



SELF STUDY REPORT

FOR

2nd CYCLE OF ACCREDITATION

**VELAGAPUDI RAMAKRISHNA SIDDHARTHA
ENGINEERING COLLEGE**

CHALASANI NAGAR KANURU

520007

www.vrsiddhartha.ac.in

Submitted To

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

BANGALORE

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1. EXECUTIVE SUMMARY

1.1 INTRODUCTION

Velagapudi Ramakrishna Siddhartha Engineering College was established in 1977 as the first private self-financing engineering college in the state of composite Andhra Pradesh and is sponsored by “Siddhartha Academy of General and Technical Education”, a registered society run by philanthropists from different walks of life. The college is offering B. Tech programme in seven branches with an intake of 1140, nine M. Tech programmes with 180 in addition to 60 each in MBA and MCA programmes. The college has autonomous status since 2006 granted by UGC and consistently been upgrading itself in terms of academics, research, industrial interaction, etc. amply putting in endeavours to conform to and evolve as envisaged by the Vision and Mission of the institution. At present, the college has **317** well experienced faculty members including **122** members with Ph.D. qualification. The college is spread over 24.05 acres of land with a built-up area of 66,165 sq.m, meeting all the norms of AICTE and is permanently affiliated to JNTUK, Kakinada.

The college is located in Kanuru Panchayat, a sub-urb of Vijayawada city on the National Highway No.65, and is located at 10 km from the Vijayawada Railway Junction, Central Bus Stand and 15 km from Gannavaram International Airport.

The college received “AICTE-CII Indpact Award 2019” for Best industry linked institute for Civil Engineering & Allied and Rated “Platinum” thrice successively in 2017, 2018 and 2019 by AICTE-CII Survey. The college is the First private technical institution in the state accredited by NBA in 1998 and subsequently in 2005, 2009, 2013 & 2018, one among very few colleges in the country accredited in OBE Tier-I format approved by Washington Accord in 2013 and Accredited by NAAC with 'A' Grade in 2013.

UGC has extended the autonomous status for ten years upto 2028 without an on-site visit in 2018, the first college in A.P to achieve this distinction. The only Private Engineering College that was selected by AICTE under ‘Margadarshan’, 2018, in A.P and Telangana states, TEQIP-II institute selected under S.C. 1.2 by NPIU, MHRD and was rated Grade ‘A’ based on the performance of institute by Government of A.P.

Vision

To nurture excellence in various fields of engineering by imparting timeless core values to the learners and to mould the institution into a centre of academic excellence and advanced research.

The Institution being keen on attaining excellence on the academic front by fortifying the teaching – learning process with relevant execution of a balanced implementation of such educational philosophies and practices that are relevant to the contemporary world of technology with an ample significance being attached to the timeless core values such that the conceptual upbringing of the learners happens with sterling virtues expected of prospective professionals. The institution also focuses on undertaking endeavours related to advanced research through various avenues starting from self-generated & self-directed ones to the funded research on a global scale with a collaborative orientation both in the Process and Product based pursuits in order to mould the institution into a centre of advanced research. The college stands for taking both macro level and micro

level requirements and processes into reckoning leading on to and resulting in comprehensive development to ensure development of quality graduates equipped with relevant knowledge, skills and attitude who are not only Industry-ready but also Human Resources with a holistic personality.

Mission

To impart high quality technical education in order to mould the learners into globally competitive technocrats who are professionally deft, intellectually adept and socially responsible. The institution strives to make the learners inculcate and imbibe pragmatic perception and pro-active nature so as to enable them to acquire a vision for exploration and an insight for advanced enquiry.

In order to realize the Vision of the institution, the college has come forward with its Mission statement that categorically pronounces its commitment to producing globally competitive technocrats with such attributes that amply represent the qualities of rounded professionals. The college looks forward to making the students inculcate pragmatic perception in order to infuse progressively focused dynamism which would develop relevant clarity of thought and expression to be able to withstand the competition at the transnational technical environment and encourages students to imbibe proactive nature while being learners with self starter orientation without prejudice to the standard procedures of the institution. In addition to conforming to the fundamental teaching – learning process, such avenues will get created to see that the students explore newer vistas with a prudent eye and a deep insight for advanced enquiry towards developing the required expertise and for developing higher order awareness of and competence in contemporary and emerging technologies while possessing necessary social consciousness for offering realizable solutions for societal problems with commitment to overall development.

1.2 Strength, Weakness, Opportunity and Challenges(SWOC)

Institutional Strength

1. Pro active leadership and management.

Run by Siddhartha Academy of General and Technical Education, a non profit making organization, the institution is gifted with provident, enterprising and proactive leadership and management that has been the cornerstone for the saga of success all through.

2. Accreditations and Approvals from statutory bodies.

Approved by AICTE and conferred autonomy by UGC, the institution is the first one in the state to have NBA accreditation in 1998 and subsequent accreditations in 2005, 2009, 2013 and 2018, one among few institutions in the country to receive NBA accreditation under OBE Tier I format approved by Washington Accord. The institution is accredited by NAAC with A grade in 2013.

3. Industry relevant and student centric curriculum.

A student centric, flexible and industry 4.0 oriented curriculum encompassing courses such as 5G, Artificial Intelligence, Big Data Analytics, Block Chain, Cloud and Edge Computing, Cyber Security, Virtual Reality, Internet of Things (IoT), and Robotics etc., to meet the demands of the global job market.

4. High quality student input

With national and international recognition, best of the breed faculty, state-of-the-art laboratories, industry oriented curriculum, excellent academic and research culture, contemporary skill development and quality placement potential, the institute attracts high quality student input into the campus.

5. Research Culture

Fostering and embracing research culture with large number of highly qualified and experienced faculty, our campus presents conducive ambience for pursuing quality and meaningful research in frontier areas of engineering.

6. Institute Industry Interaction

The college has established credentials in the domain securing Platinum Ranking in the AICTE-CII survey for three consecutive years 2017, 2018 & 2019 for being Best Industry linked institution. The institution has strategic understandings with industry for continuous upgradation of skill/ technology, aligning R&D activities to industry needs for collaborative research and churning out skilled man power meeting the latest needs.

7. National and international recognition with distinct alumni

Deeply engaged and effective active network of our distinct alumni, who are brand ambassadors and loyal supporters, dispersed around the globe contributing to the reputation of their alma mater, has been our asset.

Institutional Weakness

1. Exiguous presence of industries and R&D organizations in the proximity of the institution.

Although an industry hub and an R&D cluster around any institution are essential for the right engineering education ecosystem, the institution feels sparsely the presence of industries and R&D organization in its proximity. However, the institution started initiatives to transcend the barriers of distance.

2. Consultancy in some departments on a low key.

Consultancy plays an important role in providing a competitive edge to any organization. The intangible assets of an organization such as technical know-how and expertise of the staff, are today, often more valuable than its physical assets.

Albeit our Civil Engineering department has been in the fore front in the state with its significant consultancy services, other departments have initiated consultancy activities in niche areas of expertise available in the institution.

3. Non provision of full time Doctoral Programmes.

It is well acknowledged fact that the development of any engineering institution is closely associated with its progress in Research and Development in the frontier areas of engineering and technology. Doctoral programmes play important role in the R&D ecosystem to nurture the culture of research in academic

institutions to produce high quality technical human resource capable of doing cutting edge research.

As nearly 120 faculty members possessing doctoral degrees and continue their research as eligible guides for full time research scholars, but unable to do so as there is no provision for the institution for full time PhD programme. However, through some R&D centres of the departments, recognized by affiliating university, a few full time scholars are being guided. Some faculty members are guiding part time PhD scholars of other universities.

4. Graduation of start ups meagre.

The institution has accelerated its pace giving thrust to Innovation and Start Up activities through the Institution Innovation Council (IIC) established under the aegis of MHRD Innovation Council (MIC) to foster the culture of Innovation and created Incubation centres in all engineering departments to nurture innovative ideas to transform them into successful Start Ups.

Institutional Opportunity

1. Industry 4.0, Automation and rapid global technological changes – Skilled manpower in emerging technologies in short supply.

Having introduced the identified courses such as 3D printing, Smart Sensors, Cloud Computing, Machine Learning, Big Data, Data Analytics, Cyber Security Robotics etc., into our UG curriculum a couple of year ago, the institution is getting ready to roll out graduates leveraging Industry 4.0.

2. Initiatives from Govt of India aiming to become 5 Trillion Dollar economy by 2025 through creation of Innovation & Start up eco system in the selected HEIs.

Having been selected as one of the potential HEIs by MHRD to establish Institution Innovation Council (IIC) and create an ecosystem for Innovation and Start up, the institution has now prepared itself to convert the present demographic dividend into high quality technical human resource capable of doing cutting edge research & innovation and deep tech entrepreneurship leading to graduation of start ups.

3. Liberal policies of premier institutions & Research organizations in India and many universities abroad providing global inclusiveness for academic, and research collaborations.

Premier institutions & research organizations in India and many universities abroad are creating extensive avenues enhancing global inclusiveness for academic and research collaborations. The institution has already initiated steps to explore all these opportunities for possible partnerships and alliances.

4. Increasing demand for engineering graduates for an interdisciplinary, collaborative and global job market.

Of late, the industry demand skills that cut across traditional disciplinary boundaries, there is increasing support from government and industry for the interdisciplinary programs, as opposed to department-based programs that focus on academically defined disciplinary paradigms. This scenario tremendously enhanced the scope for the engineering institutions for creating engineers that are increasingly interdisciplinary, collaborative, and meet the demands of the global job market.

5. Exploring strategies for tapping the entrepreneurial alumni network.

Although the institution has deeply engaged and effective active network of our alumni dispersed around the globe contributing to their alma mater, there is tremendous scope for exploring strategies for utilizing the entrepreneurial alumni network towards creation of incubation centres, innovations, start-ups, entrepreneurship, internships and industry oriented projects and collaborations.

Institutional Challenge

1 Sustenance of quality in the context of burgeoning of new technical institutions/universities in the state in particular and in general across the country.

It is a known fact that mushrooming of engineering colleges in the country in general and in the state in particular over the last few years has invited a decline in the enrolment and quality as well. In order to sustain the enrolment & quality of the inputs and to respond to globalisation and expand

vertically, our institution has planned to touch the global boundaries by offering quality technical education through its strong, student centric, flexible and industry oriented curriculum and parallel

training and skilling of its graduates to meet the demands of the global job market.

2. Downturn of employment potential for the graduates in core areas of engineering.

Country is facing a massive skill gap problem with hundreds of engineers graduating every year but only a few possessing the skills required in the industry now. One of the other biggest apocalyptic cries in the global economy today is the loss or obsolescence of existing jobs due to automation and rapid changes in technology.

Intuition is making constructive efforts in tech-space employability through a holistic vision in Training and skilling the graduates in automation related courses that meet the fourth & digitized Industrial Revolution to cause a significant disruption.

3. Virtual Universities and online courses catering to all types of courses/programmes including professional courses like engineering.

At present, institutions and universities are ill prepared for the disruptive challenge from virtual universities or training systems using online learning technology and, some companies moving toward requiring workers possessing specific skills and certifications – as opposed to college degrees. Universities will find themselves asked to build specific programs for particular companies. Unless universities move quickly to transform themselves into educational institutions for a technology-assisted future, they risk becoming obsolete.

Foreseeing the impact of this challenge on institutions and universities, it is envisioned to create online courses tailored as per the requirements of the industry and offer them online along with the courses given under formal mode of teaching.

1.3 CRITERIA WISE SUMMARY

Curricular Aspects

The institute offers seven undergraduate and ten post graduate programs in Engineering in addition to one PG program each in Computer Applications and Business Management. The curriculum developed is highly relevant to the needs of the industry and to the expectations of stake holders and in line with AICTE model curriculum. The curricular changes in the form of revision of syllabus, introduction of new courses and conduct of skill development programs are incorporated in a predefined process. Curricular aspects of both the UG and PG programs are revised periodically with changes ranging from 40-60%. The changes are visible predominantly in CSE & IT courses due to the rapid changes that are witnessed in the field of computer science. Suggestions on curriculum are received from Departmental Advisory Board and Program Assessment Committee and are discussed in Board of Studies and finally approved in Academic Council. A structured feedback system is in place to receive inputs on curricular changes from all the stake holders. The curriculum includes seven mandatory and six humanity elective courses focusing on environment, human values and ethics. About 80-90% of courses in each program focus on employability and skill development. Different value added courses are offered by various collaborative labs set up by industry that includes Siemens, IBM, Cisco, Dassault and so on in addition to program offered value added courses. A good number of students are benefited in placements and higher studies utilizing Choice Based Credit System. Majority of the students are carrying out field projects, internships and other interactive programs in association with industries.

Teaching-learning and Evaluation

The admission to various programmes is done based on the guidelines of Andhra Pradesh State Council of Higher Education (APSCHE). The sanctioned seats in each program are classified into category A and category B. Category 'A' seats (70%) are filled through common counselling based on common entrance examination EAMCET and Category 'B' (30%) seats by the institution in accordance with the guidelines of APSCHE.

The Teaching-Learning process adopts different methods such as experiential learning, participative learning and problem solving methodologies utilizing ICT facilities, LMS and e-resources. All the academic activities are carried out strictly following the academic and activity calendar. Proctor dairy system is in place for counselling and to monitor academic and personal issues of students. Necessary efforts are being made in identifying the learning levels (slow and fast) of the students through various assessments and additional training is imparted to slow learners. The institution provides required facilities for the Divyanggan students.

The institution is maintaining Student Faculty Ratio (SFR) as per the AICTE norms. The institution encourages the faculty for upgrading their qualification, domain knowledge and also providing incentives for quality research publications and securing sponsored projects. Various reforms are introduced in examination processes through automation resulting in secured, fair and early declaration of results. The institution is practising outcome based education by defining appropriate POs, PSOs and COs for all programmes and is communicated to faculty and students through website & syllabus books. The student performance is measured through the attainment level of learning outcomes in every programme and appropriate improvement measures are incorporated in content delivery, assessment and evaluation for the accomplishment of better skills and competencies.

Research, Innovations and Extension

VRSEC has been striving hard to excel in the sphere of research steered by well-defined R&D and Consultancy Policies, and Code of Ethics. The institution has been executing multidimensional endeavours including providing seed money, incentives to faculty publications, and conducting workshops on IPR while appointing retired scientists from DST and NRSA as advisors.

College has received Rs.4.69 cr research grants from Govt. & Non- Govt. funding agencies and Rs.12.21 cr of revenue through consultancy including few Corporate Training programs in last five years. College has 57 MoUs with National/International organizations for academic and research collaborations and established Collaborative Labs and COEs in association with Siemens, IBM, Oracle, Cisco, DASSAULT, National Instruments, Apple, DST and Innovation & Incubation centers in all departments.

Faculty and Students of the college have published 1098 research papers in Peer Reviewed / SCOPUS / SCI Journals, books and conference proceedings and also 24 patents were published in last five years. Six Engineering Departments are recognized as Research Centres by JNTUK, Kakinada with 46 Faculty guiding scholars for PhD and 21 scholars were awarded Ph.D under their guidance in last 5 years.

Students are made aware of the moral and social obligations through the NSS, NCC and EWB units such as AIDS Awareness, Medical camps, in addition to technical exhibitions. College has received awards and recognitions from the Government/ recognized bodies for extension activities. More than 100 extension programs like plantation, Swatch Bharath, blood donation camps, Environmental Awareness workshops, teaching underprivileged, etc. were conducted in the last five years.

Infrastructure and Learning Resources

The college is spread over 24.05 acres of land with an instructional area of 27,271 sq.m. and a total built-up area of 66,165 sq.m., satisfying the requirements of AICTE. The institution has well established laboratories, skill development centers, classrooms with ICT facilities, computing facilities and seminar halls for effective teaching learning. The college has a big playground in 10 acres of land with facilities for outdoor games such as Cricket, Football, Volleyball, Ball badminton, Tennis, Basketball, and 400 meter track for athletic events.

The Main Library is fully automated with different services and is upgraded as a digital library to facilitate students and faculty. It has a collection of books with 18,210 titles and 73,861 volumes. The library has subscription for 127 national journals, 33 magazines, and 4731 e-journals in IEEE, ASCE, ELSEVIER, DELNET, DATABASE, JGATE publications and e-books. Selected copies of text books and reference books are also maintained in the departmental libraries.

The Institute continuously upgrades IT facilities with enough number of computers connected with fiber optic network and Wi-Fi to enable all the stakeholders to have better access to all the learning resources & ICT services in the campus. The Institute provides 24×7 internet facility with 290 Mbps leased line bandwidth and is upgraded to 490 Mbps in 2019-20. The Institution takes care of all physical, academic, IT and other facilities with effective maintenance support allocating appropriate budget for optimum utilization of the resources.

Student Support and Progression

The college has a cross section of students who have been benefited by different scholarships and free-ships provided by the government and more than 50% of students are utilizing the benefits. The eligible students are

availing themselves of several other scholarships such as Siddhartha Sahaaya, TTD, Indian Oil Corporation, Pratibha scholarships, etc.

The college has regularly been organising several capacity enhancement activities involving internal resources and also by inviting external experts. The college has a transparent mechanism for timely redressal of student grievances through Anti-ragging, Anti-sexual harassment and overall grievance redressal committees to minimize grievances in the campus.

There is a phenomenal growth in the placements of the college during the last five years from 525 students in 2014-15 to 972 in 2018-19, and about 10% of the students are choosing higher studies in India and abroad. An active student involvement is there in all academic and administrative committees of the institution and there is considerable participation and secured few awards and Medals at local, regional and national level in sports activities in various tournaments and competitions organized in different parts of the country.

The alumni have donated Rs 2.9 crore rupees towards institutional development. Siddhartha Sahaaya Scholarships have been disbursed every year to a tune of Rs. 20 Lakhs per annum for about 130 Students by alumni. Alumni reunion is being organised on a grand scale every year in the month of December. Alumni are supporting the institution in the form of expert lectures, internships, placement and other activities.

Governance, Leadership and Management

The institution has an effective governance mechanism in line with the vision and mission of the institution by practicing decentralization and participative management involving Principal, Deans, Heads of Departments, Programme Coordinators and faculty in-charges. Each of the functionaries has specific roles and responsibilities. The academic policies, rules and regulations for different programmes offered by the institute are framed under the strong leadership of the Principal. The institution has strategic plan with respect to certain key performance indicators to reach the goals. The statutory committees such as Governing Body, Academic Council, Boards of Studies and Finance committee and 13 non-statutory committees are constituted as per the norms of the regulating bodies for smooth and orderly functioning of the institution.

The Institution has a policy and strategy for mobilising resources. The financial transactions of the college are subjected to regular internal and external audit. Internal Quality Assurance Cell (IQAC) is responsible for the quality standards in teaching and learning, evaluation, research and environmental sustenance. Academic Audit, Curriculum Revision, Automation in the Examination Process and Online Certification Courses are some of the many IQAC initiatives which are successfully implemented.

During the preceding five years, the curriculum is revised twice with introduction of Choice Based Credit System, MOOCs courses, Open electives, Industry offered and practice oriented courses. The quality improvement in research has culminated in publication of articles in indexed journals and filing of patents. The Performance Based Appraisal System (PBAS) is in practice for encouraging the faculty for better involvement and accomplishment. The faculty are encouraged to attend FDPs, workshops, seminars and conferences by extending necessary financial support and also certain welfare measures are in place for both faculty and staff of the institution. The placement rate and highest package are increased significantly as a result of conducting focussed training activities. Many academic and administrative processes are automated through E- governance policy. Significant addition of building space and implementation of green initiatives are the other major improvements.

Institutional Values and Best Practices

The college is sensitive to gender equity and promotion. Appropriate programs are organized regularly. Counseling facilities and common room are provided to female students with adequate safety and security and the campus is monitored through CCTV surveillance. The institution has strong commitment to differently able students and provides facilities such as ramps, lifts, special washrooms etc.

The college from the inception has been very conscious about environmental and green initiatives. The rain water is diverted into harvesting percolation pits constructed at various locations in the contour plan of the campus. The campus is well covered with plants and greenery. Solar roof top power generating plant with total capacity of 400KWP caters to more than 50% of the power requirement of the Institute.

Majority of the students of the college make use of public transportation which helps towards achieving carbon neutrality. Also, second Saturday of every month is observed as 'NO Vehicle day' in the college. The college maintains complete transparency by involvement of all stakeholders in financial, academic, administrative and auxiliary functions. Separate code of conduct is followed for students, teachers, faculty, and administrators. The college celebrates all important national festivals and organizes number of activities to promote universal values.

The college has adopted many best practices out of which two practices which stand out are Performance Based Appraisal System (PBAS) for faculty and Technical Model Development for students. The Institute has a distinctiveness of setting up of considerable number of industry collaborative labs and COEs under Industry Institute interaction initiative for training, skill up gradation and placement of students in thrust areas.

2. PROFILE

2.1 BASIC INFORMATION

Name and Address of the College	
Name	VELAGAPUDI RAMAKRISHNA SIDDHARTHA ENGINEERING COLLEGE
Address	CHALASANI NAGAR KANURU
City	Vijayawada
State	Andhra Pradesh
Pin	520007
Website	www.vrsiddhartha.ac.in

Contacts for Communication					
Designation	Name	Telephone with STD Code	Mobile	Fax	Email
Principal	A V RATNA PRASAD	0866-2582333	9849599497	0866-2582672	principal@vrsiddhartha.ac.in
Professor	B RAGHAVA RAO	0866-2582334	9392103838	0866-2476086	braghavarao@vrsiddhartha.ac.in

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	30-08-1977

'Autonomy'				
Date of grant of 'Autonomy' to the College by UGC		27-10-2006		
University to which the college is affiliated				
State	University name	Document		
Andhra Pradesh	Jawaharlal Nehru Technological University, Kakinada	View Document		
Details of UGC recognition				
Under Section	Date	View Document		
2f of UGC	01-01-1990	View Document		
12B of UGC	29-10-2009	View Document		
Details of recognition/approval by stationary/regulatory bodies like AICTE, NCTE, MCI, DCI, PCI, RCI etc (other than UGC)				
Statutory Regulatory Authority	Recognition/Approval details Institution/Department programme	Day, Month and year (dd-mm-yyyy)	Validity in months	Remarks
AICTE	View Document	29-04-2019	12	

Recognitions	
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	MHRD NIRF
Date of recognition	08-04-2019

Location and Area of Campus				
Campus Type	Address	Location*	Campus Area in Acres	Built up Area in sq.mts.
Main campus area	CHALASANI NAGAR KANURU	Rural	24.05	66165

2.2 ACADEMIC INFORMATION

Details of Programmes Offered by the College (Give Data for Current Academic year)						
Programme Level	Name of Programme/Course	Duration in Months	Entry Qualification	Medium of Instruction	Sanctioned Strength	No.of Students Admitted
UG	BTech,Civil Engineering	48	IPE OR CBSE	English	180	177
UG	BTech,Computer Science And Engineering	48	IPE OR CBSE	English	180	177
UG	BTech,Electronics And Communication Engineering	48	IPE OR CBSE	English	240	232
UG	BTech,Electrical And Electronics Engineering	48	IPE OR CBSE	English	120	118
UG	BTech,Electronics And Instrumentation Engineering	48	IPE OR CBSE	English	120	99
UG	BTech,Information Technology	48	IPE OR CBSE	English	120	118
UG	BTech,Mechanical Engineering	48	IPE OR CBSE	English	180	172
PG	Mtech,Civil	24	B.TECH OR	English	18	16

	Engineering		B.E			
PG	Mtech,Civil Engineering	24	B.TECH OR B.E	English	18	14
PG	Mtech,Computer Science And Engineering	24	B.TECH OR B.E	English	36	27
PG	Mtech,Electronics And Communication Engineering	24	B.TECH OR B.E	English	18	15
PG	Mtech,Electronics And Communication Engineering	24	B.TECH OR B.E	English	18	15
PG	Mtech,Electrical And Electronics Engineering	24	B.TECH OR B.E	English	18	10
PG	Mtech,Information Technology	24	B.TECH OR B.E	English	18	14
PG	Mtech,Mechanical Engineering	24	B.TECH OR B.E	English	18	14
PG	Mtech,Mechanical Engineering	24	B.TECH OR B.E	English	18	9
PG	MCA,Computer Applications	36	B.SC OR B.COM	English	60	57
PG	MBA,Business Management	24	ANY DEGREE	English	60	59

Position Details of Faculty & Staff in the College

Teaching Faculty												
	Professor				Associate Professor				Assistant Professor			
	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	38				40				255			
Recruited	30	8	0	38	28	12	0	40	163	92	0	255
Yet to Recruit	0				0				0			

Non-Teaching Staff				
	Male	Female	Others	Total
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				76
Recruited	57	19	0	76
Yet to Recruit				0

Technical Staff				
	Male	Female	Others	Total
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				66
Recruited	52	14	0	66
Yet to Recruit				0

Qualification Details of the Teaching Staff

Permanent Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	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.	30	8	0	23	11	0	27	10	0	109
M.Phil.	0	0	0	0	0	0	4	3	0	7
PG	0	0	0	5	1	0	132	79	0	217

Temporary Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	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

Part Time Teachers										
Highest Qualification	Professor			Associate Professor			Assistant Professor			Total
	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

Details of Visting/Guest Faculties				
Number of Visiting/Guest Faculty engaged with the college?	Male	Female	Others	Total
		17	0	0

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	2936	3	0	0	2939
	Female	2052	5	0	0	2057
	Others	0	0	0	0	0
PG	Male	258	3	0	0	261
	Female	289	1	0	0	290
	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	94	85	101	92
	Female	85	95	78	77
	Others	0	0	0	0
ST	Male	29	29	35	29
	Female	13	11	16	15
	Others	0	0	0	0
OBC	Male	306	285	300	296
	Female	166	178	179	184
	Others	0	0	0	0
General	Male	296	369	374	371
	Female	330	333	309	302
	Others	0	0	0	0
Others	Male	12	2	3	18
	Female	5	5	3	10
	Others	0	0	0	0
Total		1336	1392	1398	1394

2.3 EVALUATIVE REPORT OF THE DEPARTMENTS

Department Name	Upload Report
Business Management	View Document
Civil Engineering	View Document
Computer Applications	View Document
Computer Science And Engineering	View Document
Electrical And Electronics Engineering	View Document
Electronics And Communication Engineering	View Document
Electronics And Instrumentation Engineering	View Document
Information Technology	View Document
Mechanical Engineering	View Document

3. Extended Profile

3.1 Program

Number of programs offered year-wise for last five years

2018-19	2017-18	2016-17	2015-16	2014-15
18	19	19	18	18
File Description			Document	
Institutional Data in Prescribed Format			View Document	

3.2 Students

Number of students year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
5547	5675	5698	5712	5595
File Description			Document	
Institutional Data in Prescribed Format			View Document	

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

2018-19	2017-18	2016-17	2015-16	2014-15
1520	1563	1564	1587	1451
File Description			Document	
Institutional Data in Prescribed Format			View Document	

Number of students appeared in the examination conducted by the Institution, year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
5479	5563	5643	5645	5534
File Description			Document	
Institutional Data in Prescribed Format			View Document	

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

2018-19	2017-18	2016-17	2015-16	2014-15
2051	1966	2305	2638	3173

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

2018-19	2017-18	2016-17	2015-16	2014-15
672	662	667	636	605

File Description	Document
Institutional Data in Prescribed Format	View Document

Number of full time teachers year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
329	329	366	351	345

File Description	Document
Institutional Data in Prescribed Format	View Document

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

2018-19	2017-18	2016-17	2015-16	2014-15
333	333	370	355	349

File Description	Document
Institutional Data in Prescribed Format	View Document

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

2018-19	2017-18	2016-17	2015-16	2014-15
15985	16517	17010	16993	16935

File Description	Document
Institutional Data in Prescribed Format	View Document

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

2018-19	2017-18	2016-17	2015-16	2014-15
569	577	584	577	577

File Description	Document
Institutional Data in Prescribed Format	View Document

Total number of classrooms and seminar halls

Response: 95

Total number of computers in the campus for academic purpose

Response: 1427

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

2018-19	2017-18	2016-17	2015-16	2014-15
1247.87	1280.78	1299.25	985.59	1007.75

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:

The curricula developed/adopted have relevance to the regional/national/global developmental needs with well-defined learning objectives and outcomes at programme and course level.

Review of courses and programmes is done in consideration with following:

The Institute follows the guidelines issued by the regulatory bodies such as UGC, AICTE, affiliated university JNTU and Government while designing the curricula. The credit distribution and the category of courses are designed based on AICTE model curriculum. The course structure and contents of a course are oriented carefully to meet Program Outcomes (POs) and Program Educational Objectives (PEOs). Several Memoranda of Understandings (MoUs) with local and national industries relevant to programs have been signed to make students acceptable at local, national and global level. In order to have right mix of curriculum, pedagogy and assessment to achieve the desired course and program outcomes, curriculum development and approval involves deliberations at various levels through relevant committees such as Department Advisory Board, Program Assessment Committee and Board of Studies. For the effective design of curriculum structure feedback is collected from students, faculty, alumni and employers and the developed curriculum is compared with reputed national institutions. Also by conducting workshops, seminars and conferences periodically, faculties get an opportunity to interact with the academic and industrial experts which helps to design the curriculum more effectively. The recommendations of these committees are put up to Board of Studies with detailed programme structure, curricula and syllabi and further recommendations of BoS are put up for the approval of Academic Council.

The Institute introduced Choice Based Credit System (CBCS) and self-learning courses using MOOCS platform through Swayam, NPTEL, Course era, Edx etc. and some industry offered courses for under graduate programmes and also utilizes Learning Management System (LMS) for effective learning process. Value added courses to enhance communication, employability and entrepreneurship skills are included in the curriculum. Internships and live projects are also undertaken by students to enhance employability. The Institute established an Entrepreneurship Development Cell (EDC) that helps in developing entrepreneurship skills among the students through their interaction with successful entrepreneurs and other related bodies. The Institute encourages the faculty and students to work in emerging areas by involving local industry. Curriculum revision is a continuous process with respect to elective and laboratory courses as per the need of the industry and regulatory bodies from time to time even though the normal cycle of revision is 3 to 4 years.

File Description	Document
Any additional information	View Document

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: 19

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

Response: 19

File Description	Document
Minutes of relevant Academic Council/BOS meeting	View Document
Details of program syllabus revision in last 5 years	View Document

1.1.3 Average percentage of courses having focus on Employability/ Entrepreneurship/ Skill development during the last five years

Response: 89.02

1.1.3.1 Number of courses having focus on employability/ entrepreneurship/ skill development year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
672	662	667	636	605

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

1.2 Academic Flexibility

1.2.1 Percentage of new Courses introduced out of the total number of courses across all Programs offered during last five years	
Response: 33.13	
1.2.1.1 How many new courses are introduced within the last five years	
Response: 530	
1.2.1.2 Number of courses offered by the institution across all programs during the last five years	
Response: 1600	
File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

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 programmes in which CBCS/ Elective course system implemented.	
Response: 18	
File Description	Document
Minutes of relevant Academic Council/BOS meetings	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

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:

All the programs offered in the institute have courses in their curriculum which integrates cross cutting issues relevant to Gender, Environment and Sustainability, Human values and Professional Ethics. These cross cutting issues are integrated into mandatory and Humanities Elective courses in the under graduate programs. The mandatory courses in the curriculum which address these cross cutting issues are 'Induction Program', 'Professional Ethics & Human Values' and 'Technology and Society' in the first year programs, 'Indian Constitution' and 'Environmental Studies' during second year programs and 'Biology for Engineers' and 'Engineering Project in Community Services (EPICS)' in the third year programs. The Humanity Elective courses offered during the fourth semester in all the programs include 'Yoga and Meditation', 'Human rights and Legislative procedures', 'Philosophy', 'Psychology', 'Law for Engineers' and 'Foreign Languages'. These courses carry either one or two or no credit depending on the category.

In addition to enriching the curriculum by integrating cross cutting issues, the institute organises various awareness programs and events by the NSS unit to alert the students about Human values, Ethics, Environment and Gender awareness. The institute provides equal opportunities to boys and girls in all types of student activities organised. Special programs for girl students are arranged towards achieving Women Empowerment. Awareness programs and events are organised on national and international days of importance such as World Health Day, World Cancer day, World AIDS day, International Women's day, Teachers day, Engineers day, Republic day, Independence day, Yoga day, Environmental protection month, and Sports day etc.

File Description	Document
Any additional information	View Document

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

Response: 81

1.3.2.1 Number of value-added courses are added within the last five years

Response: 81

File Description	Document
List of value added courses	View Document
Brochure or any other document relating to value added courses	View Document

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

Response: 40.44

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

2018-19	2017-18	2016-17	2015-16	2014-15
3570	3910	2292	925	700

File Description	Document
Any additional information	View Document

1.3.4 Percentage of students undertaking field projects / internships

Response: 41.77

1.3.4.1 Number of students undertaking field projects or internships

Response: 2317

File Description	Document
List of programs and number of students undertaking field projects / internships	View Document
Any additional information	View Document

1.4 Feedback System

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

A. Any 4 of above

B. Any 3 of above

C. Any 2 of above

D. Any 1 of above

Response: A. Any 4 of above

File Description	Document
Any additional information	View Document
Action taken report of the Institution on feedback report as stated in the minutes of the Governing Council, Syndicate, Board of Management	View Document
URL for stakeholder feedback report	View Document

1.4.2 Feedback processes of the institution may be classified as follows:

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

B. Feedback collected, analysed and action has been taken

C. Feedback collected and analysed

D. Feedback collected

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

File Description	Document
Any additional information	View Document
URL for feedback report	View Document

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: 0.19

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

2018-19	2017-18	2016-17	2015-16	2014-15
12	10	20	13	0

File Description	Document
List of students (other states and countries)	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

2.1.2 Demand Ratio(Average of last five years)

Response: 11.44

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

2018-19	2017-18	2016-17	2015-16	2014-15
1440	1458	1476	1458	1458

File Description	Document
Demand Ratio (Average of Last five years)	View Document
Any additional information	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: 87.69

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

2018-19	2017-18	2016-17	2015-16	2014-15
501	494	511	522	501

File Description	Document
Average percentage of seats filled against seats reserved	View Document
Any additional information	View Document

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:

Once, a student joins in programme after admission, the institution has been practicing to identify the learning levels of the students through the following methods:

1. Diagnostic test is a form of pre-assessment which is conducted in subjects such as Mathematics, English, Physics and Chemistry to assess the student's individual strengths, weaknesses, knowledge level, and analytical abilities prior to instruction.

2. Continuous assessment (internal assessment) and semester end examinations provide the means to assess the learning levels of the students in all courses and slow/fast learners are identified to take up further measures.

Slow Learners: The identified slow learners in the diagnostic test will be considered for bridge classes. Those who got less than 50% marks in continuous assessments and have one or more backlogs in semester end examinations are considered as Slow Learners. In order to support and motivate the slow learners, the following measures are taken.

- **Bridge Classes** are the preparatory classes conducted to fill the gap between the knowledge they possess and the current course requirement.
- **Remedial Classes** are conducted for slow learners as additional classes in the required courses to reach the expected leaning level.
- **Counseling Sessions** are conducted regularly by allotting an hour in the time table allotting 20-25 students to a faculty member. Faculty maintains individual proctor dairies for each student to record the regularity, student academics, extra and co-curricular activities. Apart from counseling, expert lectures in personality development are conducted regularly to counsel the students on placements, higher studies and stress management.

- **Quality circles** involve fast learners in special and remedial classes to motivate slow learners and clarify their doubts.

Advanced Learners: Those who got CGPA more than 7.75 are considered as Fast Learners. The following programmes are taken up to prepare for their readiness to the higher levels of learning in the respective discipline of study.

- **Choice Based Credit System (CBCS)** is offered by the institute for the advanced learners from second year onwards. This system enables the students
 - Spend their eighth semester for doing full time internships/project works in industries outside the institute
 - Concentrate fully on job oriented trainings to get better placements
 - Find adequate time to mould their ideas into design and development of innovative models
 - Find opportunities to participate in various conferences/seminars, quiz competitions, paper or poster presentations
 - Do online certificate NPTEL/Course-era courses to strengthen their knowledge levels
 - Have enough time for preparing competitive examinations (GATE, GRE TOFEL, IELTS) for higher studies
- **High Intensity Training : Advanced learners are given**
 - Advanced training on C and Data Structures
 - Industry specific training for high end packages
- **Self Learning/MOOCs Courses** are introduced in curriculum to facilitate the slow/advanced learners to learn selected courses of various disciplines to acquire contemporary knowledge.

File Description	Document
Any additional information	View Document
link for additional information	View Document

2.2.2 Student - Full time teacher ratio

Response: 16.66

File Description	Document
Any additional information	View Document

2.2.3 Percentage of differently abled students (Divyangjan) on rolls

Response: 0.38

2.2.3.1 Number of differently abled students on rolls

Response: 21

File Description	Document
List of students(differently abled)	View Document
Institutional data in prescribed format	View Document
Any additional information	View Document

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:

EXPERIENTIAL LEARNING

- **ICT in Teaching Learning:** To create more 'learner-centric' learning environment the college has provided different ICT Tools/Resources.
- **Internships:** Through MOUs with the Local/National/Multi-National premier institutions and industries, the institute facilitates student internships and industry related projects.
- **Collaborative Laboratories:** The Institute collaborated with SIEMENS, DASSAULT, IBM, ORACLE, CISCO, NI Academy etc. software companies to train the faculty and students in industry need based technologies and practices.
- **Industry Driven National/Global Student Competitions:** The institute encourages and prepares the students for competitions conducted by IIT/NIT/IIIT/AICTE institutes at national/global level.
- **Bridge Courses:** Bridge courses in basic sciences are conducted for first year students at their beginning of first year classes, as per the AICTE norms.
- **Field Visits:** The Institute gives top priority for technical visits at industries as a value-added learning method for students in every year.
- **MOODLE:** The College made the MOODLE as one of the best practices to cover various learning

levels such as asynchronous discussions, group tasks, home assignments, video lectures, demos, PPT illustrations, case studies etc.

PARTICIPATIVE LEARNING

- **Seminars/Workshops:** Students are trained on regular basis in modern trends and innovative technologies by organizing workshops/seminars inviting experts from industry.
- **Group Assignments/Mock Interviews:** Group discussions/tasks are conducted from second year onwards in soft skills courses. Mock interviews are conducted before the campus placements, to improve confidence levels in the student.
- **Case studies:** Academic projects are being implemented.
- **Model Development:** As the part of the curriculum, to improve student skills and competencies.
- **EPICS:** This course is mandatory that every student has to undergo field visits to identify real time problems in the society and they have to submit the reports of what they have experienced.

PROBLEM SOLVING LEARNING

- **Open-ended problems in Laboratories:** In addition to the regular laboratory experiments, the goal of the student in labs is also targeted to develop hands-on and feasible solutions for open ended problems given in the laboratories using current technologies.
- **Tutorials:** Intended to have individual attention to develop better problem solving skills.
- **Developing innovative models:** Take up some real-world problems for developing new products/models with novelty in perspective of meeting challenges in industry, government and academia.
- **Term paper on contemporary issues:** Real time/industry/society problems are given as group tasks which include analysis, design and will be further continued as mini/major project.
- **Mini and Major projects:** Work done in the earlier semester through field visits and information gathering in Term paper/EPICS is continued for development and implementation.
- **Individual or small group based assignments:** tasks on case study problems, current technologies and industry need based problems are assigned for individual students and group of students to address and develop feasible solutions.
- **Hands-on training programs:** in every semester, training activities covering advanced courses, industry/latest trends are held for students to explore and practice on current technologies.

File Description	Document
Any additional information	View Document

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

Response: 100

2.3.2.1 Number of teachers using ICT

Response: 329

File Description	Document
List of teachers (using ICT for teaching)	View Document
Any additional information	View Document
Provide link for webpage describing the " LMS/ Academic management system"	View Document

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

Response: 19.88

2.3.3.1 Number of mentors

Response: 279

File Description	Document
Any additional information	View Document

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

Response:

Preparation of Academic Calendars :

- Programme-wise Academic Calendars are prepared specifically earmarking the semester-wise schedules.
- The calendars are prepared keeping the minimum number of working days duly taking the National & Public holidays, Festival breaks, Summer vacation, in addition to the College Fests, Training Programmes, Placement Activities etc into cognizance.
- The academic calendars are approved in the Academic Council. The calendars are communicated through the webmail to all the relevant functionaries for adherence.
- Academic activity calendar helps to coordinate the academic activities throughout the year.

Description	Web Link
Academic Calenders	www.vrsiddhartha.ac.in/wp-content/uploads/2020/01/prev_
Activity Schedule	www.vrsiddhartha.ac.in/wp-co

Preparation of Course plan :

Respective Members of faculty prepare teaching plans as a part of their course files keeping the following points in view

- Syllabus content to be delivered
- Time allotment
- Teaching methodologies
- Assessment tools
- Contemporary developments
- Cognitive levels of learning
- MOODLE

Review and Monitoring :

- Course coordinators undertake an intense review in relevant courses
- Module coordinators take up a conceptual review related to delivery and assessment of different courses in tune with the respective modules
- Programme coordinators take up a comprehensive review
- Head of the Department and Principal are vested with the authority to seek any clarification from any of the functionaries in the process and suggest any modification at any point in the process and the required modifications made thereby need to be incorporated into the approved plan by the respective members of faculty.

Following is the fundamental schedules of the college

S.No	Type of the Activity	Events
1	Academic schedule	Class work, Laboratory & Project Technical visits and any other acad additional input sessions including Adjunct faculty, Remedial, Bridge sessions.
2	Formative and Summative assessment schedules	Continuous and Semester-end Exam laboratory and project viva-voce

3	Training and Placement schedules	Skill & Personality development ses Training etc
Relevant schedules are prepared for the above and average adherence scale for the last five years is 100%		
Adherence :		
The institute strictly Adhers the academic calendar, except at unforeseen circumstances without prejudice to the overall deadlines and some of the important items as part of the academic/activity calendar of the college is permitted subjected to the approval in the Deans and HODs meeting chaired by the Principal.		

2.4 Teacher Profile and Quality

2.4.1 Average percentage of full time teachers against sanctioned posts during the last five years											
Response: 100											
File Description	Document										
Year wise full time teachers and sanctioned posts for 5 years	View Document										
List of the faculty members authenticated by the Head of HEI	View Document										
Any additional information	View Document										
2.4.2 Average percentage of full time teachers with Ph.D. during the last five years											
Response: 22.63											
2.4.2.1 Number of full time teachers with Ph.D. year-wise during the last five years											
<table border="1"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>111</td> <td>90</td> <td>78</td> <td>55</td> <td>52</td> </tr> </tbody> </table>	2018-19	2017-18	2016-17	2015-16	2014-15	111	90	78	55	52	
2018-19	2017-18	2016-17	2015-16	2014-15							
111	90	78	55	52							
File Description	Document										
List of number of full time teachers with PhD and number of full time teachers for 5 years	View Document										
Any additional information	View Document										
2.4.3 Teaching experience per full time teacher in number of years											

Response: 12.24

2.4.3.1 Total experience of full-time teachers

Response: 4025.74

File Description	Document
Any additional information	View Document

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:** 4.94

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

2018-19	2017-18	2016-17	2015-16	2014-15
7	02	01	04	03

File Description	Document
Institutional data in prescribed format	View Document
e-copies of award letters (scanned or soft copy)	View Document

2.4.5 Average percentage of full time teachers from other States against sanctioned posts during the last five years**Response:** 39.26

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

2018-19	2017-18	2016-17	2015-16	2014-15
140	134	138	134	136

File Description	Document
List of full time teachers from other state and state from which qualifying degree was obtained	View Document
Any additional information	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: 26.8

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

2018-19	2017-18	2016-17	2015-16	2014-15
12	20	36	38	28

File Description

Document

List of programs and date of last semester and date of declaration of result

[View Document](#)

Any additional information

[View Document](#)

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

Response: 43.54

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

2018-19	2017-18	2016-17	2015-16	2014-15
2051	1966	2305	2638	3173

2.5.3 Average percentage of applications for revaluation leading to change in marks during the last five years

Response: 21.24

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

2018-19	2017-18	2016-17	2015-16	2014-15
419	512	499	514	590

File Description	Document
Any additional information	View Document

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:

- Examination schedules are prepared by adhering to Institute Academic Calendar
- In continuous assessment, a couple of midterm and assignment tests each besides a home assignment are conducted the schedules of which get announced properly. In addition , Mini project and major project executed by the students are reviewed at 3 stages.
- The marks obtained by the students are posted on CMS- VRSEC ONLINE and the hard copies of mark award lists are submitted to the exam branch for further scrutiny, record and storage.
- All the permissible pre-examination and post-examination tasks have been integrated with EMS services using BeeS examination tool .Right from notifying the examinations in the college website, fee payment of the students through payment gateway, preparing database of eligible candidates, preprinted bar-coded OMR answer booklets, etc to post-examination tasks up to declaration and issue of marks memos , the college has been involving electronic processes.
- Day wise / room wise/ semester wise seating arrangement is prepared for all the examinations. Required number of faculty members are appointed as invigilators from the different departments.
- The question paper for the end semester exam is set by external faculty members who taught the subject for at least three years drawn from the approved list of paper setters. Enough care is taken to ensure the standard, spread of the syllabus and mapping of COs and following BLOOMS taxonomy.
- Special squads with internal and external faculty, prompt actions by Malpractice enquiry committee against malpractices, if any, relevant concessions for the Physically Challenged students with minimum 40% of disability as per norms , etc are regular features

S No	Reforms	Positive Impact
1	Use of OMR Answer Booklet with Bar Coding	<ul style="list-style-type: none"> • Utmost confidentiality is achieved by coding of answer scripts
2	Inclusion of CCTV cameras	<ul style="list-style-type: none"> • Continuous monitoring of Examination valuation processes
3	Online Payment	<ul style="list-style-type: none"> • Payment gateway is available for the p examination fees online by the student
4	Declaration of Results	<ul style="list-style-type: none"> • Timely announcement of Results - dis website and sent through SMS to regis students.
5	OBE Question Paper	<ul style="list-style-type: none"> • Covers all course outcomes and there i between required competencies

6	External Audit of question papers and answer scripts	<ul style="list-style-type: none"> Question papers and answer scripts are external examiners from reputed institutes IITs and NITs etc.
7	Question paper Security	<ul style="list-style-type: none"> Question paper sets are maintained in with perfect log book monitoring.
8	Adoption of Spot Valuation practice	<ul style="list-style-type: none"> Reduces the time for evaluation of Ans
9	Inclusion of Security features on 'Statement of grades'	<ul style="list-style-type: none"> Integration of Aadhaar and Photograph
10	Implementation of ICT (Bees Examination Tool)	<ul style="list-style-type: none"> Automation of fee payment, examination hall ticket generation, seating plan and processes.
11	Anti-Plagiarism check	<ul style="list-style-type: none"> All the M Tech Theses are subjected to ensure originality in work

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

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	View Document
Current Manual of examination automation system	View Document
Any additional information	View Document
Annual reports of examination including the present status of automation	View Document

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:

Communicating the POs, PSOs and COs

The college has a multi-layered, multi-point and multi-faceted process related to communicating the POs, PSOs and COs to the teachers and students

Communication to the teachers:

- POs and Cos are developed in each programme of courses involving all the faculty of the department and are approved in the BOS meeting after thorough discussion.
- After approval in department BOS meeting, these are approved in college Academic council meeting.
- After approval in Academic Council meeting, all POs and COs are communicated back to faculty and they maintain the POs and Cos as part of their course files.

Communication to the Students:

Manual Communication:

- **First year Induction Programme:**
- Dedicated lecture-demos are organized as a part of the Induction Programme in which POs are presented and explained to the students.
- **Introduction of Course Outcomes:**

Respective COs are presented at the beginning of each course all through the programme

- **Note of Outcomes in the Curriculum Books:** COs and CO-PO mapping is given for each course in the syllabus books.
- **Outcomes Boards in the Department Corridors :** Multi-coloured Foam boards depicting the POs are placed for wider awareness among students regarding the matter.
- **Question papers of Continuous Assessment:** The questions of continuous assessment exams are set reflecting the COs of the particular course along with cognitive levels of learning.

Communication

- **Website:**

POs are presented in the college website www.vrsiddhartha.ac.in

COs are presented in the webpage-department wise.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

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

Response:

Attainment of Outcomes:

- The Program Outcomes (POs) and Program Specific Outcomes (PSOs) are accomplished through curriculum
- Course Outcomes (COs) are defined for each course and they are mapped to POs and PSOs.
- A set of performance evaluation criteria is used for quantitative assessment of COs
- Thus the attainment of COs provides an evidence of attainment of POs and PSOs.

Following are the different methods for Assessment, Evaluation and Measurement of POs/PSOs

- Direct Assessment methods
- Indirect Assessment methods

Direct Assessment methods

- **Continuous Assessment:** COs are assessed through Sessional & Assignment Examinations, Home Assignments and Lab records. The CO is mapped against each question and CO analysis is carried out by faculty for each course and documented in Faculty Course Assessment Report (FCAR). The contributions of COs are assessed in high, moderate and low levels, towards the attainment of POs/PSOs.
- **Semester-end Theory Examinations:** The questions in semester-end examinations are tested pertaining to all COs, in varying Blooms Taxonomy Levels.
- **Laboratory Records:** Both continuous and semester-end examinations are conducted to test the COs attainment.

Indirect Assessment Methods:

- **Programme – Exit survey:** This survey taken from the final year students at the completion of their B.Tech programme, stands as the comprehensive feedback for the PO/PSO assessment
- **Alumni Survey :** This survey is conducted annually through Google link or mail with the Alumni to obtain the inputs and suggestions on PO attainment in the real time societal environment
- **Employer Survey:** This survey is taken from the employer to measure the PO attainments.

Course Outcomes	CO1		CO2		CO3			
Measure	Q	Av%	Q	Av%	Q	Av%		
	Q1a	100	Q3b	98	Q4b	100		
	Q1b	98	Q4a	93	Q5a	97		
	Q2a	88	Q6b	88	Q5b	89		
	Q2b	100			Q6a	80		
Total Average		96.5		93		91.5		

Mechanism for the attainment of CO :

The student performance in continuous assessment exams is verified for each question.

CO Assessment (Direct) = (Number of students attained the target) / (Number of students attained the target)

CO Assessment (InDirect)=(Number of Students responded to expected level)/(Number of students responded)

In view of the threshold assumed for each course, individual course assessment is evaluated.

Mapping of Course outcomes with Program Outcomes

Course Outcomes	CO1	CO2	CO3	CO4
Program Outcomes	PO1-3(H)	PO3-3(H)	PO1-3(H)	PO1
	PO3-3(H)	PO8-1(L)	PO5-3(H)	PO5
	PO8-1(L)	PO10-1(L)	PO11-1(L)	PO8
	PSO1-3(H)		PSO1-3(H)	PSO

Using CO-PO mapping, the mapped POs are considered for assessment by :

PO Direct Assessment= (?(level of mapping of PO with CO*Average of CO attainment)) / (?(level of Mapping of PO with CO))

Assessment of PO1: Course Outcome Mapping with Program Outcome PO1

PO1		Level of mapping	
CO1	96.5	3(H)	
CO3	91.5	3(H)	
CO4	84	3(H)	

PO1 Direct Assessment = ((3 X 96.5 + 3 X 91.5 + 3 X 84)) / ((3 + 3 + 3)) =90.67

Set the target level of attainment for PO1 say 70%, then it is concluded that PO1 has attained.

** Sample document showing attainment levels is attached.

File Description	Document
Any additional information	View Document

2.6.3 Average pass percentage of Students

Response: 89.08

2.6.3.1 Total number of final year students who passed the examination conducted by Institution.

Response: 1354

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

Response: 1520

File Description	Document
List of programs and number of students passed and appeared in the final year examination	View Document
Any additional information	View Document
Link for annual report	View Document

2.7 Student Satisfaction Survey

2.7.1 Online student satisfaction survey regarding teaching learning process

Response: 3.58

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	View Document
URL of Policy document on promotion of research uploaded on website	View Document

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

Response: 9.53

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)

2018-19	2017-18	2016-17	2015-16	2014-15
8.23	10.46	7.26	8.70	13

File Description	Document
Minutes of the relevant bodies of the Institution	View Document
List of teachers receiving grant and details of grant received	View Document
Budget and expenditure statements signed by the Finance Officer indicating seed money provided and utilized	View Document
Any additional information	View Document

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

Response: 4

3.1.3.1 The number of teachers awarded international fellowship for advanced studies / research year-wise

during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
4	0	0	0	0

File Description	Document
List of teachers and their international fellowship details	View Document
e-copies of the award letters of the teachers.	View Document

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: C. Two of the facilities exist

File Description	Document
Institutional data in prescribed format	View Document
Any additional information	View Document

3.2 Resource Mobilization for Research

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

Response: 417.1

3.2.1.1 Total Grants for research projects sponsored by the 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)

2018-19	2017-18	2016-17	2015-16	2014-15
59.26	84.64	95.73	40.01	137.46

File Description	Document
List of project and grant details	View Document
e-copies of the grant award letters for research projects sponsored by non-government	View Document

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

Response: 7

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

Response: 7

File Description	Document
Names of research centres	View Document
Any additional information	View Document

3.2.3 Percentage of teachers recognised as research guides

Response: 13.22

3.2.3.1 Number of teachers recognised as research guides

Response: 46

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

Response: 348

File Description	Document
Details of teachers recognized as research guide	View Document
Any additional information	View Document

3.2.4 Number of research projects per teacher funded, by government and non-government agencies, during the last five year

Response: 0.88

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

Response: 61

File Description	Document
Supporting document from Funding Agency	View Document
Any additional information	View Document

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:

Eco System for Innovation

The college has undertaken a comprehensive approach towards Innovation in line with the Mission Statement. In the process, the college undertook Innovation and Incubation oriented activities through TEQIP Phase S.C 1.2(R&D&I) since 2010 in which the college was recognized as the **Best Performing Institute in Andhra Pradesh** with 'A' Grade awarded by Govt. of A.P. Even in the nascent stage of the processes, the college filed its first Patent in 2014.

While identifying the need for a concerted strategy, the college realized that not just fragmented endeavours, but a pragmatic eco-system be developed. The Manifestation of the eco-system is as follows.

1. R&D Policy of the Institute

An R&D policy is in place to promote innovation and incubation by the faculty and students in tune with the corporate world.

2. Resources

A space of about 10,000 Sft. is created exclusively for the Technology business Incubation in addition to, innovation and incubation centres with required facilities in all departments. The college has been making the seed money available for the faculty to undertake Innovative projects with relevant material resources. The Institute is nurturing the innovation with a financial support up to 50% to students in addition to the encouragement by prominent Alumni. Institute encourages the faculty and students to protect their Intellectual property (IP) by providing facilitates and financial support.

3. Institute Innovation Council

The Institute has established Institute Innovation Council (IIC) in 2018 with identified faculty and students from various departments as members. The college obtained four star rating in 2018-19 from Innovation cell, Ministry of HRD for various activities undertaken as per IIC calendar.

4. Collaboration

All departments have Innovation and Incubation setup with the involvement and guidance of Industry such as

- National Instruments
- World vision Technologies, USA
- Likwell Telesystems Pvt ltd,
- Future Tech Instruments Ltd
- Electronics Industries Association of AP
- Bharath Sanchar Nigam Ltd,
- Efftronics Systems Pvt. Ltd,
- Indian Servers Pvt.Ltd,
- Sedibus Technology and
- Anblicks Ignite.

On the whole, the institute has 57 MOUs to undertake collaborative activities for innovation, incubation, IPRs, Consultancy, etc.

5. Activities

• EPICS (Engineering Projects for Community Service) course, Mini and Major Projects have embedded the innovation as nucleus of the curriculum.

• Every year Innovative and entrepreneurship activities including Hackathons, Idea competitions, Awareness workshops on IPR and Cognitive and Critical thinking, Leadership Talks, etc. are conducted as per guidelines of Innovation cell, MHRD.

• The institute encourages the students to participate in Regional and National level Idea competitions conducted by the recognized bodies and institutions of reputation such as IIC, IITH, IITB, LNT, SIH, AICTE, IEI, etc.

6. Outcomes (during the Assessment Period)

The sustained efforts have resulted in the following accomplishments

- 1) About 50 innovation awards won (Ref:3.3.3)
- 2) 7 startups have been registered by our students
- 3) 24 Intellectual Property Rights (IPRs) published (Ref: 3.4.3)

File Description	Document
Any additional information	View Document

3.3.2 Number of workshops/seminars conducted on Intellectual Property Rights (IPR) and Industry - Academia Innovative practices during the last five years**Response:** 120

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

2018-19	2017-18	2016-17	2015-16	2014-15
28	33	25	22	12

File Description**Document**

Report of the event

[View Document](#)

List of workshops/seminars during the last 5 years

[View Document](#)**3.3.3 Number of awards for innovation won by institution/ teachers/ research scholars/students during the last five years****Response:** 8

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

2018-19	2017-18	2016-17	2015-16	2014-15
5	3	0	0	0

File Description**Document**

List of innovation and award details

[View Document](#)

e- copies of award letters

[View Document](#)**3.3.4 Number of start-ups incubated on campus during the last five years****Response:** 0

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

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

File Description	Document
List of startups details like name of startup, nature, year of commencement etc	View Document
e- sanction order of the Institution for the start ups on campus	View Document

3.4 Research Publications and Awards

File Description	Document
3.4.1 The institution has a stated Code of Ethics to check malpractices and plagiarism in Research	
Response: Yes	
Institutional data in prescribed format	View Document
Any additional information	View Document

File Description	Document
3.4.2 The institution provides incentives to teachers who receive state, national and international recognition/awards	
Response: No	
e- copies of the letters of awards	View Document
Any additional information	View Document

3.4.3 Number of Patents published/awarded during the last five years				
Response: 24				
3.4.3.1 Total number of Patents published/awarded year-wise during the last five years				
2018-19	2017-18	2016-17	2015-16	2014-15
5	14	4	1	0

File Description	Document
List of patents and year it was awarded	View Document
Any additional information	View Document

3.4.4 Number of Ph.D.s awarded per teacher during the last five years

Response: 0.46

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

Response: 21

3.4.4.2 Total number of teachers recognised as guides during the last 5 years

Response: 46

File Description	Document
List of PhD scholars and their details like name of the guide , title of thesis, year of award etc	View Document
Any additional information	View Document
URL to the research page on HEI web site	View Document

3.4.5 Number of research papers per teacher in the Journals notified on UGC website during the last five years

Response: 1.46

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

2018-19	2017-18	2016-17	2015-16	2014-15
117	142	95	77	70

File Description	Document
List of research papers by title, author, department, name and year of publication	View Document
Any additional information	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: 1.14

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

2018-19	2017-18	2016-17	2015-16	2014-15
137	79	65	52	59

File Description	Document
List books and chapters in edited volumes / books published	View Document
Any additional information	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: 1.69****3.4.8 Bibliometrics of the publications during the last five years based on Scopus/ Web of Science - h-index of the Institution****Response: 12.5**

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
Soft copy of the Consultancy Policy	View Document
Minutes of the Governing Council/ Syndicate/Board of Management related to Consultancy policy	View Document
URL of the consultancy policy document	View Document

3.5.2 Revenue generated from consultancy during the last five years**Response: 1220.84**

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

2018-19	2017-18	2016-17	2015-16	2014-15
251.20	270.67	324.14	210.44	164.39

File Description	Document
List of consultants and revenue generated by them	View Document
Audited statements of accounts indicating the revenue generated through consultancy	View Document

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

Response: 0

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

2018-19	2017-18	2016-17	2015-16	2014-15
0.0	0	0	0	0

File Description	Document
List of teacher consultants and revenue generated by them	View Document
Audited statements of account indicating the revenue generated through training	View Document

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 has undertaken activities in the following domains which have benefitted the neighboring community while sensitizing the students to techno-social issues. The said domains of activity include Technology advancement, Social and Community service, Public health and safety and Environmental protection.

1. Advancement in Technology

- **ISRO Space week celebrations**

It is a collaborative activity with ISRO, Sriharikota to motivate the young minds of the city towards the Space technologies. The exhibition which depicted Rockets, Satellites, etc was visited by about 10,000 students and school children.

- **Engineers' Day**

The Celebrations organized every year have been giving an opportunity for about 5000 students and public to visit the *Innovative Technical Models* developed by our students over the years.

- **Digital India expo**

In consonance with the dream of the Government of India to ensure that government services are made available to citizens electronically, even in remote areas, the event stood as the IT might of the region with an array of startups was visited by about 5000

Sensitization: *The events offered richer insights to the students as well as the community around into the greater scope of eco-friendly and far reaching technologies driven by people –friendly orientation with innovative mindset complemented by relevant dynamism for start-up and such other enterprising skills.*

2. Social and Community service:

- **PushkarSeva, Blood Donation and Free Medical Camps**

PushkaraSeva in association with Government of AP and AkshyaPatraduring Krishna Pushkaralu August 2016 was a field work in which 515 students served lakhs of devotees.

Blood donation and Free Medical camps organized by NCC and NSS units of the college in association with International Red Cross, NTR Trust, etc benefitted the needy and underprivileged

Sensitization: *These service activities have made the students practically see several social woes and they developed empathetic orientation. These programmes helped the students understand the significance of reciprocating to the society.*

3. Public Health and safety

- **Pollution Awareness Campaign SAVE FUEL-SAVE ENVIRONMENT** event conducted on 26th Jan. 2016 at Vijayawada, Benz circle, which is a most traffic density signal point created greater awareness among 10,000 people.

- **No vehicle Days** being organized on every second Saturday to encourage the use of public transport and to reduce the vehicle pollution in the campus.
- **Recycling used Note books** collecting used note books from students in and around Vijayawada to recycle the books in association with the ITC.
- **Helmet Awareness** It is an initiative by the students of EWB of the college with distribution goodies for Helmet wearers.

Sensitization: *These events inculcated the civic sense, awareness of recycling, optimum utilization of resources, traffic sense, individual safety with public safety for the benefit of the society and posterity*

4.Environmental protection

Swachh Bharat, Tree plantation and Eco-friendly Clay Ganesh idol distribution programmes are organized by the NSS and NCC units of the college.

Sensitization: *These events contributed to creating awareness related to healthy cleaning and sanitation practices, importance of tree plantation and to minimize water pollution.*

File Description	Document
Any additional information	View Document

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

Response: 42

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

2018-19	2017-18	2016-17	2015-16	2014-15
14	13	6	7	2

File Description	Document
Number of awards for extension activities in last 5 years	View Document
e-copy of the award letters	View Document

3.6.3 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the last five years

Response: 66

3.6.3.1 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-wise during the last five years

2018-19	2017-18	2016-17	2015-16	2014-15
16	12	17	10	11

File Description

Document

Reports of the event organized

[View Document](#)

Number of extension and outreach programs conducted with industry, community etc for the last five years

[View Document](#)

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: 62.02

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

2018-19	2017-18	2016-17	2015-16	2014-15
3546	3307	3665	3415	3570

File Description

Document

Report of the event

[View Document](#)

Average percentage of students participating in extension activities with Government or NGO etc

[View Document](#)

3.7 Collaboration

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

Response: 19

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

2018-19	2017-18	2016-17	2015-16	2014-15
26	20	16	18	15

File Description	Document
Number of Collaborative activities for research, faculty etc	View Document
Copies of collaboration	View Document

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: 102

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

2018-19	2017-18	2016-17	2015-16	2014-15
28	20	23	16	15

File Description	Document
e-copies of linkage related Document	View Document
Details of linkages with institutions/industries for internship	View Document

3.7.3 Number of functional MoUs with institutions of National/ International importance, Other Institutions, Industries, Corporate houses etc., during the last five years (only functional MoUs with ongoing activities to be considered)

Response: 57

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 (only functional MoUs with ongoing activities to be considered)

2018-19	2017-18	2016-17	2015-16	2014-15
15	11	13	8	10

File Description	Document
e-copies of the MoUs with institution/ industry/ corporate house	View Document
Details of functional MoUs with institutions of national, international importance, other universities etc during the last five years	View Document

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:

Institution located in Central place of Vijayawada caters to the needs of stakeholders, has excellent infrastructural facilities spread over 24.05 Acres of land with instructional area of 27,271 sq.m and a total built up area of 66,165 sq.m . The Institution has 102 laboratories, 77 classrooms, 09 smart class rooms, 09 Seminar Halls and 01 Auditorium with 600 seated capacity. All the class rooms, smart class rooms, seminar halls and many of the Laboratories are equipped with ICT facilities.

Number of classrooms: 77 (Seating Capacity of 75 -80)

All classrooms are equipped with adequate lighting and good ventilation, Multimedia Projector, Wi-Fi, Podium, Fan, Light, Glass board.

Technology Enabled Learning Rooms (smart class rooms):

Number of rooms: 09 (Seating Capacity of 75 -80)

Smart classrooms are equipped with LCD Projector with Smart interactive board facility, Wi-Fi, Audio and Video facilities for effective Teaching learning process.

Number of Seminar Halls : 09 (Seating Capacity of 200 to 250)

Seminar Halls are equipped with LCD Projector with white board facility, Wi-Fi, Audio and Video facilities.

Number of Drawing Halls :03 (Seating Capacity of 120 to 150)

Drawing halls are equipped with Drawing tables, Chairs, Fans, Light with good ventilation and ambience.

Number of Laboratories: 102(Seating Capacity of 75 to 80)

All Laboratories are equipped with state of the art facilities with periodic maintenance mainly system maintenance, antivirus updations, software updations, calibration and servicing. Each lab is provided with necessary display boards and adequate safety measures.

In addition to regular curriculum labs, the college established more than 20 labs and COEs in collaboration with industry for skill upgradation in advanced technologies in the last five years.

- IBM
- ORACLE
- CISCO

- **National Instruments**
- **AACTE (APPLE, USA)**
- **Electrical & Energy studies**
- **CNC Machines**
- **Robotics**
- **Product Design & Validation**
- **Advanced Manufacturing**
- **NC Programming**
- **Rapid Prototyping**
- **Test & Optimization**
- **Mechatronics**
- **Process Instrumentation**
- **Automation**
- **Dassault systems**
- **COE in Telematics, Composites, etc.**
- **Sensors and Signal Processing**
- **Video analytics**
- **BOSCH**

Asynchronous Learning Facilities:

QEEE - A classroom with Web casting facility (Audio, Video Recording, Microphones, Speakers, Camera etc.,) to facilitate Webinars

Library:

Library is also enabled with Wi-Fi and RFID Technology for self-issue and return. All Departments are having department library for ready reference

Computing equipment:

The entire campus is facilitated with mobility aware Wi-Fi connectivity and with abundant bandwidth. All computers are connected to campus network with 1Gbps fiber optic backbone.

A Central Computing Centre with 35 Desktop Computing Systems is functioning from 8.00 a.m to 10.00 p.m for Monday to Saturday and 8.00 a.m to 6.00 p.m on Sundays.

S.No	Type of computing equipment and Learning Resource available	2018-19
1	Library Book titles	18210
2	Library Book Volumes	73861
3	Computers with Internet	1600
4	Application Softwares	58
5	System Softwares licenses	1085

6	Internet Bandwidth	490Mbps as on date
7	Wi-Fi connectivity (access points)	107
8	CC Cameras	236
9	Printers and scanners	132
10	Projectors	115

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

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

Response:

The institution gives adequate importance to Sports and games. It has 10 acres of land for play fields. The department of Physical Education has enough facilities for both outdoor and indoor games. The institution hosts inter University zonal tournaments in the campus.

Outdoor games:

- Adequate facilities are provided for Cricket, Football, Volleyball, Ball badminton, Khokho, Tennicoit, Throwball and Basketball.
- Two Cricket net Practice arenas with Astro layer are provided.
- Facilities for Sports such as long jump, high jump, short put, disc throw and 400 meter eight lane standard track are provided.
- Beach Volley ball court is also provided.

User Rate: Around 400 students utilize the facility every day.

Indoor games:

- The college has 661.8sqm. built-up area available to facilitate the indoor games such as Table Tennis, Badminton, Chess.

User rate: Around 100 students utilize the facility every day.

Encouragement for Participation:

- Attendance is provided to the students who represent the college at Inter-University, National and International competitions.
- Travelling and DA is provided for the student to participate in the events.
- Sports material and uniform is provided to the college teams to participate in the events.
- Annual Intra- mural competitions for boys and girls are conducted
- Annual Sports day is celebrated and meritorious sports persons of the college are honoured.

Gymnasium:

- Gymnasias are available at the department of physical education and in the women's hostel.
- Cardio exercises equipment such as cross trainer, treadmill are available at Girls' hostel.

User rate: Around 70 students utilize the facility every day.

Yoga :

- A 600 capacity auditorium is provided for Yoga.
- A course in Yoga is offered under humanities elective as part of the curriculum, as per the protocol of Ministry of AYUSH.
- International Yoga Day is celebrated every year with 500 students and faculty participating in the event.

Cultural Activities:

To promote cultural events among students in the campus, cultural clubs were constituted by the college. It encourages the students to participate in District, State, National level, Inter Collegiate and Inter University cultural festivals. Different clubs are constituted at both department level and Institute level. Literary, Photography and Music clubs are available at Institute level. Cultural festival is conducted every year in the month of February and invites students from other colleges.

Sports, Games & Gymnasium Facilities

S.No.	Name of the Arena	No's	Area (sq. m)	Year
Indoor Games				
1	Badminton	01	171	
2	Table Tennis Hall	01	173	
Outdoor Games				
3	Volleyball courts	05	40,460	
4	Football Field	01		
5	Ball Badminton Court	01		
6	High jump cum Long Jump pit	01		
7	Shot-put	01		
8	Discuss Throw	01		
9	Beach Volleyball Court	01		
10	Throw ball Court	01		
11	Tennicoit Court and badminton	04		
12	Kho-kho	01		
13	Kabaddi	01		
14	400m. standard athletics track	08 Lane		
15	Cricket area	65 meters radius		

16	Cricket net practice arena	02		
17	Basketball Cement court	01	714	
Gymnasium				
18	Gymnasium Hall Indoor	01	14	
19	Eight Station Multi-Gym Assembly	02	70	

File Description	Document
Any additional information	View Document

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

Response: 100

4.1.3.1 Number of classrooms and seminar halls with ICT facilities

Response: 95

File Description	Document
Number of classrooms and seminar halls with ICT enabled facilities	View Document
Any additional information	View Document
Link for additional information which is optional	View Document

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

Response: 52.17

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

2018-19	2017-18	2016-17	2015-16	2014-15
483.25	411.83	578.98	782.10	665.78

File Description	Document
Audited utilization statements	View Document
Any additional information	View Document

4.2 Library as a Learning Resource

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

Response:

College Central Library has a spacious built up area of 1300 sq.mts, with sitting capacity of 250 members with a qualified senior Librarian, Asst. Librarians, Jr. Programmer and supporting staff. It has two separate Newspaper reading rooms for boys and girls The Library works from 08:00 AM to 08:00 PM on all working days and from 09:00 AM to 01:00 PM on the holidays. It has an air-conditioned Digital Library.

The Library has 73861 volumes with 18210 titles of books and about 1010 back volumes of scientific and technical periodicals. The Library also subscribes to nearly 127 National journals and 33 magazines and more than 4731 e-journals. A separate reference section is maintained with Handbooks and General knowledge books. Interlibrary loan facility is available through DELNET. Central Library supports departmental libraries in all departments.

The Library follows open access system encouraging the user to browse freely in the stock area. It is fully automated using the following Integrated Library Management System:

- *Name of the ILMS software:* **Libsys LSM**
- *Nature of automation (fully or partially):* **Fully**
- *Version:* **10**
- *Year of automation:* **1995**
- *Online Public Access Catalogue +(OPAC) :* *Open for all students and staff through remote access throughout the campus.*

The institution library was fully automated in a phased manner the details of which are given below:

S.No	Phase	Period	Up gradation
1	Phase 1	1995 to 2014	Automated with CDS-ISIS software (free software UGC.)
2	Phase 2	2014	Augmented with Libsys (Ver 7.0) software,
3	Phase 3	2019	upgraded to Ver 10.0

The following services are rendered from the library:

Online Public Access Catalogue: It enables the library users

- To know the bibliographic records of presently available books within library
- Computerized Catalogue facility for the available book Search Services through the **OPAC interface**. The bibliographic record consists of 18210 books and can be searched through this interface.
- Books are bar-coded.
- The computers provided in the library are connected on LAN.
- Wi-Fi enabled.

Digital library:

- The institute has a digital library with 23 computers in the main library and 15 computers in the girls' hostel.
- It has collection of e-journals like IEEE, ASCE, ELSEVIER, DELNET and JGATE publications and e-books.
- The digital library is available on LAN.
- Previous years question papers, NPTEL videos, e-books, GATE Papers and e-journal articles are made available in the digital library for easy access through Intranet.
- Two kiosk machines are available in the campus for OPAC services.

Book Bank Facility for SC/ST students:

The Book bank facility is available for SC/ST students with a separate collection of 13370 volumes along with general library books.

Repo graphic Facility:

Printing, Scanning & copying facilities are available in the library.

File Description	Document
Any additional information	View Document

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

The College library is enriched with a number of books categorized into Rare Books, Special Books and Other Knowledge resources. Besides Engineering books, the library has books on philosophy, psychology, soft skills, novels, biographies and auto-biographies, language books on English and German, Math, Physics and Chemistry. These books are useful to increase the scope of understanding of the students and to “mould the learners into globally competitive technocrats who are professionally deft, intellectually adept and socially responsible”.

Rare books:

- Library possesses a number of rare books for the reference purpose worth nearly Rs.10 Lakhs. There are valuable Hand Books available for reference and research purposes.

Special books:

- Library possesses a vast collection of Special books which includes writings of world famous Authors to develop the personality of the students.

Other knowledge Resources:

In addition to the above resources central library also maintains large number of yearbooks for the preparation of competitive exams like UGC-NET, GATE, GRE, IELTS, TOEFL, CAT, GMAT and UPSC examinations.

File Description	Document
Any additional information	View Document

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 4 of the above

File Description	Document
Details of subscriptions like e-journals,e-ShodhSindhu,Shodhganga Membership etc	View Document
Any additional information	View Document

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

Response: 24.41

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

2018-19	2017-18	2016-17	2015-16	2014-15
23.27	18.68	26.00	27.70	26.41

File Description	Document
Details of annual expenditure for purchase of books and journals during the last five years	View Document
Audited statements of accounts	View Document
Any additional information	View Document

4.2.5 Availability of remote access to e-resources of the library

Response: Yes

File Description	Document
Any additional information	View Document

4.2.6 Percentage per day usage of library by teachers and students

Response: 6.6

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

Response: 388

File Description	Document
Any additional information	View Document

4.3 IT Infrastructure

4.3.1 Institution frequently updates its IT facilities including Wi-Fi

Response:

The college campus has a well-established state of the art IT-infrastructure and facilities. The campus intranet with 1 Gbps multimode fiber optic backbone network supplemented with Wi-Fi support various services such as website, campus management software, library information system, MOOCS courses, CC TVs, biometric devices, Learning Management System (LMS), online assessments, access to online learning resources and so on. The data center has 24 hours power backup and standby facilities to provide 24/7 services.

The details of up gradation that has taken place over the last five years (2014-19) are shown below:

1. Procured 750 desktop computers in the last five years and 294 in 2018 and 2019 with latest core i7 processor, 4/2 GB graphic cards, sufficient RAM and other resources and also procured 9 servers

and 3 workstations.

2. Replaced 25 unmanageable basic network switches to Cisco manageable L2 switches in 2018.
3. 82 Wi-Fi access points added to the existing 25 to supplement the campus network with wireless access facility. Two Wi-Fi controllers were also added to manage these access points.
4. Upgraded internet bandwidth of 80 Mbps in 2014 to 290 Mbps in 2019 and 490 Mbps in 2020 through multiple lines.
5. Procured 885 Windows base licenses from Microsoft and 27 application software in last five years. The Microsoft campus license agreement renewed regularly every year.
6. Procured MATLAB software in 2014 with 132 user licenses for campus wide usage.
7. Replaced existing biometric attendance system (Bio-enable) in 2019 with 16 devices of Matrix make with licensed reporting software.
8. Upgraded RAM from 4 GB to 8 GB for 75 numbers of desktops in 2017.
9. Procured 98 LCD projectors in last five years for classrooms, seminar halls, conference halls and laboratories.
10. 16 digital signage displays placed all over the campus in 2018 to disseminate and display information timely to student community.
11. The institute has 9 smart classrooms equipped with smart interactive boards procured in 2019.
12. Vision Net software is procured in 2015 and the existing ODELL software is upgraded in 2019 for language laboratory.
13. The Library management software (OPAC) procured in 2014 is upgraded in 2019 to meet the current requirements.
14. Electronic surveillance system with 236 cameras was deployed in the campus in 2018.
15. The campus management software (CAMUS AIRA) is upgraded in 2018 to add more facilities for students like online payments and unified software to manage entire campus academic workflow.
16. A learning management system based on Moodle framework is deployed in 2015 to facilitate asynchronous interaction beyond class room.
17. The college website vrsiddhartha.ac.in was upgraded with latest WordpressCMS (Content Management System) to facilitate updating of information by nowise users also.

** Complete details of upgradation are shown in the attached document.

File Description	Document
Any additional information	View Document

4.3.2 Student - Computer ratio

Response: 3.89

File Description	Document
Any additional information	View Document

4.3.3 Available bandwidth of internet connection in the Institution (Lease line)

?50 MBPS**35 MBPS - 50 MBPS****20 MBPS - 35 MBPS****5 MBPS - 20 MBPS****Response: ?50 MBPS**

File Description	Document
Any additional information	View Document

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

File Description	Document
Facilities for e-content development such as Media Centre, Recording facility,LCS	View Document
Any additional information	View Document
Link to photographs	View Document

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: 73.43**

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)

2018-19	2017-18	2016-17	2015-16	2014-15
853.64	918.03	978.27	787.34	724.63

File Description	Document
Details about assigned budget and expenditure on physical facilities and academic facilities	View Document
Audited statements of accounts.	View Document

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:

The institution has defined procedures for maintaining physical, academic and support facilities as per the maintenance policy.

MAINTENANCE SECTION:

There is a centralized maintenance section which is headed by a Maintenance engineer and supported by skilled technicians. This section takes care of maintenance of infrastructural facilities which includes plumbing works, electrical, carpentry, masonry and sewage works. The section receives maintenance requirements from the departments and other sections and undertakes the necessary work following internal operating procedures under the directions given by the concerned head of the department.

INTERNAL OPERATING PROCEDURE:

- Any problem that persist in a department is represented to the maintenance in charge through a letter/mail
- The in charge deputs a skilled person/technician to attend the problem
- The skilled person will resolve the problem on site if no additional material is required.
- In case of material requirement, it is received from the maintenance section through an indent.
- If the material is to be procured from outside, permission is to be obtained from the maintenance in charge / Head of the Institution and arrange for procurement of material to resolve the problem.

1. Physical Facilities

Electrical Maintenance:

- Monthly monitoring of electrical equipment such as Generator, UPS, and Batteries is done and its Status is entered in the Log/Stock Book. The suppliers/service providers are approached in case of any major fault.
- For replacement of any part, quotations are invited and part is procured as per the centralized purchase procedure.
- The work done by the service provider will be verified by the respective authorities and a report on completion of work is submitted to the Principal.
- Annual inspection of Electrical installations maintenance and safety of Electric supply is done by Directorate of Electrical Safety, Government of Andhra Pradesh

Building Maintenance:

- A Civil Engineer and a Supervisor are responsible for new construction works and the civil maintenance of buildings including laying and maintenance of the plumbing, water pipe lines, and sanitary fittings following the internal operating procedure.
- Annual inspection is done for Fire Safety by AP state Disaster Response and Fire Service Department.
- Pest Control maintenance is done periodically.

Furniture Maintenance:

- The Department of Mechanical Engineering maintains the central workshop facility which provides the services including custom fabrication of cabinets, desks, counter tops, installation of doors and windows, and frames for displaying banners.
- The internal operating procedures are followed for maintaining the furniture in the institution.

Network / Wi-Fi Maintenance:

- The functioning of college intranet and internet facility is monitored and maintained by the hardware technicians in association with Network administrator of CSE Department.
- Fiber Optic cable issues are maintained with the support of NettLinx Ltd.
- Any up gradations or modification of the existing Network Model will be carried out by inviting quotations from external agencies following central purchase procedure.
- Issues related to Telephone & intercom will be serviced by the technician from ECE department.

2. Academic Facilities:

Library:

- Central library supports text books, reference books, journals and periodicals for issue to students, staff and faculty.
- Digital library caters e-books, e-journals and online resources that can be utilized within the library and also within the campus with proper user credentials.
- Library committee with a Professor in charge will monitor the effective functioning of library services

Laboratories:

- Equipment in the laboratories is maintained regularly.
- The in-house maintenance and repairs are addressed by the respective department technicians who are qualified and trained.
- Major problems and repairs will be attended in consultation with the suppliers following the central purchase procedure.

Class Rooms:

- Every Department has a faculty in-charge who will periodically check the condition of class room/laboratory amenities like benches, chairs, black boards, fans, lights and LCD's.
- The in charge will resolve the problem through the Head of the Department following the internal operating procedure.

Computer Facilities:

- Around 1600 computers, 132 printers and sufficient scanners are available for the staff and students.
- Computers and software in the laboratories are maintained by computer hardware technicians under the supervision of a senior faculty.

3. Supporting Facilities:

Sports:

- The playground and sporting equipment including Gym facilities are regularly available and maintained under the supervision of Physical Director.

NCC:

- The college houses 1 (Andhra) EME Company on the campus.
- The unit has been taking up various service oriented activities in addition to the basic training.

NSS:

- The College encourages the students to participate in social and nation building activities..
- It aims to motivate the students to identify the needs and problems of the community and involve them in problem solving process.

4. Other Facilities:

- The Institute has RO plant, which provides 24X7 drinking water facility. Sufficient number of water coolers is available in the departments to provide clean drinking water. Periodically the quality of water is tested in the Environmental Engineering laboratory.
- As the Institute is located on National Highway, public transport (APSRTC) buses are available for the students and faculty. In addition, the Institute provides two buses which are used for transportation of students from Hostel to the College.
- Adequate man power is employed to maintain cleanliness of the campus, Classrooms, Staff rooms, Seminar halls and Laboratories, etc. Wash rooms and rest rooms are well maintained.
- The Green Cover of the campus is well maintained by full time gardeners.
- The campus security is monitored through surveillance Cameras and is maintained by supplier under AMC.
- The college reprographic facilities are maintained under AMC. Photo copying charges is fixed at a nominal rate just enough to support the operational costs.
- Qualified Medical Doctor visits and conducts required medical checkups for the students.
- The college has Canteen facility where subsidized food is available for staff and students.
- Syndicate Bank branch is located inside the campus to facilitate transactions.

File Description	Document
Any additional information	View Document
link for additional information	View Document

NAAC

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: 55.16

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

2018-19	2017-18	2016-17	2015-16	2014-15
3138	3091	3224	3081	3035

File Description

Document

Upload self attested letter with the list of students sanctioned scholarships

[View Document](#)

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

[View Document](#)

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: 2.24

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

2018-19	2017-18	2016-17	2015-16	2014-15
130	126	130	130	116

File Description

Document

Any additional information

[View Document](#)

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	View Document
Any additional information	View Document
Link to Institutional website	View Document

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: 100

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

2018-19	2017-18	2016-17	2015-16	2014-15
5547	5675	5698	5712	5595

File Description	Document
Number of students benefited by guidance for competitive examinations and career counselling during the last five years	View Document
Any additional information	View Document

5.1.5 Average percentage of students benefited by Vocational Education and Training (VET) during the last five years**Response:** 0

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

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

File Description**Document**

Details of of students benefited by Vocational Education and Training (VET)

[View Document](#)

Any additional information

[View Document](#)**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

[View Document](#)

Details of student grievances including sexual harassment and ragging cases

[View Document](#)

Any additional information

[View Document](#)**5.2 Student Progression****5.2.1 Average percentage of placement of outgoing students during the last five years****Response:** 52.43

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

2018-19	2017-18	2016-17	2015-16	2014-15
972	911	923	710	525

File Description	Document
Self attested list of students placed	View Document
Details of student placement during the last five years	View Document
Any additional information	View Document

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

Response: 9.61

5.2.2.1 Number of outgoing students progressing to higher education

Response: 146

File Description	Document
Upload supporting data for student/alumni	View Document
Details of student progression to higher education	View Document

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/ TOEFL/ Civil Services/State government examinations)

Response: 66.25

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

2018-19	2017-18	2016-17	2015-16	2014-15
124	144	207	218	163

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

2018-19	2017-18	2016-17	2015-16	2014-15
222	235	298	293	232

File Description	Document
Upload supporting data for the same	View Document
Number of students qualifying in state/ national/ international level examinations during the last five years	View Document

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: 17

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

2018-19	2017-18	2016-17	2015-16	2014-15
3	7	2	1	4

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

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

Response:

The college involves the students who are its primary stakeholders to the utmost possible extent in most of the facets of its functioning and in such spheres of activity which are statutorily permissible. It's not only for listening to voices of the students but also to make them an integral part of the very functioning of the units in varying degrees based on the kind of the functional unit. In addition to the following functional units, the college student council has been in place.

Levels of student involvement

- Academic and Administrative planning

- Discipline regulatory & Monitoring unit
- Functioning related to career oriented activities, college level Amenities & Facilities
- Units of Co & Extracurricular planning & execution

Academic and Administrative Planning:

- **Internal Quality Assurance Cell (IQAC):** It looks into various quality enhancement measures and has the representation of student members. Different academic and student development matters are discussed with the active participation of the students.
- **Department Advisory Boards (DAB):** Student members have been inducted into Department Advisory Boards (DAB) in order to listen to their voice as far as curricular modification/ up gradation and overall development of the department concerned. The suggestions put forward by the students in the said matters with respect to curricular up gradation are taken into reckoning while the respective departments conduct higher rung curricular meetings.
- **Central Library:** The committee consists of student representatives. Students are given an opportunity to discuss the requirements regarding the availability of digital content, accessibility factors and such other advancement related matters, and digital up gradations are undertaken in tune with the expectations of the students.

Discipline Regulatory & Monitoring Unit

- **Anti – Ragging Coordination committee:** Students have representation in the Anti – Ragging committee constituted as per the guidelines of the UGC with internal and external members (Revenue, Police officials and Elite of the society) in order to ensure ragging free environment in the college. Students are encouraged to present the stark realities without any fear or favour.

Functioning related to career oriented activities, College level Amenities & Facilities

- **Training & Placement:** Students are involved as T&P Coordinators for assisting the Placement Cell during the recruitment drives.
- **Canteen committee:** Student members are involved in Canteen Committee in order to take feedback regarding the functions of the canteen pertaining to quality, cost, variety, etc.
- **Hostel mess and ambience:** Students take a lead role in running the mess and in overseeing the ambience of the hostels.

Units of Co & Extracurricular planning & execution

Co-curricular:

- **Annual Festival of Siddhartha Engineering College (AFOSEC):** It is a National level Techno-cultural festival organized during Jan/Feb every year in which students take an active role in hospitality, transport, fete, Auto expo, Robo expo , etc.
- **Engineers' Day:** students take an active part in presenting the technical exhibition.
- **Department Association Activities**
- **Student professional Chapters**

Extracurricular:

- Annual Day and Sports Day: Student teams undertake prize distribution coordination, etc
- Students have an active representation in NSS/NCC activities
- Students act as members in Editorial board of Departmental Newsletters, etc.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

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

Response: 4.2

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

2018-19	2017-18	2016-17	2015-16	2014-15
3	6	2	5	5

File Description	Document
Report of the event	View Document
Number of sports and cultural activities / competitions organised per year	View Document
Any additional information	View Document

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:

Fledging and Growth

Alumni Association of V.R. Siddhartha Engineering College had a modest beginning in late nineties and fortified its wings in 2003. The same year marked the period of standardization in terms of its registration as a society named as VR Siddhartha Engineering College Old Students Association {VRSECOSA}. The first alumni meet with a large participation was held in the college in the month of June 2003. From 2006, every year a grand Silver Jubilee event of respective passed out batch is being celebrated in the last week

of December.

Reciprocation to the Alma mater:

- The Alumni have created a corpus fund of Rs. 2.9 Crores, the interest of which is being utilized for various activities in the college.
- Alumni Association initiated a Scholarship programme “SIDDHARTHA SAHAAYA”. Under this programme, meritorious and economically poor students are being identified and selected in the first year of their Engineering programme. Each student is awarded Rs.15,000/- per year towards the living expenses and gets continued for four years of the programme. Siddhartha Sahaaya scholarships started with 7 students during the academic year 2009-10 reached 130 students by the year 2018-19.

Year-wise disbursement details for the last five years

Year	No. of student beneficiaries	Amount disbursed (in Lakhs.)
2014-15	116	17.40
2015-16	130	21.25
2016-17	130	21.25
2017-18	126	20.65
2018-19	130	20.90
Total (for five years)	632	101.45

Academic and Professional Support

Alumni support the students academically and professionally in many ways like

- Permitting the students to visit their industry (entrepreneurs)
- Internships and Project works
- Placement
- Curriculum development by participating in meetings of DAB, BOS & Academic Council
- Deliver Lectures/Lec-demos to the students in their areas of expertise

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

5.4.2 Alumni contribution during the last five years(INR in Lakhs) ? 15 Lakhs

10Lakhs - 15 Lakhs

5 Lakhs - 10 Lakhs

2 Lakhs - 5 Lakhs

Response: 5 Lakhs - 10 Lakhs

File Description	Document
Any additional information	View Document
Alumni association audited statements	View Document

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

Response: 17

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

2018-19	2017-18	2016-17	2015-16	2014-15
5	3	2	4	3

File Description	Document
Report of the event	View Document
Number of Alumni Association / Chapters meetings conducted during the last five years	View Document
Any additional information	View Document

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:

"To nurture excellence in various fields of engineering by imparting timeless core values to the learners and to mold the institution into a centre of academic excellence and advanced research."

Mission:

"To impart high quality technical education in order to mould the learners into globally competitive technocrats who are professionally deft, intellectually adept, and socially responsible. The institution strives to make the learners inculcate and imbibe pragmatic perception and proactive nature so as to enable them to acquire a vision for exploration and an insight for advanced inquiry."

The vision and mission statement defines the institute's distinctive characteristics in addressing the needs of stakeholders involved. In adherence to the above vision and mission, and the norms of AICTE and UGC, college management constituted a Governing body. All the members of the Governing Body participate actively, and with their extensive experience, and leadership skills contribute for growth and development of the institution.

Statutory committees like Boards of Studies, Academic council, Finance committee, and nine other non-statutory committees involving faculty are constituted to help in administration.

The Principal frames the rules and regulations under the guidance of the Governing body and Academic council of the institution. He ensures recruitment of faculty with the highest caliber from eminent institutions to fulfill the vision of molding the institution into "Centre of academic excellence and advanced research" Excellent faculty is one of the primary resources required.

He encourages interdisciplinary research and teaching methodologies

He oversees academic planning, faculty requirement, judicious load of subjects, academic calendar, effective utilization of classes, feedback on the academic system and analysis of results, and promote research activities and ensures discipline

He addresses infrastructural requirements, maintenance, safety and security arrangements, coordination of events and conferences, alumni affairs, hostel, transport, and placement issues.

Thus, the Principal ensures the right logistical and academic atmosphere in the institution to assist the learners to become professionally deft, globally competitive.

In the linear structure, Deans and Heads of the Department are next in the hierarchy.

A Dean is a senior Professor with significant authority over a specific academic unit or area of concern or both. He takes instructions from the Principal, implements them, and provides feedback and suggestions to the Principal.

The HOD is responsible for upgrading laboratories, syllabus etc. In consultation with faculty members, he prepares a timetable and decides allotment of workload.

HOD is responsible for content delivery, effective teaching and learning process, monitoring mentor system, up-gradation and maintenance of Centre of Excellence, ensuring calibration and maintenances of equipment.

The senior professors, with assistance of faculty members, act as conveners of the non-statutory committees and assist the Principal on routine administration and academic processes. Teachers play a proactive role in the academic and administrative activities of the institution

The Principal and Hod's have required financial freedom.

With prior approval of BOG, modernization of the facilities, implementation of new projects for R&D, expansion of infrastructure, utilization of laboratories, library resources, classrooms, and sports_facilities are taken up in the annual plan.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.1.2 The institution practices decentralization and participative management

Response:

The college practices participative management and decentralization in all activities with a balance between transparency and confidentiality. Each of the functionaries has specific roles and responsibilities confining to the policies of the institution.

Case study: Curriculum Design

Step No.1 - Involvement of various committees & Their Role

1. Department Advisory Board (DAB)

It comprises of senior faculty of the department, Students, Parents, Alumni, Industry, and HOD.

The PC initiates the curriculum design process by collecting required inputs from the members of DAB and the inputs collected from stakeholders. DAB suggests the new programs, new and advanced courses to be introduced in the curriculum, establishment of new labs and skill upgradation of students based on the

requirement of the industry to PAC.

2. Program Assessment Committee (PAC)

PAC comprises of Program Coordinator, Module and Course Coordinators of the department and HOD. The PAC plans and prepares the content of all courses, which includes new courses and change of course content as per the DAB suggestions. **PAC also deliberates COs and POs and their assessment, delivery methods and the difficulties if any in the courses / content delivery.**

3. Board of Studies (BoS)

BoS is comprising of all Faculty of the department, members from Alumni, Industry, Academia, University nominee and HOD as chair person.

It reviews and ratifies Programme structure, curriculum & syllabi designed PAC taking the recommendations of DAB.

4. Academic council (AC)

Academic Council is comprising of HODs of all departments, Members from Alumni, Industry, Academia, University nominee, Management and Principal as chair person.

It discusses and ratifies the institute level academic issues such as credits, Structure of curriculum and approvals of BOS of departments.

Step No. 2 - Involvement of stakeholders and collection of inputs.

There is twofold involvement of stakeholders in Curriculum Design.

(i) involvement in the above committees and

(ii) Collection of inputs from various outside stakeholders of reputation. Inputs are collected from different stakeholders such as Faculty, students, parents, Alumni, Employer, Industry through different surveys of the departments in addition to the above committees.

Step No. 3 - Curriculum design Process

i) HOD and Program Coordinator, with help of deliberations of DAB & PAC and Module & Course

Coordinators, identify the new courses and updating of the content as per the **inputs of stakeholders** and current requirements of Industry.

ii) Course and Module Coordinators are assigned the course planning and design under the supervision of Program Coordinator.

iii) The designed courses and content put before the BoS for approval.

iv) The approvals of BoS are sent to Academic Council for ratification and implementation. Any suggestions/changes in the curriculum are incorporated with intimation to all BoS members.

v) The new curriculum is implemented on approval.

The above process ensures transparency, participative management, and decentralization at every level.

Enclosures:

IT Department PAC and DAB minutes:

www.vrsiddhartha.ac.in/wp-content/uploads/NAAC_SSR_2019/criterion6/PAC_Report_18-19.pdf

www.vrsiddhartha.ac.in/wp-content/uploads/NAAC_SSR_2019/criterion6/DAB_Report_18-19.pdf

File Description	Document
Any additional information	View Document

6.2 Strategy Development and Deployment

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

Response:

The college has a comprehensive strategic plan for the development of the college for the period 2015-2020 with three broad objectives with identified KPI's

1. Excellence in Teaching and Learning Environment
2. Comprehensive Student Development
3. Excellence in R&D

- The strategic plan comprises of review, evaluation, reporting, and re-planning. Performance is measured through key performance indicators identified

Strategic plan for excellence in R&D:

KPI1: Increase in Number of Faculty with Ph.D. Qualifications

In the year 2015, it was identified that the number of Ph.D.'s in the organization was 50.

The strategy planned was:

- The faculty members who are pursuing Ph.D. are encouraged and motivated to complete their Ph.D. work early by allowing Special casual leaves and reducing their workload.
- The faculty members are financially supported by reimbursing registration fees, travel, stay, and attending conferences.
- The faculty who completed a Ph.D. during their work period were recognized, increments and salary hike were given.

Outcome:

It resulted in a tremendous increase in the number of doctorates to 112.

KPI2: Increase in Research Publications in Scopus/SCI indexed Journals:

In the year 2015, the number of publications in Scopus/SCI-indexed journals was 21.

- Faculty members are encouraged to publish their research work only in the in Scopus and SCI indexed journals

Incentives were given to the faculty for excellent quality articles.

- 50% of the publication cost was reimbursed if published in Quality journals.
- It was made mandatory in the PBAS system to publish research-based articles annually.

Outcome:

The number of publications has increased to 150

KPI3: Increase in Funded Research Projects: In the year 2015, the college had 21 projects in hand. The steps taken were:

- Two eminent retired employees from DST are appointed as research advisors to the institution to encourage faculty members to seek research grants from the Government/Defense/Industry/Other agencies.
- Travel costs incurred for the preparation, presentation of proposals and interaction with R&D organizations are reimbursed.
- Incentives are provided to the faculty who received project funding
- Seed money is provided for in-house R&D
- Faculty are sponsored to IIT's/National/ R&D Institutions for training/ interaction.
- It was made mandatory for all Doctorates to apply for funding for various projects.

Outcome:

- The faculty members presently have 18 sponsored projects.
- Around 150 lakhs are received as a research fund through Government, Alumni, and Industry.

KPI4: Increase in the number of patents: In the year 2015, ten patents were sent for registration. The strategic plan was:

- To support the faculty by reimbursing the expenses incurred in filing the patent.
- Incubation centers were opened in every department to facilitate experiments.
- Arranged Idea churning sessions with industry experts
- Sponsors 50% of the cost and model making charges to participate in idea competitions
- The performance of the faculty is measured through PBAS.
- Conducts international conferences involving faculty from IIT and international experts regularly to enhance innovative thinking.

Outcome:

- The growth in the R&D resulted in JNTUK recognition of every department as a R&D center.

The number of patents increased from 10 in 2015 to 50.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document
Strategic Plan and deployment documents on the website	View Document

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:

1. The Institution has a well-structured administrative setup. The governing body is the highest decision-making body, which gives constructive suggestions to the management for effective decision making and to meet the Vision, Mission of the college. The needs of the stakeholders are also taken into consideration. An organogram in the website represents the administrative hierarchy of the institute.
2. Various statutory and non-statutory committees are constituted to share the responsibility for the orderly functioning of the Institution under the guidance of the Principal. These committees are listed below:

STATUTORY

- Governing Body

- Academic Council
- Boards of Studies
- Finance Committee

NON-STATUTORY

- Planning and Evaluation Committee
- Grievance Redressal Committee
- Examination Committee
- Admission Committee
- Library Committee
- Internal Complaint Committee (Sexual Harassment Committee)
- Student Welfare Committee
- Extra-Curricular Committee
- Academic Audit Committee
- Anti-Ragging Committee
- Minority Committee
- OBC Committee
- SC/ST Committee

- 1.The above committees' constitution, functions, periodicity of meetings are given in the college website.
- 2.The Institution has a set of well-defined rules, policies, and regulations within the framework of AICTE, UGC, State Government, and Affiliating University. The Governing Body and Academic Council approves these rules. The service rules were first published in March 1981 and are periodically reviewed, updated and which are displayed on the college website.

Policies for the functional aspects of the Institution:

- Research and Development Policy
- Consultancy Policy
- E-Governance Policy
- Anti-Plagiarism Policy
- Examination Procedures
- Anti-Ragging Policy
- IPR Policy
- Document Retention Policy
- Conduct Rules for Students
- Conduct Rules for Faculty
- Recruitment Policy
- Promotion Policy
- Incentive Policy

There are standard operating procedures for the maintenance of infrastructural facilities:

- Civil Maintenance
- Electrical Maintenance
- IT Infrastructure Maintenance

- EPABX and Telephone Maintenance
- Academic facilities
- Campus Maintenance

1. The "**Malpractices inquiry committee**" is headed by a senior Professor, one faculty from each department. It is constituted exclusively to investigate the malpractice cases of the students in examinations and suggest suitable punishment in accordance to the malpractice rules. The malpractice rules are approved by the college academic council.
2. The **Grievance Redressal Committee** is constituted to consider all the individual grievances of students and staff. The students and faculty with a genuine grievance may approach the grievance redressal committee to submit his/her grievance in writing to the **Convener**, Grievance redressal committee of VRSEC. The web-based grievance redressal mechanism is also in place through the college website. The students with a grievance can post the complaint to appropriate authority, namely Class Coordinator, Academic In-charge, HOD, or Principal. The grievance is placed before the Grievance Redressal Committee for resolving the issue amicably. The grievances are addressed systematically and impartially with the involvement and cooperation of the respective department, maintaining strict confidentiality and in a time-bound manner.
3. All the **recruitments** are made transparent duly advertising the posts in leading dailies/online and conducting interviews involving external experts from NITs/ IITs/ Universities/Premiere Institutions.
4. **Promotions** are accorded as per the norms taking the faculty qualifications and their contributions into consideration. Performance-Based Assessment System is in place, and promotions are offered to the faculty members who fulfill the key performance indicators.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document
Link to Organogram of the Institution webpage	View Document

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

File Description	Document
Screen shots of user interfaces	View Document
ERP Document	View Document
Details of implementation of e-governance in areas of operation Planning and Development, Administration etc	View Document
Any additional information	View Document

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

Response:

Effectiveness of various statutory and non-statutory bodies:

- The College has constituted various committees for effective functioning and decision making as per the AICTE and UGC norms.
- All the committees regularly meet to consider the various agenda for suitable deliberations and resolutions.
- The minutes of all the meetings are maintained and displayed on the college website
- The responsibility of implementing these resolutions is assigned to the respective functionaries and the activity is monitored.

S No	Major Resolutions	Action taken
Governing Body		
1.	Approved the Strategic Plan of the Institution for 2016-20 on 08-02-2016	The institution has implemented ac improving teaching-learning, compreh development, and R&D as per the plan
2.	Suggested to introduce new course M Tech Geo-Technical Engineering by the Department of Civil Engineering	Sought permission to introduce M Tech Engineering from AICTE and commenced the academic year 2016-17
3.	Approved extending of international travel grant to faculty for participation in conferences held abroad for presentation of papers.	Deputed 12 senior faculty members for papers at conferences held at Canada, Indonesia, Thailand, etc
Academic Council		
1.	Introduction of CBCS in VR10 . And continued in VR14 and VR17 Curriculum.	CBCS facility is extended to students w.e.f.
2.	Resolved to Introduce of MOOCs based Self Learning Courses into Curriculum	Allowed students to take up MOOCs base 2017-18

Boards of Studies		
1.	Revision in VR14 curriculum for the introduction of new elective subjects	New elective subjects are introduced to the industry
2.	Approval of detailed course structure and syllabus for VR17 Curriculum	Implemented the new curriculum ratification by Academic Council and Gover
Finance Committee		
1.	Budgetary provisions are approved for improvisation of infrastructure, revision of remuneration rates, revision of examination fee, etc from time to time	The budgetary sanctions accorded are 100% financial year to fullfill all deficiencies.

ACADEMIC COUNCIL: Activity implemented based on minutes of the meeting

MOOCs BASED COURSE

- In the 14th Meeting of the College Academic Council held on 25th May 2015, it is proposed to introduce MOOCs based courses as one of the electives in seventh semester of B.Tech from the academic year 2015-16 and to award credits to those students who successfully complete the course.
- It is resolved to approve the introduction of the MOOCs – self-learning based courses as one of the electives in seventh semester of B. Tech from the academic year 2015-16 under online platforms like SWAYAM, Coursera, Edx....
- Subsequently, it is made mandatory for every student to take up one MOOCs based course.
- In the VR17 curriculum, provision is given to students to pursue all open elective courses through MOOCs platform which is approved by the Academic Council.
- The college has secured 7th Rank in All India NPTEL for the year 2018.
- The faculty members are certified as mentors for many courses.
- As a result of the above practice, students are motivated for self-learning and to gain knowledge beyond the curriculum.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

6.3 Faculty Empowerment Strategies

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

Response:

The following are the welfare measures extended to the teaching and non-teaching staff of the Institute:

Teaching Staff

- Health card issued to the employees to get treatment at Pinnamaneni Siddhartha Institute of Medical Sciences, Gannavaram (Sister concerned institution) at discounted prices
- Laptops are provided to faculty members with a subsidized price
- Facilitated Employee's co-operative society for credit and thrift which provides loans up to 5 Lakhs at a low-interest rate.
- All the regularised teaching staff members covered under the Employees Provident Fund Scheme and Group savings linked insurance scheme (GSLI).
- Maternity Leave for female staff members
- Half-pay medical leave for staff members
- Special casual leaves are sanctioned for attending conferences and workshops
- Study leave is granted for higher education and qualification improvement
- Providing Registration fees, Dearness allowance, Travel grants for faculty attending conferences and workshops.
- Incentives for R&D activities
 - Seed Money for Initiating Research Work
 - Incentives for publication in Journals and Conferences
 - Incentives of 5% of the total research project grant obtained by the faculty
 - Reduction of workload for the faculty during their final submission of the Ph.D thesis
 - Increments after getting Ph.D
 - Reimbursement of entire expenditure (TA, DA, accomodation, Loal travel etc.,) for faculty interaction/discussion with R&D personnel and submission of research proposals at various defence organizations
 - Provision of space for faculty startups
 - Provision of exclusive computing facilities to all senior faculty and faculty pursuing research
- Recognition of the faculty with "Best Teacher Award" and Incentive
- Sports and Fitness facilities
- Subsidized food at the canteen

Non-Teaching Staff

- Health card issued to the employees to get treatment at Pinnamaneni Siddhartha Institute of Medical Sciences, Gannavaram (Sister concerned institution) at discounted prices.
- 50% contribution for the Synd Arogya scheme of Syndicate Bank for a policy of Rs.1 Lakh is provided by the institute.
- Facilitated Employee's co-operative society for credit and thrift which provides loans up to 2 Lakhs at a low-interest rate.
- All the regularised staff members are covered under the Employees Provident Fund Scheme and gratuity

- Siddhartha Kalapeetham scholarship is provided for children of non-teaching staff whose parental annual income is Rs.1 lakh.
- In the event of the death of an employee in service, his/her dependant will be considered for employment on compassionate grounds, depending upon the merit of the case, limited to the cadre Junior Assistant, subject to the eligibility of the individual concerned and the availability of vacant posts.
- Maternity Leave for female employees
- Half-pay medical leave for staff members
- Employee Staff Insurance (ESI) scheme is provided for the staff members having a salary of less than 21,000/- per month.
- Uniform is provided at free of cost to the class – IV employees.
- Sports and Fitness facilities
- Subsidized food at canteen.

File Description	Document
Any additional information	View Document

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: 50.54

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

2018-19	2017-18	2016-17	2015-16	2014-15
157	213	132	211	152

File Description	Document
Details of teachers provided with financial support to attend conferences,workshops etc during the last five years	View Document
Any additional information	View Document

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: 36.8

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

2018-19	2017-18	2016-17	2015-16	2014-15
32	38	45	42	27

File Description	Document
Details of professional development / administrative training programs organized by the Institution for teaching and non teaching staff	View Document
Any additional information	View Document

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

Response: 46.12

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

2018-19	2017-18	2016-17	2015-16	2014-15
153	143	123	162	210

File Description	Document
IQAC report summary	View Document
Details of teachers attending professional development programs during the last five years	View Document
Any additional information	View Document

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

Response:

The performance-based appraisal system (PBAS) is in practice for faculty since 2013. The appraisal system evaluates the performance for 1000 points in the following criteria, weightage for different parameters change for faculty based on their cadre:

Curricular- Teaching & learning process: The following components are evaluated in this criterion:

- Teaching load
- Usage of innovative teaching methodologies
- Design of new Experiments in the lab related to course outcomes
- Student counseling
- Pass percentage
- Student feedback
- Project guidance
- Guidance in Career-orientation
- Remedial and bridge courses
- Content beyond the syllabus
- Participation in curriculum development
- Learning and upgrading knowledge through online certification courses.

Co-curricular activities:

- Membership of professional societies
- Improvement of departmental facilities
- Participating and organizing conferences/workshops and Guest Lectures
- Support in product development activities of the students
- Accompanying students on industrial tours
- Supporting and guiding student innovations
- Involvement in Consultancy activities.

R&D related contributions:

- Research publications
- Sponsored research projects
- Paper presentations at national and international conferences
- Filing and publishing of patents
- Involvement in the establishment and maintenance of incubation centers and center of excellence
- And other Ph.D. related activities like admission to the Ph.D. program, submission of thesis and guidance to research scholars.

Academic Administration:

- Participation in Departmental and Institutional level administration
- Organization of events at Departmental and Institutional level
- Participation in Sports, NSS / NCC / Other service activities
- Coordinating Training & Placement activities in the departments.

Minimum points should be attained for Teaching and Learning Processes and R&D related contributions and varies designation wise.

The entire faculty in the college submits the appraisal form to the Head of the department with relevant proofs. The Departmental Faculty Assessment Committee (DFAC) will be appointed by the Principal of the college to review the performance of the faculty. The committee visits the department and evaluates the faculty appraisal in the presence of HOD. The PBAS formats are forwarded by the DFAC to the Principal along with summary sheets and are scrutinized meticulously by the Appraisal Screening Committee (ASC)

comprising of Principal as the Chairman, the DEANS as members and the Chairman DFAC as the member and submitted to the Faculty Assessment Board (FAB). FAB, then prepares a report of its recommendations for submission to the management.

Non-Teaching Staff:

Heads of the departments will submit an annual confidential report on the performance of non-teaching staff considering the following parameters:

- Punctuality
- Discipline
- Performance
- Improvement of qualification
- Improvement of working skills
- Learning new tools and procedures
- Working extra time whenever work demands
- Maintaining the related files in a systematic manner

File Description	Document
Any additional information	View Document

6.4 Financial Management and Resource Mobilization

6.4.1 Institution conducts internal and external financial audits regularly

Response:

The college has the mechanism of both internal and external audits for all the financial activities carried out in the Institution every Year. Accounts department headed by Deputy Manager (Accounts) maintains financial accounts daily and prepares all financial statements and submits them to all statutory bodies like AICTE, UGC and State Government as and when required.

The college has both Internal and External audit system.

Internal Audit: The Principal constitutes an Internal Audit Committee with three members. The audit is conducted on a Sampling basis to check the correctness of the financial transactions and statement affairs of the Institution. The Committee verifies Cashbook, Bank accounts, Ledgers, Bills, Vouchers, and statement of cash position and cash flow physically and conducts sample check on the heads of various accounts, balance dates, and postings.

Suggestions raised in Internal Audit:

- In the audit Year, 2017-2018 it was suggested to collect the tuition fees at the beginning of the Year to avoid arrears of payments. It was suggested to send circulars as reminders to the students.

The above suggestion was implemented in the Year 2018-2019

- In the Year 2016-2017, it was suggested to introduce the facility of online payment to make it convenient for the students.

The above suggestion was implemented in the Year 2017-2018.

External Audit:

M/S Rajeswar and Co., Vijayawada, have been auditors for the Institution from the past two decades. An annual external audit is conducted, and the reports are submitted to the management. The Finance Committee ratifies these reports.

With all statutory obligations duly complied, there were no major audit objections until the last audit. The last audit was done in the Year 2019.

Audit of funds received from Government and Non-Government research funding agencies and Consultancy is duly done as per the guidelines of the funding agencies as and when required and submitted.

File Description	Document
Any additional information	View Document

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

Response: 0

6.4.2.1 Total Grants received from non-government bodies, individuals, philanthropists year-wise during the last five years (INR in Lakhs)

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

File Description	Document
Details of Funds / Grants received from non-government bodies during the last five years	View Document
Any additional information	View Document
Annual statements of accounts	View Document

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

Response:

RESOURCE MOBILIZATION

The institution developed a strategy for mobilizing resources and ensures transparency in the financial management of the institution. It primarily depends on the Quality enhancement and the reputation of the Institution. Competent faculty with a higher qualification, State of art laboratories and good placement record enabled fixation of better fee by the Govt. Fee Regulatory Authority. Research funding and Consultancy from Govt. and Non-Govt. organizations and donations from philanthropists depends on the maintenance of quality standards. Thus quality enhancement in the institution is facilitating the generation of funds from different sources.

The following are the different ways of mobilizing the funds in the Institution.

1. Tuition fee

The major source of revenue generation is tuition fees collected from students. The appropriate fee is fixed, as per the norms, by Fee Regulatory Authority of Govt. of Andhra Pradesh depending on the accreditation of programs by NBA and NAAC and also the reputation of Institution and amount spent for the development of Institution.

2. Sponsored research and Consultancy

Funds are also mobilized through sponsored research projects from National funding agencies such as DST, UGC, AICTE, DRDO, ISRO, etc. and Non-Government agencies. Revenue generation through consultancy and material testing from Government and Non-Government sectors is another source of income to the Institution.

3. Alumni contribution

VR Siddhartha Engineering College Old Student Association (VRSECOSA) is contributing significantly to the development of the institution through financial and non-financial means. The Alumni donated Rs. 2.90 Cr through Association for scholarships to the needy, merit students and Institutional developmental activities.

4. Philanthropic contribution.

V.R. Siddhartha Engineering College is one of the 17 institutions run by Siddhartha Academy of General & Technical Education. The academy is receiving funds from Philanthropists for the development of these institutions through paper advertisements in Newspapers and is having exemption under 80CC of the Income Tax Act 1961.

RESOURCE UTILIZATION

The resources are utilized for the following as per the approved budget

- Employee Salaries & benefits are a major component of expenditure.
- Furniture, Laboratory Equipment and Consumables, etc.
- Establishing Centres of excellence and Industry Collaborative Labs.
- Library
- R & D and incentives
- Skill Development and Innovation
- Training & Placement
- Software procurement, up-gradation, and maintenance
- Wi-Fi, Internet & Networking
- Student Services- NCC, NSS, Sports
- Power and fuel
- Printing and Stationery
- Postage and telephones
- Affiliation and Renewals
- Travel and conveyance
- Repair, Replacements, and Maintenance
- Taxes and licenses
- Scholarships to merit and poor students.

File Description	Document
Any additional information	View Document

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) is responsible for

- Development and application of quality benchmarks/parameters for various academic and administrative activities of the institution.
- Dissemination of information on various quality parameters of higher education
- Acting as a nodal agency of the Institution for coordinating quality-related activities, including adoption and dissemination of best practices
- Development of Quality Culture in the institution
- IQAC audits all academic, administrative and research activities periodically.
- Organization of workshops, seminars on quality related themes and promotion of quality circles
- Preparation of the Annual Quality Assurance Report (AQAR) as per guidelines and parameters of NAAC, to be submitted to NAAC

The college institutionalizes IQAC initiatives and corrective measures. Two such practices institutionalized as a result of IQAC initiatives are:

1. Bar-coding and Automation in the Examination Process

The examination section has procured the automation software from Bees Software solutions in the year 2014. The software possesses pre & post examination modules to automate tasks such as Hall ticket generation, Barcode generation on OMR sheet, Scanning of marks from OMR sheet, Publishing of results in web portal and Printing of marks memos.

Outcome: The bar-coding system improved the confidentiality of the evaluation process; the scanning of marks and publishing of results in the web portal. It reduced the time to declare the semester-end examination results.

2. Institutionalization of Online Certification Courses

IQAC suggested introducing certification courses in the year 2013. This was implemented in the year 2014. Students are motivated to take up the online courses offered by various MOOCs platforms such as NPTEL, COURSERA, edx, CISCO, ORACLE, etc. to gain the domain and interdisciplinary knowledge. In VR14 regulations, students were given an option to get their credits on completion of these courses. This will improve the self-learning skills of the students and helps to improve their creativity and originality. IQAC is motivating the faculty to get certified in advanced courses in their domain knowledge and in the field of outcome-based education.

Outcome: The continuous effort of IQAC towards certification courses has resulted in receiving all India 7th rank in NPTEL. Faculty are also participating in the online certification courses both by mentoring the students and also undergoing certification.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

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:

IQAC of VRSEC is adopting a well-defined review mechanism of Teaching-Learning process through

- (i) Performance Based Appraisal System (PBAS) and online feedback Mechanism and
- (ii) Academic & ISO audits

Example 1:

Review through PBAS and Online Feedback

Maintainance of course file for every course by all faculty is mandatory in the institute. It is verified in the above three practices periodically. The verification includes

- lesson plans along with teaching methodologies such as ICT based Teaching-Power Point Presentation, Visuals and Animations.
- The ratio of classes taken and classes allotted as per the time table is evaluated to know the regularity of the faculty
- Learning management system like MOODLE also in practice for asynchronous learning, online submission of home assignments, conducting quizzes, dissemination of course material, etc.
- Setting of question papers in tune with learning outcomes (COs) as per Blooms taxonomy and their assessment and mapping with Program Outcomes is also verified and reviewed in PBAS verification.
- Review of Semester end result analysis for the grades of students and CO-PO attainment are carried out.
- The internal answer scripts of randomly selected courses are audited by committees constituted by the IQAC coordinator and principal for their appropriate evaluation.
- Online student feedback for faculty is being practiced in all departments. Feedback is collected in middle and the end of semester to assess teaching proficiency of the faculty. Feedback comprises of punctuality, syllabus coverage, clarity of presentation, motivational abilities and maintaining the discipline in the class, etc.
- It is also review weather all the students are attained the learning outcomes of a course through “course end survey” at the end of the respective semester.

Example 2:

Review through Academic and ISO audits

Academic audit is conducted to monitor the quality of teaching-learning along with other academic-related activities. Internal and External thorough audits are conducted for all departments annually. Internal audit is conducted by the committee of senior faculty constituted by the IQAC coordinator and Chairman. The external audit is conducted by inviting experts from academic institution of repute.

ISO Audit is being practiced since 2004 adopting ISO 9001:2000 certification and ISO 9001:2015 at present. Internal audit is conducted by the committee of senior faculty constituted by the ISO coordinator and Principal, while the external audit is conducted for randomly selected departments annually.

The Audits includes verification of the following criteria

- Monitoring of teaching-learning process
 - Assessment of teaching process in classrooms.
 - Random verification of evaluated answer papers and question paper during the semester.
 - Innovative teaching methods presented if any
 - Verification of course files
- Student performance indices – Minimum attendance, marks obtained in the internal examinations and grades obtained in external examinations
- Mechanism and activities for slow learners for their improvement and outcomes
- Student counseling /mentoring mechanism
- Tutorial classes for analytical courses

- Best student projects with awards
- Evaluation of innovative mini and major student projects
- Training programs conducted for students Seminars, workshops and Guest lecturers
- Scope for Self-learning through certificate courses / Online courses
- Activities of students in professional bodies and co-curricular activities
- Student success rate, Placements, Higher education
- Students feedback and follow up action

The recommendations of the audit committees are taken into the consideration for the improvement of academic quality in the department.

Follow up action

1. The identified faculty from the above review mechanisms are trained in VRSEC Teaching-Learning Training Centre by inviting experts from teaching- learning training centers of reputation (NITTTR, TLC-IIT Chennai, TLC-IIT Hyderabad, etc.). In addition to the above the faculty are also encouraged to attend professional development programs at institutions of higher reputation with suitable financial support.
2. It is made mandatory to do at least one MOOCs from NPTEL, edx, Coursera, etc. to enhance their domain knowledge and modern technical tools.
3. According to the result analysis, slow learners and fast learners are identified. Remedial classes are conducted for slow learners to make them up to the mark. Fast learners are encouraged to opt for CBCS in order to do semester long internship in industry and to attend various Techno-Skill programs conducted at outside institutions of reputation.
4. “Bridge Courses” are conducted in identified courses in order to continue with their second year B. Tech program without any difficulty.
5. IQAC initiated the Quality Circle approach for the benefit of slow learners and to promote student centric learning.

File Description	Document
Any additional information	View Document

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

Response: 26.4

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

2018-19	2017-18	2016-17	2015-16	2014-15
41	24	37	26	4

File Description	Document
Number of quality initiatives by IQAC per year for promoting quality culture	View Document
Any additional information	View Document
IQAC link	View Document

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
e-copies of the accreditations and certifications	View Document
Details of Quality assurance initiatives of the institution	View Document
Any additional information	View Document

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:

Improvements since the last accreditation:

Sl.No.	Parameter	2014-15
1	Faculty With Ph.D Qualification	50
2	Research Publications	Previous Assessment period:6
3	Patents Filed/Published	1
4	No.of projects from Govt. and Non-Govt. organisations	21
5	Incubation and Research Centers	0
6	Centre of Excellences&Collaborative Labs	1
7	Placements	525
8	Hostel accommodation in campus	295
9	Building Space	52,270sq.m

*Third Block is under construction for female students and can be occupied by July 2020.

**New hostel with six floors for male students is under construction and occupied by July 2020.

Post accreditation initiatives in Academic Enhancement

1. Curriculum

- Introduction of CBCS, interdisciplinary electives and self-learning electives
- Students can attend internships or complete the Industry offered courses or complete the domain-specific global certifications offered by the industry.
- Introduction of Term paper to train the students in conducting literature survey.
- Introduction of Mini Project to develop hardware models in the seventh semester apart from Major project in the eighth semester.
- Introduction of EPICS to solve societal problems.
- Adjunct faculty from Industry to deliver courses.

2. Evaluation

- The courses are evaluated by direct and indirect methods. Direct methods are through internal examinations.
- In indirect assessment, course end survey collected from the students is used as feedback on course outcomes.
- Term Paper, Mini and Major Projects are evaluated through presentations and viva. Grades are awarded using project rubrics.
- Program outcomes are evaluated based on attainment of these course outcomes.
- PEO's and PSO's are evaluated based on the attainment of program outcomes, Graduate Exit survey and Stake holder's feedback.

3. Incubation Centres/Student Project Room

- Every department has an incubation center/ Student Project Room with necessary software and hardware facilities to encourage the students towards model/product development.
- The facility is open to the students beyond the college working hours.
- Students are also encouraged to present their innovations in national level competitions held at premier institutes like IIT's, NIT's, University Colleges, etc.

4. Industry Collaborative Labs and CoE's

- Siemens CoE in collaboration with Siemens India and APSSDC.
- TIFAC CORE-DST
- COE in Composites by DST
- Video Analytics Research Lab
- CISCO Networking Academy in collaboration with CISCO
- IBM Software Lab in collaboration with IBM
- 3D Excellence centre by Dassault Systems.
- Oracle Technologies Lab in collaboration with Oracle
- Apple Authorised Training Centre for Education (AATCE)

5. Quality of Publications

Faculty are encouraged to publish papers in the journals indexed in SCI, SCOPUS, DBLP databases. A

total of 526 papers were published by our faculty. Incentives are provided to the faculty for quality publications.

6. Placements

- College has strong industry relations and placement department to assist the students in getting internships in industry and placements by maintaining good relationships with industry.
- Orientation program on placement guidelines is conducted every year by inviting industry experts.
- Soft skills and Aptitude classes are conducted regularly. Campus recruitment training is offered to final year students by outside experts.

Worthy placement record by Major Companies such as Microsoft, IBM, TCS, Huawei, Wipro, Bharat Electronics, Tech Mahindra, Ashok Leyland, Airtel, Polaris, MPHASIS, Zensar, Idea Cellulars, Capgemini, Jindal, etc.

Decentralization of Administration

- The institution aims to achieve vision and mission of the institute by forming various bodies and committees. The governance of the College consists of Governing body, Academic Council and BoS. Institution practices decentralized system of administration assigning various authority and responsibilities to Deans, HODs and Programme Coordinators.
- Institution has established IQAC and academic audit systems with Senior Administrative Officers and Teachers to plan, implement and monitor strategies/activities. The quality in the institute is managed through IQAC and ISO system. These committees regularly meet, discuss issues and take appropriate decisions. IQAC and ISO receive data and identify areas for improvement and send their observations to Principal. Principal holds the meeting with HOD's, IQAC coordinator for follow-up action. Our institute is among the few who adopted ISO 9001:2015 standards. ISO audit is conducted by TUV SUD South Asia Pvt., Ltd., a German company having over 150 years of experience in auditing.
- The institute reviews its teaching-learning process, structures and methodologies of operation and learning outcomes at periodic intervals through IQAC and ISO setup as per norms. They conduct audits periodically to review the outcomes of teaching-learning process. Recommendations of department level committee's PAC and DAB are forwarded to BoS and Academic Council for implementing changes in the curriculum and scheme of subjects of study.
- External financial audit is conducted by the Chartered Accountant appointed by the Management and the report is submitted to the Management for further action.

Greater use of ICT for administrative purposes.

- Management Information System software, www.vrseconline.in is in utilization in the Institution for administrative supervision.
- Biometric attendance system is introduced for all staff members. CCTV system was installed throughout the campus for greater safety of students and staff. E-notice boards were installed in the departments to circulate information among the students.
- LibSYS software was procured for effective utilization of library resources.
- Barcoding and automation in the examination process were introduced in 2014 year to improve

confidentiality in the examination process and to reduce time to declare results.

Infrastructural Facilities

- Vertical expansion through constructing additional 2 floors on the existing G+2 building to accommodate more classrooms, laboratories, seminar hall, staff rooms.
- New hostel building for girl students in addition to the existing 2 buildings was constructed in 2016.
- Hostel kitchen is modernized as per standards of Swatch Bharat parameters complete with tiled walls, floors, granite counters, dedicated water filter, heavy-duty chimney, sanitary dish-washing arrangement
- Auditorium and the seminar halls of CSE, IT, ECE and EIE departments were modernized with acoustic wall panels, air conditioning units and Audio-Visual equipment.
- Rooftop solar power plant having a capacity of 400KWP was constructed with an investment of 1.26 crores in 2018
- Established compost plant to turn garden and food waste into fertilizer for gardening and pot plants.
- Wi-Fi facility is provided to faculty and students with a capacity of 260Mbps and enhanced to 490Mbps in 2019-20.

File Description	Document
Any additional information	View Document

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: 33

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

2018-19	2017-18	2016-17	2015-16	2014-15
12	7	5	5	4

File Description	Document
Report of the event	View Document
List of gender equity promotion programs organized by the institution	View Document
Any additional information	View Document

7.1.2 Institution shows gender sensitivity in providing facilities such as

- a) Safety and Security
- b) Counselling
- c) Common Room

Response:

Safety and Security:

The safety and security of girl students is a prime concern of our college. The institution aims to groom students to be self-reliant, respect for cultural diversity, aware of their social and civic responsibilities and gender sensitive. They have highest regard for women safety & security, and environmental consciousness. Keeping the above in mind the following practices are being implemented.

- A secure parking lot nearer to Academic Blocks is earmarked for girl students.
- Separate Canteen space for girl students.
- Every Department has girl's waiting room with required amenities.
- Separate and secure hostels are available for girl students within the campus.
- Class room arrangement is made in such a way that girl students are comfortable.
- Wi-Fi enabled digital reading room is established in the women's hostel and also in the library.
- Women's grievance cell at Department level is functioning which takes care of issues of grievances and welfare of the women.

- Anti-sexual harassment committee is also operating in the college to safeguard the girl students.
- Security wing with 30 guards are placed in the campus and hostels.
- On special occasions like the college fest, cultural / academic programmes, placement drives etc. special transport for girl students is provided.
- Every year there is a huge celebration of women's day and inspiring women personalities are invited to share their life experiences.
- The college has installed 240 Closed Circuit (CC) cameras to monitor the security and safety.
- The college is providing 3 Sanitary Napkin Vending Machines and Sanitary Napkin Incinerator with 500 pads capacity for Rs. 5 each at Science & Humanities Block -2 girls waiting room, Ladies Hostel and IT girls waiting room.

Counselling:

Both general and individualised counselling has been accorded to the students. Health awareness Programmes for girl students are arranged in Hostels and during the induction Program. Counselling programmes are arranged for women safety by **she and shakthi** and **Mahila Mytri** teams of Government.

Whenever any grievance or complaint arises, the students are directed to approach the relevant women's grievance cell or specifically designated women faculty case by case. All such matters are kept highly confidential. The college takes utmost care in dealing with the said matters of counselling the girl students. The college endeavours to look after the total personality development of students leading to elevated self confidence, positive self image, mutual respect, etc through Co-Curricular and extra - Curricular activities and comprehensive counselling inclusive of girl students.

Common Room

Every Department has an exclusive waiting hall for girls with wash room facilities. There are 17 common rooms available on the campus. All such waiting halls are well ventilated and adequately furnished such that the students who happen to fall sick or those that require taking little span of rest for certain specific reasons can do so. In cases of medical requirement, members of faculty in the vicinity attend to the students for arranging medical facility. The students are provided with basic medicines and first aid facilities. Female attendants are made available in the said waiting halls.

File Description	Document
Any additional information	View Document

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

Response: 72.16

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

Response: 539280

7.1.3.2 Total annual power requirement (in KWH)

Response: 747312

File Description	Document
Details of power requirement of the Institution met by renewable energy sources	View Document
Any additional information	View Document

7.1.4 Percentage of annual lighting power requirements met through LED bulbs

Response: 22.72

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

Response: 32470

7.1.4.2 Annual lighting power requirement (in KWH)

Response: 142920

File Description	Document
Details of lighting power requirements met through LED bulbs	View Document
Any additional information	View Document

7.1.5 Waste Management steps including:

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

Response:

Waste Management steps including:

This initiative was taken in view of the National mission on “Clean and Green Environment” followed by Swatch Bharat Abhiyan, Plastic ban, Dry and Wet waste garbage separation, Rain water harvesting, usage of controlled water, Recycling of used water, Paper shredding to make art paper, E-waste and so on so forth. As an Institute we take steps in whatever small way we can to support the global cause by initiating a few, but concrete steps to meet the goals.

Waste management is the major issue facing in a modern society. To resolve the problem of waste management, a growing emphasis has been placed on the three R's: Reduce - Reuse - Recycle.

Solid waste management:

Solid waste management is a system for handling all the garbage and includes waste collection, recycling programs, dumps and incinerators. It is also focused on developing environmentally sound methods of handling garbage. The main aim of solid waste management is reducing and eliminating adverse impacts of waste materials on human health and environment and thereby to support economic development and superior quality of life. Composting provides a means of accomplishing all three R's. Through composting the amount of garbage sent to the landfill is reduced, the organic matter is reused rather than dumped and it is recycled into a useful soil amendment.

The compost plant for solid waste management in the institute was constructed behind the civil engineering department. The waste dry leaves, waste grass and decomposable litter are used to produce compost. The solid waste is collected in two bins with green and red colour for decomposable and non-decomposable waste separately, which are filled by individuals. The bins for collection of solid waste are placed at prominent locations throughout the campus. The administrative supervisor in each block ensures that the waste in each floor is collected at designated time intervals. The floor dustbins are emptied in movable containers/dustbins provided for each block and is taken to the dumping yard provided by the College. The waste is segregated into recyclable waste and organic waste and then sent to compost plant. The compost thus formed is added as organic fertilizer in the campus vegetation, which also reduces the consumption of chemical fertilizers. In the institute, the greenery is nurtured by the natural manure produced in the college and not by using artificial fertilizers.

Metal and wooden waste is stored and given to authorized scrap agents for further processing. Sanitary napkins are disposed of using incineration process. The old records and books left in campus and campus hostels have collected and sent to ITC-WOW organization for recycling of paper, as they will supply the new stationary of same worth of waste. The new stationery procured, is distributed to school students of lower class section in society at government school and orphans.

Plastic ban: Notices are displayed in campus to refrain from use of single use plastics. In addition security is alerted to stop entry of single use plastics into campus in any form. Students Centre, Hostel rooms are monitored for all such usage and an attempt is made to completely eradicate single use plastic in the campus. Students and Staff members are encouraged to use Cloth/Paper bags rather than plastic bags.

Liquid Waste Management:

Department of Chemistry as well as Environmental Engineering laboratory are the places where a few concentrated acids are stored for utilization in the laboratory courses of Under Graduate programme. Necessary precautions are taken to store those chemicals in a safe and separate room, called store room. There are fuming cupboards in the laboratories for preparing the solutions of volatile substances like ammonia.

The Department of Chemistry, keeping in view of safety of students as well as protection of environment, has fixed the concentrations of solutions very low such that the drained liquid waste does not require any prior treatment before it is disposed. In view of the extremely dilute form of acids and other solutions used by the students in the laboratory, the waste water is drained out directly.

Drinking water facility is arranged in all the buildings of the campus. Wastage of drinking water is restricted through proper monitoring. Proper drainage system is arranged for all the buildings of the campus. Waste water is properly drained out to maintain the greenery in the campus and to maintain ecologically aesthetic environment.

E-Waste Management:

- All electrical waste such as tube lights, bulbs, old switches and wires are stored separately. The house keeping team has been trained in handling all categories of waste. An effective system of segregation, collection, storage and eco-friendly disposal of waste is put in place. The e-waste generated from hardware which cannot be reused or recycled is being disposed off.
- The e-waste is generated from computer peripherals and some obsolete electronic equipment. The low configured computers are donated to the nearby schools. Sree Padmavathi Venkateswara Foundation, Chuttagunta, Vijayawada and Vignana Vihara English Medium School, Nutakki have availed these computers and used them to create awareness about the hardware of computers to their students.
- To create awareness on revolutionary changes in the technology, obsolete electronic equipment like Oscilloscopes, Function generators and meters are used in hardware laboratories of EEE, EIE and ECE departments for display and study purpose. The minor repairs are set right by the staff and the laboratory assistants while and the major repairs done by the professional technicians and all the electronic goods are put to their optimum utilisation.
- The condemned equipment and damaged computers and waste compact discs are disposed through outside agencies.

Awareness programmes about waste management practices are regularly conducted in the campus for the benefit of students, faculty and staff to understand as well as to promote eco-friendly environment by various Professional Society Student chapters.

File Description	Document
Any additional information	View Document

7.1.6 Rain water harvesting structures and utilization in the campus**Response:****Rain Water harvesting**

The college has been undertaking sustained efforts related to rain water harvesting in the form of arranging soak pits.

As a part of improving the Ground Water level in the campus, we have constructed multi-purpose percolating pits at various locations. We have identified four locations in our college. Percolating pit No: 1 was located at North-East corner of the play ground covering an area of about 39499 m². Percolating Pit No: 2 was located behind EEE Dept opposite to canteen covering an area of (Terrace area 2660+Pavement area 3335) 5995m². Percolating Pit No: 3 was located between Hydraulics lab and TIFAC core building which covers an area of (Terrace area 6626 +Pavement area 2020) 8646m². Percolating Pit No: 4 was located at back side of Civil Engineering block-I which covers a terrace area of 800 m².

In addition to 4 rainwater harvesting bore wells 7 Rain water harvesting pits were provided in various locations covering entire campus and are given below

- Administrative Block backside, beside compound wall
- Opposite to EEE Block
- Northside of TIFAC-CORE building and compound wall
- Between ME block and power house near bore well
- Between canteen and EEE block
- Girls hostel gate near borewell
- East side of old ladies hostel building

The pits were excavated around a tube well of diameter 200mm at centre with dimensions of 5 feet depth and 5 feet diameter. Graded material of size 80mm, 40mm, 20mm, 12.5mm and sand were laid in the pits with each layer of one feet. A netlon stainless steel mesh was provided just below the sand layer to free from the silt entry into the seepage pits. Tube wells are to be driven depending upon the soil profile below the ground surface.

In our campus the soil profile is clay up to a depth of 110 feet below the existing ground surface. The bores were driven up to a depth of 150 feet, out of which in the bottom 40 feet depth (Sand strata) perforated pipes are laid to facilitate the water flow to the surrounding aquifer.

OBSERVATION: In the last year the ground water level was observed at depth of 100 feet below the existing ground surface. Due to heavy rains and construction of percolating pits in our campus this year the ground water level was improved and available at a depth of 30 feet below the existing ground surface. This is an improvement in the ground water level. The average annual rainfall is considered as 1067mm.

UTILIZATION: The rain water harvested in Percolating Pits improved the ground water level from 100 feet to 30 feet below the ground surface which is used for drinking and other purpose all round the year including peak summer.

Geo tagged photos are attached as additional information.

File Description	Document
Any additional information	View Document

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:

1. Bicycles

Students and faculty residing near the college are using bicycles as their transport to the college. Second Saturday of every month is observed as “ **No Vehicle day**”. No Vehicles are allowed in to the campus except bicycles on that day.

2. Public Transport

Public and Private Transport operators run regular services to reach the college without any hassles. Public Transport is used by about 80% of the students and faculty and students are utilising the concessional fare offered by the APSRTC.

3. Pedestrian Friendly Roads

Well marked parking tiled pedestrian path ways are available in the significant traffic areas of the campus in order to have a block- free movement.

4. Plastic free campus:

Towards realising the goal of plastic free campus, the following efforts were made by the college:

- The strategies for implementing the measures for the plastic free campus were deliberated upon in the IQAC meeting.
- Consequent on the said resolutions, plastic implements and items of usage in the canteen like covers, spoons, tea cups, straws, etc have been replaced with relevant non plastic items.
- Awareness raising programmes are being conducted through student professional Associations.
- Hoardings highlighting the need for plastic free campus have been displayed on the campus at different places.

5. Paperless office

- Major internal communication being made through the group mails/E-messages moving towards paperless office.
- Course end surveys, feedback from students, parents, alumni, etc., are made online, through Google forms/Google docs.
- The College Automation System (CMS), MOODLE and other interfaces are used for the student academic submissions.

6. Green landscaping with trees and plants

- An extent of about 20% of the campus is covered with greenery comprising lawns and plantation.
- Drip irrigation for plants and sprinkling irrigation methods are used to conserve the water for the maintenance of greenery and plants.
- Organic manure, prepared in the compost plant is used for maintaining plantation.
- A dedicated team of 25 gardeners takes care of the greenery and plantation. In addition, NSS/NCC volunteers/cadets take part in plantation of new trees.

File Description	Document
Any additional information	View Document

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

Response: 2.43

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)

2018-19	2017-18	2016-17	2015-16	2014-15
121.24	4.22	10.35	7.70	5.16

File Description	Document
Green audit report	View Document
Details of expenditure on green initiatives and waste management during the last five years	View Document
Any additional information	View Document

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: A. 7 and more of the above

File Description	Document
Resources available in the institution for Divyangjan	View Document
Any additional information	View Document
link to photos and videos of facilities for Divyangjan	View Document

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

Response: 11

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

2018-19	2017-18	2016-17	2015-16	2014-15
3	4	2	1	1

File Description	Document
Number of Specific initiatives to address locational advantages and disadvantages	View Document
Any additional information	View Document

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

Response: 12

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

2018-19	2017-18	2016-17	2015-16	2014-15
4	2	3	1	2

File Description	Document
Report of the event	View Document

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	View Document
URL to Handbook on code of conduct for students and teachers , manuals and brochures on human values and professional ethics	View Document

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

Response: Yes

File Description	Document
Any additional information	View Document
Provide URL of website that displays core values	View Document

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	View Document
Any additional information	View Document

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

Response: Yes

File Description	Document
Any additional information	View Document
Provide link to Courses on Human Values and professional ethics on Institutional website	View Document

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	View Document
Provide URL of supporting documents to prove institution functions as per professional code	View Document

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:** 16

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

2018-19	2017-18	2016-17	2015-16	2014-15
3	5	3	3	2

File Description	Document
List of activities conducted for promotion of universal values	View Document
Any additional information	View Document

7.1.18 Institution organizes national festivals and birth / death anniversaries of the great Indian personalities**Response:**

The Institution is organizing the following national festival days and on great Indian leaders birth anniversaries. India is worldwide known for its cultural diversity and colourful festivals.

Kargil Vijay - Diwas 26th July:

On this day, 26 July 1999, India successfully took command of the high outposts which had been lost to Pakistani intruders. On this day Competitions on Power point presentations, Oath taking, and Ballet highlight Competitions are organised.

Independence Day - 15th August:

Every year, on this day, our College principal hoists the National flag in the college premises to commemorate Independence Day and addresses the faculty and students. NCC Parade is a major highlight on this day. Patriotic presentations by students add colors to the celebrations.

Mother Teresa Birthday - 26th August:

On the occasion of Mother Teresa Birthday, the NSS and NCC volunteers distributed fruits and biscuits in 'Nirmal Hruday Bhavan' and at old age homes

Teacher day - 5th September:

Teachers' Day is a special day for the appreciation of teachers, and may include celebrations to honour them for their special contributions in a particular field area, or the community. We are organising Teachers' Day Celebrations and felicitating teachers who obtain higher qualification and academic achievements during the current academic year.

Engineers day - 15th September:

The institute is conducting Engineers' day celebrations every year on 15th September i.e., Sir Mokshagundam Visvesvaraya birth anniversary. During these celebrations, the students are encouraged to exhibit their creative technical models and are evaluated by judges from premier organizations. This event increases creative thinking in the young minds of engineering students.

Gandhi Jayanti - 2nd October:

Various competitions are conducted for students in college with ideologies of Gandhi's effort in the Indian independence movement as the theme. Every year a rally with slogan 'Vandey Gandheeyam' was conducted from Benz circle to Indira Gandhi Municipal Stadium

Rashtriya Ekta Diwas - 31st October:

National Unity day (also known as Rashtriya Ekta Diwas) is celebrated every year on 31st of October all through India to pay tribute to the great man, Sardar Vallabhbhai Patel on his birth anniversary by remembering his extraordinary dedication to the country. On this day Oath taking, march and talk on Sardar Vallabhbhai Patel were organised.

National Education Day -11th November:

National Education Day of India is celebrated on 11th November every year in India to commemorate the birth anniversary of Maulana Abul Kalam Azad, the first education minister of independent India, who served from 15 August 1947 until 2 February 1958.

Srinivasa Ramanujan Birthday -22nd December:

VRSEC NCC Cadets assist to "Srinivasa Ramanujan Birthday Celebrations" organized by Dept. of Mathematics.

Good Governance Day -25th December:

On this day group discussions were conducted for students on the importance of the day.

Republic Day -26th January:

Every year, on this day, our College principal hoists the National flag in the college premises to commemorate Republic Day and addresses the faculty and students. NCC Parade is a major highlight on this day.

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

Response:

Financial functions

- All the receipts and payments are through a nationalised bank only.
- Financial audit is carried out by Chartered Accountant and Audit statements are displayed in the website
- The disbursement of scholarships and other monetary benefits to the students and faculty is done through bank.
- The institution endeavours to ensure all financial transactions, reports and documents are completed with integrity, and that the institution presents timely and accurate information to the statutory authorities and stakeholders.
- Funds received from the Government agencies are audited separately and submitted to the respective agencies

Academic functions

- The BOS and College Academic Council undertake, formulate and approve the academic regulations including curriculum.
- The resolutions of Academic Council are ratified by the Governing Body.
- The approved academic regulations along with curriculum complemented by syllabi are displayed in the college website
- Academic calendar, Academic plan, Timetables are displayed to the students prior to the starting of the semester.
- Attendance and internal marks are displayed in the notice boards and in CMS.
- Parents are informed about the regularity and Academic performance of their ward time to time.
- Regular feedback from students ensures the effectiveness of teaching-learning process and introduction of new elements into the curriculum from time to time.
- Academic Audit is done regularly by internal and external experts.
- Examination related notifications and circulars are widely displayed in notice boards, circulated and kept on the website.

Administrative functions :

- Academic Council, Governing body and IQAC meeting minutes are placed in the website.
- Proper execution of the organisational flowchart conforming to the job responsibilities for every cadre.
- Documented service rules are made available in the website.
- Merit list is made based on the overall performance and recruitment is done based on interview. This process ensures entry of quality faculty members.
- The college upholds the practice of participative management with decentralized administrative systems with a balance of transparency and confidentiality.
- College administration is run through participative management of HODs and the Principal. All decisions are taken jointly and implemented.
- All the administrative, financial and academic decisions are taken by the head of the institution with the help of HODs and various committees.

Auxiliary functions

- All circulars related to students, teaching staff and non-teaching staff are disseminated through notice boards, e-messaging and also read in the classes.
- Unique student ID's are given to each student and official communication is done through the same.
- Supporting Academic events like workshops, training programs, seminars, FDPs, conferences, guest lecturers etc., are implemented in the following sequence :
 - Proposal by specific department
 - Financial approval by the management/Institution
 - Conduct of the program
 - Submission of the accounts
 - Submission of the report

The record of these operations is made available in the concerned department.

7.2 Best Practices

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

Response:

Presentation of Best Practices

Even though the college has quite a number of best practices, five of them, PBAS, Technical model development, Proctor system, Academic Audit and usage of MOODLE deserve special mention. There is a growing need for higher educational institutions to be more accountable to the expectations of Stake holders. They have largely contributed to the achievement of the institutional goals as well as to the quality improvement of the activities.

Best Practice-1

1. Title of the Practice : Performance Based Appraisal System

Performance Based Appraisal System(PBAS) is an open, formal, and systematic procedure designed to assist both employer and employees in planning, managing, evaluating and realizing performance improvement in organization with an aim of achieving organizational goals.

The college has developed **PBAS** to confidentially evaluate the annual academic and Professional contributions of faculty and is implemented since 2013-14.

2. Objectives of the Practice

- To measure the performance of employees, provide feedback and assist them to improve their potential.
- To maintain records for the consideration of pay enhancement, promotions, special incentives etc.
- To identify distinctive academic talent and nurture it towards further advancement.
- To enhance teaching learning process, student projects, model developments and Innovation.
- To obtain better Industrial and sponsored research and quality publications
- To increase faculty academic qualifications and certification through online courses.
- To improve in participation and organising Conferences/STTP/FDP/Seminar/ Workshop in association with premier institutions /research organisations and industry.
- Participation in administrative activities both at department, institute level and also in Co-curricular and Extra-curricular Activities.

3. The Context

The rapid technological advancements in academic and research environment of higher educational Institutions demand multi-dimensional participation of faculty. Industry, regulatory bodies, UGC-CAS promotional guidelines have been considered in the design of Performance Based Appraisal System.

- Ineffective use of ICT Tools and online certification for effective Teaching learning process
- Less I-I-I and no. of MOU's with Industry.
- Less number of publications in peer reviewed journals.
- Less participation of faculty in CEP's outside the institutes.
- To improve motivation for R&D proposals.
- Some faculty are reluctant to participate in administrative activities.

The following are the contextual features addressed in the design and implementation of PBAS.

- **Accountability:** Individual employee is accountable for his/her performance and resources allocated for each activity.
- **Participation:** Involves employee in the process of setting up of objectives and achieving the targets set.
- **Motivation:** Through the evaluation of employees, performance and efficiency can be determined by the targets achieved. This very well motivates a person to improve further.
- **Documentation:** Helps the employee to generate required evidences for submission to PBAS which in turn will help the department to maintain records.

- Goal setting:PBAS helps the employee to understand his/her role thus creating commitment in achieving personal as well as organizational goals.

4. The Practice

PBAS evaluation is based on various parameters such as Curricular, Co-Curricular, Extra-curricular, R&D and Administrative activities on 1000 point scale. The weightage taken into consideration during the assessment and evaluation of these parameters varies depending on the cadre of the faculty.

PBAS format is updated periodically based on the expectations of regulatory bodies. Departmental Faculty Assessment committee (DFAC) is constituted by the Principal with four faculty members from different departments with a chairmanship of senior professor. This committee evaluates all the faculty in the college and the faculty have to submit the necessary evidences during evaluation of the filled format. These forms are scrutinized meticulously by the Appraisal Screening Committee (ASC) comprising of Principal as the Chairman, the DEANS as members and the Chairman DFAC as the member and submitted to the Faculty Assessment Board (FAB). Principal generally concurs with the DFAC committee's API score unless there is an obvious, abnormal and deliberate hike or lowering of API score or he/she receives a representation from the faculty member seeking justice. If the final score falls below the minimum level the faculty is counselled for improvement of the performance.

5. Evidence of Success

This practice made all the faculty to be alert and duty conscious in fulfilling the guidelines and satisfying the goals. It also motivates to become good teachers. In addition the college is experiencing

- Improved academic culture among the faculty and participation in research and administrative activities.
- Use of ICT tools and MOODLE for effective teaching learning process.
- Initiation of Innovative model development practices.
- Total Grants received from government and non-government organizations Rs.4.69 Crores during the last five years.
- Total IPRs filed during the last 5 years is 30 out of which 24 were published
- 62 Faculty were awarded Ph. D in the college during the last 5 years.
- More than 120 faculty are NPTEL certified and institute received all India 7th rank by NPTEL.
- Considerable improvement is observed in Research publications in peer reviewed indexed journals during last 5 years.
- Most of the faculty are participating and organising FDPs, Workshops, Seminars, Guest lectures and Conferences.
- Faculty along with students are participating in extension and societal activities like Blood donation camps, Tree plantation, donations to old age home and orphanages, social awareness camps in nearby villages.
- The Institutional ranking and accreditation is the evidence of successful implementation of PBAS since 2013-14.

6. Problems Encountered and Resources Required

Problems Encountered

- Manual evaluation of huge number of faculty involves more time and effort.

Resources Required

- Automation is needed to reduce the time at every step.

7. Notes (optional)

Best Practice – 2

1. Title of the Practice: Technical Model Development

2. Objectives of the Practice

- To improve the technical skills of a student and enhance creativity and innovation.
- To apply knowledge and skills to identify and solve societal and industrial related problems.
- To convert the prototype into a commercial model leading to entrepreneurship development.

3. The Context

The revolutionary change in Science, Engineering and Technology has completely changed the measure of the success of a student from theoretical to applied knowledge. There is a huge transformation from theoretical/analytical projects to projects leading to solutions of real time problems. These aspects direct the technical institutes to extend the teaching learning process towards more practically oriented courses/activities. Innovation, incubation and IPRs are becoming the key performance indicators for the national / global recognition of technical institutes.

In the present scenario, to meet the objectives of **National aim** (or) **Make In India**, the students need to acquire both product development and entrepreneurship skills.

- Lack of solutions for societal Problems.
- To bring out inherent talent (or) IQ

4. The Practice

- Students from the 2nd year are identified to develop or fabricate innovative technical models under the guidance of faculty members.
- Idea churning sessions are organised by inviting industry experts and Alumni Entrepreneurs.
- The major uniqueness in this practice is the faculty and student together to update their knowledge
- The faculty will help and guide the students to develop the innovative models. The students are encouraged to plan and prepare proposals in the field of their interest.
- Encourages the student to work beyond the syllabus in every laboratory course
- Majority of the laboratories are equipped with latest tools for implementation.
- All the completed projects are examined by a team of faculty members.
- Viable projects are financially supported for fabrication, testing and also for patenting.
- The departmental research groups helps in taking up mini/major projects by students in developing working models.

- Incubation centres are established for model making with required facilities in every department.
- Provision in Budget proposal for financial support for model making and 50% of the model cost is reimbursed by the college.
- At least two models may lead to Patent from each department in a year from this Platform.
- The same labs may be extended to Innovation & Incubation.

5. Evidence of Success

- 40% of the student projects are practically oriented than theoretical studies.
- Students and faculty are oriented to solve and provide feasible solutions for the society's real time problems
- The students are participating in industry driven National / Global level student Competitions like TCS – CODEVITA, NATIONAL INSTRUMENTS - The Annual Student Design Contest (NIYANTRA), CISCO- Global Problem Solver Challenge, TEXAS INSTRUMENTS, Hackthons etc., and getting rewards and job opportunities.

6. Problems Encountered and Resources Required

Problems Encountered

- Inadequate modern and advanced equipment
- Less expertise in advanced areas.
- Better coordination among the departments is needed which leads to develop interdisciplinary models.

Resources Required

- Modern tools and equipment are to be procured.
- Training for both faculty and students by experts from industry.
- Additional financial support in the form of seed money.
- Encouragement / Incentives to both supporting faculty and student prize winners
- Creating awareness to students by inviting experts from relevant fields.
- Departmental Faculty mentors to guide encourage and help the students.
- College Cell Coordinator updates the information of competitions through Notice boards/Website

7. Notes (optional)

Any other information regarding Institutional Values and Best Practices which the Autonomous College would like to include.

Best Practice-3

Title of the Practice : Student Counselling -Proctor system

The Proctor System has been introduced for providing supportive care and counselling students in their academic and personal problems, from time to time, if any. This system helps the students complete their studies comfortably and successfully. It manages student personal information, academic performance, participation in Curricular and Co-curricular activities and employment information. 20-25 students are

attached to a faculty for effective counselling and mentoring. This system is adopted to improve the rapport between the faculty and students as a friendly vigilance for good teacher- student relationship. Parents of the students are timely informed wherever the necessity arises such as lack of attendance, poor academic performance and psycho-social problems.

Objectives of the Practice

- To provide the counsellor concerned the opportunity to know his/her students better, with their strengths, weaknesses, career aspirations and family background
- To identify the academically weak students to assess and resolve the reasons for their poor performance. These weaknesses should be studied and proper remedial action is taken to address these problems
- To maintain critical information about student.
- To consolidate the data of the student about academic and attendance management.
- To ensure a collective effort towards the all-round development of the students
- To provide the parents a platform to closely involve in the academic and campus life of the students to track their performances/deviations.
- To continuously and regularly monitor the academic progress of the students and to rectify their problems
- To motivate the student at every step for their successful academic career by making him aware of all possible resources at the institute and, guides him for effective utilization of opportunities provided.
- To encourage students to discuss their ideas, try new techniques and expand their skills.

Best Practice-4

Title of the Practice: Academic audit

Academic audit is a procedure of finding the lapses and confirming the performance of academic practices and procedures against planned/standard procedures. Importance of academic audit is to improve the Academic standards of institution. Academic Audit committee is formed with a senior faculty member from our college and external member from reputed institutions appointed by the principal. The Audit report is given to the HOD and IQAC coordinator for the improvement of the department. The lapses found in the Academic audit are discussed among the faculty in the department and necessary initiatives are taken to overcome them. The proforma of the Academic audit was designed considering the criteria of all quality certifying agencies.

The parameters for Academic audit

1. PEO's, PO's and Curriculum
2. Faculty information and their contribution
3. Teaching-Learning Process and Evaluation
4. Research, Consultancy and Extension
5. Infrastructure and Learning Resources
6. Student information, Support and Progression
7. Governance, Leadership and Management.

Objectives of the Practice:

- To find the lapses in academic activities and strengthen the department by fulfilling them
- To take steps for the improvement of the teaching-learning and research activities of all departments/faculties and institutes
- To set quality benchmarks for all units and evolve mechanisms for monitoring and ensuring performance in accordance with them.
- To evolve and implement strategies for self-evaluation to sensitize all functionaries to be accountable for student and stakeholder satisfaction.
- To streamline academic functions and standardize practices
- To ensure every faculty members perform his/her best in teaching and research.
- To provide feedback to faculty members on areas which need improvement.
- To build up a system for conscious and regular action to improve the academic and administrative performance of the institution.
- To help the faculty in clarifying their roles and responsibilities and thus avoids conflicts.

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Link for Additional Information	View Document

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:

The key points of VISION and MISSION of the institution are

VISION

- Timeless core values
- Academic excellence and advanced research

MISSION

- Globally competitive technocrats
- Professionally deft, intellectually adept and socially responsible
- Pragmatic perception and pro-active nature

The thrust areas focused to achieve 'VISION' are

- Outcome based education
- Training of faculty and students in advanced Technologies through Collaborative laboratories
- Projects on society relevant problems

To achieve the Vision and conforming to the Mission, the institution has identified the thrust areas with involvement of industry experts and exposure to real-time industrial and societal problems and establishment of labs in association with multinational companies, Govt. & Pvt Sectors thereby realizing a comprehensive outcome based model with required skill set and social consciousness to make them industry ready professionals.

INSTITUTIONAL DISTINCTIVENESS: Centers of Excellence & Industry Collaborative laboratories

Out of the thrust areas mentioned above to fulfill VISION and MISSION the Institute has a distinction of establishing several Centers of Excellence and industry collaborative labs under Industry Institute interaction program for training, skill up gradation and placement of students to realize the objectives of Outcome Based Education. The institute has established 3 Centers of Excellences (CoE) and 20 Industry Collaborative laboratories and the details of laboratories are described below.

CENTERS OF EXCELLENCE (CoE):

1. SIEMENS CoE:-

This unique centre established in 2016 in the college, in association with APSSDC as a PPP corporation to promote skill-development & entrepreneurship in the state, is housed in a space of 23000 Sqft and other facilities worth Rs.5.50 Crores with **13** different labs namely Product Design & Validation Lab, Advanced Manufacturing Lab, NC Programming Lab, Rapid Prototyping Lab, Test & Optimization Lab, Robotics Lab, CNC Machines Lab, Lift Installation & Maintenance Lab, Electrical & Energy studies Lab, Automation Lab, Process Instrumentation Lab, Mechatronics Lab. EIE students and faculty are trained in Automation, Process Instrumentation, Electrical and Mechtronics labs. ME students and faculty are trained in Product design and validation, Advanced manufacturing, Test and Optimization, CNC Machine, CNC Programming, Robotics and Rapid Prototyping Labs.

2. TIFAC (Technology Information, Forecasting and Assessment Council) CORE- DST:

This project is a collaborative effort of TIFAC, VRSEC and industries in the domain of Telematics. VRSEC is the First private Engineering College in the state of AP to receive this project worth of Rs 156 Lakhs. It is unique venture characterized by both public-private partnership and industry-academia interaction with 14 industry partners.

3 CoE in COMPOSITES:

This centre is established in 2014 with DST- FIST in ME Dept to develop new materials which are economical and eco-friendly. The facility has equipment worth Rs. 60 Lakhs that can be used for research, testing and consultancy.

Major outcomes of CoE in COMPOSITES are:

- 4 Research projects were completed and 3 are in progress (Rs. 90Lakhs)
- 10+ Ph. D s were completed and 4 are in progress.
- More than 100 research articles were published in conferences and journals.
- 3 patents were published and 3 are in progress.

INDUSTRY COLLABORATIVE LABORATORIES:

1. CISCO NETWORKING ACADEMY:

This facility established in 2017 is contributing towards Industry recognized certifications with career oriented courses periodically on Cyber security, etc for duration of 30 to 90 hrs. Over 1100 students and 20 faculty were certified during last 3years.

2. IBM SOFTWARE LAB FOR EMERGING TECHNOLOGIES. :

This lab established in 2016 Dept of IT to provide training on essentials of Big data with Hadoop using IBM infosphere, etc and on identity management. 250 students and 50 faculty were certified in 32hr training sessions.

3. DASSAULT SYSTEMS:

This facility established in 2018 in ME dept. stands as a 3D Experience centre supported by APSSDC to offer training on a bi-layered format in technologies on CATIA, SIMULIA, DELMIA, etc followed by opting for training in the domains of Automotive, Aerospace, Defence & Ship building etc. 240 students and 14 faculty were trained and 56 students were certified for duration of 30 to 160 hrs.

4. ORACLE CORPORATION:

The Lab started in CSE in 2017 has been running Oracle licensed software for developing applications. Faculty of CSE were trained on different technologies. During last three years, 46 students were certified as Oracle Certified Associate Java SE 8 Programmer, 1Z0-808 and 26 students in Oracle Database SQL 1Z0-071 SQL Fundamentals.

5. APPLE AUTHORIZED TRAINING CENTER FOR EDUCATION (AATCE)

This facility was established in 2019 in IT Dept to provide training on developing apps related to IOS and SWIFT Programming in which faculty were trained. An Add-on Certificate Course will be offered by the trained faculty for 3rd year Students in the second phase.

6. VIDEO ANALYTICS RESEARCH LAB-

It is established in CSE Dept in 2014 to provide a base for video analytics research and to improve algorithm robustness. During the last 5 years, 100 students and 15 faculty were trained. More than 7 research articles were published in reputed conferences and journals.

7. ANBLICKS IGNITE CENTRE

It is established in 2019 to promote collaborative research activity between Anblicks and VRSEC, and to provide internships, product development avenues and Placements to students About 20 students were placed.

Due to the above distinctiveness, the following outcomes have been achieved by Faculty and students during the last 5 years.

Faculty Outcomes

- Grants received from Govt. and non-Govt organizations Rs. 4.69 Crores
- IPRs filed are 30 out of which 24 published
- 62 Faculty were awarded Ph.D in the college.
- Faculty with Ph.D qualification are also increased from 46 to 122 (as on date)
- Research papers published in the Journals and conferences are also increased from 132 (during 2009-2013) to 438 (during 2014-2019).
- 15 faculty visited foreign countries for presenting papers in International conferences and as Session Chairs.

Student Outcomes

- Placements increased from 525 in 2014-15 to 972 in 2018-19
- Students above Rs 5 lakh package increased from 11 to 65
- Students won prizes/Awards in National and Global Competitions increased from 83 in 2014-15 to 217 in 2018-19
- Student Internships increased from 183 in 2014-15 to 1342 in 2018-19
- Students Participated in National contests increased from 849 in 2014-15 to 1444 in 2018-19

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document

5. CONCLUSION

Additional Information :

- **NIRF Ranking:** The College has obtained a rank of 171 in 2019 and one among the top 200 engineering institutions for the last three consecutive years.
- **SIRO:** The College is recognised as 'Scientific & Industrial Research Organization (SIRO) - DSIR, Govt. of India in August 2017.
- **TIFAC-CORE (DST):** The first Institution in the state to establish advanced engineering centre for research, education and training facility in Telematics to produce manpower of high relevance to Indian industries.
- **R&D and Consultancy:** The institute has received Rs 4.69cr as grant from Govt. & Non-Govt. funding agencies and generated Rs 12.21cr as consultancy revenue during last five years.
- **Research Centers:** College has six recognized research centers from JNTUK, Kakinada.
- **NPTEL / SWAYAM:** The institute secured AAA ranking and all India 7th position for the participation by students and faculty.
- **TCS Accreditation:** The College was accredited by TCS in the year 2006 and re-accredited in the year 2011.
- **ISO Certification:** The College obtained ISO 9001:2000 certification initially in the year 2004 and has been renewing it. Subsequently, the college received ISO 9001:2015 certification in the year 2018.

Eco system of the college:

- All the buildings and roads within the college campus are garlanded with tall trees and landscapes to maintain pollution free environment.
- The solid waste generated within the campus is used as bio fertilizers for the plants and trees.
- More than 50% of power required for the college is generated using 400 KVA roof top solar plants installed with an investment of Rs.1.25 Crores.
- The college has standby power backup facility of 450 KVA.
- The campus lighting is gradually being replaced with LED bulbs to reduce the power consumption and as on now 23% of campus lighting is replaced with LED bulbs.
- Water pits were constructed for rainwater harvesting
- In house water treatment plant is in place to provide the purified drinking water in the campus.
- The college is moving towards plastic free campus.

Concluding Remarks :

The institution has all statutory committees such as Governing Body, Academic Council, Boards of Studies, Finance committee and other non-statutory committees that take care of policy decisions related to academic and non-academic activities and their implementation. The institution has well defined strategic plan drafted in line with the institute vision, mission and is monitored by periodic reviews among the senior functionaries. IQAC has been contributing significantly to sustain and enhance the quality in all respects of the institution functioning. The faculty and staff are governed by the service rules of the institution in line with the regulatory bodies.

The institution practices outcome based education with well-designed industry relevant flexible curriculum

with defined COs, POs and PSOs for each of the courses as per the guidelines of AICTE and industry experts. ICT tools have been used in the delivery of the courses and hands-on training has been offered in advanced courses in addition to the regular laboratory experiments. Blooms taxonomy is followed in the preparation of the lesson plan, assessment and evaluation. Attainment of COs, POs and PSOs are measured in every semester using direct and indirect assessment tools.

The faculty members are deputed to Continuing Education Programmes with support towards registration fee, Travel, stay etc. Performance Based Appraisal System is in place since 2013 to assess the performance of faculty and guide them for effective functioning and career growth.

The R&D cell continuously reviews faculty for improving quality of student projects, research publications, submission of project proposals and patent filing. The college organises innovation day on Engineers day to transform the innovative ideas of the students in the form of models and designs and encourages them to participate in national and international student competitions through department student bodies.

The proctor system of the institution takes care of the academic and personal issues of the students. The T&P cell imparts necessary training for the students and assists them in securing placements. The institution always strives to progress continuously by proper planning and execution of all activities for overall development of all stake holders and produce employable graduates at global level.

6.ANNEXURE

1.Metrics Level Deviations

Metric ID	Sub Questions and Answers before and after DVV Verification																				
1.2.1	<p>Percentage of new Courses introduced out of the total number of courses across all Programs offered during last five years</p> <p>1.2.1.1. How many new courses are introduced within the last five years Answer before DVV Verification : 854 Answer after DVV Verification: 530</p> <p>1.2.1.2. Number of courses offered by the institution across all programs during the last five years Answer before DVV Verification : 3641 Answer after DVV Verification: 1600</p> <p>Remark : The HEI has multiple count of common courses (that are offered in different programs). The HEI has included term paper, training and project also as courses. As per the data attached with the response, the HEI has offered on an average 540 courses. Out of the total courses offered 530 are new and replace 530 old courses.</p>																				
1.3.2	<p>Number of value-added courses imparting transferable and life skills offered during the last five years</p> <p>1.3.2.1. Number of value-added courses are added within the last five years Answer before DVV Verification : 152 Answer after DVV Verification: 81</p> <p>Remark : The HEI has included short workshops and hands on App training. These are not courses.</p>																				
1.3.3	<p>Average percentage of students enrolled in the courses under 1.3.2 above</p> <p>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 Answer before DVV Verification:</p> <table border="1"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>3709</td> <td>3926</td> <td>2344</td> <td>925</td> <td>646</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>3570</td> <td>3910</td> <td>2292</td> <td>925</td> <td>700</td> </tr> </tbody> </table>	2018-19	2017-18	2016-17	2015-16	2014-15	3709	3926	2344	925	646	2018-19	2017-18	2016-17	2015-16	2014-15	3570	3910	2292	925	700
2018-19	2017-18	2016-17	2015-16	2014-15																	
3709	3926	2344	925	646																	
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3570	3910	2292	925	700																	
2.1.3	<p>Average percentage of seats filled against seats reserved for various categories as per applicable reservation policy during the last five years</p> <p>2.1.3.1. Number of actual students admitted from the reserved categories year-wise during the last five years</p>																				

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
540	508	530	529	503

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
501	494	511	522	501

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

2.3.2.1. Number of teachers using ICT

Answer before DVV Verification : 333

Answer after DVV Verification: 329

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
112	89	75	55	50

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
111	90	78	55	52

Remark : HEI input updated as per attached self declaration by Principal for Number of full time teachers with Ph.D. year-wise during the last five years

2.4.3 Teaching experience per full time teacher in number of years

2.4.3.1. Total experience of full-time teachers

Answer before DVV Verification : 4118.54 years

Answer after DVV Verification: 4025.74 years

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15

32	29	19	7	4
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Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
7	02	01	04	03

Remark : The Following have been considered for 1. 2018-19 - Sr. 1 to 6 and 17 of Award list final given in PDF 2. 2017-18 - Sr. 2 and 3 of Award list final given in PDF. 3. 2016-17- sr. no. 7 of award list final given in PDF 4. 2015-16 Sr. no. 1 and 6 of award list given in PDF The other awards which are not considered are local in nature or are not awards, recognition, fellowships at State, National, International level from Government, recognised bodies

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
2051	1966	2305	2638	3173

2.6.3 Average pass percentage of Students

2.6.3.1. Total number of final year students who passed the examination conducted by Institution.

Answer before DVV Verification : 1354

Answer after DVV Verification: 1354

2.6.3.2. Total number of final year students who appeared for the examination conducted by the institution

Answer before DVV Verification : 1520

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

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)

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
10.48	10.76	7.63	8.70	13.09

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
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8.23	10.46	7.26	8.70	13
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Remark : As per the HEI statement in the response dialogue box and the data attached with the Metric.

3.1.4	<p>Institution has the following facilities</p> <ol style="list-style-type: none"> 1. Central Instrumentation Centre 2. Animal House/Green House / Museum 3. Central Fabrication facility 4. Media laboratory/Business Lab/Studios 5. Research / Statistical Databases <p>Answer before DVV Verification : A. Any four facilities exist Answer After DVV Verification: C. Two of the facilities exist Remark : HEI has not provided any supporting document for 1.Animal House/Green House / Museum 2.Media laboratory/Business Lab/Studios 3.Central Fabrication facility</p>																				
3.2.1	<p>Grants for research projects sponsored by the non-government sources such as industry, corporate houses, international bodies, endowments,Chairs in the institution during the last five years (INR in Lakhs)</p> <p>3.2.1.1. Total Grants for research projects sponsored by the 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)</p> <p>Answer before DVV Verification:</p> <table border="1" data-bbox="304 1413 1046 1547"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>19.22</td> <td>10.24</td> <td>14.12</td> <td>7.94</td> <td>0.66</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="304 1626 1046 1760"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>59.26</td> <td>84.64</td> <td>95.73</td> <td>40.01</td> <td>137.46</td> </tr> </tbody> </table>	2018-19	2017-18	2016-17	2015-16	2014-15	19.22	10.24	14.12	7.94	0.66	2018-19	2017-18	2016-17	2015-16	2014-15	59.26	84.64	95.73	40.01	137.46
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19.22	10.24	14.12	7.94	0.66																	
2018-19	2017-18	2016-17	2015-16	2014-15																	
59.26	84.64	95.73	40.01	137.46																	
3.2.2	<p>Number of research centres recognised by University and National/ International Bodies</p> <p>3.2.2.1. Number of research centres recognised by University and National/ International Bodies</p> <p>Answer before DVV Verification : 8 Answer after DVV Verification: 7</p>																				

3.2.3	<p>Percentage of teachers recognised as research guides</p> <p>3.2.3.1. Number of teachers recognised as research guides Answer before DVV Verification : 46 Answer after DVV Verification: 46</p> <p>3.2.3.2. Number of full time teachers worked in the institution during the last 5 years Answer before DVV Verification : 348</p>																				
3.2.4	<p>Number of research projects per teacher funded, by government and non-government agencies, during the last five year</p> <p>3.2.4.1. Number of research projects funded by government and non-government agencies during the last five years Answer before DVV Verification : 78 Answer after DVV Verification: 61</p>																				
3.3.3	<p>Number of awards for innovation won by institution/ teachers/ research scholars/students during the last five years</p> <p>3.3.3.1. Total number of awards for innovation won by institution/teachers/research scholars/students year-wise during the last five years Answer before DVV Verification:</p> <table border="1" data-bbox="304 987 1046 1122"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>16</td> <td>21</td> <td>5</td> <td>5</td> <td>3</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="304 1200 1046 1335"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>5</td> <td>3</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table>	2018-19	2017-18	2016-17	2015-16	2014-15	16	21	5	5	3	2018-19	2017-18	2016-17	2015-16	2014-15	5	3	0	0	0
2018-19	2017-18	2016-17	2015-16	2014-15																	
16	21	5	5	3																	
2018-19	2017-18	2016-17	2015-16	2014-15																	
5	3	0	0	0																	
3.3.4	<p>Number of start-ups incubated on campus during the last five years</p> <p>3.3.4.1. Total number of start-ups incubated on campus year-wise during the last five years Answer before DVV Verification:</p> <table border="1" data-bbox="304 1536 1046 1671"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>3</td> <td>1</td> <td>0</td> <td>0</td> </tr> </tbody> </table> <p>Answer After DVV Verification :</p> <table border="1" data-bbox="304 1749 1046 1883"> <thead> <tr> <th>2018-19</th> <th>2017-18</th> <th>2016-17</th> <th>2015-16</th> <th>2014-15</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> </tbody> </table> <p>Remark : Opted Out metric</p>	2018-19	2017-18	2016-17	2015-16	2014-15	3	3	1	0	0	2018-19	2017-18	2016-17	2015-16	2014-15	0	0	0	0	0
2018-19	2017-18	2016-17	2015-16	2014-15																	
3	3	1	0	0																	
2018-19	2017-18	2016-17	2015-16	2014-15																	
0	0	0	0	0																	
3.4.3	<p>Number of Patents published/awarded during the last five years</p>																				

3.4.3.1. Total number of Patents published/awarded year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
5	14	4	1	0

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
5	14	4	1	0

3.4.4 Number of Ph.D.s awarded per teacher during the last five years

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

Answer before DVV Verification : 21

Answer after DVV Verification: 21

3.4.4.2. Total number of teachers recognised as guides during the last 5 years

Answer before DVV Verification : 46

3.4.5 Number of research papers per teacher in the Journals notified on UGC website during the last five years

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
132	178	136	90	93

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
117	142	95	77	70

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
162	105	76	60	66

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15

137	79	65	52	59
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3.5.3 Revenue generated from corporate training by the institution during the last five years

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
0.80	0	0	0	0

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
0.0	0	0	0	0

3.6.3 Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., during the last five years

3.6.3.1. Number of extension and outreach Programs conducted in collaboration with Industry, Community and Non- Government Organizations through NSS/ NCC/ Red Cross/ YRC etc., year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
18	27	20	18	18

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
16	12	17	10	11

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
93	81	81	60	50

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
26	20	16	18	15

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
178	158	181	49	39

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
28	20	23	16	15

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
1247.87	1181.98	1299.25	936.27	773.03

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
483.25	411.83	578.98	782.10	665.78

4.2.6 Percentage per day usage of library by teachers and students

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

Answer before DVV Verification : 388

Answer after DVV Verification: 388

Remark : The HEI input updated as per attached supporting document

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15

207	166	143	140	126
-----	-----	-----	-----	-----

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
130	126	130	130	116

Remark : HEI input updated based on supporting documents received over email from NAAC dated 27.08.2020

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
5547	5675	5698	5712	5595

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
5547	5675	5698	5712	5595

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
665	1888	1209	36	48

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

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/ TOEFL/ Civil Services/State government examinations)

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
197	224	274	271	214

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
124	144	207	218	163

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
49	44	56	65	48

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
3	6	2	5	5

5.4.2 Alumni contribution during the last five years(INR in Lakhs)

Answer before DVV Verification : ? 15 Lakhs

Answer After DVV Verification: 5 Lakhs - 10 Lakhs

Remark : As per CA certificate input updated for 5 Lakhs - 10 Lakhs

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
47	42	45	43	34

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
32	38	45	42	27

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
223	239	231	240	249

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
153	143	123	162	210

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

6.4.2.1. Total Grants received from non-government bodies, individuals, philanthropists year-wise during the last five years (INR in Lakhs)

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
44.28	27.50	23.33	22.44	18.28

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
0	0	0	0	0

Remark : Opted out metric

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

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)

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15

128.84	4.22	10.35	7.70	5.16
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Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
121.24	4.22	10.35	7.70	5.16

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
3	5	2	2	2

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
3	4	2	1	1

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

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
3	5	2	2	3

Answer After DVV Verification :

2018-19	2017-18	2016-17	2015-16	2014-15
4	2	3	1	2

2.Extended Profile Deviations

ID	Extended Questions										
1.1	<p>Number of students year-wise during the last five years</p> <p>Answer before DVV Verification:</p> <table border="1"> <tr> <td>2018-19</td> <td>2017-18</td> <td>2016-17</td> <td>2015-16</td> <td>2014-15</td> </tr> <tr> <td>5547</td> <td>5675</td> <td>5698</td> <td>5712</td> <td>5595</td> </tr> </table> <p>Answer After DVV Verification:</p>	2018-19	2017-18	2016-17	2015-16	2014-15	5547	5675	5698	5712	5595
2018-19	2017-18	2016-17	2015-16	2014-15							
5547	5675	5698	5712	5595							

2018-19	2017-18	2016-17	2015-16	2014-15
5547	5675	5698	5712	5595

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

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
1520	1563	1564	1587	1451

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
1520	1563	1564	1587	1451

2.1 Number of courses in all programs year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
745	728	751	717	700

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
672	662	667	636	605

2.2 Number of full time teachers year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
333	333	370	355	349

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
329	329	366	351	345

2.3 Number of sanctioned posts year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
333	333	370	355	349

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15

333	333	370	355	349
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3.1 Number of eligible applications received for admissions to all the programs year-wise during the last five years

Answer before DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
15985	16517	17010	16993	16935

Answer After DVV Verification:

2018-19	2017-18	2016-17	2015-16	2014-15
15985	16517	17010	16993	16935

