019	63	44
National Conference titled ''Crisis Management Through a Gendered Lens'' on 7th August '19. The event was inaugurated by Dr. Shamshad Hussain, Professor, Sri Shankaracharya University of Sanskrit, Kaladi delivered by her on the topic ''Crisis, Auster	07/08/2019	07/08/2019	57	42
As per the instructions from University Grant Commission, Women's Studies Centre of CUSAT had conducted the celebration of International Day of Yoga (IDY) on 22st of June, 2020. Ms. Neema Pramod (Yoga Instructor) delivered a talk on 'Yoga and Health'	22/06/2020	22/06/2020	52	23

Two Day International Webinar on 'Vul nerabilities through the gendered lens: Lessons from Covid-19 on 6th and 7th of Augus t2020.	06/08/2020	07/08/2020	86	63
Women's Studies centre along with Physical Education Department organised Physical fitness Awareness Drive cum Demonstrations on Salsa, Boxing, Shaolin Kung Fu, Zumba, Yoga and Taekwonda	14/02/2020	14/04/2020	114	73

7.1.2 – Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Percentage of power requirement of the University met by the renewable energy sources
Solar energy is being used in some of the University departments. The University is in the process of setting upa 0.75 Megawatt Solar Power Plant utilizing the funding of Kerala State Government under the KIIFB project, which has already been approved and the tendering process of the project is progressing.

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	19
Provision for lift	Yes	19
Ramp/Rails	Yes	19
Braille Software/facilities	Yes	19
Rest Rooms	Yes	19
Scribes for examination	Yes	19
Special skill development for differently abled students	Yes	12
Any other similar facility	Yes	19

7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
2019	1	1	01/10/2019	2	Joy of Giving	An initiative to collect used utensils, toys, clothes, blankets, bedsheets, books, and study materials that can be reused	21
2019	Nill	Nill	Nill	Nill	Additional data attached	Additional data attached	Nill

[View File](#)

7.1.5 – Human Values and Professional Ethics Code of conduct (handbooks) for various stakeholders

Title	Date of publication	Follow up(max 100 words)
Academic Bulletin	01/07/2019	All Departments, Faculty members and students of the University follow Academic Bulletin for all matters related to academic
The Cochin University Students (Conduct and Disciplinary) Code 2005	01/07/2019	THECOCHIN UNIVERSITY STUDENTS : CONDUCT AND DISCIPLINARY CODE-2005-

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
Two day National seminar on Discussing Gender Roles in India-Perspectives and Challenges	07/03/2020	08/03/2020	56
Additional data attached	Nil	Nil	Nil

[View File](#)

7.1.7 – Initiatives taken by the institution to make the campus eco-friendly (at least five)

a) University is always maintaining an ecofriendly green environment in its

campus by upkeeping the plants and trees and it was well appreciated by the NAAC peer team. The Engineering department of the University take care of the maintenance of the campus. b) Safe to eat vegetable cultivation : Idle to Ideal, a joint venture of CUSAT NSS unit and Kerala State Agriculture Department, has started organic farming in eight acres of barren land on its Thrikkakara campus, The project aims to bring back students who stay nearby, from idle days of online education to ideal endeavours with nature aiming to achieve the dream of a total green campus through the initiative. As part of the project, a variety of vegetables will be produced through innovative method. c) The Dept of Youth Welfare as well as NSS Unit of the University plant and care trees at various parts of the campus and conduct various programmes to create awareness about the importance of tree care. A Miyawaki forest has been set up at the University by the Kerala Development and Innovation Strategic Council (K-DISC) on 10 cents (400 sq. m) of land. Around 1600 saplings from various native species have been planted at the site. The saplings are planted on 19 May 2020. d) As part of promoting ecofriendly living, paper pens containing seeds were distributed to all the students and staff of Kuttanad Campus by the NSS unit. Paper pens are great alternative to plastic ballpoint pens that use waste papers generated by printing presses. e) Rain water harvesting tanks have been constructed in various buildings such as Seminar Complex, Software Engineering Block, Lab Block etc. and the water collected thus is utilised by various units of the university.

7.2 – Best Practices

7.2.1 – Describe at least two institutional best practices

The two practices that CUSAT believes have shaped its reputation and growth are the insistence on quality and commitment to society. I. All – India selection process The two practices that CUSAT believes have shaped its reputation and growth are the insistence on quality, developing the spirit of nationality and commitment to society. The University takes pride being a Public University to admit students based on an All – India selection process. The University runs 104 number of academic programmes through the 28 Departments. Every year 1154 students are admitted to its 13 B. Tech programmes in various disciplines. One parameter that the University follows is ensuring quality and diversity in its products who later on would be the ambassadors o the institution Globally .Thiscalls for careful election process. The University believes that the final product quality is dependent to a great extent on the quality of the input. That is why the University has been conducting a Common Admission Test with more than 75 centres spead across country and in the Middle East every ear. This mode of selection not only ensures quality of the students but also make the campus vibrant with multiple cultures and makes the campus life a rich experience. Though it is a state University, we ensure good representation of students from other parts of the country and hence 40 of the major engineering seats are kept open to students on All- India basis. Because of this considerable representation of students from different states, the campus is always vibrant with celebrations of festivals of different states of the country. This mix and amalgamation of culture is creating a nationalistic sprit in the campus as a whole. The young, energetic and academically best students who get selected ensures better academic experience and quality. This eventually strikes a chord with the recruiters. It is quite natural that every year CUSAT is a favourite destination for major recruiters in the country. On an average 55 companies recruit from the campus. More than 26000 applications are received for admission to about 1100 engineering seats in the campus making a demand ratio of approximately 24. This is an impressive number considering the fact that the corresponding for JEE in 2020 was 18 considering the total admissions through JEE. This clearly indicates the reputation CUSAT has among the student community in the country and the University believes that a major

contributing factor is the All- India selection process. II. Service to the Society The second practice that the University considers as very important is its commitment to the society. True to the fundamental responsibilities of a University, CUSAT has been in the forefront in taking up the challenges of the public. This is achieved by orienting appropriately the research and academic activities. In CUSAT stress is always given in taking up fundamental and applied research with a broader view that the outcomes of such activities should be beneficial to the society. For example, the National Centre for Aquatic Animal Health (NCAAH), a centre where very active development of technologies for fish farming happening in the country. Culture environment management, disease diagnosis, preventive health care aresome of the services rendered. Indigenous bio-augmenters, nitrifying bioreactor technology, high density fish culture, a gut probiotic preparation entertrophotictm, etc. were developed and provided to farmers at a nominal cost. Advanced Centre for Atmospheric Radar Research (ACARR) which pursues internationally leading research in atmospheric science in the tropical monsoon area and to develop sophisticated observational and modeling capabilities in the troposphere and stratosphere for the accurate prediction of Indian monsoon system The daily weather forecast from this centre is quite widely used by the public. Some of the major research findings help in cancer treatment, controlled drug delivery, brain disorders, betterment of solar cell efficiency and energy storage capability, development of better displays, non conventional electricity generators, chemical and biological sensors. CUSAT promotes students entrepreneurship through the Centre for Innovation, Technology Transfer Industrial Collaboration (CITTIC) and its Technology Business Incubator. CITTIC started incubating startup companies from February 2017 and 84 companies have been incubated in CITTIC since then. 25 companies have incubated at CITTIC during the year 2019-2020. The University also believes strongly in its mandate to cultivate scientific temper in the society. The Centre for Science in Society (C-SiS) was established in 1991 exclusively to realise this goal. The Centre conducts various programmes about science throughout the year. The Centre has its own facilities like library, workshop, computer lab, science lab, toy lab, science park etc. Children can touch and feel those theories they have studied in their schools In the One Day Attachment Programme (ODAP), the school students along with their teachers spend one full day in the Centre for training. There provisions for training of longer durartion. So far two lakh students have been trained under this Centre. The Departments in the campus keep their lab open to public in "Open House" programe where public in general come get a feel of the kind of research works going on. The University also organises "Sastrayan" , CUSAT Open House programme in regular intervals. Under this programme all the Departments show their major research outcomes in a common exhibition conducted in the campus. The is not only attended by the common man, but also by the prospective industrialists paving a way for commercialisation of the inventions.

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link
https://iqac.cusat.ac.in/uploads/web/audit/Best_Practices.pdf

7.3 – Institutional Distinctiveness

7.3.1 – Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust in not more than 500 words

Established in 1971 and reorganised 1986, the Cochin University of Science and Technology (CUSAT) is a State University, supported fully by the Government of Kerala. As enshrined in the name and in the Acts and Statutes, the mandate of the University is for giving impetus to the impetus to the post -graduate studies and research and development in areas specific and significant to the

region. Kerala is unique with its diverse natural resources, climatic and geographical conditions, socio-economic and cultural background of the people. Marine produces and Agriculture are major means of livelihood. With a long coast and a combination of hills and planes through the length of the state, there are both challenges and opportunities related. CUSAT has been in the forefront in meeting these challenges by taking up R D projects and evolving scientific solutions. No wonder then that there are seven Departments working on the marine – related subjects such as Marine Biology, Marine Geology, Ocanography, Atmospheric Science and Industrial Fisheries. Other region – specific areas include subjects like Naval Architecture and Ship Building, Polymer Science and Rubber Technology. These subject 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. The University is equally active in taking up research in fundamental areas like Chemistry, Physics, Mathematics, Biology and Statistics. The full-fledged Departments of Law, Management, Economics and Languages also contribute to the research and development. The real architects of these exemplary achievements in research are the 1300 strong research scholar community and 447 Faculty supported by the administrative staff of the University. The fruits of these research and developments are also passed on to the society. The National Centre for Aquatic Animal Health (NCAAH), a centre where very active development of technologies for fish farming happening in the country. Culture environment management, disease diagnosis, preventive health care are some of the services rendered. Indigenous bio-augmenters, nitrifying bioreactor technology, high density fish culture, a gut probiotic preparation entertrophotictm, etc. were developed and provided to farmers at a nominal cost. Advanced Centre for Atmospheric Radar Research (ACARR) which pursues internationally leading research in atmospheric science in the tropical monsoon area and to develop sophisticated observational and modeling capabilities in the troposphere and stratosphere for the accurate prediction of Indian monsoon system. The daily weather forecast from this centre is quite widely used by the public. Some of the major research findings help in cancer treatment, controlled drug delivery, brain disorders, betterment of solar cell efficiency and energy storage capability, development of better displays, non conventional electricity generators, chemical and biological sensors. Overall, CUSAT is living up to the mandate of solving region-specific research and development challenges and pass on the fruits for the betterment of the society.

Provide the weblink of the institution
https://cusat.ac.in/research-area

8.Future Plans of Actions for Next Academic Year

1. To commence the following new Programmes: 1. M.Sc in Forensic Science with the help of Kerala Police under Science Faculty 2. M.Sc. in Computer Science with specialization in Data Science under the Faculty of Technology 3. M.Sc./M.Tech. in Pharmocognocy and Drug Development 4. Diploma in Entrepreneurship Innovation in collaboration with Shimane University, Japan 2. Corpus Fund from the ALUMNI The University is planning to generate one Corpus Fund worth Rs.100 Lakhs with the help of University Alumni Association for the infrastructural development of the various study Departments of the University 3. Medical Corpus Fund for Students: A single corpus fund in which all medical expenses of students in roll will be credited and utilised for this specific purpose only. 4. CUSAT Art Centre CUSAT Arts Centre is a Common space for students and CUSAT community to perform their talents in an open stage especially in the evenings. 5. Enhancement of Fellowship of M.Phil The Fellowship of M.Phil students will be enhanced to Rs:2,000/- from Rs.1,000/-. 6. Incentive to Research Scholars In order to encourage the Research Scholars for publishing more and more research articles, the University would like to give incentive to the Research Scholars who publish

maximum number of Research Articles in an year in SCI/Scopus Indexed Journals/ UGC Care List Journals. A cash price worth Rs.10,000 /- will be given to one Research Scholar of each faculty/Subject of Study