

# **SELF STUDY REPORT**

**FOR**

**2<sup>nd</sup> CYCLE OF ACCREDITATION**

## **CHADALAWADA RAMANAMMA ENGINEERING COLLEGE**

**CHADALAWADA NAGAR RENIGUNTA ROAD TIRUPATI- 517 506 CHITTOR  
(DT) ANDHRA PRADESH INDIA**

**517506**

**[www.crectirupati.com](http://www.crectirupati.com)**

**Submitted To**

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**

**BANGALORE**

**(Draft)**

# 1. EXECUTIVE SUMMARY

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## 1.1 INTRODUCTION

Chadalawada Ramanamma Engineering College is established in the year 2004 with a modest intake of 240 in 4 branches of engineering namely CSE, ECE, EEE, ME by C V S Krishna Murthy Theja Charities under the aegis of Dr.Chadalawada Sucharitha, a renowned educationalist with the noble objective of promoting quality technical education. Today the college is enshrouded with an intake of 786 students comprising B.Tech, M.Tech, MCA and MBA. By virtue of 13 years journey, the college has many achievements to its credit which include, conferred with an Autonomous status from UGC in the year 2017, and NAAC 'A' grade accreditation in the year 2013. All the UG level branches got NBA accreditation. The college also got SIRO recognition, UGC recognition under 2(f) & 12(B) and achieved 'A' grade from the Government of AP.

The Institution has strong association with industries and possesses the Center of Excellences like Microsoft Innovation Center, National Instruments Center of Excellence, AKC and signed MOU with Campus Classle. The college also has association with IUCEE, Infosys Campus connect, Wipro Missio10x.

Our students have developed more than 3000 mobile, PC and cloud apps from our Microsoft Innovation Center. A good number of students have started the startups. MIC is also acting as an Incubation center. The college has student chapters of ISTE, IEEE and CSI.

The trust manages and runs many educational institutions with quality technical / professional and hospitals with the aim of serving the needy sections of the society.

### Vision

We at CHADALAWADA RAMANAMMA ENGINEERING COLLEGE to impart training to Students, So that they become competent and motivated engineers and scientists. The institute celebrates freedom of thought cultivate vision and encourages growth, but also inculcate human values and concern for environment and country.

### Mission

- To provide state of art and world class quality of education to sharpen the intellect of the students.
- To produced fulfilled personalities who can contribute their knowledge and skills learnt for benefit and development of the individual and State.
- To mould the Students Educationally, Ethically, Spiritually, Physically and mentally splendid.

## 1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

### Institutional Strength

- A well balanced blend of experienced elders and enthusiastic youth among the faculty.
- IIT Tirupati is established and it is functioning in our campus until getting ready the permanent building. Through this students and faculties can avail their intellectual and research activities from IIT Tirupati.
- Pragmatic management providing excellent leadership and support for expansion and evolution.
- Use of ICT for improving processes and operations of the institution.
- Excellent and well maintained infrastructure.
- Planned growth of expansion.
- Conducive teaching-learning environment supported by library and well equipped labs.
- The teaching learning process moves beyond the confines of the class rooms and teachers willingly make themselves available to the students even after the mandatory teaching sessions.
- Many clubs are functioning in the college for the overall development of the students. These are managed by students with the faculty playing an advisory role.
- The Internal Quality Assurance Cell (IQAC) of the college plays a vital role in ensuring quality in education through various quality sustenance and enhancement measures and monitoring mechanisms.
- Initiatives aimed at community Welfare.
- Conducting outreach programs.
- National Service Scheme unit functioning effectively to address the issue of Institutional Social Responsibility(ISR).
- Mentoring Cell that addresses the psychological and emotional issues faced by students and staff.
- Well equipped laboratories, periodically modernized.
- Large collection of books and journals in the central library with digital library section.
- Wi-Fi enabled campus.
- Offering of PG programs gives an impetus to the research activities.
- Social commitment and extension work.
- Institution is funded with DST-FIST, Govt. of India.

### **Institutional Weakness**

- Large number of students from socio economically backward communities.
- Rural background of the students and their lack of communication skills.
- Poor patent filing.
- Number of students qualifying in TOFEL, GRE, GATE and Civil services is limited.
- Number of students going for research oriented higher studies is to be improved.

### **Institutional Opportunity**

- Skill based courses under CBCS, Which will provide an opportunity for faculty to utilize some of their research and expertise for the benefit of students and their prospective employees.
- Introduction of more add-on courses for the benefit of students.
- Good rapport and credibility with external agencies to help the institution forge useful collaborations for mutual growth.
- Potential and scope for introduction of new courses.
- Tremendous opportunities for national and international collaborations with other Universities.
- Collaboration with industry is likely to provide students with useful insights on professional skills with a thrust on entrepreneurial culture.

- Academic collaboration with professional institutions and other universities for introduction of professional courses as well as add on certificate courses.
- The college has the unique opportunity of contributing effectively to the development of region through research, development and extension activities.
- Introduction of outreach programs.
- Introduction of skill development programs.
- Tapping the hidden potential of students.
- Promote entrepreneurship among the students.
- Serve local community through C.V.S Krishnamurthy Teja Charities.
- Enhancement of qualification of existing faculty through the registration of their Ph.D program at esteemed State and Central Universities.
- Inter disciplinary research centers can be established with funds from external agencies.
- Value added courses can be introduced to improve the employability of students.
- Institution having MOU with Microsoft Technologies, which leads to develop the different type of mobile applications by our students.
- Industrial consultancy services can be taken up by all the departments.

### **Institutional Challenge**

- To motivate students to develop a deeper sense of critical and analytical thinking and to cultivate in them an endeavoring passion to be conscious morally and socially.
- To keep maintenance cost in check as the equipment ages .
- To strengthen the alumni forum by which regular contact could be maintained with them and valuable feedback obtained.
- To retention of qualified faculty.
- Stagnation in the job market.
- To improve and to become one of the best technical institutions in the entire state and to compete with the renowned universities in the future.

## **1.3 CRITERIA WISE SUMMARY**

### **Curricular Aspects**

The academic programs have their curriculum design with inputs on various aspects like fundamental, problem solving, modern equipment usage and application of course knowledge to address the needs of the society. The processes like design of syllabi, the imparting of knowledge and all important student assessment and evaluation are all aligned with the overall goals and objectives of the institution. The institution has its own Governing Body, Academic Council and Board of Studies are duly constituted as per the guidelines of UGC. The college has made it a policy to actively involve industry, research organization and civil society in the design and development of the curriculum. The curriculum design and development invariably focuses on three key aspects, namely employability, research/ innovation and extension studies. The institution ensures that there is enough flexibility in the use of time frame of the courses, interdisciplinary options and to some extent horizontal mobility, all facilitated by curriculum transactions.

The following provisions are incorporated with reference to the academic flexibility

- Core/elective options
- Enrichment courses
- Credit transfer and accumulation facility
- Full Semester Internships(FSI)
- Employability courses

The college elicits feedback on curriculum from reputed national and international faculty and also from all stake holders viz., students, alumni, industry, parents regarding enrichment of the curriculum. The institution has implemented outcome based curriculum by designing of course outcomes (COs) and program specific outcomes (PSOs). The college makes use of guidelines specified by UGC, AICTE, NBA and JNTUA in curriculum development and restructuring.

### **Teaching-learning and Evaluation**

The institution has made it a policy that, it plans and organizes its teaching, learning and evaluation schedule meticulously so that the student community stands to benefit. The demand ratio of admission in CREC increased year by year. The admission procedure is in accordance with the rule of reservation laid down by the university and the state government. The institute having the policy of recruiting highly qualified, committed and experienced faculty as per AICTE and UGC norms. Before commencement of the semester, teachers prepare elaborate teaching tasks in all respects. Innovative processes in Teaching and Learning are adopted by the CREC faculty. CREC provides full time counseling for students by faculty counselors.

The regular classes are complimented with tutorial classes, special classes for students with backlogs and remedial classes for slow learners. To bridge the gap between the institute prescribed curriculum and requirements of the industries, suitable additional topics are covered in every theory and laboratory course. Students' subject knowledge is further strengthened by relevant guest lectures, workshops, conferences etc. Bridge courses are also organized for the freshers and lateral entry students. Automation of examination division facilitates effective conduction of examinations with utmost confidentiality and effective evaluation process. Moving towards the 'outcome based approach' in the teaching-learning-evaluation process, every programme in the institution has formulated a set of POs and PSOs. Apart from this, a set of COs have been framed for each course. Systematic procedures have also been devised for assessing the attainment of these Outcomes.

### **Research, Innovations and Extension**

The institution is making all efforts to promote research culture among faculty and students. This is ensured by facilitating participation of faculty and students in research and related activities. The salient features of research policy are

- Periodic interaction of faculty with a cross section of researchers.
- Extending administrative and financial support to faculty to attend workshops, conferences, journal publications and pursuing research.
- Recognition and reward for faculty engaged in research work.
- Providing SEED money.
- Collaboration with national/international institutions and industries.

To support student research projects, the college has made financial support for procurement of software/hardware components required for research projects. The institution has also received research grants from external agencies for major and minor research projects. In this context, autonomy to the principal investigator for utilizing research funds. The institution focuses on emerging /thrust areas of research by conducting conferences/workshops which provided a platform for outside researchers to visit the college. The college provides assistance and encouragement to the faculty to file the patents. The central library of the institution caters to the needs of the researchers by providing access to journals, books and e-journals for the researchers. The college has an officially stated policy for structured consultancy. Students are motivated to involve in social activities, for the empowerment of the under privileged sections of the society through NSS and other agencies. Various awards/recognitions have been received by the college for the extension activities undertaken by it and also the community development purpose.

### **Infrastructure and Learning Resources**

The institution has adequate infrastructure and facilities for teaching, learning and evaluation process. These facilities are being utilized optimally and they are augmented from time to time. The college campus is spread over 17.2 acres of area with a total build area of 18544 sqmts. The college has budget allocation for Infrastructure, Laboratory Equipment, other supporting facilities. The college is culminated with advanced research laboratory facilities to enhance their research and multiple talented task skills among the students fraternity.

The college does have a policy for creation and enhancement of infrastructure to promote a better teaching learning environment. The college has provided all the facilities to the HoDs, faculties and students.

The college has made arrangements to cater to the residential requirements of boys and girls. Separate hostels for men and women are provided with Yoga teacher visiting the hostel for training, In-door games, news paper, magazines, RO drinking water and CCTV cameras.

The college has health hygiene concepts to render services to the faculty and students with help of medical officer at health centre including the services of a psychologist and an ambulance is available in the campus for all medical emergencies. To promote sports and cultural events, some special facilities are made available in the campus. State of the art, central and digital library, upgraded IT infrastructure, ICT enable classrooms, NPTEL Videos etc., are available.

The college has an estate officer for overseeing the maintenance work related to all curriculum and co-curriculum activities.

### **Student Support and Progression**

The college does have an independent system for student support and mentoring. Student's development is ensured by undertaking schemes like coaching classes, career counseling, soft skills training and productive CRT program. Apart from classroom work the following provisions exists for academic mentoring

- Student chapters of professional bodies and societies.
- Participation in co-curriculum activities.

- Remedial classes.
- Special lectures/workshops/conferences/webinars.

The college management provides scholarships to financially weak students which are sponsored by Manda Padmavathi Merit and EBC scholarships. The college has policies for enhancing the student participation in sports and extracurricular activities by providing cash incentives, arranging coaching programs & facilities and exemption of attendance for participation. An exclusive training and placement cell is functioning under the guidance of a TPO. The training and placement cell oversees the inviting of companies to the campus and gets students trained in all aspects. Students are trained to excel in higher studies and competitive examinations.

The college does have a registered alumni association registered under the society act 35 Of 2001 with registration number 218. Student grievance cell is extended to redress the grievances. Women protection cell is ensured to resolve sexual harassment issues. The institution has become a ragging free campus. The college collects the feedback from the students for improving the support services. The college involves and encourages students in NSS and needs of social issues. The college elicits the cooperation from all the stake holders, to ensure the overall development of the students by taking into consideration of various aspects.

### **Governance, Leadership and Management**

The governance of the institution is reflective of an effective leadership, which encourages participative decision making process and helps in building the organizational culture. The leadership and guidance provided by the apex body, the college governing council, has ensured a very effective system development and improvement. The college promotes a culture of participative management, by encouraging decentralization whenever feasible. The college grooms the leadership at various levels focusing on academic and administrative responsibilities coupled with accountability. The hallmarks of the organization setup are decentralization and transparency. The institution from the early stages of its inception has been pursuit of excellence and quality. The accreditation by NBA, NAAC and autonomous status bear a testimony to the excellence of the processes of quality sustenance and enhancement. The college does have a perspective plan by focusing on the following parameters

- Teaching and learning
- Research and development
- Community engagement
- Human resource planning and development
- Industry interaction
- Enrichment programs
- 

The college ensures that grievances/complaints are promptly attempted to resolve effectively. The feedback collected from all the stake holders on the institutional performance is used to improve the functioning of the institution. The institution has adequate budget for academic and administrative segments. The college conducts an academic audit with internal and external on annual basis. IQAC has contributed in institutionalizing quality assurance strategies and processes by conducting regular audits which are undertaken for quality checks. Service rules and policies are published and communicated to all the employees.

### **Institutional Values and Best Practices**

The college has enforced gender equity promotion policy in recruitment process and organized programs like Women Empowerment, Engineers day, National voters day, Ammaku Vandanam and established Women protection cell to shun gender discrimination.

Security and safety of the students is on top priority and right patrolling is available in the campus. Counseling is extended periodically to the Students fraternity to mould them to be enriched with educational and ethnic values. Common room facility is in vogue with proper care and attention.

The college enjoys the energy conservation with low carbon power technology using LED bulbs through solar power plant. A systematic approach is being utilized to discard solid, liquid and e-waste with the support of Municipal authorities.

Rain water harvesting is in force to sustain shortage of water and lush green plantations are available to enrich the academic ambience and to provide pleasant air.

The college is located in the heart of the city with public transport facility. Differently abled persons are assisted with acute care. Code of conduct is envisaged for all.

The college emphasizes the need and necessity of core values like honesty and integrity, the spirit of togetherness, equality, innovation and engineering excellence.

Students are motivated, guided on human, social professional ethics and adapted universal values like tree plantation, blood donation and health hygiene camps. Conducive best practices like provision of credentials and cash award to academic toppers, periodical educational tour and industrial visit and financial aid to the poor students are backbone of the college.



## 2. PROFILE

### 2.1 BASIC INFORMATION

Name and Address of the College	
Name	CHADALAWADA RAMANAMMA ENGINEERING COLLEGE
Address	Chadalawada Nagar Renigunta Road Tirupati- 517 506 Chittor (Dt) Andhra Pradesh India
City	Tirupati
State	Andhra Pradesh
Pin	517506
Website	<a href="http://www.crectirupati.com">www.crectirupati.com</a>

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Professor	A. Mohan Babu	0877-6451117	9246996118	0877-2225335	mohanphy57@gmail.com
Principal	Mallikarjunai ah	0877-6451118	9246996116	0877-22255335	info@crectirupati.com

Status of the Institution	
Institution Status	Self Financing

Type of Institution	
By Gender	Co-education
By Shift	Regular

Recognized Minority institution	
If it is a recognized minority institution	No

Establishment Details	
Date of Establishment, Prior to the Grant of	14-05-2004

'Autonomy'	
Date of grant of 'Autonomy' to the College by UGC	06-04-2017

<b>University to which the college is affiliated</b>		
<b>State</b>	<b>University name</b>	<b>Document</b>
Andhra Pradesh	Jawaharlal Nehru Technological University, Anantpur	<a href="#">View Document</a>

<b>Details of UGC recognition</b>	
<b>Under Section</b>	<b>Date</b>
2f of UGC	11-04-2013
12B of UGC	11-04-2013

<b>Details of recognition/approval by stationary/regulatory bodies like AICTE,NCTE,MCI,DCI,PCI,RCI etc(other than UGC)</b>				
<b>Statutory Regulatory Authority</b>	<b>Recognition/Approval details Institution/Department programme</b>	<b>Day,Month and year(dd-mm-yyyy)</b>	<b>Validity in months</b>	<b>Remarks</b>
AICTE	<a href="#">View Document</a>	10-04-2017	12	

<b>Recognitions</b>	
Is the College recognized by UGC as a College with Potential for Excellence(CPE)?	No
Is the College recognized for its performance by any other governmental agency?	Yes
If yes, name of the agency	GOVERNMENT OF ANDHRA PRADESH
Date of recognition	25-03-2016

<b>Location and Area of Campus</b>				
<b>Campus Type</b>	<b>Address</b>	<b>Location*</b>	<b>Campus Area in Acres</b>	<b>Built up Area in sq.mts.</b>
Main campus area	Chadalawada Nagar Renigunta Road Tirupati- 517 506 Chittor (Dt) Andhra Pradesh India	Rural	17.2	20393

## 2.2 ACADEMIC INFORMATION

NAAC

<b>Details of Programmes Offered by the College (Give Data for Current Academic year)</b>						
<b>Programme Level</b>	<b>Name of Programme/ Course</b>	<b>Duration in Months</b>	<b>Entry Qualification</b>	<b>Medium of Instruction</b>	<b>Sanctioned Strength</b>	<b>No.of Students Admitted</b>
UG	BTech,Computer Science And Engineering	48	INTERMEDIATE	English	120	119
UG	BTech,Electrical And Electronics Engineering	48	INTERMEDIATE	English	60	48
UG	BTech,Mechanical Engineering	48	INTERMEDIATE	English	120	68
UG	BTech,Electronics And Communication Engineering	48	INTERMEDIATE	English	120	120
PG	Mtech,Computer Science And Engineering	24	B.TECH	English	36	4
PG	Mtech,Electrical And Electronics Engineering	24	B.TECH	English	36	15
PG	Mtech,Mechanical Engineering	24	B.TECH	English	36	29
PG	Mtech,Electronics And Communication Engineering	24	B.TECH	English	18	9
PG	MBA,Mba	24	DEGREE	English	180	161
PG	MCA,Mca	36	DEGREE	English	60	52

**Position Details of Faculty & Staff in the College**

<b>Teaching Faculty</b>												
	<b>Professor</b>				<b>Associate Professor</b>				<b>Assistant Professor</b>			
	Male	Female	Others	Total	Male	Female	Others	Total	Male	Female	Others	Total
Sanctioned by the UGC /University State Government	0				0				0			
Recruited	0	0	0	0	0	0	0	0	0	0	0	0
Yet to Recruit	0				0				0			
Sanctioned by the Management/Society or Other Authorized Bodies	19				38				113			
Recruited	14	4	0	18	32	6	0	38	69	44	0	113
Yet to Recruit	1				0				0			

<b>Non-Teaching Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				40
Recruited	27	13	0	40
Yet to Recruit				0

<b>Technical Staff</b>				
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Total</b>
Sanctioned by the UGC /University State Government				0
Recruited	0	0	0	0
Yet to Recruit				0
Sanctioned by the Management/Society or Other Authorized Bodies				15
Recruited	10	5	0	15
Yet to Recruit				0

**Qualification Details of the Teaching Staff**

<b>Permanent Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	<b>Male</b>	<b>Female</b>	<b>Others</b>	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	15	4	0	14	1	0	0	0	0	34
M.Phil.	0	0	0	1	0	0	0	0	0	1
PG	0	0	0	17	5	0	68	44	0	134

<b>Temporary Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

<b>Part Time Teachers</b>										
<b>Highest Qualification</b>	<b>Professor</b>			<b>Associate Professor</b>			<b>Assistant Professor</b>			<b>Total</b>
	Male	Female	Others	Male	Female	Others	Male	Female	Others	
D.sc/D.Litt.	0	0	0	0	0	0	0	0	0	0
Ph.D.	0	0	0	0	0	0	0	0	0	0
M.Phil.	0	0	0	0	0	0	0	0	0	0
PG	0	0	0	0	0	0	0	0	0	0

<b>Details of Visting/Guest Faculties</b>					
<b>Number of Visiting/Guest Faculty engaged with the college?</b>	<b>Male</b>		<b>Female</b>		<b>Total</b>
	6		4		10

**Provide the Following Details of Students Enrolled in the College During the Current Academic Year**

Programme		From the State Where College is Located	From Other States of India	NRI Students	Foreign Students	Total
UG	Male	337	2	0	0	339
	Female	111	3	0	0	114
	Others	0	0	0	0	0
PG	Male	196	0	0	0	196
	Female	74	0	0	0	74
	Others	0	0	0	0	0

**Provide the Following Details of Students admitted to the College During the last four Academic Years**

Programme		Year 1	Year 2	Year 3	Year 4
SC	Male	33	42	24	25
	Female	24	20	6	7
	Others	0	0	0	0
ST	Male	5	4	5	3
	Female	1	2	0	1
	Others	0	0	0	0
OBC	Male	166	147	131	111
	Female	66	45	37	58
	Others	0	0	0	0
General	Male	159	149	96	115
	Female	109	101	64	57
	Others	0	0	0	0
Others	Male	0	0	0	0
	Female	0	0	0	0
	Others	0	0	0	0
Total		563	510	363	377

## 2.3 EVALUATIVE REPORT OF THE DEPARTMENTS



<b>Department Name</b>	<b>Upload Report</b>
Computer Science And Engineering	<a href="#">View Document</a>
Electrical And Electronics Engineering	<a href="#">View Document</a>
Electronics And Communication Engineering	<a href="#">View Document</a>
Mba	<a href="#">View Document</a>
Mca	<a href="#">View Document</a>
Mechanical Engineering	<a href="#">View Document</a>

NAAC

### 3. Extended Profile

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#### 3.1 Programme

**Number of programs offered year wise for last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
10	10	10	10	10

**Number of all programs offered by the institution during the last five years**

**Response : 10**

**How many self-financed Programmes does the institution offer**

**Response : 10**

**Number of new programmes introduced during the last five years, if any**

**Response : 0**

**Number of UG programmes offered by the College, which are not covered under the Autonomous status of UGC**

**Response : 0**

**Number of PG programmes offered by the College, which are not covered under Autonomous status of UGC**

**Response : 0**

**Whether the College is offering professional programme**

**Response : Yes**

#### 3.2 Student

**Number of students year wise during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
1341	1246	1274	1428	1643

**Number of outgoing / final year students year wise during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
352	421	528	494	475

**Total number of outgoing / final year students****Response : 2270****Number of students appeared in the University examination year wise during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
1268	1198	1225	1391	1618

**Number of revaluation applications year wise during the last 5 years**

2016-17	2015-16	2014-15	2013-14	2012-13
5	1	1	1	1

**3.3 Academic****Number of courses in all programs year wise during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
317	318	322	311	311

**Number of courses offered by the institution across all programs during the last five years****Response : 361****Number of full time teachers year wise during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
169	163	153	146	138

**Number of full time teachers worked in the institution during the last 5 years**

**Response : 342**

**Number of teachers recognized as guides during the last five years**

**Response : 6**

**Number of sanctioned posts year wise during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
169	169	157	147	140

**Total number of publications during the last 5 years, which are included in online databases such as SCOPUS, web of science or PubMed/ Indian Citation Index**

**Response : 315**

### **3.4 Institution**

**Number of eligible applications received for admissions to all the programs year wise during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
882	826	790	733	753

**Number of seats earmarked for reserved category as per GOI/State Govt rule year wise during the last five years**

2016-17	2015-16	2014-15	2013-14	2012-13
275	275	275	242	242

**Total number of classrooms and seminar halls**

**Response : 50**

**Total number of computers in the campus for academic purpose**

**Response : 600**

**Total Expenditure excluding salary year wise during the last five years ( INR in Lakhs)**

2016-17	2015-16	2014-15	2013-14	2012-13
245.42	199.80	172.48	120.58	179.57

**Annual lighting power requirement (in KWH)**

**Response : 65268**

**Annual power requirement of the institution (in KWH)**

**Response : 426300**

NAAC

## 4. Quality Indicator Framework(QIF)

### Criterion 1 - Curricular Aspects

#### 1.1 Curriculum Design and Development

**1.1.1 Curricula developed /adopted have relevance to the local/ national / regional/global developmental needs with learning objectives including program outcomes, program specific outcomes and course outcomes of all the program offered by the Institution**

**Response:**

C.R.E.C has an ambitious vision of imparting training to students so that they become competent and motivated engineers and scientists. The institute celebrates freedom of thought cultivates vision and encourages growth but also inculcates human values and concern for environment and country. For achieving this vision, the institution intends to be a world class institution of creative abilities with practical concept oriented applications and equipped with innovative ideas which are on its prime objective.

All departments and the institute are guided and ensured the prescribed standards in the preparation of course curriculum by department Board of Studies and academic council by typically adopting the following steps.

Step1: A series of all faculty meetings are conducted in correlation to, stated POs, PSOs and COs is carried out. With this, Curriculum structure and detailed curriculum is then prepared which collectively satisfies both POs and PSOs. Curriculum is set of theory courses, laboratory courses, seminars, projects etc. While switching from university affiliation to autonomous status, mini projects, full semester internship, MOOCs and value added courses, professional electives and audit courses are included in the curriculum to enhance student employability skills.

Step2: The set of courses which require modifications and deletion/addition are prepared and programme curricula adopted at other leading academic institutes in India and abroad are compared.

Step3: The Institute hosts reunion meets of Alumni. During such meets the institute takes initiative of eliciting their views and suggestions in respect of required changes in curriculum.

Step4: A meeting of Board of studies is convened. This body comprises senior faculty of department and five experts, one JNTUA nominee, one alumni representative, two from academia and one from the industry. The needs of the industry, government and R&D Laboratories are articulated and recorded. During this review suggestions recorded by faculty and students is deliberated and a scheme of instruction along with detailed syllabi, credits and other details is prepared and submitted to the academic council for its approval.

Step5: The academic council comprising of three JNTUA nominees, Professors and Heads of departments, three experts from industries and other renowned colleges, discusses and evaluates the scheme and syllabi and approves the same with necessary modifications.

The process used to identify extent of compliance of the curriculum for attaining the COs and PSOs as

mentioned:

1. Alumni give their feedback and suggestion during Annual Meets.
2. Campus placement officer interacts with officials from Industry who visit for recruitment and obtain their feedback on the quality of the competencies of the students and the deficiencies of the curriculum being offered in relation to weakness and strengths of the programme.
3. Outgoing students give feedback at the valedictory functions of respective technical associations.
4. The information from all the above is discussed and deliberated in faculty meetings, BOS meetings and academic council/Governing Body to incorporate required and feasible modifications to improve the quality of competencies of outgoing students.

**CREC ensures that the evolution of academic curriculum address and has relevance to the regional/national development needs.**

File Description	Document
Any additional information	<a href="#">View Document</a>

### 1.1.2 Percentage of programs where syllabus revision was carried out during the last five years

**Response:** 100

1.1.2.1 How many programs were revised out of total number of programs offered during the last five years

Response: 10

File Description	Document
Any additional information	<a href="#">View Document</a>
Details of program syllabus revision in last 5 years	<a href="#">View Document</a>
Minutes of relevant Academic Council/BOS meeting	<a href="#">View Document</a>

### 1.1.3 Average percentage of courses having focus on employability/ entrepreneurship/ skill development

**Response:** 83.66

1.1.3.1 Number of courses having focus on employability/ entrepreneurship/ skill development year wise

during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
273	254	274	267	253

File Description	Document
Program/ Curriculum/ Syllabus of the courses	<a href="#">View Document</a>
MoU's with relevant organizations for these courses, if any	<a href="#">View Document</a>
Average percentage of courses having focus on employability/ entrepreneurship	<a href="#">View Document</a>
Minutes of the Boards of Studies/ Academic Council meetings with approvals for these courses	<a href="#">View Document</a>

## 1.2 Academic Flexibility

### 1.2.1 Percentage of new courses introduced of the total number of courses across all programs offered during the last five years

**Response:** 15.24

1.2.1.1 How many new courses are introduced within the last five years

Response: 55

File Description	Document
Any additional information	<a href="#">View Document</a>
Minutes of relevant Academic Council/BOS meetings	<a href="#">View Document</a>
Institutional data in prescribed format	<a href="#">View Document</a>

### 1.2.2 Percentage of programs in which Choice Based Credit System (CBCS)/Elective course system has been implemented

**Response:** 100

1.2.2.1 Number of programs in which CBCS/ Elective course system implemented.

Response: 10



File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>
Minutes of relevant Academic Council/BOS meetings	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

## 1.3 Curriculum Enrichment

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

#### Response:

The cross-cutting issues like Gender, Environmental sustainability, Human Values and Professional Ethics etc., help students to develop skills, attitude and to connect those issues to their daily life. We realized the crosscutting concepts are valuable tools for helping students develop, understand, and connect disciplinary core ideas and practices across learning experiences. This scaffold helps students see the structure of the crosscutting concept, and it forces them to connect and gain the ethical and environmental values. The curriculum is designed by considering all these aspects such as the subjects namely Professional Ethics and Human Values, Environmental Studies and gender sensitivity.

**On Gender Sensitivity:** The Gender awareness is more analytical and critical since it clarifies issues about gender disparities and gender issues. It pertains to ones effort to show how gender shapes the role of women and men in society including their role in development and how it effect relation between them. Gender Sensitization is one basic requirement for the normal development of an individual. Without being sensitive to the needs of a particular gender, an individual may refrain from understanding the opposite gender and in some acute cases even him or herself. The need for this sensitivity has been felt and realized through times immemorial and in almost all kinds of human existence, across the globe. Thus, the curriculum concludes by proposing several salient steps to undertake gender sensitivity issues.

**On Environment and Sustainability:** This course introduces the academic approach of sustainability by covering the general understanding of what constitutes to the rates of renewable resource harvest, pollution creation, and non-renewable resource depletion and where these processes can be continued indefinitely, i.e., without sacrificing the needs of future generations. It is a course to better equipped students for making informed decisions and taking economically feasible actions that are in the interests of protecting the natural world. Various themes that are focused on are: green Technology in engineering and life sciences; environmental laws; pollution; low cost housing; natural resource management; waste management; environment sustainability, rural development etc.

#### PROFESSIONAL ETHICS AND HUMAN VALUES

This course is comprised of class room discussions with real life situations. It also focuses on ethical concerns common to human service situations. It is in response to a long- felt and urgent need to integrate value education with decision making skills in their professions.

The issues in professional ethics are analysed in the context of right understanding with the main focus on the development of ethical competence in the individuals. The course includes Some of the human values that are integrated into the curriculum are: justice, dignity of life, peace, harmony, acceptance and respect for diversity in religion, ethnicity, culture and gender, discipline and hard work, honesty and integrity of life, commitment to society, especially the less privileged, etc Thus, the curriculum concludes by proposing several salient steps to undertake the journey towards holistic and value-based living.

File Description	Document
Upload the list and description of the courses which address the Gender, Environment and Sustainability, Human Values and Professional Ethics into the Curriculum	<a href="#">View Document</a>

### 1.3.2 Number of value-added courses imparting transferable and life skills offered during the last five years

**Response:** 121

1.3.2.1 How many new value-added courses are added within the last 5 years

Response: 121

File Description	Document
Brochure or any other document relating to value added courses	<a href="#">View Document</a>
List of value added courses	<a href="#">View Document</a>

### 1.3.3 Average percentage of students enrolled in the courses under 1.3.2 above

**Response:** 73.06

1.3.3.1 Number of students enrolled in value-added courses imparting transferable and life skills offered year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
981	869	1025	986	1198

File Description	Document
List of students enrolled	<a href="#">View Document</a>

<b>1.3.4 Percentage of students undertaking field projects / internships</b>	
<b>Response: 82.55</b>	
1.3.4.1 Number of students undertaking field projects or internships	
Response: 1107	
File Description	Document
List of programs and number of students undertaking field projects / internships	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

## 1.4 Feedback System

<b>1.4.1 Structured feedback received from 1) Students, 2) Teachers, 3) Employers, 4) Alumni 5) Parents for design and review of syllabus Semester wise /year wise</b> <b>A. Any 4 of above</b>  <b>B. Any 3 of above</b>  <b>C. Any 2 of above</b>  <b>D. Any 1 of above</b>  <b>Response: A. Any 4 of above</b>	
File Description	Document
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	<a href="#">View Document</a>
URL for stakeholder feedback report	<a href="#">View Document</a>

<b>1.4.2 Feedback processes of the institution may be classified as follows:</b> <b>A. Feedback collected, analysed and action taken and feedback available on website</b>  <b>B. Feedback collected, analysed and action has been taken</b>  <b>C. Feedback collected and analysed</b>
--

**D. Feedback collected**

**Response:** A. Feedback collected, analysed and action taken and feedback available on website

File Description	Document
URL for feedback report	<a href="#">View Document</a>



## Criterion 2 - Teaching-learning and Evaluation

### 2.1 Student Enrollment and Profile

#### 2.1.1 Average percentage of students from other States and Countries during the last five years

**Response:** 0.64

##### 2.1.1.1 Number of students from other states and countries year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
6	1	9	28	0

#### File Description

#### Document

List of students (other states and countries)

[View Document](#)

Institutional data in prescribed format

[View Document](#)

#### 2.1.2 Demand Ratio(Average of last five years)

**Response:** 1.07

##### 2.1.2.1 Number of seats available year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
786	786	786	690	690

#### File Description

#### Document

Demand Ratio (Average of Last five years)

[View Document](#)

#### 2.1.3 Average percentage of seats filled against seats reserved for various categories as per applicable reservation policy during the last five years

**Response:** 71.36

##### 2.1.3.1 Number of actual students admitted from the reserved categories year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
238	208	142	143	203

File Description	Document
Average percentage of seats filled against seats reserved	<a href="#">View Document</a>

## 2.2 Catering to Student Diversity

### 2.2.1 The institution assesses the learning levels of the students, after admission and organises special programs for advanced learners and slow learners

#### Response:

As the students are centre of attention in every educational institution and one of the most important stakeholders, all the programs are designed to fulfill their requirements. The Institute organizes orientation program for all students, immediately after admission. The College chairman welcome and apprise the students about the vision, mission and objectives of the Institute. The Principal explains about the distinctive features of the innovative and comprehensive scheme of Teaching learning process in detail and rules and regulations of the institute. The Heads of Departments illustrate details of the subject combinations available, semester system, continuous system of evaluation and grading. Students are taken around the campus where they are shown all the central facilities, Departments and Laboratories.

As the students come from different sectors of society viz., backward classes, rural regions and Telugu medium they will have different requirements.

#### Some of the identified requirements

- Language problem for rural students
- Communication skills
- Lack of fundamental principles in basic subjects

#### Remedial measures

- Teachers consider the problems of Language and they will try to explain the subject both in English and Telugu till the majority of the students get accustomed to the English medium.
- More number of communication skill Laboratories introduced in the Autonomous syllabi.
- The English Department organizes special classes on 'English Language'

#### Strategies Adapted for assisting the slow learners:

The slow learners are identified from first mid examination performance in every semester and remedial Classes are conducted by the subject teacher after working hours.

#### Strategies Adapted for facilitating advanced learners:

- Encouraging them to participate in seminars, workshops, symposiums, working model contests, etc.,
- Additional Coaching for the students who are preparing for GATE.
- Soft skills training programs and career counseling programs are arranged for advanced learners.

### **Strategies Adapted for the overall development of student community**

#### **Counselor:**

For effective mentoring and for the welfare of the students, 20 students (Mentee) are attached to a faculty Counselor (Mentor). The main objective is to keep track of the progress of the students and counsel them accordingly for academic and personal guidance. Parents of the students are timely informed whenever the necessity arises such as lack of attendance, poor academic performance and psycho-social problem.

#### **Counseling system:**

The college endeavors to look after the total personality development of students through Co-Curricular and extra - Curricular activities and counseling.

#### **Professional Guidance:**

The faculty offer guidance to the students to develop the professional skills along with the classroom teaching. The Training and Placement cell has been putting efforts in this direction.

#### **Career advancement:**

The Training and Placement cell has been active not only in arranging campus recruitment drives, but also offering job awareness and training to the students

#### **Course work:**

Members of faculty handling different courses interact with students in clearing their doubts and apply their knowledge and skills to practical problems.

#### **Total Development:**

In addition to academics, literary, cultural and sports activities are conducted which foster leadership quality, decision making ability, team spirit, precision, analytical thinking, creative capabilities, socio-psychological awareness etc. which make every individual an intellectual.

<b>File Description</b>	<b>Document</b>
Any additional information	<a href="#">View Document</a>



**2.2.2 Student - Full time teacher ratio****Response:** 7.93

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

**2.2.3 Percentage of differently abled students (Divyangjan) on rolls****Response:** 0

## 2.2.3.1 Number of differently abled students on rolls

File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

**2.3 Teaching- Learning Process****2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences****Response:**

The college is confined to a caption to visualise a learn, Relearn, and learn towards the enrichment of learning process. In addition to existing traditional teaching-learning methods, the institute is highly interested in providing advanced methods for enriching the learning experience. The methodologies include illustration and special lectures, field study, case-studies, project-based-methods, industrial visits, experimental methods and group learning methods.

The classroom teaching is commonly adopted by all the teachers that facilitate the teacher to interpret, explain and revise the content of a text only for better understanding of the subject by the learners. At the end of instruction of each unit, the students are given with assignments in all the subjects which enrich their learning. In addition to blackboard teaching and learning interactive method of learning like group discussion, subject quiz, and discussion with question/answers are adopted by the institution. The tutorial classes were conducted to the problematic subjects to enhance the problem solving skills. ICT enabled teaching methods have been made available in the institute for effective learning. The Teaching-Learning Process is supported with Regular Practical Sessions, access of Digital Library, online Courses ( NPTEL), Delnet, online journals, Conducting Online tests, Use of LCD projectors for seminars and workshops, productive use of educational videos, Accessibility of non-print material for students of Computer studies. Soft skills training facility make the students to acquire proficiency in LSRW of English language to get command and clarity on effective communication skills.

The case study method is a participatory, discussion based way of learning where students gain skills in critical thinking, communication, and group dynamics. Appropriate integration of case studies in chosen subjects is arranged. Departments are extensively using Group Learning Method in specific subjects. All Students are trained through Group Discussions, Group Projects and Assignments to promote group



learning activity. Project work is mandatory for all the courses offered at the institute. The period of implementation is based on curriculum. The effective phases of survey, case study, implementation, testing and report writing ensure the required project-based learning among the students. Some subjects are augmented with learning through implementation of mini-projects. The faculty members foster learning environment of teaching through experimentation, demonstration, visual aids, periodical industrial visits, organizing working model contests as well as presenting papers. The Student seminars are mandatory in all programs offered at the institute. Usually students present seminar on contemporary topics as well as state-of-the-art technologies. Students of UG and PG Courses attend an Internship program in the industry during the summer break between pre-final and final years of their programme

### 2.3.2 Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc.

**Response:** 85.21

#### 2.3.2.1 Number of teachers using ICT

Response: 144

File Description	Document
List of teachers (using ICT for teaching)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 2.3.3 Ratio of students to mentor for academic and stress related issues

**Response:** 12.08

#### 2.3.3.1 Number of mentors

Response: 111

File Description	Document
Year wise list of number of students, full time teachers and mentor/mentee ratio	<a href="#">View Document</a>

### 2.3.4 Preparation and adherence to Academic Calendar and Teaching plans by the institution

**Response:**

The Institute follows a well-planned academic calendar that provides adequate balance between academic and nonacademic activities, teaching and examination schedule. Every faculty member prepares a 'Lesson Plan' for every subject and is duly approved by the Head of the department before the commencement of class work. The number of hours in the teaching plan is framed depending on the credits of the course and made available to the students. According to the lesson plan and implementation details are placed in the

course file of the subject. This guides the faculty members to stick to the academic schedules as much as possible. Effective monitoring of the lesson plan schedules is taken care by the Head of the Department as well as Principal. Syllabus coverage monitored at end of each month from the beginning of the semester by taking response from faculty as well as students. Moreover, at the beginning of academic year, every department prepares the calendar of academic events like Workshops, Conferences, visiting faculty lectures, Industrial visits, Symposiums and working model contests etc..

## 2.4 Teacher Profile and Quality

### 2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years

**Response:** 98.36

File Description	Document
Year wise full time teachers and sanctioned posts for 5 years	<a href="#">View Document</a>

### 2.4.2 Average percentage of full time teachers with Ph.D. during the last five years

**Response:** 11.49

#### 2.4.2.1 Number of full time teachers with Ph.D. year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
31	19	14	13	13

File Description	Document
List of number of full time teachers with PhD and number of full time teachers for 5 years	<a href="#">View Document</a>

### 2.4.3 Teaching experience of full time teachers in number of years

**Response:** 7.69

#### 2.4.3.1 Total experience of full-time teachers

Response: 1298.8

File Description	Document
List of Teachers including their PAN, designation,dept and experience details	<a href="#">View Document</a>

**2.4.4 Percentage of full time teachers who received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the last five years****Response:** 13

2.4.4.1 Number of full time teachers receiving awards from state /national /international level from Government recognised bodies year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
6	4	2	6	2

**File Description****Document**

Institutional data in prescribed format

[View Document](#)**2.4.5 Average percentage of full time teachers from other States against sanctioned posts during the last five years****Response:** 7.48

2.4.5.1 Number of full time teachers from other states year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
30	15	6	6	4

**File Description****Document**

List of full time teachers from other state and state from which qualifying degree was obtained

[View Document](#)**2.5 Evaluation Process and Reforms****2.5.1 Average number of days from the date of last semester-end/ year- end examination till the declaration of results during the last five years****Response:** 73.4

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

2016-17	2015-16	2014-15	2013-14	2012-13
70	76	71	76	74

File Description	Document
List of programs and date of last semester and date of declaration of result	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 2.5.2 Average percentage of student complaints/grievances about evaluation against total number appeared in the examinations during the last five years

**Response:** 0.13

#### 2.5.2.1 Number of complaints/grievances about evaluation year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
0	0	2	3	4

File Description	Document
Any additional information	<a href="#">View Document</a>
Number of complaints and total number of students appeared year wise	<a href="#">View Document</a>

### 2.5.3 Average percentage of applications for revaluation leading to change in marks

**Response:** 0

#### 2.5.3.1 Number of applications for revaluation leading to change in marks year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
0	0	0	0	0

File Description	Document
Year wise number of applications, students and revaluation cases	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 2.5.4 Positive impact of reforms on the examination procedures and processes including IT integration and continuous internal assessment on the examination management system

##### Response:

Reforms	Positive Impacts
Three Sets of question papers are obtained for each subject in SEE from External Faculty.	1. Confidentiality in the question paper Selection.
Three Sets of question papers are prepared for each subject in CIA by concerned subject faculty	2. Chances of question paper leakage are prevented
Preparation of detailed scheme of evaluation by internal subject experts	1. Uniformity in the evaluation among the evaluators 2. Fair judgment for the students
Initiation of Flying Squad team consisting of senior faculty members	1. Strict vigilance for smooth conduct of examination 2. Eliminates possibilities of use of unfair candidates.
Inclusion of CCTV cameras	1. Identifies the entry of un-authorized persons in examination section. 2. Continuous monitoring of activities of examination spot evaluation process.
Implementation of RFID locking system	1. Prevents the entry of un-authorized persons in examination section. 2. Improved security to the examination management system
Establishment of Spot evaluation center	1. Ensured uniform evaluation. 2. Declaration of results within the stipulated time 3. Confidentiality and custody of answer scripts are maintained
Chief examiner in the evaluation	1. Ensures the uniform evaluation among the evaluators 2. Fair judgment for the students
Inclusion of security features in grade	1. Chances of manipulations are nullified.

cards		
Inclusion of OMR booklet with barcode	<ol style="list-style-type: none"> <li>1. Data processing has become more accurate.</li> <li>2. Absolutely no human error</li> <li>3. Reliable &amp; no scope for manipulation.</li> </ol>	
Complete Automation of Examination Management System	<ol style="list-style-type: none"> <li>1. Considerable improvement in the speed, reliability, security, transparency, confidentiality and accuracy of the examination process.</li> <li>2. Delayed declaration of results and the tedious system are avoided</li> <li>3. The system is more transparent and reliable.</li> <li>4. Parents could access result status of wards</li> </ol>	

**Examination Management System and Examination section have**

Dedicated server and RFID locking with standby.

Protected server with firewall security

Authorized access to the controller of examination through security key only

CCTV surveillance

Backup data storage

**Continuous internal assessment on the examination management system:**

An college examination committee (CEC) headed by Principal is constituted to monitor the activities of examination section continuously for effective and smooth functioning.

**2.5.5 Status of automation of Examination division along with approved Examination Manual  
A. 100% automation of entire division & implementation of Examination Management System (EMS)**

**B. Only student registration, Hall ticket issue & Result Processing**

**C. Only student registration and result processing****D. Only result processing**

**Response:** A. 100% automation of entire division & implementation of Examination Management System (EMS)

File Description	Document
Current manual of examination automation system and Annual reports of examination including the present status of automation	<a href="#">View Document</a>
Annual reports of examination including the present status of automation	<a href="#">View Document</a>
Current Manual of examination automation system	<a href="#">View Document</a>

**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 on website and communicated to teachers and students**

**Response:**

Availability of Course Outcomes (COs) are embedded in the syllabi. The outcomes are designed at the time of developing the curriculum of the programmes. The COs are published in Academic regulations and Curriculum book, and institute website. They are made reachable to all the stakeholders of the program through education, faculty workshops, student awareness workshops, student induction programs and faculty meetings. HoDs explain the outcomes of the each program in orientation programme for freshers.

The program outcomes (PO's) and program specific outcomes (PSO's) are achieved through a curriculum that offers a number of courses. Each course has defined course outcomes that are linked to the program outcomes and a set of performance criteria that are used to provide quantitative measurement of how well course outcomes are achieved. The course outcomes are thus directly and quantitatively assessed, and are tied to the program outcomes and program specific outcomes. Therefore if the course outcomes are attained, that provides direct quantitative evidence that program outcomes are attained.

The course outcomes of each course are mapped to the Program Outcomes with a level of emphasis being strongly correlated (3), moderately correlated (2) and Lightly correlated (1).

File Description	Document
COs for all courses (exemplars from Glossary)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 2.6.2 Attainment of program outcomes, program specific outcomes and course outcomes are evaluated by the institution

#### Response:

The process of course outcome assessment is based on mid examination and semester end examination. Each question in mid/semester end/assignment/quiz are tagged to the corresponding CO and the overall attainment of that CO is based on average mark is set as target for final attainment. The following processes & tools are used for the attainment of course outcomes.

- **Mid Examinations:** This type of performance assessment is carried out during the examination sessions which are held twice a semester. Each and every exam is focused in attaining the course outcomes.
- **Semester End Examination:** Semester End examination is a metric for assessing whether all the COs are attained or not. Examination is more focused on attainment of course outcomes and program outcomes using a descriptive exam.
- **Rubrics** are developed for the assessment of Laboratory, Mini Project, Major Project, Seminar and Internship courses. Record the attainment of Course Outcomes of all courses with respect to set attainment levels.

The expected target level of course outcomes is set in the range of 50%-70% based on the cognitive level of CO by course instructor at the beginning of the semester. The performance of the students in the examinations during the semester in each course is used to compute the level of direct attainment of the COs. The questions of each examination are tagged to the course outcomes by the course instructor. The attainment of each CO is computed by setting the class average mark as the target. The COs of each course are mapped to POs & PSOs with weights of 1 (Weak), 2 (medium) and 3 (strong)

File Description	Document
Any additional information	<a href="#">View Document</a>

### 2.6.3 Average pass percentage of Students

**Response:** 69.89

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

Response: 246

2.6.3.2 Total number of final year students who appeared for the examination

Response: 352



File Description	Document
List of programs and number of students passed and appeared in the final year examination	<a href="#">View Document</a>

## 2.7 Student Satisfaction Survey

<p><b>2.7.1 Online student satisfaction survey regarding teaching learning process</b></p> <p><b>Response:</b></p>	
File Description	Document
Database of all currently enrolled students	<a href="#">View Document</a>

## Criterion 3 - Research, Innovations and Extension

### 3.1 Promotion of Research and Facilities

**3.1.1 The institution has a well defined policy for promotion of research and the same is uploaded on the institutional website**

**Response:** Yes

File Description	Document
Minutes of the Governing Council/ Syndicate/Board of Management related to research promotion policy adoption	<a href="#">View Document</a>
URL of Policy document on promotion of research uploaded on website	<a href="#">View Document</a>

**3.1.2 The institution provides seed money to its teachers for research (average per year)**

**Response:** 1.9

3.1.2.1 The amount of seed money provided by institution to its faculty year wise during the last five years(INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
3.75	2.5	1.15	1.2	0.90

File Description	Document
Minutes of the relevant bodies of the Institution	<a href="#">View Document</a>
List of teachers receiving grant and details of grant received	<a href="#">View Document</a>
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	<a href="#">View Document</a>

**3.1.3 Number of teachers awarded international fellowship for advanced studies/ research during the last five years**

**Response:** 1

3.1.3.1 The number of teachers awarded international fellowship for advanced studies / research year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1	0	0	0	0

File Description	Document
e-copies of the award letters of the teachers.	<a href="#">View Document</a>
List of teachers and their international fellowship details	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 3.1.4 Institution has the following facilities

1. Central Instrumentation Centre
2. Animal House/Green House / Museum
3. Central Fabrication facility
4. Media laboratory/Business Lab/Studios
5. Research / Statistical Databases

A. Any four facilities exist

B. Three of the facilities exist

C. Two of the facilities exist

D. One of the facilities exist

**Response:** B. Three of the facilities exist

File Description	Document
Any additional information	<a href="#">View Document</a>
Link to videos and photographs geotagged	<a href="#">View Document</a>

## 3.2 Resource Mobilization for Research

**3.2.1 Grants for research projects sponsored by the government/non-government sources such as industry, corporate houses, international bodies, endowments, Chairs in the institution during the last five years(INR in Lakhs)**

**Response:** 82.38

3.2.1.1 Total Grants for research projects sponsored by the government/non-government sources such as

industry, corporate houses, international bodies, endowments, Chairs in the institution year wise during the last five years(INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
37.5	2.00	22.50	18.88	1.50

File Description	Document
Any additional information	<a href="#">View Document</a>
e-copies of the grant award letters for research projects sponsored by non-government	<a href="#">View Document</a>
List of project and grant details	<a href="#">View Document</a>

### 3.2.2 Number of research centres recognised by University and National/ International Bodies

**Response:** 4

#### 3.2.2.1 Number of research centres recognised by University and National/ International Bodies

Response: 4

File Description	Document
Any additional information	<a href="#">View Document</a>
Names of research centres	<a href="#">View Document</a>

### 3.2.3 Percentage of teachers recognised as research guides

**Response:** 3.55

#### 3.2.3.1 Number of teachers recognised as research guides

Response: 06

File Description	Document
Any additional information	<a href="#">View Document</a>
Details of teachers recognized as research guide	<a href="#">View Document</a>

### 3.2.4 Average number of research projects per teacher funded by government and non-government agencies during the last five years

**Response:** 0.09

3.2.4.1 Number of research projects funded by government and non-government agencies during the last five years

Response: 06

File Description	Document
Any additional information	<a href="#">View Document</a>
Supporting document from Funding Agency	<a href="#">View Document</a>
List of research projects and funding details	<a href="#">View Document</a>
link to funding agency website	<a href="#">View Document</a>

### 3.3 Innovation Ecosystem

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

Response:

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

Response:

**Center for Innovation, Incubation and Entrepreneurship:**

Innovation is production or adoption, assimilation, and exploitation of a value-added novelty in economic activity; renewed and enlargement of products, services, and markets, development of new methods of production; and establishment of new management systems. It is both a process and an outcome.

Incubation is one of the four proposed stages of creativity which are preparation, incubation, illumination, and verification. It is a process of unconscious recombination of thought elements that were stimulated through conscious work at a later point in time, resulting in novel ideas at some later point in time.

In our considered view, innovation and incubation hold the key to sustenance of all entrepreneurial efforts be it in the form of new systems or elsewhere. We fervently wish to link innovation and incubation to bring about positive change in productivity, quality, competitiveness as our students, faculty and other stakeholders seek to transform ideas into services.

**Innovation & Incubation committee :**

**Conveners: Prof. J. Naga Muneiah & Dr. C. Anitha**

Members :

S. No.	Name of the member	Designation	Department
1.	Dr. V. Thrimurthulu	Professor	ECE
2.	Prof. K.Siva Kumar	Professor	EEE
3.	Dr. R.Lokanadham	Professor	ME
4.	Dr E. Prasuna	Professor	MBA

#### Roles & Responsibilities:

The role of our innovation team is to conceive, champion, and carefully develop a new approach that is yet to be. The team's composition and dynamics reflect our focus on bring on board professionals with diverse skill orientation. Every individual is expected to exhibit balance in team-role preferences. Each member is expected disciplinary work groups and scenarios. It is expected that a good mix of individuals with varied preferences will a well composed team that is able to perform at a high level through all the different stages of process. Hence, w maintain best standards of professional communication and team work to achieve success in the innovation proces

#### Ideation:

Ideation is regarded as the creative process that generates, develops and communicates novel ideas, which is u basic element of thought, visual, concrete, or abstract. Through this platform, we seek to empower all stakeholder in a way similar to the discovery of the real world, from personal experiences. Through the process of ideation, exchange of ideas, and exciting as well as more productive collaboration among students, faculty and prospective connect them to real time business mentors and facilitators.

File Description	Document
Any additional information	<a href="#">View Document</a>
link for additional information	<a href="#">View Document</a>

#### 3.3.2 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry - Academia Innovative practices during the last five years

**Response:** 90

3.3.2.1 Total number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
27	20	17	14	12

File Description	Document
List of workshops/seminars during the last 5 years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Report of the event	<a href="#">View Document</a>

3.3.3 Number of awards for innovation won by institution/ teachers/ research scholars/students during the last five years

Response: 4

3.3.3.1 Total number of awards for innovation won by institution/teachers/research scholars/students year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1	1	1	1	0

File Description	Document
List of innovation and award details	<a href="#">View Document</a>
e- copies of award letters	<a href="#">View Document</a>

3.3.4 Number of start-ups incubated on campus during the last five years

Response: 2

3.3.4.1 Total number of start-ups incubated on campus year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1	1	0	0	0

File Description	Document
List of startups details like name of startup, nature, year of commencement etc	<a href="#">View Document</a>
e- sanction order of the Institution for the start ups on campus	<a href="#">View Document</a>
Contact details of the promoters for information	<a href="#">View Document</a>

### 3.4 Research Publications and Awards

<b>3.4.1 The institution has a stated Code of Ethics to check malpractices and plagiarism in Research</b>	
<b>Response:</b> Yes	
File Description	Document
Institutional data in prescribed format	<a href="#">View Document</a>

<b>3.4.2 The institution provides incentives to teachers who receive state, national and international recognition/awards</b>	
<b>Response:</b> Yes	
File Description	Document
List of Awardees and Award details	<a href="#">View Document</a>
e- copies of the letters of awards	<a href="#">View Document</a>

<b>3.4.3 Number of Patents published/awarded during the last five years</b>				
<b>Response:</b> 1				
3.4.3.1 Total number of Patents published/awarded year wise during the last five years				
2016-17	2015-16	2014-15	2013-14	2012-13
1	0	0	0	0
File Description	Document			
List of patents and year it was awarded	<a href="#">View Document</a>			
Any additional information	<a href="#">View Document</a>			



**3.4.4 Number of Ph.D.s awarded per teacher during the last five years****Response:** 1.5

3.4.4.1 How many Ph.Ds are awarded within last 5 years

Response: 9

**File Description**

List of PhD scholars and their details like name of the guide , title of thesis, year of award etc

**Document**[View Document](#)**3.4.5 Number of research papers per teacher in the Journals notified on UGC website during the last five years****Response:** 1.85

3.4.5.1 Number of research papers in the Journals notified on UGC website during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
89	80	60	40	15

**File Description**

List of research papers by title, author, department, name and year of publication

**Document**[View Document](#)**3.4.6 Number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings per teacher during the last five years****Response:** 0.02

3.4.6.1 Total number of books and chapters in edited volumes / books published, and papers in national/international conference-proceedings year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1	1	1	0	0

**File Description**

List books and chapters in edited volumes / books published

**Document**[View Document](#)

**3.4.7 Bibliometrics of the publications during the last five years based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index****Response:** 0

3.4.7.1 Total number of citations received by publications in the last 5 years, which are included in online databases such as SCOPUS, web of science or PubMed/ Indian Citation Index

Response: 813

**File Description****Document**

Bibliometrics of the publications during the last five years

[View Document](#)**3.4.8 Bibliometrics of the publications during the last five years based on Scopus/ Web of Science - h-index of the Institution****Response:** 0

3.4.8.1 Number of citations received by individual research publications in the last 5 years

Response: 599

3.4.8.2 Number of publications receiving proportionately maximum number of citation in the last five years

Response: 103

**File Description****Document**

Bibliometrics of publications based on Scopus/ Web of Science - h-index of the Institution

[View Document](#)**3.5 Consultancy****3.5.1 Institution has a policy on consultancy including revenue sharing between the institution and the individual****Response:** Yes

File Description	Document
Any additional information	<a href="#">View Document</a>
Soft copy of the Consultancy Policy	<a href="#">View Document</a>
Minutes of the Governing Council/ Syndicate/Board of Management related to Consultancy policy	<a href="#">View Document</a>
URL of the consultancy policy document	<a href="#">View Document</a>

### 3.5.2 Revenue generated from consultancy during the last five years

**Response:** 2.35

3.5.2.1 Total amount generated from consultancy year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
0.65	0.55	0.45	0.40	0.30

File Description	Document
List of consultants and revenue generated by them	<a href="#">View Document</a>
Audited statements of accounts indicating the revenue generated through consultancy	<a href="#">View Document</a>

### 3.5.3 Revenue generated from corporate training by the institution during the last five years

**Response:** 1.3

3.5.3.1 Total amount generated from corporate training by the institution year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
0.40	0.35	0.3	0.15	0.1

File Description	Document
List of teacher consultants and revenue generated by them	<a href="#">View Document</a>
Audited statements of account indicating the revenue generated through training	<a href="#">View Document</a>

### 3.6 Extension Activities

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

##### Response:

The college strives to instill civic responsibility in the young minds of students through extension programmes and value based courses so that they develop into sensitized, socially responsible citizens. Student and faculty Orientation programmes emphasize the critical significance of social outreach programmes for holistic development and integrated learning. College promotes neighborhood and student network by following ways:

- In some departments, extension activities and social outreach programmes are an **integral component of the curriculum** with topics that are included on Human Values, Renewable Energy Sources, and Green Business Management etc.
- CREC students are also **extending their services to rural school students** in association with Microsoft.
- To inculcate **awareness of social problems** by the students, NSS activities are coordinated with large participation by students every year.
- College organized Ethnic day, it is a novel idea and helps students to learn more about Indian culture. It is like bringing all the **cultures and traditions under one roof, for holistic development of student.**
- Students' participated in the CLEAN AND GREEN program organized by the department of MCA on 5th June, the World Environment day. All the students of the MCA department, HOD and the faculty have participated in the program, as a part of **Environment preservation consciousness.**
- College organized rally to create **awareness on National unity** and observed "Rashtriya Ekta Diwas" in Tirupati Town.
- College Organizes **Awareness Programmes** on "Anti Ragging" for the students **to destroy the physical and emotional confidence** and as it led to a increase in Suicide activities.
- 
- An Awareness Programme on "Online transactions and Banking frauds", conducted for Tirupati urban Police in the campus, as part of **extended services.**
- The cultural supremacy of the state comes to the forefront as every place in Andhra Pradesh reflects the **festive spirit** in this regard college celebrated the festival Shankranthi as "**Shankranthi Sambaralu**" in the campus to sensitize students towards culture-2017
- College made to observed Thaliki Vandanam Programme by students, a **programme to pay Tribute to the Mother**, by washing their Mothers feet in the Month of Jan 2017
- **Br. Shafi, the President of UIRC**, master motivator for Personality development visited campus in 2017 for sensitising students to social issues and for holistic development.
- As responsible Citizens, the Mechanical Department taken initiative in conducting a Free Service Camp for Auto Drivers in Tirupati, by extending their practical knowledge in 2016.
- Students and faculty were taken out for a rally in Tirupati to observe World Diabetes Day on

November 14 to **promote about precautions and Awareness among the Citizens.**

- Student's participation in the **Health consciousness promotion programme**, a Dental camp program on Oral Health Day September 12th, 2014 organized by the department of MCA.
- Students of Computer Science Engineering Developed an APP for Urban district Police, Tirupati, titled "UID based Petition Management System " on 22nd Nov 2014 , showcasing a gesture towards **social Responsibility**

File Description	Document
Any additional information	<a href="#">View Document</a>
link for additional information	<a href="#">View Document</a>

### 3.6.2 Number of awards and recognition received for extension activities from Government /recognised bodies during the last five years

**Response: 5**

3.6.2.1 Total number of awards and recognition received for extension activities from Government /recognised bodies year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1	0	2	2	0

File Description	Document
Number of awards for extension activities in last 5 years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 3.6.3 Number of extension and outreach programs conducted in collaboration with industry, community and Non-Government Organisations through NSS/NCC/Red cross/YRC etc., during the last five years

**Response: 13**

3.6.3.1 Number of extension and outreach programs conducted in collaboration with industry,community and Non-Government Organisations through NSS/NCC/Red cross/YRC etc.,year wise during the last five

years

2016-17	2015-16	2014-15	2013-14	2012-13
5	3	2	2	1

File Description	Document
Reports of the event organized	<a href="#">View Document</a>
Number of extension and outreach programs conducted with industry,community etc for the last five years	<a href="#">View Document</a>

### 3.6.4 Average percentage of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the last five years

**Response:** 51.31

3.6.4.1 Total number of students participating in extension activities with Government Organisations, Non-Government Organisations and programs such as Swachh Bharat, Aids Awareness, Gender Issue, etc. year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1280	700	330	650	550

File Description	Document
Average percentage of students participating in extension activities with Govt. or NGO etc.	<a href="#">View Document</a>
Report of the event	<a href="#">View Document</a>

## 3.7 Collaboration

### 3.7.1 Number of Collaborative activities for research, faculty exchange, student exchange per year

**Response:** 1.6

3.7.1.1 Total number of Collaborative activities for research, faculty exchange, student exchange year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
4	1	1	0	2

File Description	Document
Copies of collaboration	<a href="#">View Document</a>
Number of Collaborative activities for research, faculty etc.	<a href="#">View Document</a>

### 3.7.2 Number of linkages with institutions/industries for internship, on-the-job training, project work, sharing of research facilities etc. during the last five years

**Response: 18**

3.7.2.1 Number of linkages for faculty exchange, student exchange, internship, field trip, on-the-job training, research, etc year-wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
12	2	1	1	2

File Description	Document
e-copies of linkage related Document	<a href="#">View Document</a>
Details of linkages with institutions/industries for internship	<a href="#">View Document</a>

### 3.7.3 Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. during the last five years (only functional MoUs with ongoing activities to be considered)

**Response: 3**

3.7.3.1 Number of functional MoUs with institutions of national, international importance, other universities, industries, corporate houses etc. year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1	0	0	0	2

<b>File Description</b>	<b>Document</b>
Details of functional MoUs with institutions of national, international importance, other universities etc. during the last five years	<a href="#">View Document</a>
e-copies of the MoUs with institution/ industry/ corporate house	<a href="#">View Document</a>

NAAC



## Criterion 4 - Infrastructure and Learning Resources

### 4.1 Physical Facilities

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

**Response:**

***CREC have the following adequate facilities available for teaching-learning :***

#### ***Academic activities:***

The College is situated on a sprawling 17.2 acres of lush green campus with built-up area of 20,393 square meters. The state-of-the-art infrastructure augments learning and promotes a good teaching-learning environment to the students, faculty and staff. College always prefers the well up-to-date facilities, which is required for the academic and extracurricular activities.

The college has adequate number of class rooms and laboratories as per norms to continue with any academic activity. Further, every Department is equipped with their own computing resources as well as departmental library. The Departments have their own specialized software in their laboratories. In addition to the above, the college has a Central Library which is equipped with different National and International journals. Digital Library is an additional advantage for the college. The high-end library server is an added advantage for the faculty and students in terms of storage of learning material and accessibility. Each floor is facilitated with water cooler for students and staff members. Separate Hostels for boys and girls in the campus. Campuses are under the surveillance of CCTV cameras

#### ***Co-curricular activities (Auditorium, Open air theatre etc.):***

The college has its own auditoriums named as MC Auditorium hall and MIC hall in addition to the department seminar halls in almost every department to meet the requirements.

#### ***Laboratories:***

All departments of the college are fully equipped with latest state-of-the-art technology equipment as mentioned in the curriculum. Every department has got their own computing facility with latest software to meet their own requirements of major project/mini projects and research activity.

In addition to the regular curriculum, students are encouraged to pursue their study/project work in the emerging areas of Research. The college has established advanced Research laboratory facilities in specific areas to inculcate research habits among the student fraternity.

#### ***Teaching Learning centers***

- Microsoft Innovation Centre
- National Instruments Centre of Excellence and Lab View academy
- Professional Societies
- Prototype Modeling R&D Centre

The institution strongly believes that if the faculty and students are involved in diversified learning processes, the foundation would become stronger at the formative stages. With such an intention, the above laboratories are established.

### ***General computer education:***

All students admitted into the institution are provided with general computer education and softskills in addition to the necessary specialized training in their chosen branch of Engineering , Technology and management.

### ***ICT as a Learning Resource:***

The college has provided more than 600 computers distributed to all the departments of the college for the day-to-day usage by the students and faculty. Every department has its own computing facilities to meet the curriculum needs. Laptops are also made available with the departments for faculty usage. Desktop Computers are also provided in staff rooms and departmental library. Every department is provided with LCD projectors, Laptops and Overhead projectors for computer aided teaching. Internet is provided for all the departments and computer centres with 100 Mbps bandwidth.

File Description	Document
Any additional information	<a href="#">View Document</a>

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

##### **Response:**

**Sports:** A vast ground is available for the sport activities associated with outdoor games. The indoor games are organized in the game room in the college building premises, all the important events in sports are taught, and sport activities take place throughout the year. The annual sport events took place in January or February every year, and the students do participate in the sports events enthusiastically. The sports in-charges in each department and Physical directors prepares and instructs the students for indoor and outdoor sport events. College annually review the sport requirement and facilities, and the new equipment are purchased.

**Outdoor and Indoor Games:** College owns all the required equipment and facilitates including space or ground for sport events. The institution has a fully competent and qualified Physical Director to train the students to participate in events conducted by the State/University. The following indoor and outdoor sports facilities in the campus.

- Badminton Court.
- Table Tennis Tables.
- Carroms, Chess, Dart etc.
- Space for cultural Activities.
- Guest rooms for visiting athletes and participants.

- Facilities for Yoga and Meditation
- Cricket Field
- Volley Ball courts
- Basket Ball courts
- Tennikoit
- Football Field
- Hockey Field
- Lawn Tennis
- Handball

**Gymnasium:** The gymnasium room has been included in the sport/ game room and all the equipment facilitating this requirement is properly managed.

**NSS:** CREC has a NSS Unit in the campus. A well-furnished room and office is arranged for all the NSS activities. The NSS coordinators achieve all the NSS associated activities with the help of 400 students.

**Cultural Activities:** The College actively engaged its students in the cultural activities. The cultural team actively involves for organizing and managing all the cultural events, especially drama, dance, singing or vocal, instrumental activities. Students across the departments are encouraged and directed to participate in such events.

**Yoga:** The *yoga* activities are managed by the Department in-charges and physical director in the zero-period in class hours. The separate yoga room has been assigned for '*yoga*' allied activities and the basic facilities have been made available in the same room.

**Health and Hygiene:** The college has health hygiene concepts to render services to the faculty and students with help of medical officer at health centre including the services of a psychologist and an ambulance is available in the campus for all medical emergencies.

File Description	Document
Any additional information	<a href="#">View Document</a>

#### 4.1.3 Percentage of classrooms and seminar halls with ICT - enabled facilities such as smart class, LMS, etc

**Response:** 76

##### 4.1.3.1 Number of classrooms and seminar halls with ICT facilities

**Response:** 38

File Description	Document
Number of classrooms and seminar halls with ICT enabled facilities	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 4.1.4 Average percentage of budget allocation, excluding salary for infrastructure augmentation during the last five years.

**Response:** 10.06

4.1.4.1 Budget allocation for infrastructure augmentation, excluding salary year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
33.0	21.0	10.0	10.0	22.0

File Description	Document
Details of budget allocation, excluding salary during the last five years	<a href="#">View Document</a>

## 4.2 Library as a Learning Resource

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

**Response:**

The entire library is automated using computer system. The Digital Library is provided with server with 4.7 TB storage. The library is member of Developing Library Network (DELNET) and provides web access to 1,21,08,793 records of books, Periodicals, Theses, dissertations. It is connected with 2196 libraries in 32 states in India and other countries.

Transactions are automated by using bar code reader. The following features can be accessed from any computer within the campus availability of books by subject wise/ author wise account information like books taken and due date to return fine amount to be paid for books not returned access to the e-recourses / NPTEL SONET video lectures.

Library staff helps students and faculty members to locate books in the sections consisting of reference books, Journals and in online databases. Awareness and training programs for students and faculty members are conducted .

Library provides a list of newly arrived books and Journals. Assistance is provided for searching or browsing the e-resources. Library provides assistance to staff and students to search for relevant

information on OPAC. Question papers and syllabus are made available through OPAC.

A good number of GRE/TOFEL/IELTS/GMAT/GATE/CAT books are available to provide opportunities to the student community, for their appearance in the competitive examinations as well as further higher education. Guest lectures are also provided to enrich their skills and knowledge.

Photo copying facility, issue of book and book bank facility are also provided. Our library is a member of Delnet (Developing Library Network). Through this membership all the users can Access Delnet resources through Delnet web page.

DELNET has developed several software in the past, but at present serves the following:

S. No	DELNET Database Name	No. of Records
1	Union catalogue of books	2,28,45,202
2	Union catalogue of Journals	37,847
3	CD Room Database	22,234
4	Database of Thesis & Dissertations	81,074
5	Database of E-Books	1613

The CREC has implemented the State-of-the-art Integrated Library Management and networking Solutions Software. The ILMS software is **NewGenLib** ILMS v3.1.2 – Helium LC: Single Library, 5 users. This NewGenLib has fully compliant with the MARC-21 format for bibliographic records. It allows cataloguers the possibility to describe items at three levels of detail: 1. A minimal level, 2. A mid-level and 3. This ILMS also provides e-access to the students, staff and faculty to avail the digital contents in the server like e-journals, e-books, NPTEL videos and Book Catalogues, etc.,

### **DEL-PLUS 2.0**

1. Software designed and developed exclusively to work under all kinds of libraries.
2. Free upgradation
3. Follows internationally recommended standards and formats such as MARC 21
4. Best for small and medium size libraries which have collections upto one lakh holdings.
5. Barcode enabled.

This software is easy to work with and comprises the following modules:

- Acquisition
- Cataloguing
- Circulation
- OPAC
- Administration
- Export/Import
- Authority Control
- Article Indexing
- Report Generation
- Stock Verification

File Description	Document
Any additional information	<a href="#">View Document</a>

#### 4.2.2 Collection of rare books, manuscripts, special reports or any other knowledge resource for library enrichment

##### Response:

- The Institution has the rare books, special reports, and knowledge resource related books are collected and placed in central library. These books are enrich the social, cultural, inspirational, and technical awareness to the students, faculty and staff.
- The library has downloaded various rare books from Rare Book Society Of India (RBSI).The collections are stored in kindles and are accessible to the students and faculty as reference material for enrichment of their knowledge .
- The library is well stocked by books on competitive exams like GATE and UPSC .The students prepare from these books and get benefitted for these exams.
- Kindles to encourage e-reading Kindles are kept in library which have wealth of information in single gadget besides giving a feel of printed book. This way library is keeping a pace with digital revolution in reading.
- The Autobiographies and biographies of great people are kept in library which includes scientists, Engineers and leaders. Great deal of motivation is being imparted by these books to our students.
- The collection of editorials and important articles from all the national newspapers are displayed in the library to enrich the General Knowledge and Current Affairs of students.
- IS Codes Separate racks are provided as reference material to the students to peruse and apply their contents for project work and furtherance of knowledge.
- In due consideration of the demand made by the students and faculty, the librarian places orders for the required no. of titles and volumes, which are quite regularly referred by the users. Further, the users use the faculty of accessing e-journals as well as the reprographic facilities in order to meet their requirements. In regular interval, the librarian collects the recommendations of books for central library and department libraries as well from the HOD's and faculty members. Also, the librarian places orders for all required books as per the needs of the curriculum. Every year, it is a common feature for the college library to conduct a book exhibition by inviting various prestigious publishing houses.

File Description	Document
Any additional information	<a href="#">View Document</a>

#### 4.2.3 Does the institution have the following

- 1.e-journals
- 2.e-ShodhSindhu
- 3.Shodhganga Membership
- 4.e-books

**5. Databases****Any 4 of the above****Any 3 of the above****Any 2 of the above****Any 1 of the above****Response:** Any 3 of the above

File Description	Document
Any additional information	<a href="#">View Document</a>
Details of subscriptions like e-journals, e-ShodhSindhu, Shodhganga Membership etc.	<a href="#">View Document</a>

**4.2.4 Average annual expenditure for purchase of books and journals during the last five years (INR in Lakhs)****Response:** 11.12

4.2.4.1 Annual expenditure for purchase of books and journals year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
11.37	11.24	10.39	6.88	15.70

File Description	Document
Details of annual expenditure for purchase of books and journals during the last five years	<a href="#">View Document</a>

**4.2.5 Availability of remote access to e-resources of the library****Response:** Yes

File Description	Document
Details of remote access to e-resources of the library	<a href="#">View Document</a>

**4.2.6 Percentage per day usage of library by teachers and students**



**Response:** 39.74

4.2.6.1 Number of teachers and students using library per day over last one year

Response: 600

File Description	Document
Any additional information	<a href="#">View Document</a>
Details of library usage by teachers and students	<a href="#">View Document</a>

### 4.3 IT Infrastructure

#### 4.3.1 Institution frequently updates its IT facilities including Wi-Fi

**Response:**

Consistently we are upgrading all the facilities of IT infrastructure based on the academic requirements. The college believes that appropriate IT systems are essential for quality academic delivery, efficient administration and transparent communication. The college keeps up push on this crucial territory to guarantee nonstop and reliable accessibility tuned in to the developing needs and evolving innovations. The college places a package of importance on e-learning and up gradation of transfer speed, availability and additionally different enhancements.

Extensive use of ICT resources including development and use of computer-aided teaching/ learning materials by our staff and students. In addition, R&D labs having the product devices required for instructing, learning and research object are likewise accessible on the LAN.

Our entire campus is under CC Camera Surveillance with 30 cameras, and they are connected through LAN.

Details of computerized hardware and software available in the college as ICT resources:

All computers are in LAN with cat 5e 10/100 Mbps internet connectivity with 100 Mbps leased line from GTPL Broadband Pvt. Ltd. In Library 13 Systems are marked for exclusive for Digital Library & Internet Usage.

**LICENSED SOFTWARES:**

- IBM Rational Software Architect Design
- ORACLE Academy Membership
- K-VAN English Language Communications Skills Lab
- Microsoft Windows 2008 Server
- ML MATLAB 9.0
- LAB VIEW



- Microsoft Visual Studio
- Open Source: MYSQL, Java Development Kit, Turbo C, Win Runner, WEKA Tool

**TOTAL SERVERS: 5**

**TOTAL NODES: 600**

All Labs and Central Computing facilities are connected to LAN.

Website: The site is redesigned at whatever point new data is to be included.

The environment is tailored to the specific teaching/learning needs of each department. Full access is provided to email, the Internet, departmental Intranets and other online sources of services and information through leased line Internet connectivity of 100 mbps.

E-Learning Courses: College caters to the needs of the faculty and the students by providing the access to e-learning content from NPTEL, K-VAN ELCS Lab, etc.,

Wi-Fi facility is provided for the entire campus accessing.

**Updation of Wi-Fi Facilities:**

Bandwidth of leased line connection	ISP	Total Bandwidth
100 mbps	GTPL Broadband Pvt. Ltd.	100 mbps

File Description	Document
Any additional information	<a href="#">View Document</a>

#### 4.3.2 Student - Computer ratio

**Response: 2.24**

File Description	Document
Student - Computer ratio	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### 4.3.3 Available bandwidth of internet connection in the Institution (Lease line ) <5 MBPS

**5 MBPS - 20 MBPS**

**20 MBPS - 35 MBPS**

**35 MBPS - 50 MBPS****Response:** 750 MBPS

<b>File Description</b>	<b>Document</b>
Any additional information	<a href="#">View Document</a>
Details of available bandwidth of internet connection in the Institution	<a href="#">View Document</a>

**4.3.4 Facilities for e-content development such as Media Centre, Recording facility, Lecture Capturing System (LCS)****Response:** Yes

<b>File Description</b>	<b>Document</b>
Any additional information	<a href="#">View Document</a>
Facilities for e-content development such as Media Centre, Recording facility,LCS	<a href="#">View Document</a>

**4.4 Maintenance of Campus Infrastructure****4.4.1 Average Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component, as a percentage during the last five years****Response:** 84.35

4.4.1.1 Expenditure incurred on maintenance of physical facilities and academic support facilities excluding salary component year wise during the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
201.31	168.52	152.13	105.52	143.08

<b>File Description</b>	<b>Document</b>
Details about assigned budget and expenditure on physical facilities and academic facilities	<a href="#">View Document</a>

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

**Response:**

***Laboratory Maintenance:***

***Mechanical Department:***

There are FMHM, Heat transfer, Machine tools, Strength of Materials, Material Science, Thermal Engineering lab, Mebilosy & Measurements and CAD labs are available in ME department.

All the equipment s established in the each lab are being subjected to checking by the concerned lab in charge for every semester.

In the case of any damage to the apparatus, the same will be rectified by the authenticated service engineer. If not possible it will be replaced by a new one.

***ECE Department***

There are EDC, Microwave & optical communication, IC&PDC, Microprocessor, DSP & communication labs are available in the ECE department.

All the equipments established in the each lab are being subjected to checking by the concerned lab in charge for every semester.

In the case of any damage to the apparatus, the same will be rectified by the authenticated service engineer. If not possible it will be replaced by a new one.

***EEE Department:***

There are power electronics & power converter lab, electrical circuits & control system lab, simulation of electrical circuits lab electrical machine lab & electrical measurements lab are available in EEE department.

All the equipments established in the each lab are being subjected to checking by the concerned lab in charge for every semester.

In the case of any damage to the apparatus, the same will be rectified by the authenticated service engineer. If not possible it will be replaced by a new one. The labs are maintained with log register and service register.

***CSE Department:***

There are 6 cabins in the CSE department laboratory.

Cabin 1 for data & knowledge engineering lab with 60 systems. Cabin 2 for 'C' programming & database structure lab with 60 systems. Cabin 3 for IT workshop with 20 systems Cabin 4 for unified modeling & language lab with 60 systems. Cabin 5 for ELCS lab with 60 systems. Cabin 6 for project development & internet lab with 60 systems.

***Library:***

In a central library books are being maintained properly from the date of inception of college.

All the books are being verified periodically on monthly basis by the librarian whether they are damaged.

***Sports complex:***

We have cricket ground, foot ball ground, volleyball court, basket ball court, tennis court, kho-kho and kabadi courts for out door games. In addition to these we have shuttle court, table tennis, chess and carroms as indoor games.

***Computer Maintenance:***

A separate computer maintenance team is available in our institution. They can handle all departmental requirements. In every computer centre separate programmer/technician is recruited and a faculty member acts as in-charge of the centre.

If any minor software or hardware problems arise, they are rectified by concerned technicians.

<b>File Description</b>	<b>Document</b>
Any additional information	<a href="#">View Document</a>

## Criterion 5 - Student Support and Progression

### 5.1 Student Support

#### 5.1.1 Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years

**Response:** 85.83

5.1.1.1 Number of students benefited by scholarships and freeships provided by the Government year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1140	1082	1156	1278	1266

File Description	Document
Upload self attested letter with the list of students sanctioned scholarships	<a href="#">View Document</a>
Average percentage of students benefited by scholarships and freeships provided by the Government during the last five years	<a href="#">View Document</a>

#### 5.1.2 Average percentage of students benefited by scholarships, freeships, etc. provided by the institution besides government schemes during the last five years

**Response:** 65.03

5.1.2.1 Total number of students benefited by scholarships, freeships, etc provided by the institution besides government schemes year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1023	1009	1103	1161	0

File Description	Document
Number of students benefited by scholarships and freeships besides government schemes in last 5 years	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**5.1.3 Number of capability enhancement and development schemes –**

1. Guidance for competitive examinations
2. Career Counselling
3. Soft skill development
4. Remedial coaching
5. Language lab
6. Bridge courses
7. Yoga and Meditation
8. Personal Counselling

7 or more of the above

Any 6 of the above

Any 5 of the above

Any 4 of the above

**Response:** 7 or more of the above

File Description	Document
Details of capability enhancement and development schemes	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**5.1.4 Average percentage of students benefited by guidance for competitive examinations and career counselling offered by the institution during the last five years**

**Response:** 85.6

5.1.4.1 Number of students benefited by guidance for competitive examinations and career counselling offered by the institution year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1166	1167	1184	1192	1166

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	<a href="#">View Document</a>

**5.1.5 Average percentage of students benefited by Vocational Education and Training (VET) during the last five years****Response:** 37.77

## 5.1.5.1 Number of students attending VET year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
566	517	473	550	485

File Description	Document
Details of of students benefited by Vocational Education and Training (VET)	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**5.1.6 The institution has a transparent mechanism for timely redressal of student grievances including sexual harassment and ragging cases****Response:** Yes

File Description	Document
Minutes of the meetings of student redressal committee, prevention of sexual harassment committee and Anti Ragging committee	<a href="#">View Document</a>
Details of student grievances including sexual harassment and ragging cases	<a href="#">View Document</a>

**5.2 Student Progression****5.2.1 Average percentage of placement of outgoing students during the last five years****Response:** 48.88

## 5.2.1.1 Number of outgoing students placed year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
187	234	242	241	195

File Description	Document
Self attested list of students placed	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Details of student placement during the last five years	<a href="#">View Document</a>

### 5.2.2 Percentage of student progression to higher education (previous graduating batch)

**Response:** 8.81

5.2.2.1 Number of outgoing students progressing to higher education

Response: 31

File Description	Document
Details of student progression to higher education	<a href="#">View Document</a>
Upload supporting data for student/alumni	<a href="#">View Document</a>

### 5.2.3 Average percentage of students qualifying in state/ national/ international level examinations during the last five years (eg: NET/SLET/GATE/GMAT/CAT, GRE/TOFEL/Civil Services/State government examinations)

**Response:** 32.66

5.2.3.1 Number of students qualifying in state/ national/ international level examinations (eg: NET/SLET/GATE/GMAT/CAT, GRE/TOFEL/Civil Services/State government examinations) year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
37	33	45	39	42

5.2.3.2 Number of students appearing in state/ national/ international level examinations (eg: NET/SLET/GATE/GMAT/CAT, GRE/TOFEL/Civil Services/State government examinations) year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
128	130	138	102	110



File Description	Document
Upload supporting data for the same	<a href="#">View Document</a>
Number of students qualifying in state/ national/ international level examinations during the last five years	<a href="#">View Document</a>

### 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) during the last five years

**Response:** 11

##### 5.3.1.1 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 wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
2	2	2	3	2

File Description	Document
e-copies of award letters and certificates	<a href="#">View Document</a>
Number of awards/medals for outstanding performance in sports/cultural activities at national/international level during the last five years	<a href="#">View Document</a>

#### 5.3.2 Presence of an active Student Council & representation of students on academic & administrative bodies/committees of the institution

**Response:**

Chadalawada Ramanamma Engineering College employs active Student Council to represent students' affairs on academic and administrative bodies. Here Students' Committees are initiated to make them feel free-air atmosphere to express their opinion and thoughts. With the help of these committees, students are coming forward to participate in all initiatives which are very much progressive to them for their education and career. Now, we have an excellent active student body who are working together in various concepts to prove themselves intellectuals.

The various student council & representative committees in CREC are:

### **Class Review Committee**

Class of the Under Graduate (UG)/Post Graduate (PG) Program shall have a Class Review Committee, consisting of Faculty and Students. Student members of class review committee assist the DAC (Departmental Academic Committee) in the process of academic plan implementation of every subject in a semester.

### **Students' Welfare & Extra Curricular Activities Committee**

Most of these committees are maintained by students under the guidance of faculty members according to a plan of activity.

### **Library Committee**

Student members of the library committee will assist in the procurement of text books, journals and other learning material.

### **Alumni Association**

Every department attends to the coordination and liaison activity with alumni through the appointed students.

### **Anti-Ragging committee**

Student members assist the institution in implementing rigid anti-ragging measures so that the institution becomes ragging-free campus.

### **Grievance Redressal Cell**

The matters of harassment and suppression of any single individual are handled by grievance redressal cell. Student members can help other students to present the grievance in case the sufferers want the representation in absentia.

### **The Women's cell**

The objectives of this cell are to empower women and girls in academia through imparting educational, awareness training programmes, to strengthen them towards leadership and self-motivation and to make them confident individuals in career.

### **Sports and Games Committee**

The objective of this club is to organize intramural, inter collegiate, state and national level competitions in respect of designated sports and games. And to create the spirit of togetherness in connection with harmony among the students.

### **Cultural Committee**

All the cultural activities during the important occasions of College day, Fresher's day, annual cultural

festival are coordinated by this committee.

### NSS Unit

To inculcate awareness of social problems by the students, NSS activities are coordinated with large participation by students every year.

### Language & creativity club

In view of the critical significance of language skills in globalized world, students organize this club through activities like debating, group discussions, book reading and review, poetry, quiz and creative writing.

File Description	Document
Any additional information	<a href="#">View Document</a>

### 5.3.3 Average number of sports and cultural activities / competitions organised at the institution level per year

**Response:** 11.4

5.3.3.1 Number of sports and cultural activities / competitions organised at the institution level year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
12	11	11	11	12

File Description	Document
Number of sports and cultural activities / competitions organised per year	<a href="#">View Document</a>
Report of the event	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

## 5.4 Alumni Engagement

**5.4.1 The Alumni Association/Chapters (registered and functional) contributes significantly to the development of the institution through financial and non financial means during the last five years**

**Response:**

The Alumni Association of Chadalawada Ramanamma Engineering college (CREC) is a registered society with Registration No.218 on August, 2012. The main objective is to enrol all alumni as members of the association and facilitating active participation of the alumnae in appropriate activities, events, and initiatives of the Institute. Chadalawada Ramanamma Engineering college Alumni Association is an official unit of the Institute with the primary objective of facilitating the pleasant and friendly interface to all the CREC alumnae and creating a single semantic web of CREC fraternity. Chadalawada Ramanamma Engineering college is truly proud of its brilliant alumni who are currently positioned all over the globe and have distinguished themselves in all spheres of high-end engineering and technology. The main aim of the CREC Alumni Association is to coordinate the networking of all the CREC alumni and to create a single global CREC community for the benefit of institute as well as student community.

**Mentorship:** Alumni can play an active role in voluntary programs like mentoring students in their areas of expertise. To make use of the rich experiences of old students of the college for the benefit of the students in securing suitable jobs.

**Placements:** The alumni network of a college is one of the prime sources of placement opportunities to the students. Alumni can help students get placed at their respective organizations. Job opportunities are provided by the alumni in their companies.

**Career Guidance:** The career guidance programs are organized by CREC by inviting alumni from reputed universities. Alumni are a huge talent pool whose guidance can be beneficial to many students and other fellow-alumni in their respective areas of study. To arrange seminars, debates, presentations and workshops on present trends in technology.

**Networking Platform:** Alumni network by itself is one of the best professional networking platforms available today. A software application has been initiated recently to build a strong bridge between the college, present students, parents and College management. <http://www.crectirupati.com/?q=page/alumni>.

**College Alumni Day:** Alumni meet takes place in campus on every year to provide a forum for the Alumni to interact with the Institute. To bring together all the old students and the faculty of CREC to share their experiences with one another.

**Online Alumni Survey:** To acquire online survey about how the state and study in CREC in the present position. Feedback is collected from the alumni to update the curriculum which are suitable for present needs of industry and technology. However, one alumnus is also acting as member of the Board of Studies (BOS).

**Database:** To maintain and update the database of all the alumni and to interact with them. To share this updated current information, database is made available in the college website. To provide a common platform for the alumni of the institute to reach out to other alumni across various years, batches, branches, and interests.

#### 5.4.2 Alumni contribution during the last five years (Amount in rupees) <2 Lakhs

**2 Lakhs - 5 Lakhs**

**5 Lakhs - 10 Lakhs**

**10Lakhs - 15 Lakhs**

**Response:** 5 Lakhs - 10 Lakhs

<b>File Description</b>	<b>Document</b>
Alumni association audited statements	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### **5.4.3 Number of Alumni Association / Chapters meetings held during the last five years**

**Response:** 5

##### 5.4.3.1 Number of Alumni Association /Chapters meetings held year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
1	1	1	1	1

<b>File Description</b>	<b>Document</b>
Number of Alumni Association / Chapters meetings conducted during the last five years.	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>
Report of the event	<a href="#">View Document</a>

## Criterion 6 - Governance, Leadership and Management

### 6.1 Institutional Vision and Leadership

#### 6.1.1 The governance of the institution is reflective of an effective leadership in tune with the vision and mission of the institution

**Response:**

**Vision**

We at CHADALAWADA RAMANAMMA ENGINEERING COLLEGE to impart training to students so that they become competent and motivated engineers and scientists .The institute celebrates freedom of thought cultivates vision and encourages growth best also inculcates human values and concern for environment and country.

**Mission**

- To provide state of art and world class quality of education to sharpen the intellect of the students.
- To produce full- fledged personalities who can contribute their knowledge and skills nearest for benefit and development of the individual and state.
- To mould students educationally ethically, spiritually, physically, mentally splendid.

File Description	Document
Any additional information	<a href="#">View Document</a>

#### 6.1.2 The institution practices decentralization and participative management

**Response:**

**Response:**

The Principal of the institution collaborate with different sections/departments and personnel to improve the quality of its educational provisions using the following procedure:

The Institute is following Academic Calendar in true spirit and it is being finalized in consultation with principal, Head of Departments, Controller of Examinations, and senior faculty and physical director covering all academic activities e.g. commencement of classes, internal examinations, various committee meetings, end semester examinations, technical festival and sport activities etc. This printed academic calendar is circulated to all teaching staff, non teaching staff and students.

The management, Principal and Head of the departments meet frequently to review plans and update academic and administrative matters. Performance of the departments is discussed in meetings of Head of Departments. The information discussed and decisions of management are communicated to the staff of the institution through departmental meetings by head of the respective departments. Principal also communicate this information to the staff using circulars.

The management get the information from Academics Branch, Examination Branch, Administration Branch, Accounts & Audit Branch, head of the departments, teaching staff and non teaching staff to review the activities of the institution.

Management encourages and supports the staff in the decision-making process for improvement of the effectiveness and efficiency of the institute. Principal of the College is the member of the governing body which is highest decision making body. The Faculty is appointed as members of various committees for the college.

The following committees are in existence to decentralize the academic and administrative activities.

- Disciplinary Committee
- Audit, Quality Control And Planning Committee
- Finance Committee
- Women's Cell
- Transport Committee
- Students' Welfare & Extra Curricular Activities Committee
- News Letter/Magazine Brochure/ Calendar Committee
- Admission Committee
- Cultural Committee
- Community Development (NSS + Swatch Bharath)
- Examinations And Results Committee
- Sports Committee
- Public Relations Committee
- Time Table Committee
- Purchase Committee
- Central Library Committee
- Hostel Committee
- Construction Committee
- Alumni Council
- Training And Placement Committee
- Affiliation And Accreditation
- R&D Cell
- Entrepreneur Development Cell
- Internal Quality Assurance Cell(IQAC)
- Grievance And Redressal Committee
- Students Clubs

## 6.2 Strategy Development and Deployment

### 6.2.1 Perspective/Strategic plan and Deployment documents are available in the institution

**Response:**

**Response**

The Institute has excellent Vision and mission to provide quality education and remarkable development of human Resources in prioritized and emerging areas. The vision and mission of the Institution reflect the in dissemination of advance knowledge.

By imparting quality education through instructional and research facilities while incorporating different technical courses in the areas of Computer science, Electronics, Electrical, Mechanical and Management studies programs of the Institute, by considering socio and economical conditions and welfare of the students who hail from Rayalaseema region which is economically backward in the country.

It is very obvious from the vision and mission quality in teaching and learning is prime and important along with socio and cultural milieu to uplift the commoner who has come for higher learning. In a state like Andhra Pradesh, The Rayalaseema Region which is a very backward region the institute is striving by arranging State level, regional level, Community level, job melas to the students and making endeavor to build strong economically society.

File Description	Document
Any additional information	<a href="#">View Document</a>

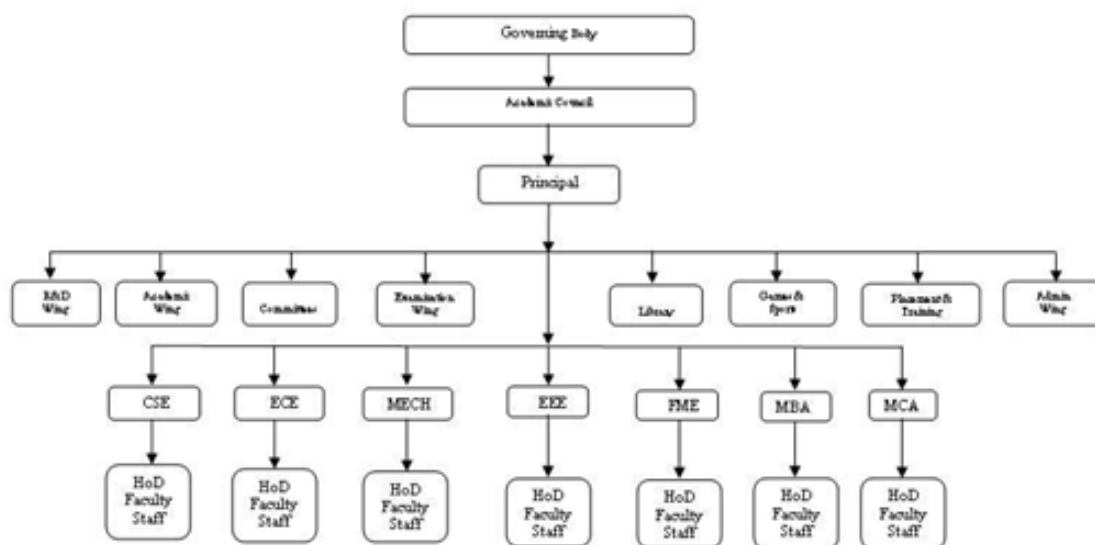
### 6.2.2 Organizational structure of the institution including governing body, administrative setup, and functions of various bodies, service rules, procedures, recruitment, promotional policies as well as grievance redressal mechanism



Response:

Response:

**ORGANIZATION STRUCTURE FOR DAY-TO-DAY OPERATIONS & MANAGEMENT**



File Description	Document
Any additional information	<a href="#">View Document</a>

**6.2.3 Implementation of e-governance in areas of operation**

- 1.Planning and Development**
- 2.Administration**
- 3.Finance and Accounts**
- 4.Student Admission and Support**
- 5.Examination**

**All 5 of the above**

**Any 4 of the above**

**Any 3 of the above**

**Any 2 of the above**

**Response:** All 5 of the above

<b>File Description</b>	<b>Document</b>
Details of implementation of e-governance in areas of operation Planning and Development,Administration etc	<a href="#">View Document</a>
Screen shots of user interfaces	<a href="#">View Document</a>
ERP Document	<a href="#">View Document</a>

#### **6.2.4 Effectiveness of various bodies/cells/committees is evident through minutes of meetings and implementation of their resolutions**

**Response:**

**Effectiveness of various bodies/cells/committees is evident through minutes of meetings and implementation of their responsibilities**

The various committees are designed for various functions to perform based on minutes of the respective committees in the institution. Each committee has very clear objective to perform in a particular time frame. The staff members are assigned duties as Co-ordinator/ Convenor/ Member to the committees for the academic year 2017-18. They are requested to extend their full co-operation for successful completion of the academic year and quality improvement of the college in all respects. Every minute of the meetings of the respective committees are considered important to have outcome on various time frames.

<b>File Description</b>	<b>Document</b>
Any additional information	<a href="#">View Document</a>

### **6.3 Faculty Empowerment Strategies**

**6.3.1 The institution has effective welfare measures for teaching and non-teaching staff**

**Response:****Health Center**

The Institute has its own Health Center to provide necessary medical aid to the students and staff on the campus. There are Two Doctors and One Nurse. Specialists are also visiting the Health Center to provide consultation to the inmates. To meet the emergency, an ambulance is available in the institute. Medicines are provided at Free of cost. Dental Medical Facilities for oral Health care.

**Free Transportation Facilities**

The Institute transport facilities include 10 buses (52 seater), 03 staff cars, 01 ambulance, and 2 tractors. The buses are provided to nearby towns such as Renigunta, Tirupati and Sri Kalahasthi to make it convenient for the students coming from these areas. Buses leave the college in various timings to make it convenient for the students to utilize the Library and Internet facilities in the college.

**Indian Bank, Book Shop and Cafeteria**

Indian Bank is functioning in the campus to cater the needs of the faculty, staff and students. All Kinds of banking Services rendered including Saving Accounts and Current Accounts. College stores and Canteens are available.

**Other Facilities Provided by the Management**

- Maternity leave as per the Government norms
- Paid leave for curriculum course work who are perusing Ph.D at IIT and NIT.
- TA and DA provisions for faculty development programs, Workshops and Conferences
- EPF, ESI and Insurance are providing for teaching and non-teaching
- Fee concession for Faculty children
- Staff Quarters
- Publication Charges are providing to the faculty in Research oriented work

File Description	Document
Any additional information	<a href="#">View Document</a>

**6.3.2 Average percentage of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the last five years**

**Response:** 48.96

6.3.2.1 Number of teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
151	100	61	21	55

File Description	Document
Details of teachers provided with financial support to attend conferences,workshops etc. during the last five years	<a href="#">View Document</a>

**6.3.3 Average number of professional development /administrative training programs organized by the institution for teaching and non teaching staff during the last five years**

**Response:** 11.6

6.3.3.1 Total number of professional development / administrative training programs organized by the Institution for teaching and non teaching staff year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
26	11	4	7	10

File Description	Document
Details of professional development / administrative training programs organized by the Institution for teaching and non teaching staff	<a href="#">View Document</a>

**6.3.4 Average percentage of teachers attending professional development programmes viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programme during the last five years**

**Response:** 24.14

6.3.4.1 Total number of teachers attending professional development programs, viz., Orientation Program, Refresher Course, Short Term Course, Faculty Development Programs year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
50	40	45	40	20

File Description	Document
Details of teachers attending professional development programs during the last five years	<a href="#">View Document</a>

### 6.3.5 Institution has Performance Appraisal System for teaching and non-teaching staff

**Response:**

**Response:**

**The Performance Appraisal for teaching staff is obtained based on the following criteria.**

- Work Experience.
- Education qualification.
- Through API score
- Teaching and Learning Activities such as Subjects taught Course material preparation and Innovative teaching -learning methodologies.
- Co-curricular and Professional Development Activities.
- Research papers published in referred journals as notified by UGC.
- Students Feedback.
- Contribution to corporate life.
- Classroom teaching and Examination duties.

**Performance factor for Secretarial staff are**

- Command of all assigned work duties and responsibilities.
- Cooperates with co-workers.
- Accepts direction from his/her supervisor.
- Performs the work assignment with a minimum of supervision.
- Is punctual, reliable, and has good attendance habits.
- Completes his/her work in a timely manner

**Performance factor for Secretarial staff are**

- Decision making and problem solving.
- Human resource management.
- Employees' skill level.
- Effectiveness in listening to others.
- Employee responsiveness

## 6.4 Financial Management and Resource Mobilization

### 6.4.1 Institution conducts internal and external financial audits regularly

**Response:**

**Response:**

The institution is having qualified practicing chartered accountant as External auditor who is auditing the accounts of the college once in a Year. After the audit, the report is sent to the management for review. The auditor is appointed by the Management. In addition to this, the institution is having consultants to give opinion on taxation and legal issues. Further the following committees are formed for internal auditing purpose.

1. Finance Committee.

2. Management Committee.

**Finance Committee:** Finance committee gathers and approves the annual budget of the Autonomous section and institute level for each financial year and review the utilization of funds of previous year as per budgetary provision. It meets once in a year and twice if required. The draft budget is placed to the finance committee for the approval. All the current year spending is carried out as per provision given in the budget. Periodic reviews are carried out to monitor the utilization of the budget as per the provision given in annual Autonomous budget. Principal conduct the reviews with the help of chief account officer and Accounts officer a quarterly basis and make sure that the funds are utilized effectively.

**Management Committee:** Institute level budget is approved by institute Governing Body and management Committee at the end of each financial year for the coming year. Each department Committee headed by the HOD, senior faculty and lab in charges and prepares the annual budget for each financial year, this exercise is carried out taking the recurring & non – recurring expenditure requirement for the department for the entire year. A detailed requirement is submitted to principal. Account officer prepare the institute level requirement and prepare the detailed budget. All the department requirements and institute level requirements are discussed in HODs meeting and finalize the total recurring and non-recurring budget requirements. The comprehensive budget proposal is placed before the Governing Body and Management committees for final approval. Effective monitoring system is in place from quotations stage to the installation and commissioned stage. Any additional requirements arise due to unforeseen expenditure may be discussed in the HODs meeting and Management Committee is requested to approve Quarterly review of the expenditure is carried out in each department, to monitor the effective utilizations of funds.

The Last audit was done on 31st September, 2017 and as on date there is no adverse remark on the accounts of the institution. The college is filing income tax return every year within the stipulated time.

#### **6.4.2 Funds / Grants received from non-government bodies, individuals, Philanthropists during the last five years (not covered in Criterion III)**

**Response:** 9.19

6.4.2.1 Total Grants received from non-government bodies, individuals, philanthropists year wise during

the last five years (INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
2.20	2.05	1.78	1.75	1.41

File Description	Document
Details of Funds / Grants received from non-government bodies during the last five years	<a href="#">View Document</a>

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

**Response:**

**Response:**

As a part of Outcome Based Education system, this institution has given utmost importance for the generation and utilization of funds to meet the objectives of the institution. The institutional strategy to generate funds is primarily based on Quality enhancement strategy. This strategy is essential in teaching learning and scientific-work environment. By quality enhancement, the scope for increasing consultancy widens which leads to generation of more funds. By providing quality enhancement, a better fee structure can be claimed by the college that can be sanctioned by the government. This also leads to improved funding. Hence, quality enhancement of the institution is nurtured to generate funds from different sources.

**Optimal utilization of funds is ensured through the following:**

- Adequate funds are allocated for effective teaching-learning practices that include conduct of FDPs, orientation programs, workshops, conferences, inter-disciplinary activities, training programs that ensure quality education.
- Adequate remuneration based on the performance–quotient of the teaching professionals is provided.
- The budget will be utilised to meet day-to-day operational and administrative expenses and Maintenance of the fixed assets.
- The grants received from the external funding agencies are effectively utilized in implementation of projects by procuring the suitable equipment. This equipment is further utilized in the established advanced laboratories of the institute. Availability of such equipment has further improved the research methodology interest of the faculty and students.
- Enhancement of library facilities leads to novel learning practices and accordingly requisite funds are utilized for this every year.
- Adequate funds are utilized for development and maintenance of very good infrastructure for the

institute.

- Some funds are allocated for social service activities as a part of social responsibility.

### **Funding resources and management of finance**

- Depend mainly on fundraising for capital expenses and infrastructure.
- Depend on fees for running expenses, maintenance and normal development and expansion.
- Provisions made for cross subsidy of non-viable but socially relevant courses.
- Finance Committee Monitors Internally generated funds.
- KRISHNATEJA Charities monitors fund raising and infrastructure development.
- Finance Officer and Development Officer handle day to day transactions.

## **6.5 Internal Quality Assurance System**

### **6.5.1 Internal Quality Assurance Cell (IQAC) has contributed significantly for institutionalizing the quality assurance strategies and processes**

#### **Response:**

#### **Internal Quality Assurance Cell (IQAC)**

The Internal Quality assurance Cell (IQAC) has been established in the College at the instance of the National Assessment and Accreditation Council (NAAC) as a post-accreditation quality sustenance measure.

The NAAC proposes that every accredited Institution should establish an Internal Quality Assurance Cell (IQAC) as a post-accreditation quality sustenance measure. Since quality enhancement is a continuous process, the IQAC will become a part of an Institution's system and work towards realizing the goals of quality enhancement and sustenance.

The prime task of the IQAC is to develop a system for conscious, consistent and catalytic improvement in overall performance of the Institutions. The IQAC will make a significant and meaningful contribution in the post-accreditation phase of the Institution. During the post-accreditation period, the IQAC will channelize all efforts and measures of the Institution towards promoting its academic excellence.

#### **The objectives of the IQAC are:**

- To ensure continuous improvement in the entire operations of the Institution.
- To ensure stakeholders connected with Education, namely parents, teachers, staff, employers, funding agencies, society in general, of its own quality and probity.

#### **Benefits**



IQAC will facilitate / contribute:

- To ensure a heightened level of clarity and focus in institutional functioning towards quality enhancement and internalization of the quality culture NAAC for Quality and Excellence in Higher Education.
- To promote measures for the functioning of the Institution towards quality enhancement through initialization of quality culture and Institutionalization of best practices.
- To provide a sound basis for decision making to improve Institutional functioning.
- To act as a dynamic system for quality changes in the Institution.
- To build a better internal communication.

### Functions

- Development and application of quality benchmarks/ parameters for the various academic and administrative activities of the Institution.
- Arrangement for feedback responses from students, parents and other stakeholders on quality-related processes of the institution.
- Dissemination of information on the various quality parameters of higher education.
- Documentation of the various programs/activities leading to quality improvement.
- Organization of workshops, seminars on quality related themes and promotion of quality circles.
- Preparation of the Annual Quality Assurance Report (AQAR) to be submitted to NAAC based on the quality parameters.

File Description	Document
Any additional information	<a href="#">View Document</a>

### 6.5.2 The institution reviews its teaching learning process, structures & methodologies of operations and learning outcomes at periodic intervals through IQAC set up as per norms

**Response:**

**The following innovative processes adopted by the institution in Teaching and Learning**

- Promoting the of Information and Communication Technologies.
- Implementing Outcome Based Education.
- Mapping Course Outcomes / Instructional Objectives And Program Educational Objectives
- Arranging training on pedagogy and assessing its impact on teaching-learning.
- Arranging training on latest technologies.
- Conducting FDP programs on emerging technologies.
- Course coordinators for a section are nominated. his/her responsibilities include
- Monitoring the teaching-learning process of each subject in that Semester
- Monitoring the schedules helping the teacher of a subject on delivery methods after consulting Internal/external experts in that subject.

Besides regular classroom learning and innovative teaching methods like

- Guest lectures on Advanced Topics by the Eminent Academicians and Industry Experts.
- Conducting seminars by students.
- The practice of Emerging Technologies through Mini-projects and Term Papers.
- Faculty development through workshops, orientation programs, seminars and conference programs, workshops etc.

### **IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes**

The IQAC organizes regular academic audits to ensure effective implementation of Teaching

Learning process and maintenance of course files.

- Verification of cycle test analysis, question papers
- The arrangement of special classes for weak students during evening hours.
- Identifying the new processes/delivery method and recommending the same for improving the quality.
- Analyzing the deviations from the benchmarks and reporting.
- Feedback from the stakeholders (students, alumni, industry experts, research organizations and parents).

### **6.5.3 Average number of quality initiatives by IQAC for promoting quality culture per year**

**Response:** 11.8

6.5.3.1 Number of quality initiatives by IQAC for promoting quality year-wise for the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
15	11	13	13	7

<b>File Description</b>	<b>Document</b>
Number of quality initiatives by IQAC per year for promoting quality culture	<a href="#">View Document</a>

### **6.5.4 Quality assurance initiatives of the institution include**

1. Regular meeting of Internal Quality Assurance Cell (IQAC); timely submission of Annual Quality Assurance Report (AQAR) to NAAC; Feedback collected, analysed and used for improvements
2. Academic Administrative Audit (AAA) and initiation of follow up action
3. Participation in NIRF
4. ISO Certification
5. NBA or any other quality audit

Any 4 of the above

Any 3 of the above

Any 2 of the above

Any 1 of the above

**Response:** Any 4 of the above

File Description	Document
Any additional information	<a href="#">View Document</a>
e-copies of the accreditations and certifications	<a href="#">View Document</a>
Details of Quality assurance initiatives of the institution	<a href="#">View Document</a>

#### 6.5.5 Incremental improvements made during the preceding five years (*in case of first cycle*) Post accreditation quality initiatives (*second and subsequent cycles*)

**Response:**

**Response**

CREC is an Autonomous, ISO 9001:2015 Certified institution, approved by UGC, affiliated to JNTUA, Anantapur, Accredited by NAAC with 'A' Grade for the first time in March 2013, is a premier institution in Engineering, Technology and Management Education. We strive to continuously improve and sustain quality in all the aspects of education. The Governing Body, College Academic Council, College Advisory Board (CAB), IQAC, Principal, the teaching fraternity, administration, the various departments, students and other stakeholders jointly contribute towards making the college an institution pursuing excellence. The following are the quality initiatives have been made by the institution.

#### **Curricular Aspects**

The outcome-based approach has been implemented at CREC.

Careful study of the content of the curriculum and syllabi of all the UG/PG programs offered by CREC, a set of Program Educational Objectives, Program Outcomes, Program Specific Outcomes, and Course

Outcomes have been diligently framed for each program.

Few salient points are:

- Professional Ethics and Human Values and Environmental Studies courses are introduced as Mandatory Courses
- Program Elective Courses
- Open Elective Courses
- NPTEL courses
- Mini Project
- Communication and Presentation Skills Lab.

### **Teaching, Learning, and Evaluation**

- The number of Ph.D. holders in the campus are increased . The subject allotment is based on the competency matrix and experience of the teacher.
- Attainment of the COs, POs, and PSOs are the recent additions.
- Faculty/Students are utilizing the NPTEL lectures and e-resources.
- In the A.Y 2016-17 totals of 86, Faculty members and 70 Students have got NPTEL course completion certificates.
- Awards and prizes to the deserving students.
- Eminent senior faculty members are appointed to hold key positions.
- Reputed academicians and renowned industry personnel visit the campus to enlighten the faculty and students.
- On-line feedback on each course has been implemented.
- Incubation Cell has been initiated.

### **Research and Development**

- Advanced Research labs have been initiated.
- Progressively increasing number of proposals has been submitted to various funding agencies.
- Through funded research projects, a total few lakhs has been generated.
- Three departments are recognized as research centers by JNTUA.

- The number of publications in peer-reviewed journals with good Impact Factor is increased.

### **Recognition for the institute**

- Institute has got UGC 2(f) & 12(B) status
- UGC accorded institute as Colleges with Potential for Excellence (CPE)
- CREC are accredited by NBA
- ISO 9000:2015 certified the institute
- CREC recognized as NPTEL local chapter and rating has been increased from grade A with the active participation of faculty and students.

### **Lecture and Learning Resources**

- New academic blocks, classrooms, labs, staff cabins and seminar halls have been built.
- The internet bandwidth has been increased along with Wi-Fi.
- Swayam praba, NPTEL, e-journals, Spoken Tutorials are effectively being used
- There is a number of advanced software tools (ANSYS, MATLAB with SIMULINK, NI Lab VIEW, PSCAD, B2SPICE, Microsoft Innovation Centre, National Instruments Excellence Centre, E-CAD, Auto-CAD, CAD-CAM, Tally, SPSS and etc..) have been purchased.

## Criterion 7 - Institutional Values and Best Practices

### 7.1 Institutional Values and Social Responsibilities

**7.1.1 Number of gender equity promotion programs organized by the institution during the last five years**

**Response:** 28

7.1.1.1 Number of gender equity promotion programs organized by the institution year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
9	9	4	3	3

**File Description**

**Document**

Report of the event

[View Document](#)

List of gender equity promotion programs organized by the institution

[View Document](#)

**7.1.2 Institution shows gender sensitivity in providing facilities such as**

**a) Safety and Security**

**b) Counselling**

**c) Common Room**

**Response:**

**(A) SAFETY AND SECURITY:**

Women protection cell is established in this institution to redressal of women grievances against the sexual harassment, other misbehavioral attitude with women and any injustice caused by the gents.

The cell organized many programmes to protect the interest of women community such as women empowerment, mother's day and enlightened the women's role in the domain of science and technology.

**(B) COUNSELING:**

Counseling is regularly extended to the students community in order to keep them in stable mind setup to adopt good discipline, gracious manners, respect towards others and finally to get intellectual brilliance on the subject.

**(C) COMMON ROOM:**

Common room is available for both girls and boys students in case of any ill health problem, they are

advised to take rest and they are being permitted to take first aid medical treatment. common room is established with all facilities to have pleasant stay.

File Description	Document
Any additional information	<a href="#">View Document</a>

### 7.1.3 Percentage of annual power requirement of the Institution met by the renewable energy sources

**Response:** 92.89

#### 7.1.3.1 Annual power requirement met by renewable energy sources (in KWH)

Response: 396000

File Description	Document
Details of power requirement of the Institution met by renewable energy sources	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 7.1.4 Percentage of annual lighting power requirements met through LED bulbs

**Response:** 45

#### 7.1.4.1 Annual lighting power requirement met through LED bulbs (in KWH)

Response: 29370.6

File Description	Document
Details of lighting power requirements met through LED bulbs	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

### 7.1.5 Waste Management steps including:

- Solid waste management
- Liquid waste management
- E-waste management

**Response:**

**(A) SOLID WASTE MANAGEMENT:**

- The Solid Waste articles are being handed over to the Municipal Corporation Tirupati in order to dispose them or to utilize them for laying Plastic Roads.
- The decomposed articles are being allowed to dump them in the Green and Clean dust bins to destroy them.

**(B) LIQUID WASTE MANAGEMENT::**

- The liquid waste articles are being disposed off through Municipal Corporation drainage System and a separate drain line is arranged in the campus which is connected to the main municipal drainage pipeline.
- The drainage water is also being utilized for the growth of greenery plantation in the campus..
- Low flush toilets are used in college buildings.
- Waste water utilization is done for garden trees.
- RO water plants have been installed in all departments of the college and also in hostels.

**(C) E-WASTE MANAGEMENT:**

E-waste is being recycled and reused for further use in the required areas for the institution.

- The E- waste is also handed over to the Municipal corporation Tirupati for further disposal.

*E-waste management:* Bins are set up in college campus to collect e-waste. This helps to create awareness on e-waste among students. E-waste is collected and given to authorized agency (SWACHH) for dismantling and recycling as per NPCB norms.

File Description	Document
Any additional information	<a href="#">View Document</a>

**7.1.6 Rain water harvesting structures and utilization in the campus**

**Response:**

***RAIN WATER HARVESTING***

Rainwater harvesting is a technique used to collect the rainwater to sustain water shortage during summer season and to use for other purposes. In this regard soak pits are constructed in the North East corner of college to raise the increased level of water .

***Advantages***

- 1.Helps in recharging the soil,
- 2.Improvement in ground water level.



- 3.Improves soil moisture
- 4.Easy to Maintain
- 5.Reduces soil erosion
- 6.Electricity saving.
- 7.It provides an alternative supply during water restriction.
- 8.Maintains a green cover.

File Description	Document
Any additional information	<a href="#">View Document</a>

### 7.1.7 Green Practices

- **Students, staff using**
  - a) **Bicycles**
  - b) **Public Transport**
  - c) **Pedestrian friendly roads**
- **Plastic-free campus**
- **Paperless office**
- **Green landscaping with trees and plants**

#### Response:

#### A) **BICYCLES:**

The faculty members and students residing nearby are encouraged to come by bicycles. Thus we prevent the emission of carbon dioxide in the campus /Public places.

#### B) **PUBLIC TRANSPORT:**

The institution is located beside four lane road connecting Tirupati and Renigunta. So we encourage our faculty members and students to use the public transport for safety, security and fuel conservation.

#### C) **PEDESTRIAN FRIENDLY ROADS:**

The campus has wide, well maintained black top roads, covering every nook and corner of it. Plastic free campus: Use of plastic bags and cups are discouraged in the campus. Even in the canteen usage of steel plates/ leaf plates and steel cups or paper cups are mandatory.

#### D) **PAPERLESS OFFICE:**

The Management has taken keen interest to make the office a paperless office. The accounts/office and academic information is stored and maintained through systems only. The complete campus is WiFi enabled, making it much easier for paper less activities. Even the official information and circulars are preferred to be sent only through mails.

**E) GREEN LANDSCAPING WITH TREES AND PLANTS PLANTATION:**

The institute has taken several measures for planting to make Green Campus. 50% of total area is covered with trees. Tree plantation in the campus is the regular activity of the NSS and sapplings of the creative work of the students.

File Description	Document
Any additional information	<a href="#">View Document</a>

**7.1.8 Average percentage expenditure on green initiatives and waste management excluding salary component during the last five years**

**Response:** 0.33

7.1.8.1 Total expenditure on green initiatives and waste management excluding salary component year wise during the last five years(INR in Lakhs)

2016-17	2015-16	2014-15	2013-14	2012-13
0.525	0.7125	0.60630	0.6365	0.355

File Description	Document
Green audit report	<a href="#">View Document</a>
Details of expenditure on green initiatives and waste management during the last five years	<a href="#">View Document</a>

**7.1.9 Differently abled (Divyangjan) Friendliness Resources available in the institution:**

1. Physical facilities
2. Provision for lift
3. Ramp / Rails
4. Braille Software/facilities
5. Rest Rooms
6. Scribes for examination
7. Special skill development for differently abled students
8. Any other similar facility (Specify)

**A. 7 and more of the above**

**B. At least 6 of the above**

**C. At least 4 of the above**

**D. At least 2 of the above**

**Response:** B. At least 6 of the above

File Description	Document
Resources available in the institution for Divyangjan	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### **7.1.10 Number of Specific initiatives to address locational advantages and disadvantages during the last five years**

**Response:** 15

7.1.10.1 Number of specific initiatives to address locational advantages and disadvantages year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
3	3	3	3	3

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

#### **7.1.11 Number of initiatives taken to engage with and contribute to local community during the last five years (Not addressed elsewhere)**

**Response:** 13

7.1.11.1 Number of initiatives taken to engage with and contribute to local community year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
3	2	1	3	4

File Description	Document
Report of the event	<a href="#">View Document</a>
Details of initiatives taken to engage with local community during the last five years	<a href="#">View Document</a>

**7.1.12**

**Code of conduct handbook exists for students, teachers, governing body, administration including Vice Chancellor / Director / Principal /Officials and support staff**

**Response:** Yes

File Description	Document
Any additional information	<a href="#">View Document</a>
URL to Handbook on code of conduct for students and teachers , manuals and brochures on human values and professional ethics	<a href="#">View Document</a>

**7.1.13 Display of core values in the institution and on its website**

**Response:** Yes

File Description	Document
Any additional information	<a href="#">View Document</a>

**7.1.14 The institution plans and organizes appropriate activities to increase consciousness about national identities and symbols; Fundamental Duties and Rights of Indian citizens and other constitutional obligations**

**Response:** Yes

File Description	Document
Details of activities organized to increase consciousness about national identities and symbols	<a href="#">View Document</a>
Any additional information	<a href="#">View Document</a>

**7.1.15 The institution offers a course on Human Values and professional ethics**

**Response:** Yes

File Description	Document
Any additional information	<a href="#">View Document</a>

**7.1.16 The institution functioning is as per professional code of prescribed / suggested by statutory bodies / regulatory authorities for different professions****Response:** Yes

File Description	Document
Any additional information	<a href="#">View Document</a>

**7.1.17 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties during the last five years****Response:** 19

7.1.17.1 Number of activities conducted for promotion of universal values (Truth, Righteous conduct, Love, Non-Violence and peace); national values, human values, national integration, communal harmony and social cohesion as well as for observance of fundamental duties year wise during the last five years

2016-17	2015-16	2014-15	2013-14	2012-13
6	2	4	4	3

File Description	Document
Any additional information	<a href="#">View Document</a>
List of activities conducted for promotion of universal values	<a href="#">View Document</a>

**7.1.18 Institution organizes national festivals and birth / death anniversaries of the great Indian personalities****Response:****7.1.18 NATIONAL FESTIVALS AND BIRTH /DEATH ANNIVERSARIES:**

The Institution organized following national festivals and birth/death anniversaries of the great Indian personalities.

- India got its freedom from the British Rule on 15th August, 1947. Hence, we celebrate our Independence Day on 15th of August every year. There is national holiday on independence Day.

- On occasion of engineers day the college conducted the celebrations to motivate the students to become a great engineers and conducted the working model competition also .
- **World AIDS Day**, designated on 1 December every year since 1988 dedicated to those who have died of the disease.
- Raising awareness of the [AIDS pandemic](#) caused by the spread of [HIV](#) infection.
- Government and health officials, non-governmental organizations and individuals around the world observe the day, often with education on AIDS prevention and control
- On behalf of national festival the college celebrated the sankranti fest in the college and all the students attended the college with traditional dress code.
- National Youth Day (Yuva Diwas or Swami Vivekananda Birthday) is celebrated with the great joy and enthusiasm every year on 12th of January. It is celebrated to commemorate the birthday of Swami Vivekananda, an architect of the modern India.
- It was first declared by the Government of India in the year 1984 to celebrate the birthday of Swami Vivekananda as National Youth Day. Since then (1985), it is started celebrating as the National Youth Day all over the country.
- The ECI observes National Voters Day to create awareness on voting and voter rights. A citizen can be enrolled as voter when he or she is 18 years as on January 1 of the year electoral rolls are prepared. The electoral rolls are revised once in five years as well as prior to an election.
- Republic day in India is celebrated every year with great honour on 26th of January to honour the Constitution of India as it came into force on the same day in the year 1950. It had replaced the Government of India Act, 1935 into the governing document of the India.
- At this day, a national holiday is declared by the Indian Government. The new Indian constitution was sketched and approved by the Indian Constituent Assembly and decided to celebrate it on 26th of January every year as India became a republic country.

#### **7.1.19 The institution maintains complete transparency in its financial, academic, administrative and auxiliary functions**

##### **Response:**

#### **7.1.19 INSTITUTION FINANCIAL, ACADEMIC, ADMINISTRATIVE AND AUXILIARY FUNCTIONS::**

##### **FINANCIAL TRANSPARENCY:**

Before commencement of Academic Year, budget proposals were prepared by each department. Then it is brought for discussion in Governing Body Meeting to get approval. Budget is released as per the approval of the Governing Body Meeting, to all the departments. Every department in the institution will procure new things and improve the existing facilities.

##### **ACADEMIC TRANSPARENCY::**

Academic decisions have been taken in the respective departments relating to subject allocation, arranging guest lectures, organising seminars, and workshops. Conducting counselling for students by faculty advisors twice in a semester Internal assessment of the students is evaluated in a centralized manner. The answered scripts are given to students after evaluation for the verification. Finally, marks will be sent to

their parents / guardians.

**ADMINISTRATIVE TRANSPARENCY:**

There exists defined procedures for administrative activities such as – code of handbook for students and staff, code of ethics, centre for research and innovation policy, research promotion policy, consultancy promotion policy ...etc

**AUXILIARY FUNCTIONS:**

For smooth functioning of the institution, different committees are formed to carry out auxiliary functions. The following committees are in function.

1. Disciplinary committee
2. Anti-Ragging committee
3. Transport committee
4. News letter / Magazine / Brochure / Calendar committee
5. Cultural committee
6. Sports committee
7. Time table committee
8. Alumni council committee
9. Central library committee
10. Maintenance committee
11. Training & Placement committee
12. Data acquisition and maintenance Committee
13. Affiliation and accreditation committee
14. Community development committee
15. Public relations committee
16. Research and development committee
17. Entrepreneur development cell
18. Grievances redressal committee

19.Internal complaints committee for prevention of sexual harassment of women

20.Students club

21.SC / ST Cell,

22.OBC Cell,

23.Minority Cell

24.Internal quality and assurance committee

25.Students affairs committee

26.faculty recreation club committee

## 7.2 Best Practices

### 7.2.1 Describe at least two institutional best practices (as per NAAC Format)

#### Response:

#### *Best Practice 1*

##### **1.Title of the Practice:**

#### OUTCOME BASED EDUCATION

##### **1.Objectives of the Practice:**

- 1.To focus classroom instruction on the accomplishments i.e. skills/competencies those students must demonstrate when they exit.
- 2.To provide instruction in order to enable students to understand the interrelationships among the social and cultural bases of human behavior.
- 3.To equip students with knowledge of research methods appropriate to investigations in engineering and socio-cultural settings.

##### **1.The Context**

- The outcome based education model prescribes a core curriculum and other basic requirements. It defines the basic parameters for the outcomes of the program and more on specific outcomes and objectives.
- It requires the measurement of outcomes, looking for evidence that these measurements have been used to foster a quality improvement process. It is student centric and focuses on the outcomes achieved by the students.



### ***1.Evidence of Success***

The college has clearly stated all program outcomes, program specific outcomes and course outcomes for all programs.

- The faculty, industry and alumni are actively involved in preparing program outcomes, program specific outcomes and course outcomes of all programs in the college.
- The course outcomes of all the programs are made known to the students and staff by displaying in the website of the college.

### ***Mentoring & Counseling:***

Counseling is the top most priority to the students fraternity in-order to mould them to be enriched with educational, social, human and spiritual Values.

### ***Best Practice 2***

#### ***1.Title of the Practice***

Placement Based training in Engineering Education

#### ***2. Goal***

**Describe the aim of the practice followed by the institution. Mention the underlying principles or concepts in about 100 words.**

The main objective of this practice is to improve the academic standards and to provide all the academic facilities to the students based on today's need of the Software industry/hardware Industry into which the students enter after they complete the course.

#### ***3.The Context***

**Describe any particular contextual features or challenging issues that have had to be addressed in designing and implementing the Practice in about 150 words.**

The institute thrives to achieve the standards in both academic and administrative aspects in order to see that students may leave the campus with excellence in all constructive dimensions after completion of their course.

#### ***4. The Practice***

**Describe the Practice and its implementation in about 400words. Include any thing about this practice that may be unique in the Indian higher education. Please also identify constraints or limitations, if any.**

Students in their final step of engineering studies or qualified candidates looking for placement in reputed organizations can make use of this training to get trained to deliver their best in the selection processes of organizations such as Infosys, Wipro, Amazon, IBM. The candidates will be trained thoroughly in the following areas.

- Aptitude Tests
- Group Discussion process
- Interview Process

### 5. Evidence of Success

Many students are placed in many companies from my Educational institute from last ten years.

File Description	Document
Any additional information	<a href="#">View Document</a>

## 7.3 Institutional Distinctiveness

### 7.3.1 Describe/Explain the performance of the institution in one area distinctive to its vision, priority and thrust

#### Response:

### 7.3. INSTITUTIONAL DISTINCTIVENESS

#### VISION :

We at CREC impart training to students so that they become competent and motivated engineers and scientists. The institute celebrates freedom of thought cultivates vision and encourages growth best also inculcates human values and concern for environment and country.

#### MISSION:

- To provide state of art and world class quality of education to sharpen the intellect of the students.
- To produce full- fledged personalities who can contribute their knowledge and skills nearest for benefit and development of the individual and state.
- To mould students educationally ethically, spiritually, physically, mentally splendid.
- **STUDENTS ACHIEVEMENTS:**
- Students have achieved many awards for their amazing academic achievements and number of students are placed in different jobs in the leading corporate companies and organizations.

<b>File Description</b>	<b>Document</b>
Any additional information	<a href="#">View Document</a>

NAAC

## 5. CONCLUSION

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### Additional Information :

CREC an institution of its repute in Rayalaseema region is established by Dr. Sucharitha, an academician and renowned philanthropist, with the moto of serving the society and downtrodden people of Rayalaseema region. The trust runs many educational institutions with the aim of providing quality education to the needy sections of the society. During its journey of more than 13 years, the college has many achievements to its credit, which include,

1. Permanent affiliation granted by JNTUA
2. Recognition with UGC 2(f) and 12(B).
3. Accredited by NAAC with 'A' grade.
4. Accreditation by NBA.
5. Conferred autonomous status for the period of six years (2017-23) by UGC, New Delhi.
6. An ISO 9001:2015 certified institution.
7. Recognition with DSIR-SIRO certification.
8. Attained 'Best Higher Education Institution 2018' by ASSOCHAM with the association of MHRD, Govt. of India.
9. Conferred 'A' grade by Govt. of Andhra Pradesh.
10. MoU with Microsoft and NI LabVIEW Technologies.
11. Institution is funded with DST-FIST, Govt. of India.
12. One young scientist award by Govt. of India.
13. Organized an international conference on "Sustainable Energy Technologies for Smart and Clean Cities" in Association of IIT Tirupati and industry Amara Raja Batteries Pvt. Ltd.

The strategic planning is to improve further the quality of education, research and development, setting various objectives, is based on the Strengths, Weakness, Opportunities and Challenges (SWOC) analysis.

The opinion of all stake holders formed by basis of SWOC analysis. The SWOC analysis was performed by consulting the stake holders like students, parents, faculty, administrators and Human Resources personnel from the industry.

### Concluding Remarks :

The college initiated a process of introspection in all departments to identify the Strengths, Weakness, Opportunities and Challenges (SWOC) and plan for future expansion and growth to be able to meet the aspirations of the society. As a follow up of this, the college has applied for accreditation with the National Assessment and Accreditation Council, Bangalore in 2013 and has been accredited with 'A' Grade and also recently received conformant of Autonomous status for the period of six years (2017-2023) from University Grant Commission, New Delhi.

Now the institution has taken the initiation to apply for second cycle of NAAC, not only to maintain its quality assurance but also to ensure further development and growth.