



## Yearly Status Report - 2019-2020

### Part A

#### Data of the Institution

<b>1. Name of the Institution</b>	TOC H INSTITUTE OF SCIENCE AND TECHNOLOGY
Name of the head of the Institution	Dr. Preethi Thekkath
Designation	Principal
Does the Institution function from own campus	Yes
Phone no/Alternate Phone no.	0484-2748388
Mobile no.	9946509900
Registered Email	mail@tistcochin.edu.in
Alternate Email	naac.tist2017@gmail.com
Address	Arakkunnam, Ernakulam
City/Town	Ernakulam
State/UT	Kerala
Pincode	682313

<b>2. Institutional Status</b>	
Affiliated / Constituent	<b>Affiliated</b>
Type of Institution	<b>Co-education</b>
Location	<b>Rural</b>
Financial Status	<b>Self financed</b>
Name of the IQAC co-ordinator/Director	<b>Dr.Georgina Benoy Joseph</b>
Phone no/Alternate Phone no.	<b>048428748388</b>
Mobile no.	<b>9566110163</b>
Registered Email	<b>mail@tistcochin.edu.in</b>
Alternate Email	<b>naac.tist2017@gmail.com</b>

<b>3. Website Address</b>	
Web-link of the AQAR: (Previous Academic Year)	<a href="https://tistcochin.edu.in/wp-content/uploads/2021/07/AQAR-2018-19.pdf">https://tistcochin.edu.in/wp-content/uploads/2021/07/AQAR-2018-19.pdf</a>
<b>4. Whether Academic Calendar prepared during the year</b>	<b>Yes</b>
if yes,whether it is uploaded in the institutional website: Weblink :	<a href="https://tistcochin.edu.in/academics/academic-calendar/#Academic-Calender-2020">https://tistcochin.edu.in/academics/academic-calendar/#Academic-Calender-2020</a>

**5. Accrediation Details**

Cycle	Grade	CGPA	Year of Accrediation	Validity	
				Period From	Period To
2	B+	2.62	2019	04-Mar-2019	03-Mar-2024
1	B	2.71	2012	21-Apr-2012	20-Apr-2017

<b>6. Date of Establishment of IQAC</b>	<b>21-Jun-2010</b>
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**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

NBA Reaccreditation	29-Feb-2020 1	4
Induction Program	22-Jul-2019 14	313
FDP on Emerging Trends in Sustainable Development in Transportation Engineering	23-Sep-2019 5	30
SampoornaJalasureksha mission-1st Water Pilot Project in Kerala	23-Jan-2020 4	52
Faculty Exchange Program for ERASMUS +S	02-Dec-2019 5	1
Rebuild Kerala	23-Jun-2020 12	85

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**8. Provide the list of funds 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
Computer Science & Engineering	MODROB	AICTE	2020 365	600000
Electronics & Communication Engineering	MODROB	AICTE	2020 365	1100000
Electronics & Communication Engineering	UBA	MHRD	2019 365	100000
Electronics & Communication Engineering	STUDENT PROJECT	KSCSTE	2019 365	20000
Computer Science & Engineering	ASAP	STATE GOVERNMENT OF KERALA	2019 365	238600

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**9. Whether composition of IQAC as per latest NAAC guidelines:**

Yes

Upload latest notification of formation of IQAC

[View Link](#)

**10. Number of IQAC meetings held during the year :**

2

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	<a href="#">View Uploaded File</a>
<b>11. Whether IQAC received funding from any of the funding agency to support its activities during the year?</b>	No
<b>12. Significant contributions made by IQAC during the current year(maximum five bullets)</b>	
1. NBA Re Accreditation 2. Faculty Exchange Program 3.KTU funded Project 4.Social Out Reach Program 5. Modification of ERP system	
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<b>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</b>	
Plan of Action	Achievements/Outcomes
UGC status	Two(f) status of obtained
MODROB Initiatives	CSE and EC departments received funds
Modification of ERP system	ERP incorporated a) type of course delivery methods b)split up marks c) Course U/V activities and points
NBA Reaccreditation	CSE,ECE,ME and CE Re accredited for years
Faculty Exchange Program	one faculty from MBA department availed faculty exchange program if ERASMUS +
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<b>14. Whether AQAR was placed before statutory body ?</b>	Yes
Name of Statutory Body	Meeting Date
IQAC	28-Jul-2021
<b>15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?</b>	Yes
Date of Visit	29-Feb-2020
<b>16. Whether institutional data submitted to AISHE:</b>	Yes

Year of Submission	2020
Date of Submission	03-Mar-2020
17. Does the Institution have Management Information System ?	No

## Part B

### CRITERION I – CURRICULAR ASPECTS

#### 1.1 – Curriculum Planning and Implementation

1.1.1 – Institution has the mechanism for well planned curriculum delivery and documentation. Explain in 500 words

Curriculum Delivery Mechanism: University academic calendar is strictly adhered to. In order to enable the planned coverage of syllabus, a detailed academic calendar including all important dates for curricular, co-curricular and extracurricular activities is prepared by a committee headed by Dean Academics and is implemented. Curriculum planning and delivery is documented regularly in ERP, launched during academic session 2018-19. Course plan: Before the beginning of semester, faculty members prepare and upload course plan duly approved by respective HOD in ERP. As per this, the course syllabus is covered at appropriate pace including proper revisions prior to the commencement of university examination. A model/practice session examination is also conducted for all courses in accordance with university question pattern. Students are also made aware of course plan in the beginning of the semester. Also if a faculty finds that he or she is lagging behind, extra classes will be scheduled as and when required during holidays. The HOD monitors the implementation of course plan. Course/class committee meetings with student representatives are conducted and feedback from students is taken twice in a semester. Students' progress is assessed through class tests and reported to parents/PTA meeting. Course plans for lab Course plans for lab are also prepared. Additional experiments are also included. Laboratory manuals are prepared covering all the experiments in the course plan and are issued to the students at the commencement of the practical course. Pedagogical model: The institution follows pedagogical model based on Revised Blooms Taxonomy (RBT) enabling the students to achieve the knowledge through all levels of learning. Faculty prepare learning materials, question bank, previous question papers, follow chalk and board and ICT. The abstract concepts are explained with reference to real world situations. During tutorial hours, extra problems will be given to students for problematic courses or difficult concepts will be explained for other courses. Two teachers will be in charge of this hour which will provide individual attention. Student mentoring is practiced to continuously monitor and motivate the students. Remedial classes are offered by concerned faculty, to students who have fallen behind the rest of class in academics. Online feedback for all courses are collected from students of respective semesters twice in a semester. Tools used for curriculum delivery: • Lecture • PPT • Videos • Case study • Role play • Invited talks by luminaries • On the job training • Peer learning • Hands on entrepreneurial experience • Demonstration of certain topics in syllabus by taking students to laboratories • Hands on training by conducting workshops Documentation: • Portion coverage of course syllabus is shown in lesson plan • PPT and videos are shared in Google drive and in ERP • Lecture notes are shared in Google drive and in ERP • Mentoring details • Remedial class details

1.1.2 – Certificate/ Diploma Courses introduced during the academic year

Certificate	Diploma Courses	Dates of Introduction	Duration	Focus on employ ability/entrepreneurship	Skill Development
ASAP- Google Cloud	Nil	05/09/2019	90	yes	yes
ASAP-UI Path	Nil	03/10/2019	30	yes	yes
ASAP-Maps Location Technology	Nil	01/04/2020	45	yes	yes
Diploma in cyber security and forensics	Nil	19/10/2019	25	yes	yes

## 1.2 – Academic Flexibility

### 1.2.1 – New programmes/courses introduced during the academic year

Programme/Course	Programme Specialization	Dates of Introduction
BTech	Robotics and Automation	22/07/2019
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### 1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective course system implemented at the affiliated Colleges (if applicable) during the academic year.

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
BTech	INFORMATION TECHNOLOGY	01/08/2019
Mtech	CONSTRUCTION ENGINEERING AND MANGEMENT	01/08/2019
MBA	HR: CONSULTING PROFESSSION AND PRACTICE	04/03/2020

### 1.2.3 – Students enrolled in Certificate/ Diploma Courses introduced during the year

	Certificate	Diploma Course
Number of Students	145	0

## 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
Placement training	01/08/2019	380
Life skill	01/08/2019	41
Geosynthetic and reinforced soil structures( MOOC course)	01/07/2019	4
Glass in buildings : Design and applications	01/07/2019	1
Modern Construction Materials	01/01/2020	23
Maintenance Repair of Concrete Structures	01/01/2020	7

Plastic Waste Management	01/01/2020	12
Natural Hazards	01/01/2020	6
Earthquake Management	01/01/2020	1
Artificial Intelligence Machine Learning - Term 2: Deep Learning by ASAP IBM	01/09/2019	24
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### 1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
MBA	MBA	119
BTech	Electronics & Communication Engineering	27
BTech	Computer Science & Engineering	62
BTech	Information Technology	14
BTech	Electrical & Electronics Engineering	95
BTech	Civil Engineering	129
BTech	Mechanical Engineering	22
BTech	Safety and Fire Engineering	48
BTech	Electronics & Communication	27
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### 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
<p>a) Course end surveys from students and faculty feedback are taken for evaluating the quality of course contents. Based on these surveys, recommendations on required revision of the syllabus will be intimated to the university authorities through Head of the Institute. This when carried out by the university will narrow the curricular gaps in the course. b) Student exit feedback taken at the end of graduation on overall facilities at the department c) Program exit survey helps the department to identify the gaps in different courses included in the program. d) Alumni survey helps the department to</p>

identify the latest technologies that the program should include. e) Employer surveys collected can be used to identify the performance gaps in students which can be mitigated by providing training in appropriate skills and by including add on courses. f) Through the meeting with the experts from industry and reputed institution, we can identify the weaknesses of our students in general and appropriate temporary remedial measures could be adopted to strengthen them. g) After the every events like technical talk, workshop, awareness class, seminar, conferences, etc. Student feedback is taken and analyzed to check the effectiveness of the same. To check the effectiveness and impact of the industrial interaction on students, a feedback is taken and analyzed after every industrial visit/ internship as follows • Questionnaire for feedback are prepared based on POs and PSOs. . • Feedbacks are collected from students to assess the impact, based on the level of improvement through the mapped POs/PSOs. • Feedback collected is compiled and segregated with respect to the three correlation levels viz. level 1- 1, level 2- 2 level 3- 3 for each mapped PO PSO • Weighted average of mapped POs and PSOs are calculated. • Average PO PSO for the various feedback for the particular academic year /admission is calculated. • Attainment obtained from feedback is used to calculate the indirect attainment for the year/admission.

## 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	CE	60	51	37
BTech	CS	60	105	63
BTech	EC	60	72	34
BTech	RA	60	102	49
BTech	ME	120	75	44
BTech	IT	30	41	19
BTech	EEE	60	32	16
BTech	FS	60	113	55
Mtech	CONSTRUCTION ENGINEERING & MANAGEMENT	24	30	16
Mtech	WIRELESS TECHNOLOGY	18	12	4

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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	1337	193	100	13	12

### 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	Number of smart classrooms	E-resources and techniques used
125	124	4	41	2	11
<a href="#">View File of ICT Tools and resources</a>					
<a href="#">View File of E-resources and techniques used</a>					

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

TIST follows student mentoring system since its inception. In each department, students in groups, are assigned to mentors, who are the faculty from the respective department. The institute also has a separate Department of Applied Psychology and Counselling, with two full time counsellors available in the campus. The students are at liberty to approach any of them for help and guidance. Initially, in each class, the class in charges were assigned as mentors for each half. The mentors interacted with students and any academic or personal difficulties identified were taken care in consultation with the respective HOD. The students who had emotional instabilities, family problems or learning disabilities were referred to the psychology department. The counsellors would discuss the cases and provide psychological counselling and the feedback is given to the respective HOD. If a particular student's case is grave or is of a very sensitive nature, the same was informed to the Head of the Institution. In such cases, parents were also called for counselling so that an overall intervention could be done, both at the institution level and at the family level. Referral services were also provided by the counsellors. If additional expertise required, the student was referred to the Director in the Management Board, who is a senior counsellor with more than 40 years of experience in counselling. Students who required psychiatric help were referred to a psychiatrist. From the academic year 2014-'15, the mentoring system was refined. The students of each class were divided in groups of 15 or 20 and each group was assigned with a mentor who would be in charge of the student from third semester till eighth. A mentor form was developed by the counsellors in consultation with the Head of the Institution, HODs and class in charges. To start with, the mentor forms were maintained for the students of the third semester to eighth semester. From 2015-'16 onwards, the mentor forms were maintained for all semesters by the respective departments. The mentor form for each semester consists of personal details of the students such as address, whether a hostler/day scholar, academic details, attendance, academic difficulties, any professional help needed, whether active or indifferent interest is shown towards mentoring, all round development of the student and vulnerability to drug/alcohol abuse. In addition to this form, the mentors maintain an individual mentor record for each student, in which details of the mentoring sessions are recorded. The mentor meets the student at least twice in each semester. The academic progress, attendance, other activities and achievements are discussed and they are counselled with care to sustain and improve their performance. This information along with any discrepancies in the student behaviour is noted in the mentor form as well as mentor record. Parents are informed regarding the progress as well as problems, if any, of their wards. In each semester, the consolidated mentor form is passed on to the counsellors for professional counselling, remedial action and follow up.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
1530	125	1:12

**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
125	125	4	4	22

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,	Designation	Name of the award, fellowship, received from Government or recognized
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	international level		bodies
2019	Elsaba Jacob	Assistant Professor	Computer Society of India
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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
BTech	CE	S1	25/11/2019	08/05/2020
BTech	EEE	S1	25/11/2019	08/05/2020
BTech	CS	S1	25/11/2019	08/05/2020
BTech	IT	S1	25/11/2019	08/05/2020
BTech	ECE	S1	25/11/2019	08/05/2020
BTech	ME	S1	25/11/2019	08/05/2020
BTech	FS	S1	25/11/2019	08/05/2020
BTech	RA	S1	25/11/2019	08/05/2020
Mtech	CE	S1	25/11/2019	25/03/2020
MBA	MBA	S1	19/11/2019	29/07/2020
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2.5.2 – Reforms initiated on Continuous Internal Evaluation(CIE) system at the institutional level (250 words)

Internal Assessment Test for theory courses • Two internal assessment test are conducted during a semester • As per academic calendar the schedule for the internal assessments are prepared by the Internal Assessment (IA) cell and circulated to the department • Faculty members are instructed to use Revised Bloom's taxonomy to prepare the question papers that test the various levels of learning and the relevant course outcomes. • The analytical and descriptive skills of students are tested by these internal assessment tests. • Question paper scrutiny committee assesses the quality of question papers submitted by individual faculty members. Also, it ensures the clarity of the questions on various aspects. • IA Exams are conducted through Internal Examination Cell. • Proper records are maintained for question paper collection and conduct of retest • The scheme of evaluation and answer key of each question paper is prepared. • Grading should be done strictly based on evaluation scheme. • Answer scripts are evaluated by the concerned subject faculty members within a week and the result is published. • Student may be allowed to take retest only on medical or other genuine grounds. • Each faculty provides effective feedbacks regarding performance and presentation of answers to students. • Marks scored for individual questions are recorded to ascertain the attainment of COs. • During ISO and KTU audit, the function of IA cell and its process are assessed. For Lab Evaluation • For practical paper, Continuous Assessment (CA) is done by considering day to day laboratory work, record submission and viva is carried out every lab hour. For B.Tech ,70 marks is allotted for continuous evaluation in lab as per KTU norms and 30 marks is allotted for laboratory examination which will be conducted at the end of the semester. For M.Tech ,40 marks is allotted for continuous evaluation in lab as per KTU norms and 60 marks is allotted for laboratory examination which will be conducted at the end

of the semester. For Project • The project guides regularly monitor the progress of project based on weekly discussions. • Interim Presentation is done by each project group for B.Tech and for each student for M.Tech before the expert committee. • The committee of internal and external examiners along with the guide will evaluate the final project/research work for B.Tech and M.Tech. For Seminar • A seminar guide is allotted for each student. • Students have to submit the seminar report to guide before the final presentation. • Presentation is done by each student before the expert committee. The committee of internal examiners along with the guide will evaluate the final seminar work done by student in B.Tech and M.Tech.

2.5.3 – Academic calendar prepared and adhered for conduct of Examination and other related matters (250 words)

University academic calendar is strictly adhered to. For planned coverage of syllabus and criterion evaluation, a separate academic calendar is prepared by a committee headed by Dean Academics and it is communicated to all departments for strict compliance. This calendar will indicate all academic, co-curricular and extracurricular activities viz, The commencement of the semester, Class committee and Course Committee meetings, Arts/sports and other festivals and celebrations, Submission of internal marks, Closing of attendance, University exams, Internal assessment test, End of the semester, Seminars, Workshops, Technical fest, Schedule for practical exams as specified by KTU, Last date for announcement of shortage of attendance, Last working day. In the light of college academic calendar, each faculty prepares a course plan. According to this course plan the course syllabus is covered at appropriate pace including proper revisions prior to the commencement of the university examination. A Model/Practice examination is also conducted for all courses in accordance with university question pattern. KTU Academic Audit: External academic auditor physically verifies all internal audit statements twice in a semester at the college. The academic auditing shall cover course delivery, syllabus covered, adherence to course plan, timely conduct of internal exams and publishing of internal marks, course committee and class committee minutes, students' grievances, welfare, discipline committee functioning and their minutes.

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://tistcochin.edu.in/cs/peo -po -pso/>

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
UG	BTech	ECE	64	33	51.56
UG	BTech	CSE	60	48	80
UG	BTech	CE	62	42	67.8
UG	BTech	ME	114	75	65.78
UG	BTech	IT	29	12	41.37
UG	BTech	EEE	40	19	47.5
UG	BTech	SF	48	24	50

PG	MBA	MBA	59	58	98
PG	Mtech	Construction Engineering & Management	21	21	100
PG	Mtech	Wireless Technology	5	5	100
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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://tistcochin.edu.in/wp-content/uploads/2021/08/Student-Satisfaction-Survey-2019-20.pdf>

## CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

### 3.1 – Resource Mobilization for Research

3.1.1 – 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
Major Projects	365	MODROB	17	12
Students Research Projects (Other than compulsory by the University)	1095	UBA	2	1
Any Other (Specify)	365	ASAP	4.46	2.39
Major Projects	1095	Unnat Bharat Abhiyan (UBA), Centre for Rural Development Technology New Delhi	1	1
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### 3.2 – Innovation Ecosystem

3.2.1 – 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
Talk on Research Methodology by Dr.K.Gnanasheela.	Department of ECE	07/11/2019
Workshop on Arduino Microcontroller Board and Applications	Department of ECE	18/11/2019
Workshop on LATEX by	Department of ECE	22/11/2019

Dr.K.Gnanasheela		
Social Outreach program on Introduction to recent trends in Electronics and Communication and future of Technology at Govt.H.S.S,Chottanikkara.	Department of ECE	29/11/2019
Industry Internship Program on Electronics Design and Technology by Digital Core Technologies	Department of ECE and RA	06/01/2020
Workshop on Photoshop	Department of ECE and RA	20/01/2020
Social Outreach program on Engineering your Future with Electrobotics at St Ignatius V H S E Kanjiramattom.	Department of ECE and RA	24/01/2020
Social Outreach program on Engineering your Future with Electrobotics at Model Technical Higher Secondary School Karparaserry	Department of ECE	27/01/2020
Talk on Livestock Health Monotoring tracking by Mr.Romeo Mr.Sreeshankar, CEO, Brainwired start up.	Department of ECE and RA	30/01/2020
Technical Symposium Technophilia 20	Department of ECE and RA	31/01/2020
Paper Presentation Papyrus	Department of ECE and RA	31/01/2020
ELECSTA Department Association Inauguration	Department of ECE	17/02/2020
Talk on Recent Progress in atmospheric sciences by Dr.Abilash S Associate Director, ACARR,CUSAT	Department of ECE	17/02/2020
Project Expo Texplora	Department of ECE	01/02/2020
Construction Management in Building Information Modelling	Civil Engineering	30/12/2019
Emerging Trends in Sustainable Development in Transportation Engineering	Civil Engineering	23/09/2019
Webinar on Career Opportunities for CS/IT Professionals after Graduation by Mr. Rajesh Sasidhar, HR Admin Manager, CGP Career Avenues	Department of CSE	27/06/2020

Webinar on Engineering Career The Power to Empower" by Renjit Keshav, Leadership Trainer, Social Political Analyst, MD Insight Job Guru	Department of CSE	21/06/2020
Live Webinar on Recession Proof Careers After Graduation in association with TIME.	Department of CSE	13/06/2020
Career Readiness Study Jam - Google Cloud Workshop by delegates from Google	Department of CSE	12/02/2020
Workshop for women entrepreneurs by WING	Department of CSE	06/02/2020
Awareness session on GATE by ACE academy, Hyderabad.	Department of CSE	06/02/2020
An expert session on 'Block Chain Technologies by Mr. Girish Babu, Expertz Lab	Department of CSE	04/06/2020
Workshop on 'Python for problem solving' by Mr. Siddharth Prajosh C, Software Engineer, Belong.co, Bangalore	Department of CSE	31/01/2020
Two days' workshop on Machine learning by Mr. Yadev Jayachandran, Mr. Rahul Murali and Ms. Varsha Hari (ASAP trainees, final year students).	Department of CSE	31/01/2020
Two day Python workshop and coding event by Mr.Jishnu N V and Mr. Abhay P A, (Tinker Hub, TIST)	Department of CSE	24/01/2020
Motivational talk Do Differently by Jibin Jose, CEO and co-founder, FLIP, Rethink	Department of CSE	24/01/2020
Workshop on IoT by. Mr. Jishnu N V and Mr. Abhay P A (Tinker Hub, TIST)	Department of CSE	09/01/2020
An orientation session on Reboot Kerala Hackathon and TCS Certification programs by Mr. Amith Narayanan, Program	Department of CSE	13/11/2019

Manager, ASAP		
Workshop on Introduction to Block Chain Technologies by Mr. Sabir Aboobaker and Mr. Nikhil V Chandran, Research Fellows, KBA	Department of CSE	25/10/2019
Workshop on Entrepreneurship and Business model by E-Cell IIT Bombay, handled by Mr. Babu Mohanan, Former Scientist, ISRO	Department of CSE	25/10/2019
An awareness session on WING - "Women Rise Together" was organized for the girl students by Mr. Shameem and Ms. Varsha from Kerala Start up Mission	Department of CSE	24/10/2019
Expert lecture on Data Science by Mr. Sherry Thomas, Sr. Consultant Data Science, Trainon.in (former Lead Consultant, Cresco Business Solutions)	Department of CSE	18/10/2019
Motivational Session on Career Development by Mr. Aravind Das, UVJ Technologies	Department of CSE	05/10/2019
Technical session on Django by Mr. Sarath S, Kites Softwar	Department of CSE	11/10/2019
A Technical Session on Android Fundamentals by Mr. Jinu John, Immneos Technologies, Technolodge, Kakkoor	Department of CSE	04/10/2019
Orientation on IBM courses under ASAP - Blockchain, IoT, Data Science and Business Analytics by Mr. Dinesh Baliga, IBM	Department of CSE	01/10/2019
A technical session on Android Fundamentals by Mr. Jinu John, Immneos Technologies, Technolodge, Kakkoor	Department of CSE	27/09/2019
A Webinar on Overview on 3D Visualization and Animation by Dr. Sameer Sahasrabudhe (IIT Bombay)	Department of CSE	16/09/2019

A Curtain raiser session on cyber security conference c0c0n XII by Mr. Joby Joy, ISRA (Information Security Research Association)	Department of CSE	29/08/2019
Motivational Session on Being Industry Ready by Mr. Denny S Dhar, Director, Casper Technologies.	Department of CSE	27/08/2019
A technical session on Cyber Security and Cyber Forensics by Ms. Rachel Sara Jacob, FACE, Vytilla	Department of CSE	22/08/2019
An orientation on newly introduced ASAP courses - Google ACE, UIPath Robotic Process Automation by Mr. Amith Narayanan, Program Manager, ASAP, Kalamassery.	Department of CSE	21/08/2019
Design Project Orientation Workshop by Dr. K S Mathew, Professor, RSET	Department of CSE	03/08/2019
A technical session on Artificial Intelligence by Ms. Anagha P. Shibu, Cogniz English Academy	Department of CSE	02/08/2019
An Induction Program for first year students by the Trainers from ICT Academy of Kerala (ICTAK).	Department of CSE	25/07/2019
Short Term Industrial Internship Training for 10 days on FOSS and Enterprise Solutions by Mr. Raphy P Varghese, CEO, gooseBerry.media, Technolodge, Piravom.	Department of CSE	08/07/2019
A workshop on "Electrical Maintenance" for S1 students	Department of EEE	25/10/2019
EEEDepartment in Association with NIT Trichy organized a one day workshop on Hybrid Electric Vehicle.	Department of EEE	31/01/2020
EEE department in Association with IEDC organized a talk on	Department of EEE	20/02/2020



"Power Frequency Control" as part of 'Mentor of the Month Series'. Mr. Dennis Rajan (Asst. Executive Engineer, KSEB, Chithirapuram, Munnar) was the resource person.		
Women in Engineering(WIE SUMMIT 2k19	Department of ECE	21/07/2019
Choosing the Right Career by Ms.Chandra Vadhana	Department of ECE	21/07/2019
Workshop on Image Processing by Mr.Nithin ,NIT Calicut	Department of ECE	22/07/2019
Workshop on Women in Entrepreneurship by Mr.Sonu J A , CEO of Starting Trouble.	Department of ECE	22/07/2019
Talk on Cyber Security by Mr.Hiron Bose, Scientist, Knowledge Research Centre, CDAC	Department of ECE	22/07/2019
Induction Programme for First year students	Department of ECE	22/07/2019
Workshop on Arduino Microcontroller Board and applications for Bhavans Newsprint Vidyalaya Students, Velloor	Department of ECE	26/07/2019
Workshop on Python programming and image processing using Open CV Python for S7 ECE students	Department of ECE	02/08/2019
Technical Talk on Recent Developments in Embedded Systemsby Mr.Nikhil P Ajayan, CEO, Set InternStart up	Department of ECE	03/08/2019
Social Outreach program on Introduction to recent trends in Electronics and Communication and future of Technology at St. Stephens Bes-ania Public school, Kothamangalam	Department of ECE	05/08/2019
Workshop on Mobile Robotics for S3 and S5 ECE students	Department of ECE	07/08/2019
Workshop on Arduino Microcontroller Board and applications for St. Marys Higher Secondary	Department of EC and RAE	17/08/2019

School students, Morakkala		
Workshop on Python programming and image processing using Open CV Python for S7 ECE students	Department of ECE	21/08/2019
Orientation on ASAP Courses -Google ACE -RPA for Final year Students by Mr. Amith Narayanan, ASAP ,Kalamaserry	Department of ECE	21/08/2019
Infosys Specific Training Programme	Department of ECE	28/08/2019
Workshop on Mobile Robotics for S3 and S5 ECE students	Department of ECE	30/08/2019
Social Outreach program on Introduction to recent trends in Electronics and Communication and future of Technology at Warwin Senior Secondary School, Vaikom	Department of EC and RAE	04/09/2019
Social Outreach program on Introduction to recent trends in Electronics and Communication and future of Technology at St. George Higher Secondary School Students, Vennikulam	Department of EC and RA	25/09/2019
Workshop on Arduino Microcontroller Board and applications for St. George Higher Secondary School Students, Vennikulam	Department of ECE and RA	27/09/2019
Infosys Specific Training Programme	Department of ECE	03/10/2019
Technical Talk on Recent Developments in Embedded Systems by Mr.Nikhil P Ajayan, CEO, Set InternStart up Workshop on Arduino Microcontroller Board and applications for S1 students	Department of ECE and RA	05/10/2019
Social Outreach program on Introduction to recent trends in Electronics and Communication and future of Technology at Govt.	Department of ECE and RA	11/10/2019

H.S.S, Mulanthuruthy		
Workshop on Arduino Microcontroller Board and applications for S1 students	Department of EC and RAE	16/10/2020
Social Outreach program on Introduction to recent trends in Electronics and Communication and future of Technology at St. Marys Higher Secondary School, Thalacode	Department of ECE and RA	17/10/2019
Social Outreach program on Introduction to recent trends in Electronics and Communication and future of Technology at Chinmaya Vidyalaya	Department of ECE and RA	18/10/2019
Social Outreach program on Introduction to recent trends in Electronics and Communication and future of Technology at Bhavans Munshi Vidyashram	Department of ECE and RA	19/10/2019
Workshop on Arduino Microcontroller Board and applications for S1 students	Department of ECE and RA RA	25/10/2019
Technical Talk on Advanced Communication Perspectives by Dr.K.Gnanasheela.	Department of ECE	04/11/2019
Talk on Ethical Values by Dr.Alex Mathew, President, Toc H Public School Society	Department of ECE	06/11/2019

### 3.2.2 – 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
Highest Committed Student Activist Award	Mr.Yadev Jayachandran	CSI	18/01/2020	National level
Stellar arm	Ann Mary Tom, Aiswarya Sen, AshikaChinnuShabu, Muhammed Sahl K	Inapp National Student Project Award CSI	07/06/2020	National level
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### 3.2.3 – 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
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NIL	NIL	NIL	NIL	NIL	Nil
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### 3.3 – Research Publications and Awards

#### 3.3.1 – Incentive to the teachers who receive recognition/awards

State	National	International
0	0	0

#### 3.3.2 – Ph. Ds awarded during the year (applicable for PG College, Research Center)

Name of the Department	Number of PhD's Awarded
Electronics	1

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

Type	Department	Number of Publication	Average Impact Factor (if any)
National	Department of EEE	1	7.87
International	Department of CE	10	Nil
International	Department of CSE	4	2.72
International	Department of ME	4	1.09
International	Department of ECE	1	6.3

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

Department	Number of Publication
Civil	25
Electronics and Communication	23

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#### 3.3.5 – 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
Experimental Study on the Properties of Bendable Concrete	Vasudev R	Lecture notes in Civil Engineering, Springer Nature Switzerland	2019	0	Toc H Institute of Science and Technology	0
Experimental Study on Hybrid Fibre Reinforce Geopolymer	Lathi Karthi	Lecture notes in Civil Engineering, Springer Nature Switzerland	2019	0	Toc H Institute of Science and Technology	0

Assessment of factors causing Delay in Construction for Indian Residential Building	Smitha KK	Lecture notes in Civil Engineering ,Springer Nature Switzerland	2019	0	Toc H Institute of Science and Technology	0
Development of Frame Work for Residential Building Construction Using Agile Management	Sahimoleldhose	Lecture notes in Civil Engineering ,Springer Nature Switzerland	2019	0	Toc H Institute of Science and Technology	0
Influence of Cycle Time on the Productivity of Transit Mixers	Annie Sonia Xavier	Lecture notes in Civil Engineering ,Springer Nature Switzerland	2019	0	Toc H Institute of Science and Technology	0
Experimental study on Self Compacting Self Curing Concrete Using Copper Sag as partial replacement of Fine Aggregate	Elba Helen George	Lecture notes in Civil Engineering ,Springer Nature Switzerland	2019	0	Toc H Institute of Science and Technology	0
Experimental Investigation on Geopolymer Masonary Units	Vidya Jose	Lecture notes in Civil Engineering ,Springer Nature Switzerland	2019	0	Toc H Institute of Science and Technology	0
Study on Mechanical Properties of Self Healing Self curing concrete	Vidya Jose	Lecture notes in Civil Engineering ,Springer Nature Switzerland	2019	0	Toc H Institute of Science and Technology	0

Evaluation of 5S Conformity in Residential Building sites using RADAR charts	Anu V V	Lecture notes in Civil Engineering, Springer Nature Switzerland	2019	0	Toc H Institute of Science and Technology	0
Forecasting of Material cost in Road construction through Material Control Technique	Anu V V	Lecture notes in Civil Engineering, Springer Nature Switzerland	2019	0	Toc H Institute of Science and Technology	0
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3.3.6 – 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
Development of Frame Work for Residential Building Construction Using Agile Management	Sahimoldhose	Lecture notes in Civil Engineering, Springer Nature Switzerland	2019	0	0	Toc H Institute of Science Technology , Arakkunnam
Assessment of factors causing Delay in Construction for Indian Residential Building	Smitha KK	Lecture notes in Civil Engineering, Springer Nature Switzerland	2019	0	0	Toc H Institute of Science Technology , Arakkunnam
Experimental Study on the Properties of Bendable Concrete	Vasudev R	Lecture notes in Civil Engineering, Springer Nature Switzerland	2019	0	0	Toc H Institute of Science Technology , Arakkunnam

Experimental Study on Hybrid Fibre Reinforce Geopolymer	Lathi Karthi	Lecture notes in Civil Engineering, Springer Nature Switzerland	2019	1	0	Toc H Institute of Science Technology , Arakkunnam
Influence of Cycle Time on the Productivity of Transit Mixers	Annie Sonia Xavier	Lecture notes in Civil Engineering, Springer Nature Switzerland	2019	0	0	Toc H Institute of Science Technology , Arakkunnam

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### 3.3.7 – Faculty participation in Seminars/Conferences and Symposia during the year :

Number of Faculty	International	National	State	Local
Attended/Seminars/Workshops	13	57	41	36
Presented papers	4	4	4	0
Resource persons	0	0	1	0

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### 3.4 – Extension Activities

#### 3.4.1 – 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
Technical social outreach- little kites initiative	CSI	2	60
Career Guidance and Entrepreneurship for school students	CSI	2	60
Empowering housewives in computer education	NSS, CSI,UBA	5	12
Project expo	CSI	2	10
General Quiz Competition for School Students	CSI	2	25
Rehabilitation of Street Vendors	Piravom Municipality	5	8
Re-Build Kerala	Government of Kerala	14	71

SampoornaJalasureksha mission-1st Water Pilot Project in Kerala	SampoornaJalasureksha mission-1st Water Pilot Project in Kerala	6	52
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3.4.2 – 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
Technical Events	Highest Committed Student Branch Award	CSI	245
CSI InApp National Student Project Awards	Consolation Prize (Selected for the Final Round)	CSI	4
Technical Events	Longest Continuous SBC Award	CSI	1
Technical Community Development	Technology Innovation Fellow	Kerala Start up Mission	1
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3.4.3 – 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 activities	Number of students participated in such activities
Women Empowerment	Pehia Foundation	Supporting Women Coders	1	1
Rehabilitation of Street Vendors	Piravom Municipality	Detailed preparation of DPR	5	8
SampoornaJalasureksha Mission-1st Water Pilot project in Kerala	AmballoorGramapanchayat, Kerala	Quality testing of water samples	6	52
Re-Build Kerala	Kerala Government	Rehabilitation of roads (detailed investigation of the roads which was affected by flood)	14	71
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3.5 – Collaborations



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

Nature of activity	Participant	Source of financial support	Duration
Academic Project	Academic Project	CERD	365
Technical Events	Students	ICFOSS	365
Research- Setting up Machine Learning Lab	Faculty	MODROB	365
Research- IoT Lab	Students	Students	365
Faculty Exchange	Dr.George C Mathew	Erasmus Programme funded by European Union	5

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3.5.2 – 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
Industry supported lab	Technical support	Ambuja Cements Contact No: 9544997070	26/12/2019	30/12/2020	22

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3.5.3 – 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
L and T	13/06/2019	Sharing of LT New Products introduced in markets for upgrading LT Switchgear Lab setup present in the institute . Traning sessions for B Tech / MTech students for 3to 5days for the courses LT 14- In troduction to industrial Electrical system	52
C-DAC – FACE Academy	19/10/2019	Can Run Additional Skill Acquisition Programs	34

Oracle Academy	05/03/2020	Software License for Oracle/ Oracle Technology Programs and Oracle Premier Support	2
Kerala Block Chain Academy	19/02/2020	Get students familiar with block chain technology	61
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## 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
118	110.31

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Seminar halls with ICT facilities	Newly Added
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### 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 partially)	Version	Year of automation
Library Management System (LMS)	Partially	LMS 2018	2013

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	40687	16937735	1057	600871	41744	17538606
Reference Books	14762	7013683	142	75915	14904	7089598
e-Books	4259	0	8469	153153	12728	153153
Journals	1754	2852505	180	385076	1934	3237581
e-Journals	5	3329332	0	848402	5	4177734
Digital Database	737	0	125	0	862	0
CD & Video	1004	0	71	0	1075	0
Digital Database	578	0	59	0	637	0
Weeding (hard &	1579	0	46	0	1625	0

soft)

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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
MARY DHANYA	V	YOUTUBE	18/03/2020
VIDYA JOSE	V	YOUTUBE	14/05/2020
ANJU PAUL	V	YOUTUBE	15/04/2020
RENJU RAJ	VI	YOUTUBE	03/04/2020

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#### 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	518	13	120	1	1	1	8	130	0
Added	38	0	10	0	0	0	0	0	0
Total	556	13	130	1	1	1	8	130	0

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

130 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
Telepresence Lab	<a href="https://youtu.be/x6OXL2opiMI">https://youtu.be/x6OXL2opiMI</a>
Telepresence Lab	<a href="https://www.youtube.com/c/ToCHKochi/videos">https://www.youtube.com/c/ToCHKochi/videos</a>

#### 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 incurred on maintenance of physical facilities
475	463.23	124	114.28

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)

Lab Maintenance : At the end of each semester, list of equipments for servicing is collected by the concerned lab staff. A communication is sent to the respective companies and their consent is taken for servicing the equipments. The companies give estimates regarding the amount for equipments.

This estimate is submitted for the approval of the department HOD and Principal. Thereafter sent to the Management for final approval and the amount is settled with the company after servicing. Certain other equipments are under regular AMC. Library: Book Purchase Procedure: Librarian collects the list of books required by each department through the HODs during the beginning of each semester and submits it for the approval of the Principal. On approval, at least 3 quotations are invited from leading book suppliers and librarian prepares a comparative statement duly signed by Librarian and Principal is sent to the management for approval. For any immediate requirement of the books and journals in any department, the librarian is authorized to do the same with the sanction of HODs and Principal. Maintenance of books: The damaged books are maintained by binding at the end of each semester. Stock Verification: Annual stock verification is done by an external auditor and report is presented before the Library Advisory Committee, weeding out of missing books will be done after the approval by Principal on the recommendation of the said Committee. Sports Complex: The Department of Physical Education provides facilities for maintaining physical fitness and well-being of students. Regular maintenance is done to the non perishable infrastructure like, cutting and trimming the grass on the ground, cleaning of the indoor stadium, painting of the steel structures etc. Perishable items like, balls, bats and guards are purchased every year by inviting 3 quotations and a comparative statement is submitted to the Principal who scrutinizes and transmits it to the Management Purchase Committee for final disposal. Stock and an issue registers are maintained in the department, perishables are written off after due stock verification by internal auditor. Awards, Trophies and Certificates are issued to the individuals teams after the completion of the events and published in the annual college magazine. COMPUTER MAINTENANCE The computer maintenance section provides facilities for maintaining and repairing computers. According to the requirement of each department, quotations are sought from computer vendors, quotations with the lowest price and after sale service are accepted. Most vendors offer warranties and provide warranty assistance to their devices. There is no outsourcing of AMC for computers in our college. The maintenance of computers and related components without warranty assistance is done in-house. Regular computer maintenance for each department is done by maintenance section. A stock register is maintained for laptops, desktops and related accessories by System Administrator and Break-down Register is maintained department-wise. Classrooms: Due care is given for, Proper upkeep of the building, lawns and surroundings, furniture repairs, Electrical and sanitary fittings. road, water tank and other services like security and safety requirements.

<http://www.tistcochin.edu.in>

## 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	TIST EXCELLENCE SCHOLARSHIP	88	3818500
Financial Support from Other Sources			
a) National	SC /ST/ OEC STUDENTS E-GRANTZ/AICTE	143	8873250
b) International	nil	Nil	Nil

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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 implementation	Number of students enrolled	Agencies involved
GDPI Training	05/08/2019	380	Insight Job Guru
Carrier Counselling	15/02/2020	60	Educational Entrepreneur
Induction Program	22/07/2019	317	TIST
Language Lab	01/08/2019	317	TIST
Personal counselling Mentoring	01/08/2019	1337	TIST
Remedial Training	25/09/2019	282	TIST
Aptitude Training	28/08/2019	280	Konfidence
Soft Skill training	02/08/2019	280	Insight Job Guru

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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 students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passed in the comp. exam	Number of students placed
2019	CAT coaching by IMS Training institute	56	56	2	40
2019	career counselling	0	150	0	48

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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
8	8	14

## 5.2 – Student Progression

5.2.1 – Details of campus placement during the year

On campus			Off campus		
Name of organizations visited	Number of students participated	Number of students placed	Name of organizations visited	Number of students participated	Number of students placed
23	320	278	14	200	44

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### 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
2019	1	B.TECH	CIVIL	CUSAT	M.TECH
2019	1	B.TECH	CIVIL	SCMS	MTECH
2019	1	B.TECH	CIVIL	VISWA VIDHYAPEEDAM	MTECH
2019	2	B.TECH	CIVIL	DEAKIN UNIVERSITY, AUSTRALIA	MS
2019	2	B.TECH	CIVIL	UNIVERSITY OF SOUTH AUSTRALIA, AUSTRALIA	MS
2019	1	B.TECH	CSE	REVA UNIVERSITY, BANGALORE	MS
2019	1	B.TECH	CSE	SRM	MTECH
2019	2	B.TECH	SF	CUSAT	MTECH
2019	2	B.TECH	EEE	TOCH	M.TECH
2019	1	B.TECH	EEE	RSET	MTECH

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### 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
Any Other	3
CAT	1

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

Activity	Level	Number of Participants
Mudra	Institution	130
Advay	Inter-College	194
College Sports	Institution	150

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## 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
<b>No Data Entered/Not Applicable !!!</b>						
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5.3.2 – Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

**Student Council:** Student Council acts as a liaison between the students and the management. It is a forum for the students to develop their attitude, leadership qualities, social skills, cultural talents and focuses on the overall development of the individual. **Academic Bodies:** The student chapters of the following professional bodies are active in the Institution. IETE, IEEE, CSI, IE(I), Aesi, IIE, IIW, IIPE, ICI, IGBC, ISTE, 1. **Class Committee:** The Meeting is held twice/thrice in each semester. These meetings serve as a platform for interaction between students and faculty. 2. **Course Committee:** This is for common courses offered to students admitted for the B. Tech program irrespective of their branch of study. **Administrative Bodies** 1. **IQAC:** Development and application of quality benchmarks/parameters for various academic and administrative activities of the institution. 2. **IEDC:** To Identify students with innovative ideas and create a platform for them to work with. 3. **Hostel Committee:** To provide healthy environment in the hostel for the overall development of the hostel inmates. 4. **Library Committee:** To provide for proper documentation service and to update the library collections. 5. **Alumni Cell:** This will strengthen our efforts in placement, project works and Industry- Institution Interaction. 6. **Transport Committee:** To promote healthy and safer transport to and from college. **Public Service Programs National Service Scheme (NSS):** Activities undertaken by the NSS unit of our Institute are :Used Book Circulation Library, Class on personality development, Energy Conservation, Blood Data Bank, Donors arranged in cases of emergencies, Antidrug awareness program, Visit to orphanages and old age homes, Vegetable Garden, Free Health Check up, Free eye check up, Marathon Run for Peace, Road Safety program, Street Play. **Young Indians (Yi):** TIST Yi Net shows great enthusiasm in organizing and conducting Leadership and Social activities. Some of the events organized are-Awareness class by Experts from all walks of life to the students, Awareness on Anti Drug classes to school students, Awareness of Women Safety and Self Defense, Maintain cleanliness of our public surroundings like children's park, beach etc, Street play awareness show on water pollution, highlighting save water, Industrial visit for value based learning, Awareness class on Sexual Abuse to school students, No smoking Campaign in the city. **ENCON Club:** The main objective of the ENCON club is to drive home the message of Energy Conservation and Environment protection in the minds of students by planning and organizing regular activities, talks, seminars workshops, exhibitions and other awareness programs. **KARMA :** TIST started KARMA for extending support to poor people in the society by catering to five sectors, viz., Food, Health Care, Education, Volunteer and Shelter. Any student of TIST with an intention to help others can join this group.

**5.4 – Alumni Engagement**

5.4.1 – Whether the institution has registered Alumni Association?

No

5.4.2 – No. of enrolled Alumni:

402

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

0

5.4.4 – Meetings/activities organized by Alumni Association :

Total four Alumni meet conducted in 2019-2020 Academic Year Department of

Electrical and Electronics Engineering organized Alumni meet on 01.02.2020. Department of Electronics and Computer Science Engineering organized Alumni meet on 14.02.2020. Department of Mechanics Engineering conducted alumini Meet on 19.02.2020

## 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 Institution practices decentralization and participate management. The Governing Body meets normally once a year to discuss the current performance levels of the institution in various aspects such as academics, administration and activities, and to set guidelines for the future course of action to be followed. Several bodies with well defined roles have been constituted to ensure proper functioning of the institution under the guidance of the Principal, who along with Dean (Academics) and Vice Principal are engaged in the overall development and day today governance. Principal chairs the meetings of staff council (HOD meetings) and meetings of other committees which are convened regularly. The activities are planned in the HOD meetings, executed through various academic and administrative bodies constituted with the participation of staff and with the concurrence of management. IQAC, PTA, Students Council, Anti Ragging Cell, Students Welfare Committee, Discipline Committee, Grievance Redressal and Appeals Committee, NSS, Exam Cell, Transport Committee, Innovations and Entrepreneurship Development Centre etc. are some among the active cells for propelling this institution. Adequate representation of faculty, students and parents is ensured in all these committees. Adequate systematized autonomy to all the departments is provided. The Budget proposal for the academic year is prepared by the individual departments in participation with the staff. These individual department budgets are consolidated along with administration department budget. The budgets of all the departments will be consolidated by the Accounts Manager and will be presented to the Principal, and further presented before the Management for approval and sanction. All orders exceeding a sum of Rs.25,000/- must be processed after inviting minimum three quotations from different suppliers, manufacturers and a comparative statement to be prepared and sent to the Founder Director and Manager for approval with recommendation of the Principal. For orders exceeding Rs.5,000 and below 25,000, quotations with recommendation of the department head to be forwarded to the Founder Director and Manager along with the Principal's recommendation. For items less than Rs.5,000/- purchases may be made locally with the prior approval of the Principal. For department related purchases, HODs of concerned departments should submit justification for procurement and must recommend specifications for placing orders.

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

Partial

### 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
Industry Interaction / Collaboration	? The department holds MoUs with IT organizations and other institutes for imparting industry standard seminars, hands-on trainings industrial visits. 1. Infosys Technologies Ltd. 2.ICT



Academy of Kerala (ICTAK) 3.Techno Lodge, Kakkoor, Piravom (The first rural IT park in Kerala) 4.Red Hat Academy 5.Oracle Academy 6.VSB Technical University, Ostrava, Czech Republic 7.Additional Skill Acquisition Program (ASAP), Govt. of Kerala (approved ASDC - Skill Development Centre) 8.ICFOSS (International Centre for Free and Open Source Software) 9.C-DAC - FACE Academy 10.KBA (Kerala Blockchain Academy) ? Department of EE holds Mou with the LT Switch Gear ? Department of CE collaboration with Govt. of Kerala for Rebuild Kerala Scheme.

Library, ICT and Physical Infrastructure / Instrumentation

? Training Programs conducted 1. IEEE ASPP POP: How to access and Use 2.EBSCO Managemnt Collection Lite:usage and Access ? E-Books and e-journals made accessible to all students and Faculty in the present COVID-19 pandemic situation ? Tele - Kerala State IT Infrastructure Ltd sponsored Hi-tech lab worth Rs. 17,22,718.50, which can be utilized for virtual classrooms and interactive webinars.

Research and Development

? Toc H listed as an ASDC of ASAP (Additional Skill Acquisition Programme), an MHRD and Govt. of Kerala Initiative to offer futuristic certification courses in AI and ML and other new generation courses by Google, Amazon, IBM etc. for addressing the skill gap of engineering students. ? AICTE sanctioned an amount of Rs. 4 lakhs as the grant in aid under the scheme Modernization and Removal of Obsolescence (MODROB) for upgrading the Computer Science Lab to Machine Learning Lab. ? An IoT Lab is set up in the department with partial funding from CERD student project fund. ? Existing Programming Labs upgraded with high end systems worth Rs.8,65,080. ? Centre for Engineering Research and Development (CERD)-KTU grant received for student projects .

Examination and Evaluation

? During the COVID pandemic internal exam were conducted and evaluated by making use of Linways ERP.

Teaching and Learning

? ICT enabled teaching. ? Adopting innovative teaching methodologies such as case study presentation, hands on sessions, quiz, additional lab sessions etc. ? The abstract concepts difficult

to understand are explained with reference to real world situations wherever applicable. ? Peer learning is practiced for improving the performance of bottom students, making use of the support and coaching of bright students. ? Remedial classes are offered by concerned faculty, to students who have fallen behind the rest of class in academics. ?Additional programs and open ended questions supplied for each laboratory course. For the later part of the Academic session due to the impact of COVID-19 the Institution availed online platforms like ,WebX and Google Meet,recorded video classes and virtual labs to supplement offline classes

Curriculum Development

? Gaps in the curriculum are identified and are rectified by imparting additional lab sessions, conducting bridge courses and by forwarding representation to university. ? By conducting short term training programs and workshops. ? By conducting additional skill acquisition programs under ASAP-ASDC. ? Providing certification courses under the companies with which MoUs are signed.

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

E-governance area	Details
Administration	Student data uploaded in ERP and university portal. Attendance and Study materials accessible to students through online. Login provided to parents and students for monitoring attendance and performance.
Finance and Accounts	Fee remittance only thorough online. College is using Tally for maintaining book of accounts.
Examination	Exam registration and payment of fee and admit card through online. Question paper generation is also done online.
Student Admission and Support	Student application process and selection is doing through online. University enrollment through online.

### 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
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2020	Dr.SreelaSreedhar, Ms.Elsaba Jacob	53rd CSI Annual Convention (CSI 2020) held at Kalinga Institute of Industrial Technology, Bhubaneswar, Odisha on 18th January, 2020.	CSI	20000
2019	Dr.George C Mathew	ERASMUS	ERASMUS	26700
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6.3.2 – Number of professional development / administrative training programmes organized by the College 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	Women in Engineering (WIE SUMMIT 2k19)	Nil	21/07/2019	23/07/2019	20	Nil
2019	Talk on Ethical Values by Dr.Alex Mathew, President, Toc H Public School Society	Nil	06/11/2019	06/11/2019	20	Nil
2020	Introduction to Data Science	Introduction to Data Science	21/05/2020	22/05/2020	13	6
2020	IEEE Xplore Digital Library training	Nil	15/06/2020	15/06/2020	9	Nil
2019	Construction Management in Building Information Modelling	Construction Management in Building Information Modelling	30/12/2019	04/01/2020	15	5

2019	Emerging Trends in Sustainable Development in Transportation Engineering	Nil	23/09/2019	28/09/2019	15	Nil
2020	3 Day FDP, "Advances in Bio Engineering" funded by KTU	Nil	06/01/2020	09/01/2020	20	Nil
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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
Internet of Things	2	16/12/2019	20/12/2019	5
Cryptography and Information Theory	1	05/02/2020	05/02/2020	1
Google Cloud Infrastructure and Foundation	1	05/03/2020	05/03/2020	1
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6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
No Data Entered/Not Applicable !!!			

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
1.LIC, 2. Provident Fund,3.Maternity Leave with Salary, 4. Additional Increment for additional Qualification, 5. Financial support to attend Conferences/Workshops 6. Free Medical Aid	1.Provident Fund, 2. ESI, 3.Mediclaim,4. Free Medical Aid	1.Students safety Insurance, 2. Students counsellor available for their academic and personal related problems 3.Free Medical Aid.

## 6.4 – Financial Management and Resource Mobilization

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

The Budget proposal for the academic year is prepared by the individual departments in participation with the staff. These individual department

budgets are consolidated along with administration department budget. The budgets of all the departments will be consolidated by the Accounts Manager and will be presented to the Principal, and further presented before the Management for approval and sanction. The Institution has a mechanism for internal and external audits. Our Management has a full-time Treasurer to oversee the financial activities of the Institution. All the books of accounts are audited regularly by Chartered Accountants. Both Internal and External Audits are conducted annually. Hence all financial transactions are transparent. The audited financial statements of the academic years are available in the website- <http://tistcochin.edu.in>.

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
CERD	32000	STUDENT PROJECT
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6.4.3 – Total corpus fund generated

0
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## 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	KTU, ISO, NAAC	Yes	ISO, IQAC
Administrative	Yes	ISO, KTU, NAAC	Yes	ISO

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

1. Involvement in college cultural/ technical/social programmes 2. Providing suggestion for further improvements 3. Support in placement activities
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6.5.3 – Development programmes for support staff (at least three)

1. Additional Quality enhancement facility provided 2. Stress relief programmes conducted
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6.5.4 – Post Accreditation initiative(s) (mention at least three)

1. Re accreditation of NBA for CSE, ECE, ME and CE 2. Introduction of New B.Tech Program in Robotics and Automation 3. Introduction Online teaching Platform
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6.5.5 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b) Participation in NIRF	No
c) ISO certification	Yes
d) NBA or any other quality audit	Yes

6.5.6 – 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	Faculty Exchange	04/11/2019	02/12/2020	06/12/2020	1

	Program				
2020	NBA Re Accreditation	30/01/2020	29/02/2020	29/02/2020	75
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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
Computer Training for Housewives	01/07/2019	15/07/2019	17	Nil
Workshop on Women Rise Together " WING "	24/10/2019	24/10/2019	57	Nil
Workshop for women entrepreneurs by WING - Women Rise Together, an initiative by the DPIIT and Start-up India	06/02/2020	07/02/2020	46	Nil
WiES-Women in Engineering Summit 2019	21/07/2019	23/07/2019	130	Nil
Women Empowerment and Entrepreneurship Guidance	06/02/2020	07/02/2020	50	Nil
Improving Mental health for Women at Amballoor Panchayat	18/02/2020	18/02/2020	54	Nil

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
1.Percentage of power met from renewable energy 2.65 2. Bio gas plant 3.Rainwater Harvesting 4.Water Treatment plant 5.Labeling trees with their Botanical Names 6.Kichen garden

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	Nil
Provision for lift	Yes	Nil

Ramp/Rails	Yes	Nil
Rest Rooms	Yes	Nil
Scribes for examination	Yes	Nil

#### 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	3	1	15/06/2019	1	Interaction with Students at Bhavans Munshi Vidyalayam Thiruvankulam	Role of AI and Importance	62
2020	3	1	27/01/2020	1	Interaction with Students at St Pauls Highersecondary School, Veliyanad	Scope of Robotics, imparting knowledge in Arduino Using Python and Android Programming	43
2020	3	1	29/01/2020	2	Interaction with Students at St George High School Arakunnam	Coding Session for School Students	35
2020	3	1	26/05/2020	1	Develop an Android application Named "Nattupedika- A complete Shopping Solution for Mulan	In order to avoid rush for shopping during lock down days	8

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

Title	Date of publication	Follow up(max 100 words)
Life skills for Engineers	01/06/2016	<p>“Professional Ethics and Human Values” is very relevant subject of today’s environment of conflicts and stress in the profession, with obligations to be met by one perso in many directions. A format study will certainly improve one’s ability ad judgement and refine one’s behviour, decisions, and actions in performing the duty to the family, organization and to society.</p> <p>Academicians even feel that this subject should be introduced in high school level, in place of the moral instructions. Syllabus includes Human values, Engineering ethics and Professionalism, engineering as social experimentation, responsibilities and rights, global ethical issues</p>

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
Improving Mental Health” for women at Ambaloor Panchayat	18/02/2020	18/02/2020	54
Independence Day	15/08/2019	15/08/2019	55
World Water Day	22/03/2020	22/03/2020	100
Womens Day	08/03/2020	08/03/2020	100
ENCON Fest 2020	28/01/2020	29/01/2020	120
World Environmental Day	05/06/2019	05/06/2019	150

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



1.Celebration and Save water campaign on world water day 2. Celebration and tree plantation on Environmental day 3.Plastic Free campus 4.Rainwater Harvesting 5.Paperless office 6.ENCON Fest 2020 bearing the theme "Save Water, Save Life" to emphasize the importance of water for the planet earth.

## 7.2 – Best Practices

### 7.2.1 – Describe at least two institutional best practices

**BEST PRACTICE: 1**

1. Title of the Practice: Neighborhood Society Connect: Phase II

2. The Objectives of the Practice: To ensure in all their social, economical, occupational and ethical needs of all especially the under privileged marginalized people, with focus on the young and old.

3. The Context : It is imperative to minimize the gap between the institution and its immediate neighbours. The best way to achieve it is by extending technical, moral, ethical, economical, occupational, environmental and anything that can ensure comradeship and trust

4. The Practice: The focus is on

1. Empowering Women
2. Stopping the spread of communicable deceases
3. Energy conservation
4. Portable Water
5. Safety and Health at work place
6. Rebuild Kerala Initiative(RKI)
7. Survey and rehabilitation of street vendors
8. Technical Outreach sessions Initiatives
9. Social Outreach

5. Evidence of Success:

**Empowering Women:** Session conducted on "Improving Mental Health" for women at Amballoor Panchayat benefitting 30 participants. WiES Women in Engineering Summit 2019 was held in TIST which had gathered students from across various engineering colleges in Kerala. The summit was a 3 day-long program with workshops that spread knowledge among the delegates with various fun-oriented activities and technical rounds etc

**House Wives' Computer Training Program:** Department of CSE in association with CSI and NSS Unit conducted Computer Training program from July 1 to July 15, 2019. The program received overwhelming response as in the past years. 10 housewives from the neighborhood were issued Certificates and all of them are now employed/ self employed.

**WING- Women Rise Together-** conducted 2 day workshop in association with DPIIT and Startup India promoting women entrepreneurs.

**Stopping the spread of communicable deceases:** The College in collaboration with Kerala Startup Mission IEDC donated Automatic Sanitizer with sensor at the entrance of Mulanthuruthy block Panchayath office in June 2020. To meet the pandemic challenge a telephonic counseling started with effect from 28th March 2020 onwards with a team of 5 qualified counselors through telephonic counseling which evoked good response. GRABY is a contactless brass key to mitigate the spread of COVID-19, which is made entirely from a solid piece of brass which is inherently antimicrobial, that can reduce disease causing organisms by 58.

**Energy conservation:** Encon Club Activities 2020: EEE department hosted the activation of ENCON club for the year 2020 on 28th January 2020. Dr. P. Shaiju (Centre for Science in Society, CUSAT) inaugurated and Mr. Kabeer B. Haroon (President - Operations, GJ Ecopower Pvt. Ltd) gave a talk on "Save Water, Save Life". On 28th and 29th January 2020 ENCON Club in association with BPLC Kochi, conducted ENCON Fest 2020 bearing the theme "Save Water, Save Life"

**Portable Water:** Sampoorna Jalasuraksha Mission: Civil Engineering Department provide Technical assistance to Kerala Government's Sampoorna Jalaparishodhana "Complete Water Safety Mission". Water samples were collected from different sources and tested. The project promoted water testing A permanent water testing unit is functioning under TIST R D.

**Safety and Health at work place Participation under Pradhan Mantri Awas Yojana(PMAY):**Project report submitted for working women's Hostel with day care facility at mulanthuruthy.

**The Rebuild Kerala Initiative(RKI):** To rebuild the State after the flood of 2018, Civil Engineering Department collaborated with the Kerala Govt for achieving resilient recovery and development pathway for a NavaKeralam by conducting survey and soil investigation.

**Rehabilitation of Street Vendors at Piravom Municipality:** To develop Piravom Municipality as a street vendor free zone,

Civil Engineering Department carried out road survey at Piravom town. Technical Outreach Sessions and Initiatives: Technical Social Outreach sessions as part of Kutty Coders Initiative was taken up by CSE Dept. at St. George's High School Arakkunnam conducting Coding Sessions by students of CSE . Outreach Sessions on Technological Advancements: With a view to promote engineering education sessions were conducted Introduction to Robotics, "Introduction to Arduino using Python" and "Introduction to Android Programming" Technical social outreach initiative for sustainable development Artificial Intelligence - Exploring the Buzz Word" and AI Robotics Club formed to learn Motivating Budding Young Minds: As part of Social Outreach Program, Dept of CSE, conducted a session on "Career Guidance and Entrepreneurship" at St. Stephens Higher Secondary School, Kothamangalam, for 2 students Social Outreach: Indian Road Safety Campaign (IRSC) Safety and Fire Dept created a platform and conducted Road Safety shows 6. Problems Encountered: Due to the Pandemic Covid-19, the most of the programs chalked out for 2019-20 could not be completed satisfactorily Morbid psychological condition of community at large responded partially to the programs promoted. BEST PRACTICE II 1. Title of the Practice : Employment Enhancement Program The Institute has evolved futuristic training programs designed and executed to cater to diverse needs and demands of students. 2. Objectives of the Practice 18. Available manpower resources to be molded for industry readiness. 2. Make available platform for experiential learning 3. Inculcate awareness about latest technologies 4.8 To Provide adequate placement training and opportunities 5. Enhancing on the job training to overcome limited curricular exposure and Research 3. The Context It is essential to maintain proper balance between employability skill and academic skills. If we take for example computer science skills are in high demand by employers. But the dominant focus of student learning ought to be on specialist subject knowledge. In the case of business studies, the high caliber of students must be in conjunction with academic rigor and the graduate's employability. 4. The Practice ISHRAE Job Junction: ISHRAE chapter of TIST enables the students of Mechanical Engineering, to get enrolled in Job Junction to find placements after their degree course. Student Chapter of ASME promotes collaboration, knowledge-sharing, career-enrichment, and skills development across all engineering disciplines and also , develops solutions to benefit lives and livelihoods. Kerala Blockchain Academy Innovation Club (KBAIC) provided opportunities to acquainting students with latest advancements in building their carrier in the disruptive world of blockchain. TIST is a proud member of KBAIC. TIST is also enrolled as CSI student chapter and actively participating in diverse programs Most of the students of ECE EEE are members of IEEE. They conducted various workshops, international conferences, various fun oriented activities, technical rounds and publications. The IEEE student branch of TIST was established in the year 2006. Majority of the students of ECE EEE are members of IEEE. Right from first year onwards industrial training imparted including cochin shipyards, TELK, KMRL, HMT, VOLVO, Keltron, OEN connectors etc. all students avail this facility during the period of the UG/PG Programs. The telepresence lab provides audio-video support, touch screen television, speaker track camera, mics, and speakers. It's can be utilized for virtual classrooms, interactive webinars, and global delivery of content To avail experiential learning Students are provided with ample opportunities to participate in consultancy, Rebuild kerla initiatives, Sampoorna Jalasureksha, survey for Rehabilitation of street vendors , Additional experiments are given in the lab Also provide content beyond prescribed syllabus. Konfident, insight jobguru, Time are the knowledge partner of TIST. They are provided training for aptitude, skill, communication skills etc. 5. EVIDENCE OF SUCCESS Team TRIDENT from Toc H Institute of Science and Technology was shortlisted for American society of Mechanical Engineering, HPVC competition as part e-fest 2020, which is an international fest. This year e-fest for Asia is going to be held at Marvadi University Rajkot Gujarat on late February. Delta Racing is a club

formed by eight students from the Department of Mechanical Engineering of Toc H Institute of Science and Technology, Arakkunnam, as a part of the ASME student chapter. These students aims to revolutionize the fuel-less transportation sector, by designing a human powered vehicle that would replace the common commuting methods. "Mothership" is the first project undertaken by the Delta Racing team to participate in the ASME Human Powered Vehicle Challenge 2020, HPVC competition as part e-fest 2020 to be held at Marvadi University Rajkot Gujarat. TIST CSI SB has won the prestigious 'Best Accredited Student Branch Award' in Region VII consecutively for the past 7 years towards student excellence and skill development. Also student member Yadev Jayachandran of final year have secured 'Highest Committed Student Branch Activist Award'. Also Student of CSE department secured Inapp national student project award The Department of Civil Engineering is happy to be a part of Sampoorna Jalaparishodhana by providing Technical assistance to Kerala Government's prestigious project "Complete Water Safety Mission" at Amballoor Panchayath. REBUILD KERALA: Department of Civil Engineering of TIST is happy to go hand in hand with the Govt of Kerala for achieving the aim to ensure a resilient recovery and development path way for a Nava Keralam. The department has extended the support by conducting survey and soil investigation of various LSGD roads in Ernakulam District. 6. Due to the Pandemic covid 19, the most of the programs and the projects chalked out for 2019-20 could not be completed with due satisfaction.

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link

<https://tistcochin.edu.in/wp-content/uploads/2021/08/Best-Practice-2019-20.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

1. Computer Society of India (CSI) TIST CSI SB has won the prestigious 'Best Accredited Student Branch Award' in Region VII consecutively for the past 7 years (2011-'12, 2012-'13, 2013-'14, 2014-'15, 2015-'16, 2016-'17 and 2017-'19) for its distinguished contributions towards student excellence and skill development. Our student members have secured 'Highest Committed Student Branch Activist Award' in 2013 (Jibin Jose), 2014 (Anoop K Nayak), 2016 (SiddharthPrajosh) and 2019 (Yadev Jayachandran). Asst. Prof. Elsaba Jacob, TIST CSI, SBC, has also won the 'Longest Continuous SBC Award' in 2014, 2016, 2017 and in 2019 for her significant contributions to the SB activities. 2. Proposal imitated for setting up tele presents lab sponsored by, kerala state IT infrastructure limited.: Tele presence network is a project linking all the engineering colleges in Kerala with the IT parks. Providing learning platform connecting 150 high tech class room to deliver skills training to around 50,000 students per year. 3. Advanced skill devilmnt centre established under ASAP Eleven students from the department of Computer science and engineering successfully completed Google Cloud Ace Program through Advanced Skill Development Centre (ASDC) launched by Govt. of Kerala under ASAP in 2020. Earthquake Management 01-01-2020 1 Artificial Intelligence Machine Learning - Term 2: Deep Learning by ASAP IBM Sep-19 24 Google Cloud by Google ASAP Sep-19 18 Diploma Program in Cyber Security Forensics by C-DAC Oct-19 32 Maps Location Technology by Here Maps ASAP Mar-20 27 Coding Skills by ASAP ICTAK May-20 23 4. DSIR recognised Scientific and industrial research organization (SIRO )since 2012 Registered with the Department of Scientific and Industrial Research (DSIR) and approved as Scientific and Industrial Research Organization (SIRO)since 2012. The recognition renewed for the period of 2019-21. 5. KTU approved research centre Dr. Reshmi P S, Dr.Njanasheela , Dr.Perumal Shankar, Dr. Sanjay Gopinath, student who (details from smitha miss) 6. International

Collaboration Toc H MBA became the First Institute in Kerala to partner with Veleuciliste U Pozegi, Croatia under the prestigious ERASMUS Mobility programme. Erasmus stands for European Community Action Scheme for the Mobility of University Students, established in 1987. Erasmus is a programme run by the European Union and is managed by agencies in each EU member country, as well as by the Education, Audio-visual and Culture Executive Agency (EACEA) of the EU. The focus of this programme is on four different fields - education, training, youth and sport to improve skills and increase employability. To formalise the partnership, Memorandum of Understanding was signed between Veleuciliste U Pozegi, Croatia and Toc H Institute of Science Technology under the prestigious ERASMUS exchange Programme in 2018. This MoU offers exchange of faculty and students between these two institutions. Under this agreement, so far two faculty has represented India for the Erasmus Teaching Mobility for Academic Staff. The competition for TIST (Management studies department) students for the participation in the Erasmus KAL-Learning Mobility of Individuals (Students) between Polytechnic in Pozega (Croatia) and Toc H (Management studies department) is under processing.

Provide the weblink of the institution

<https://tistcochin.edu.in/wp-content/uploads/2021/08/Distinctiveness-2019-20.pdf>

## 8.Future Plans of Actions for Next Academic Year

1. New premises and building complex for conducting management studies and other allied new courses: We offer the two-year full-time Master of Business Administration (MBA) Program with specializations in Finance, Marketing, Human Resource, Operations and Information Systems. The new National Education Policy envisages institutional autonomy and a lot of freedom to enterprising players. Diversified courses at undergraduate level ranging from commerce, accountancy, computer application, new generation technologies amp managerial skills, Artificial Intelligence amp Machine Learning, finance, logistics, arts and myriads of such courses, can offer enhanced job and self-employment opportunities. Hence a masterplan is under active consideration to construct suitable premises to house all such facilities. 2. Inclusion under 2(f) category of UGC: Compiled with all instructions the proposal with all mandatory documents to the concern undersecretary, UGC, NewDelhi 3. New B.Tech program in Electrical and Computer Engineering. Proposal initiated with AICTE/KTU for the new Program. The technology that improves lives and shapes society is more powerful and changing more rapidly than any other time in human history. The world of the future- the very near future will have billions of devices connected on the Internet of Things and working together using the latest algorithms for artificial intelligence and Machine learning. Considering the diverse range of job requirements in the field of Electrical Engineering, it is necessary that an Electrical Engineer should acquire additional skills in the areas like programming, automation, machine learning etc. to name a few. Automation is the buzz word in the current industrial scenario. So in the areas of design, research and development, the knowledge of Electrical and Computer Engineering will give the job seekers an edge over other competitors. 4. Increase intake in B.Tech Computer science from the present 60 to 90: As the department enhanced placement opportunities ranging upto in all previous outgoing batches. Hence proposal submitted to concern authorities for the increase of intake. 5. Submitting proposals for funded major projects: R and D wing of the institute has an action plan for the promotion of major funded projects, by providing information, statistical data and allied resources to the stake holders 6. Promotion of Social and Technical outreaches. In order to meet the covid -19 pandemic challenge, contactless counselling is scheduled to be organised with qualified counsellors more avenues to reach out the needy are on the anvil. Promotion of engineering education in all emerging areas will be promoted amongst young aspirants.

