



Velagapudi Ramakrishna
Siddhartha Engineering College
(Autonomous)
Vijayawada – 520 007, Andhra Pradesh



INTERNAL QUALITY ASSURANCE CELL (IQAC)

EXTERNAL PEER TEAM REPORT ON PERFORMANCE OF THE COLLEGE - ACADEMIC YEAR (2018 -2019)

Submitted to



University Grants Commission (UGC)
Bahadur Shah Zafar Marg,
New Delhi - 110002.



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Members of External Peer Team:

- Dr. P. Siddaiah** - Principal, Acharya Nagarjuna University College of Engineering & Technology, Guntur & External Member, IQAC, VRSEC
- Dr. L. Krishnanand** - Professor, Department of Mechanical Engineering, National Institute of Technology, Warangal (NIT/W) & External Member, IQAC, VRSEC

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- Name of the College** : Velagapudi Ramakrishna Siddhartha Engineering College
Kanuru, Vijayawada – 520 007
- Name of the Principal** : Dr. A.V. Ratna Prasad
- Telephone/ Fax / Email** : Phone No: 0866 – 2582333; 0866 – 2584930
Fax: 0866 – 2582672
Email: principal@vrsiddhartha.ac.in;
info@vrsiddhartha.ac.in
Website: www.vrsiddhartha.ac.in
- Year of Establishment** : 1977
- Whether private or government or University maintained** : Private / Self Financing
- Autonomous Status** : 1. UGC granted Autonomous Status in the year 2006.
2. UGC – Autonomous status extended for a period of 10 years up to 2028, Ref. No. F22-1/2017 (AC), dated 17.04.18
- Name of the Affiliating Univ.** : Jawaharlal Nehru Technological University Kakinada,
Kakinada (JNTUK)

8. Courses Offered:

UG Courses: B.Tech.,

S. No.	Program Name	Sanctioned Intake
1	Civil Engineering	180
2	Computer Science and Engineering	180
3	Electronics and Communication Engineering	240
4	Electrical and Electronics Engineering	120
5	Electronics and Instrumentation Engineering	120
6	Information Technology	120
7	Mechanical Engineering	180

PG Courses: M.Tech., MBA, MCA

S. No.	Program Name	Sanctioned Intake
1	Structural Engineering	18
2	Geotechnical Engineering	18
3	Communication Engineering and Signal Processing	18
4	Computer Science and Engineering	36
5	VLSI Design and Embedded Systems	18
6	Power Systems Engineering	18
7	Data Science	18
8	CAD / CAM	18
9	Thermal Engineering	18
10	Master of Business Administration (MBA)	60
11	Master of Computer Applications (MCA)	60

9. Students on Rolls:

Year of study	B.Tech.,	M.Tech.,	M.B.A.	M.C.A.	Total
1 st year	1099	121	59	57	5547
2 nd year	1032	125	60	74	
3 rd year	1278	-	-	55	
4 th year	1287	-	-	-	
Total	4996	246	119	186	

10. Faculty Strength:

Department	Professor	Associate Professor	Sr. Asst. Professor	Assistant Professor	Total	No. of Ph.D's
PRINCIPAL	1	0	0	0	1	1
CE	7	5	2	30	44	16
CSE	5	3	5	26	39	10
ECE	7	8	3	28	46	18
EEE	4	4	0	22	30	12
EIE	1	3	0	15	19	3
IT	3	4	1	21	29	9
ME	7	5	4	29	45	17
TOTAL (Engg)	35	32	15	171	253	86
MBA	1	1	1	5	8	6
MCA	1	0	1	8	10	4
Science & Humanities	2	5	0	38	45	22
TOTAL	39	38	17	222	316	118

11. Results:

S. No.	Name of the Programme	Total appeared	Total Pass	Pass %
1	B.Tech.,	1284	1135	88.40
2	M.Tech.,	124	112	90.32
3	M.B.A.	58	56	99.55
4	M.C.A.	54	50	92.59

Velagapudi Ramakrishna Siddhartha Engineering College, Vijayawada, sponsored by Siddhartha Academy of General & Technical Education is the FIRST Private Engineering College in the combined state of Andhra Pradesh established in the year 1977 and is ideally located in a vast expanse of 24 acres of land in Vijayawada on Vijayawada-Machilipatnam highway. The college is ISO 9001-2015 certified, recognized by AICTE and accredited by NAAC. UGC granted autonomous status to the college in the year 2006 and extended up to 2028. The College is affiliated to JNTUK, Kakinada.

The Institution has its own MIS to manage general administration, autonomous system, examinations, student attendance and continuous evaluation process. The college has a well-marked administrative set up in tune with the college vision and mission. The Vision and Mission statement defines the institute's distinctive characteristics in terms of addressing the needs of stake holders it seeks to serve by.

The involvement of Leadership is achieved through well-defined systems and organizational structure consistent with norms of the AICTE and UGC. Teachers play a proactive role in the academic and administrative activities of the institution.

The Internal Quality Assurance Cell (IQAC) of V.R. Siddhartha Engineering College was established on 6th March, 2014. From the date of inception, the IQAC is making continuous efforts to maintain quality education as well as taken up various quality initiatives for the overall development of the institution.

The college has secured 171 rank in **National Institutional Ranking Framework (NIRF)** India rankings 2019 in engineering category. The college has secured PLATINUM rating in AICTE-CII Survey of Industry Linked Technical Institutes 2018.

The Annual Quality Assurance Report for the year 2018-2019 was submitted by the institute on 7th December, 2019 and the salient features were discussed in the IQAC meeting held on 16th December, 2019. The overall performance of the institution with respect to various quality aspects is satisfactory and appreciable. Some of the key parameters with respect to the performance of the institution under various heads for the academic year 2018 – 2019 are as follows:

CURRICULAR ASPECTS:

- AICTE sanctioned 'MARGADARSHAN Scheme' with a total grant of Rs. 25.0 Lakhs (Ref. No. 58-1/RIFD/Margadarshan/2018-19, dated 13-06-201) the only self financing institute in the state of Andhra Pradesh.
- The institutional data was submitted to **AISHE** (All India Survey on Higher Education), Department of Higher Education, Ministry of Human Resource Development, Govt. of India for the academic year 2018 – 2019.
- 68 courses are modified/ introduced during 2018 – 2019 in all the programmes for the benefit of students with respect to employability / entrepreneurship / skill development.

- 43 value added courses imparting transferable and life skills are conducted for the benefit of students.
- About 1270 students from all UG and PG Programmes are sent for the **Field Projects/ Internships** for hands on experience during the year 2018-2019. About 201 Linkages with institutions/industries are established for internship, on-the- job training, project work, sharing of research facilities during the year 2018-2019.
- All the departments of institute collecting feedback on curriculum aspects from students, teachers, employers, alumni and parents through course end survey, program exit survey, employer survey and department advisory board and is being analyzed and utilized for the overall development of the institution.

TEACHING – LEARNING AND EVALUATION:

- 1336 students are admitted against a sanctioned intake of 1440 during the year. The institution is presently having 68 ICT classrooms and 9 Smart Classrooms for the benefit of students.
- The institution strictly follows the academic and activity calendar prepared at the beginning of the academic year without any deviation. Program outcomes, program specific outcomes and course outcomes for all the programs offered by the institution are stated and displayed in website of the institution.
- At present faculty totaling 316, including 118 Doctorates, with varied experience and back-ground, take interest in continuing education and are actively engaged in research work and publish their findings regularly in National and International Journals and present in Conferences.
- Also Student Satisfaction Survey (SSS) on overall institutional performance displayed in website of the institution.

RESEARCH, INNOVATIONS AND EXTENSION:

- Four faculty members have awarded International fellowship for advanced studies/ research during the last year. The Institute sanctioned seed money of Rs.9,82,650/- to nine faculty members for carrying out research work.
- Dr. Praveen Naidu, Associate Professor, ECE received “Certificate of outstanding contribution in reviewing” from Elsevier, International Journal, 2018 and also second prize in satellite design competition at RCI, DRDO, Hyderabad in January, 2019.
- Dr. B. Venkateswara Rao, Associate Professor, EEE received best paper award for “Enhancement of Line based voltage stability of energy system with Thyristor Controlled

Series Capacitor using Cuckoo Search Algorithm” in International Conference on Innovative product Design and Intelligent Manufacturing Systems, organized by department of Industrial Design and department of Mechanical Engineering, National Institute of Technology, Rourkela, Odisha during 17th-18th May, 2019.

- Dr. S. Ramesh, Associate Professor, IT received award from International Association of Research and Development Organization as Distinguished Professor in June, 2019.
- 4 teams were selected in Smart India Hackathon conducted by MHRD at IIT, Patna, NIT, Surathkal, NIT, Udaipur and Kumaraguru College of Technology, Coimbatore during March, 2nd and 3rd, 2019.
- Dr. A.V. Ratna Prasad, Principal and Dr. N. Vijaya Sai, Professor are nominated as “MARGADARSHAKS” for guiding NBA Accreditation process for engineering colleges in A.P. by AICTE, New Delhi.
- Dr. Praveen Naidu, Associate Professor, ECE acted as judge for International Conference on IEEE progress in Electromagnetic Research, Italy during 16th – 24th June, 2019.
- Dr. Praveen Naidu’s research work accepted in the Planetary Cubesat Symposium on 27th -28th June, 2019 at NASA goddard space flight center, Washington, USA.
- R&D projects worth of Rs.73.63 Lakhs were sanctioned by various government and non-government agencies to various departments of the institution.
- 2 Incubation centre are created, 2 start-ups incubated on campus and 11 awards for Innovation won by Institution/Teachers/Research scholars/Students during the year 2018-19.
- A total no. of 18 Ph. D’s are awarded for faculty of various departments with 109 Research Publications in the Journals notified on UGC, Scopus and WoS (Web of Science), 187 papers published as Book Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings and nine Patents filed/published/awarded during the year 2018-2019.
- An amount of Rs. 2,97,18,451/- was generated through Consultancy during the year 2018-2019.
- Institution had nine MoUs signed with institutions of National, International importance, other institutions, Industries, Corporate houses during the year 2018-2019.
- **Institution Innovation Council (IIC)** is established under the aegis of MHRD’s Innovation Cell and college achieved 4 star ranking for the activities organized with respect to Innovations, IPRs, Startups and Entrepreneurship.

INFRASTRUCTURE AND LEARNING RESOURCES:

- The institution library is fully automated with upgraded ILMS software 'LIBSYS' during the year 2018-2019.
- An amount of Rs. 284 lakhs was utilized for infrastructure development during the year.
- An amount of Rs. 426.5 lakhs was utilized for maintenance of academic facilities and an amount of Rs. 427 lakhs was utilized for maintenance of physical facilities during the year.
- Bandwidth of Internet connection available in the institution is enhanced to 260 MBPS by adding 130 MBPS to the existing 130 MBPS for the benefit of students and faculty.
- NPTEL local chapter of our college secured 'A' grade at National level in NPTEL examinations January – April, 2019.

STUDENT SUPPORT AND PROGRESSION:

- Institute along with Alumni Association provides a financial support of Rs. 20.90 Lakhs (Siddhartha Sahaaya Scholarship) to 130 students and Rs. 8.10 Lakhs (North South Foundation – International) to 41 students during 2018 – 2019.
- Institution organizes various capability enhancement and development schemes for the benefit of students as given below.

Name of the capability enhancement scheme	Date of implementation	Number of students enrolled	Agencies involved
Yoga and meditation	20/07/2018	199	Yoga trainer, Vijayawada
Personal Counselling	25/07/2018	4052	In house training
Guidance for competitive examinations	15/10/2018	646	In house training
Career Counseling	15/07/2018	1283	T&P, In house training, Campus Connect Corporate, Hyderabad
Soft skill development	20/07/2018	2194	In house training and T&P
Remedial coaching	25/09/2018	178	In house training
Communication Skills development	15/07/2018	1284	In house training
Bridge Courses	20/09/2018	112	In house training

- About 1283 students are benefitted through career counseling activities and about 646 are benefitted in competitive examinations. Out of which, 84 students are passed in the competitive examinations and **764 students are placed**.
- 84 Students from various departments got admission for their M.Tech./ M.S. Programme at NIT/IIT/ Abroad.

- Mr. K. Balaji, 3rd year B.Tech., IT, stood FIRST in venture development training under International institute of Entrepreneurship (I2E) in association with North Eastern University and APSSDC. Attended Global Entrepreneurship week programme in Boston, USA during 4th – 16th November, 2018. Visited Startup Incubators of Harvard University, MIT, USA.
- Mr. Venka Sai Naga Lokesh of 4th B.Tech., ECE, stood in 3rd position in Agricultural Sector in AICTE Chhatra Vishwakarma award 2018. Won first prize in Agricultural sector organized by AP Innovation Society at GITAM University, Vizag, A.P. on 11th September, 2018. Received Rs. 75,000/- cash prize in Statewide Start Up India competition.
- 6 students of 3rd year B.Tech., attended Eastern Hemi Sphere leadership meet at Abu Dhabi, Dubai during 25th – 27th April, 2019 under taken by the Hasso Platner Design School under Stanford University as a part of the University Innovation Fellowship Program. Out of 6 students 2 students were selected as mentors.
- Priyanka and Arsha of 3/4 B.Tech., ECE participated International conference on IEEE progress in Electromagnetic Research, Italy during 16th – 24th June, 2019.
- 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” to support meritorious and economically poor students. Alumni have contributed Rs. 6.92 Lakhs during the academic year 2018-2019.

GOVERNANCE, LEADERSHIP AND MANAGEMENT:

- The institution is effectively implementing e-governance in various areas of operations as follows:
 - Planning and Development
 - Administration
 - Finance and Accounts
 - Student Admission and Support
 - Examinations
- With respect to Faculty empowerment Strategies, teachers are provided financial support of Rs. 3,75,000/- to attend conferences/workshops and 181 faculty are attended various professional development programmes during 2018-2019.
- Institution continuously providing various welfare schemes to Teaching, Non-teaching and Students and are effective.

- In order to maintain and improve Internal Quality, Academic and Administrative Audit has been carried out by Internal and External Agencies regularly.
- About 12 Gender Equity programmes are organized by the institution during 2018-2019.


INSTITUTIONAL VALUES AND BEST PRACTICES:


- To keep up Institutional Values and as a Social Responsibility, the institution has erected Solar Power Plant and approximately 50% of Power requirement is met by renewable energy source.
- For the promotion of Universal Values and Ethics four programmes are organized by the institution during 2018-2019.
- The following initiatives are taken up by the institution to make the campus eco-friendly:
 - Solid Waste Management -- Establishment of Compost Pit
 - Plastic Free Campus
 - Increase in Plantation & greenery area
 - Replacing the conventional electrical energy with solar energy
 - Rainwater harvesting
 - Environmental Audit was done in April 2019
- **Best Practices of the Institution:** 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. Among the five, the two best practices of the institution are as follows:
 1. **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.
 2. **Technical Model Development:** “An ounce of action is much worth than a ton of theory”. The above saying is much relevant to Engineering Education. The students of VRSEC are encouraged to transform their innovative ideas into technical models and exhibit in Engineers day /Innovation day celebrations organized in the institute annually. The identified best models are promoted to exhibit in the events organized at national level prominent outside institutions/organizations.

- To fulfill VISION and MISSION the Institute has a distinction of establishing several industry collaborative labs and centers of Excellence (A total of 20 different laboratories were established) under Industry Institute interaction program for training, skill up gradation and placement of students to realize the objectives of Outcome Based Education.
- The Institute consistently striving to impart Quality Education by updating Plan of action to meet industrial and societal requirements. The following are the future plan of action:
 - Plastic free Campus.
 - Up-gradation of College website
 - Increase in quality of research publications.
 - Increase in faculty with Ph.D. Qualification.
 - Securing more Research funding.
 - Recording facility and Lecture Capturing System.
 - STP (Sewage Treatment Plant) to treat the liquid waste generated and reuse of the treated waste for plantation and greenery in the campus to maintain zero discharge.
 - Promoting students to National/ International Industry driven competitions.
 - Improvement in Library resources utilization.
 - Establishments of industry Incubation Centers and filing more Patents form Innovation.

Concluding Remarks:

- It is observed that Velagapudi Ramakrishna Siddhartha Engineering College has been maintaining good academic standards in Curriculum, Teaching- Learning and Evaluation, Research and Consultancy, setting up of advanced laboratories involving industry for effective Institute Industry Interaction, declaration of results etc.
- There is a considerable improvement in all the key performance indicators measured by the National Bodies.


(Dr. P. Siddaiah) 20/12/2019
Principal
ANU College of Engg. & Tech., Guntur
& External Member, IQAC, VRSEC


(Dr. L. Krishnanand) 20/12/19
Professor, Dept. of Mech. Engg.,
NIT, Warangal
& External Member, IQAC, VRSEC