

VARDHAMAN COLLEGE OF ENGINEERING, HYDERABAD

Autonomous Institute Affiliated to JNTUH

Strategic Plan (2021-2026)

Section-1: Preamble

- 1.1 Vision, Mission, Quality Policy
- 1.2 Core Values
- 1.3 Chairman's Foreword
- 1.4 Principal's Perspective
- 1.5 Governing Body
- 1.6 Profile of the College

Section-2: Implementation of Strategic Plan 2016-2020

Section-2: SWOC

Section-3: Strategic Plan:2021-2026

Section-4: Planning and Evaluation Committee

Section-1: Preamble

The prime objective of Vardhaman College is to update and modernize the quality of professional education. Its aim is to employ innovative teaching methods which carry an emphasis on fast-changing technological trends. This is to integrate classroom learning with actual work experience in the industry concerned or in a related professional field. The college aims to encourage students from the first year B.Tech itself, to identify suitable work areas and to execute projects of their own choice and interest. The teaching-learning process is carried out through the use of overhead and LCD projectors. Vardhaman boasts facilities such as an extensive computer centre, library, advanced lab for communication skills, internet centre, and spacious seminar halls and Electronic Classrooms.

We at Vardhaman College of Engineering, endeavour to uphold excellence in all spheres by adopting best practices in effort and effect.

1.1. Vision, Mission, Quality Policy

Vision:

To be a pioneer institute and leader in engineering education to address societal needs through education and practice.

Mission:

- To adopt innovative student-centric learning methods.
- To enhance professional and entrepreneurial skills through industry-institute interaction.
- To train the students to meet the dynamic needs of the society.
- To promote research and continuing education.

Quality Policy:

We at Vardhaman College of Engineering, endeavour to uphold excellence in all spheres by adopting best practices in effort and effect.

1.2. Core Values

Academic Integrity: Achieving success by being sincere, loyal and ethical in all our practices.

Typical Actions

- We are sincere and committed in what we do.
- We conduct ourselves professionally and lead by example to all.
- We respond to a given situation rather than reacting.

Mutual Respect: Extending courtesy to all the stakeholders and to promote culture of inclusion and fairness.

Typical Actions

- We treat each other with dignity, courtesy and respect.
- We treat students impartially.
- We give due credit to others whenever it is due.

Social Responsibility: Being responsible citizens, share our collective achievements and contributions to the world around us.

Typical Actions

- We work together to maintain a safe and healthy campus where we live, learn and work.
- We collaborate, share knowledge and celebrate our collective achievements.
- We act with empathy and kindness to students while nurturing them.

Accountability: Accountable for our actions to the stakeholders in general and students in particular.

Typical Actions

- We take responsibility for our actions, decisions and the results.
- We practice ownership of our resources, managing them prudently and ethically.
- We strive to do our best in every situation to uphold the institution values.

Adaptability: Embrace change as a path to progress, success and innovation.

Typical Actions

- We embrace change that enables progress and innovation.
- We challenge the status quo and speak up when we find a better way to do something.
- We work with full potential and continuously expanding our knowledge, skills and capabilities .

Creativity: Become a change agent to performance, innovation and student success.

Typical Actions

- We embrace change that enables progress and innovation.
- We are committed to promote entrepreneurship among the interested students.
- We provide self-learning opportunities to the students to nurture their knowledge, skills and capabilities.

1.3.Chairman's Foreword

The aim of professional education is to provide access and quality education to all the aspirants with transparency and accountability so as to ensure sustainable skills in students which would pave better professional prospects in distinct fields of engineering. This can be achieved through creation, transmission and dissemination of knowledge. Marching into the third decade of service to education, Vardhaman college of Engineering is trust-worthy of having student-centric and technology-driven learning environment that fosters budding professionals to become self-reliant and competent engineering technocrats.



The precept of this Strategic Plan 2020–2025 are driven by the institute's core principles of identifying talents of our students, providing them with different platforms, recognizing core competencies of the students and retaining a willingness to experiment with new paradigms. The Plan 2020–2025 has been thought through well, and keeping in mind the college's robust ecosystem and dedicated team, I am confident that Vardhaman College of Engineering will stand out to be unique in its own.

1.4.Principal's Perspective

The Strategic Plan 2021-2026 has been developed in the context of the Institute as mandated by the AICTE norms. The goals of the strategic plan have been formulated in a manner that builds on the strengths of the institute and the aspirations of the faculty, staff and students.

Through this plan, the institution aims to provide a range facilities in order to meet various education, innovation and research interests.



This Strategic Plan aims at providing the college a vision and direction for the next few years. True to its mission and vision statements, the college aims to consistently provide and sustain an invigorating work environment that nurtures excellence, innovation and entrepreneurship.

1.5.Governing Body

S No.	Name of the Member	Position
1.	Dr. T. Vijender Reddy	Chairman
2.	Sri. M. Rajasekhar Reddy	Vice-Chairman
3.	Sri. T. Upender Reddy	Secretary
4.	Sri. E. Prabhakar Reddy	Treasurer
5.	Prof. N. V. Ramana Rao Director, NIT Warangal	Member
6.	Dr. K. Lakshmi Narayana Director, AP State Skill Development Corporation	UGC Nominee

S No.	Name of the Member	Position
7.	Sri. T. Ram Mohan Principal, Govt. Polytechnic, Gadwal, Mahaboob Nagar Dist.	State Govt. Nominee
8.	Dr. K. Lakshmana Rao Professor & Director of BICS Civil Engineering, JNTUHCEH	University Nominee
9.	Sri. E. S. Chakravarthy Global Head – RMG, TCS, Bengaluru	Industrialist, Member (External Member)
10.	Dr. K. Mallikharjuna Babu Director, AMC Engineering College, Bengaluru	Academician, Member
11.	Mrs. Madhvi Chandra Gitanjali Group of Schools	
12.	Dr. H. S. Jain Professor of EEE, VCE	Faculty of the College (Nominated by the Principal)
13.	Dr. H. Venkateswara Reddy COE & Professor of CSE, VCEH	
14.	Dr. J. V. R. Ravindra Principal, VCEH	Member Secretary

Functions & Responsibilities:

- To prepare a road map to achieve the goals of the institution.
- Approval of recruitments of Teaching Faculty / Principal.
- To approve annual budget of the college.
- Perform such other functions and institute committees, as may be necessary and deemed fit for the proper development of the college.
- To discuss various issues and aspects related to the development of the college and its academic standards. It includes considering and approving the institution strategic plan which sets the academic aim and objectives of the institution and identifies the financial, physical and recruitment strategies and so on.

1.6.Profile of the College

Vardhaman College of Engineering (VCE) was established in the year 1999 with three UG Programs with an intake of 180. Now, the college, offers a total of 13 programmes, of which seven are UG (B.Tech); five PG (M.Tech) and MBA programme.



The College was conferred the UGC Autonomous status in 2014 and is permanently affiliated to JNTU, Hyderabad. The college imparts quality education and continuously makes strides in upholding quality practices and meeting all the standards laid by various apex bodies. As a result, the college has received several accolades, a few of those are mentioned here.

The institution was accredited by NAAC with a CGPA of 3.58 on a 4 point scale securing A++ grade. Five of its UG Programs were accredited by NBA under Tier-I category (Washington Accord

compliance). The UGC has conferred Colleges with Potential for Excellence (CPE) status to the College which truly certifies its journey of quality education. The college has consistently secured promising position in the NIRF Rankings by securing the 152nd position in the year 2019 and in the band of 151-200 Engineering Colleges of India during the years 2017 & 2018 under Engineering Category. The college has recently bagged the 143rd position under Engineering Category along with securing a position in the band of 151-200 under Overall Category in the NIRF 2020. Moreover, JNTU, Hyderabad recognized the departments of CSE, ECE and ME as research centres in the year 2018. The college is also recognized by DST as a Scientific Industrial Research Organization. Besides, in the CII Survey, the college is rated in Platinum Category. It is an ISO 9001:2015 certified institution.

The college has been practicing Outcome-Based Education (OBE) since 2015 and has been successful in effective dissemination of the technical education for the benefits of its students. From the academic year 2018-19, the college introduced a unique curriculum design following AICTE model curriculum and blending the TLP with OBE concepts for promoting high order Student Learning Outcomes (SLOs). The college is a house for state-of-the-art infrastructure consisting centers of excellence, advanced laboratories, well stacked library with digital offerings, and other ICT facilities.

Education is a collaborative project and Vardhaman deeply believes in this dictum. It has signed MOUs with several premier industries and organizations. The college focuses on student careers and assists them by providing necessary training and skills sought by the industry. An exclusive Competency Development Cell (CDC) with qualified and experienced faculty is formed for the same. In addition, a dedicated 'Training and Placement (TAP)' team works for providing expert guidance and scheduling placement meetings such that the students explore and face the competition in the industry. The department of TAP has been successful in placing more than 80% of students. It must be noted that most of the students here belong to the first generation in their families into engineering education.

The college has been promoting entrepreneurship through various initiatives. It has established a Center for Innovation and Entrepreneurship (CIE) for promoting entrepreneurship. The center conducts entrepreneurship awareness camps, FDPs, entrepreneurship talk series, and ideation camps and some of these programs are being funded by EDI and well supported by industry experts from TiE-GRAD, Hyderabad.



The college makes concerted efforts to encourage and promote its faculty towards research and developmental activities. The faculty have successfully completed 50 funded R&D and other projects worth Rs. 7.28 crores and there are 19 ongoing R&D and other projects worth around Rs. 4.15 crores being executed by the faculty. These projects were funded by various government and private organizations. The faculty are also executing R&D projects in collaboration with IIT Delhi and the project funded by IEEE-SIGHT. This has not only helped in knowledge creation but

also roping the current students in the project and providing hands-on experience in their respective domains. As a result, the faculty contribution towards knowledge creation impacted their research outcomes by way of high-quality technical publications and patents. The college supports the faculty in research activities by providing necessary financial assistance too.

On the pedagogical front, the faculty members are well trained in global pedagogical methods. The college hosted an International Conference on Transformation in Engineering Education (ICTIEE2017) in association with Indo-US Consortium for Engineering Education which disseminated various pedagogical methods towards implementing Outcome-based education and its practices globally. The college has also conducted several national and international conferences like 11th International Conference on Soft Computing and Pattern Recognition (SoCPAR), 11th World Conference on Nature and Biologically Inspired Computing (NABIC), 1st International Conference on Machine Learning, Security and Cloud Computing (ICMLSC-2019), 2nd International Conference on Machine Learning, Security and Cloud Computing (ICMLSC-2020), 2nd International Conference on Machine Learning and Information Processing (ICMLIP-2020) etc to remain abreast the new technological advancements.

Student grooming and providing wholesome education is the core objective of the college. Students are exposed to current technological trends and educational practices. Having said that, the college encourages the students to undertake self-learning apart from various proctored learning opportunities such as industrial visits, extension lectures and continuous assessments like quizzes, assignments, technical writing, hands-on training and also certification courses from centers imparting lateral training in their respective areas of specialization. Students are also encouraged to participate in several National and International Competitions in which they have won laurels. They have also been actively engaged as members and volunteers of IEEE chapters which led to international recognitions, awards and cash prizes to the students.

The faculty and students are also encouraged to take-up MOOCs like NPTEL, SWAYAM (AICTE) and the same are also part of their curriculum. The active participation of faculty and students has fetched the college grade 'A', 'Gold Medals' and 'All India Toppers' in certain courses offered by NPTEL.

To address the communication skills of the students, the college collaborated with the Cambridge English Language Assessment to provide special training to them and qualify in Business English Certificate (BEC). It may be noted that the college has been shortlisted for the best 25 preparation centers award for higher education across South Asia. The College also promotes faculty learning through training by NME-ICT IIT Bombay to conduct online FDPs and Workshops. It may be noted that the college is recognized as remote centre by NME-ICT IIT Bombay (a Govt. of Initiative).

As an institutional member of ICT academy faculty and students underwent various training programs in upcoming technologies directly by the industry experts. As a part of social responsibility, the college has taken up several initiatives instilling the values of social responsibility among the students through a wide spectrum of activities. In this direction, the college signed MOU with Purdue University to implement EPICS. EPICS is a unique program embarking upon the pursuit of engineering inputs provided by the students and faculty for delivering the resources to benefit the community at large. As a social responsibility, training is provided on small time trades like stitching to the rural background women through Rural Women Technological Park (RWTP) and safeguarding their avocations and petty trades. The nearby government schools were given training in computer skills besides donating computers by NSS

wing. Through Swachh Bharath mission, the college has brought in many cleansing works in the campus for a making it a zone of serene, and healthy ambience.

The Covid-19 pandemic has hit all the spheres of life globally, including education. However, Vardhaman College of Engineering took it up as an opportunity to deliver novel methods of teaching online, which was hitherto limited. The faculty enthusiastically explored various platforms of teaching and assessment and started engaging students virtually with the same vigour. The online teaching learning is streamlined now to suit the changing needs of the day.

1.7. Mandate

The college is an autonomous, unaided, Co-educational Institution affiliated to Jawarhalal Nehru Technological University, Hyderabad (JNTUH) established in the year 1999.

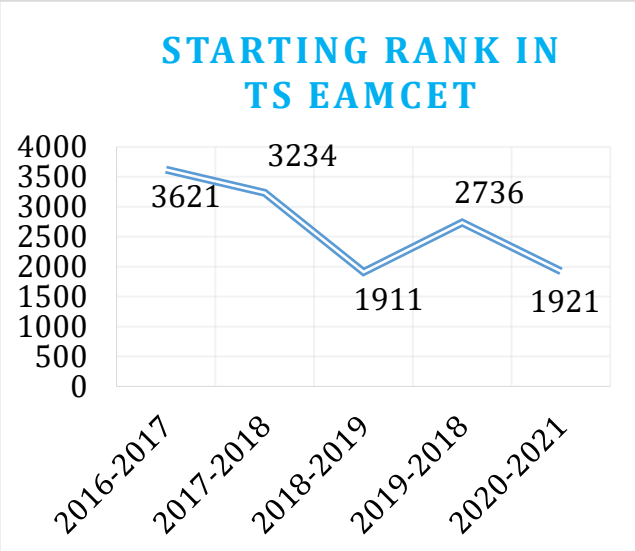
The college offers AICTE approved Undergraduate Program and Postgraduate Programs in Engineering and Technology and Management to the candidates selected on the basis of the norms specified as per the Government of Telangana, and uses the curriculum recommended by JNTUH.

The college provides technical education, training, research, campus placements and other related services to enrich and empower the students and to address societal needs through education and practice.

Implementation of Strategic Plan 2016-2020:

SNo.	Key Targets Set	Implementation Status																															
1	Institutional Holistic Development: <ul style="list-style-type: none"> To become one among the top engineering colleges of the country. To attract better input of students of below 1000 rank in state level entrance test (EAMCET). To get the institute accredited by NBA under Tier-I and reaccredited by NAAC. To get UGC CPE status. 	Rankings: <ul style="list-style-type: none"> Vardhaman College of Engineering is consistently ranked by deferent ranking agencies. <p>a) NIRF of MHRD:</p> <table border="1"> <thead> <tr> <th>Year</th><th>Category</th><th>Rank</th></tr> </thead> <tbody> <tr> <td rowspan="2">2020</td><td>Engineering</td><td>143</td></tr> <tr> <td>Overall</td><td>151-200 Band</td></tr> <tr> <td>2019</td><td>Engineering</td><td>152</td></tr> <tr> <td>2018</td><td>Engineering</td><td>151-200 Band</td></tr> <tr> <td>2017</td><td>Engineering</td><td>151-200 Band</td></tr> </tbody> </table> <p>b) Careers360:</p> <table border="1"> <thead> <tr> <th>Year</th><th>Category</th><th>Grade</th></tr> </thead> <tbody> <tr> <td>2020</td><td rowspan="5">Engineering Colleges</td><td>AAA+</td></tr> <tr> <td>2019</td><td>AAA+</td></tr> <tr> <td>2018</td><td>AAA+</td></tr> <tr> <td>2017</td><td>AAA+</td></tr> <tr> <td>2016</td><td>AAA+</td></tr> </tbody> </table> <p>c) Times India:</p>	Year	Category	Rank	2020	Engineering	143	Overall	151-200 Band	2019	Engineering	152	2018	Engineering	151-200 Band	2017	Engineering	151-200 Band	Year	Category	Grade	2020	Engineering Colleges	AAA+	2019	AAA+	2018	AAA+	2017	AAA+	2016	AAA+
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2	<p>Infrastructure Development:</p> <ul style="list-style-type: none">To establish centre of excellences in each department on par with the industry standards.To upgrade the existing laboratory facilities as per the latest technology.To establish patent cell and incubation centre.To establish maker space to facilitate fabricating prototypes on campus.To construct an auditorium with the state-of-the-art audio visual facility accommodating 1500 audience at a time.	<p>Centre of Excellences:</p> <ul style="list-style-type: none">In pursuance of the strategic plan, Vardhaman has established centre of excellences in ECE, CSE and ME departments.<ul style="list-style-type: none">ECE:<ul style="list-style-type: none">Centre of Excellence for IoT (Intel)Microwave, Antennas and RF Engineering (COEMARE)Signal ProcessingVirtual Instrumentation (NI LabVIEW Academy)Cadence VLSI DesignCSE:<ul style="list-style-type: none">Centre for Cyber SecurityCentre for Data ScienceCentre for Virtualization Cloud Computing												

SNo.	Key Targets Set	Implementation Status
	<ul style="list-style-type: none"> ▪ To make all laboratories and faculty rooms centrally air conditioned. ▪ To equip all the class rooms and laboratories with LCD projectors. ▪ To upgrade the existing Internet band width from 100Mbps to 1Gbps. ▪ To provide infrastructure for self-learning facilities through MOOCS. ▪ To construct an indoor stadium for indoor games. ▪ To establish gymnasium for hostel students. 	<ul style="list-style-type: none"> ▪ Imaging Research Centre ▪ Centre for Software Engineering ▪ ME: <ul style="list-style-type: none"> ▪ Auto DESK centre of excellence <p>Infrastructure:</p> <ul style="list-style-type: none"> ▪ Auditorium with 1500 seating capacity is built. ▪ The Existing laboratories are updated as per the modified curriculum. ▪ Centre for Innovation and Entrepreneurship (CIE) is established. ▪ A new Building with plinth area of 10,000sft for Maker space is constructed. ▪ All laboratories and faculty rooms are air conditioned. ▪ All class rooms and laboratories equipped with LCD projectors. ▪ Internet band width is increased from 100 Mbps to 450 Mbps. ▪ Indoor stadium is constructed. ▪ Separate Gymnasiums for hostel girls and boys are provided. ▪ 14 TB Subject Expert Video lecturers are procured from NPTEL and 32 DTH SWAYAM Prabha channels are subscribed for the digital library. ▪ A patent cell is established from which more than 74 patents are published since inception of the cell.
3	<p>Strengthening Faculty:</p> <ul style="list-style-type: none"> ▪ To ensure academic and research ambience on the campus 50% of the faculty with Ph. D qualification. ▪ To get the faculty updated with the current technological changes of the industry, faculty are to be encouraged to attend at least one Faculty Development Program per semester by each faculty. ▪ To motivate the faculty towards self-learning and continual education faculty are to be advised to undergo at least one certification program per semester. ▪ To encourage faculty to publish their research work in peer reviews journals and conferences, and to give incentives for quality 	<ul style="list-style-type: none"> ▪ In pursuance of strengthening the faculty Vardhaman has recruited more number of Ph.Ds. At the end of the AY 2020 more than 30% of faculty are with PhD qualification. ▪ 90% of the Faculty attended various FDPs to upgrade their domain knowledge. ▪ As part of continual education, faculty are certified with more than 300 SWAYAM NPTEL certifications. ▪ 30 Faculty certified in AICTE-NPTEL FDP. ▪ Incentives/APC/Registration fee is being paid for the Faculty towards Research Publications till now around 200 Faculty received the Incentives. ▪ Academic Leave is being granted to the faculty who are pursuing PhD for attending their research review meetings/Pre-PhD exams/Attending conferences etc.

SNo.	Key Targets Set	Implementation Status
	<p>publications.</p> <ul style="list-style-type: none"> To encourage faculty to attend academic activities like presenting papers in conferences, attending FDPs, training programs, attending PhD course work etc. by providing leave on duty. 	
4	<p>Research & Development:</p> <ul style="list-style-type: none"> To apply for the grant of Recognized Research Centre by the university. To get sponsored projects for at least 20% of the faculty for an amount of 20 crores. To Create Engineering consultancy centre, catering the technical consultancy need of other Institutes. To initiate collaborative research with other organizations of repute. To develop in house R&D by facilitating required infrastructure and financial support. To get at least 50 patents to be filed by 2020 and to ensure at least 10% of the filed patent to get granted. To create infrastructure for facilitating the faculty to undertake consultancy work. Enhance MOU with premier Indian Technological Institutes and foreign Universities and Research Organizations. 	<p>Research Centres:</p> <ul style="list-style-type: none"> JNTUH granted research centres for CSE, ECE and ME departments for Vardhaman College of Engineering from the Academic Year: 2018-2019. Around 12 Crores of Research & Funded projects have been sanctioned from various funding agencies like DST, AICTE, UGC etc. <p>Consultancy:</p> <ul style="list-style-type: none"> Around 30 consultancy works are taken up by the departments, amounting to 53 lakh rupees. Infrastructure is being enhanced to undertake Consultancy works. <p>Collaborative Research:</p> <ul style="list-style-type: none"> Collaborative Research is initiated with IIT Delhi, Bennet University, Delhi. It is approved Vardhaman Research Promotion Scheme(VRPS) for financial assistance for research. 22 Lakhs is sanctioned towards SEED money to promote research. R & D. Around 74 Patents are published. <p>MOU:</p> <ul style="list-style-type: none"> Vardhaman signed around 50 MOUs with various Industries, Universities, Research Organization for technology transfer and knowledge sharing.
5	<p>Student Career Development Cell:</p> <ul style="list-style-type: none"> Separate SDC Cell Internships 80% of the students eligible to get placed Placement Cell Strengthening Strengthening Centre for innovation and Entrepreneurship(CIE) GATE Coaching Foreign Language Training Certification Programs by the industry 	<p>CDC:</p> <ul style="list-style-type: none"> Competency Development Cell is established and function to identify and implement skill development programs in advanced technological domain for students. <p>Internships:</p> <ul style="list-style-type: none"> It is made Internship as mandatory as part of curriculum About 900 students are sent for Internships during last five years. As part of Industry Institute Interaction, around 70 faculty are sent for Industry Internships. <p>Placements:</p> <ul style="list-style-type: none"> For the last five years more than 80% of

SNo.	Key Targets Set	Implementation Status
		<p>eligible students are placed in companies of repute.</p> <p>CIE:</p> <ul style="list-style-type: none"> ▪ A separate Innovation centre is established ▪ Vardhaman college of Engineering has established Institution Innovation Cell as per the norms of Ministry of HRD, Govt. of India. ▪ In-house GATE coaching is offering in Vardhaman. ▪ Several certification programs offered by Industries are conducted for the last five years like Google, UIPath, Oracle, CISCO, ARC, NI, PSCAD, ANSYS, BEC etc.
6	<p>Academic Excellence:</p> <ul style="list-style-type: none"> ▪ To Improve the teaching/learning environment ▪ To implement outcome based education in toto. ▪ To introduce choice based credit system. ▪ To introduce Open Electives. ▪ To encourage the students to undergo online certification courses like NPTEL. ▪ Promote and support institution readiness to adopt present and future technological development. 	<ul style="list-style-type: none"> ▪ With Academic Autonomy, Curriculum is revised every two to three years as per the Industry requirement. ▪ Choice Based Credit system and open electives are introduced in modified curriculum. ▪ Course Assessments are being done semester wise and assuring the set attainment levels reached. ▪ Outcome based Education is being practiced. ▪ Around 2000 students are certified by SWAYAM NPTEL in various advanced courses. ▪ Around 1500 students and faculty undergone various certification programs under COURSERA.
7	<p>Examination Reforms:</p> <ul style="list-style-type: none"> ▪ To introduce digital evaluation. ▪ To train the faculty to set the question papers as per the Blooms level. 	<ul style="list-style-type: none"> ▪ Digital Evolution is under consideration as a trail for PG programs. ▪ Regular workshops are conducted for faculty on pedagogical training. ▪ All the question papers are set as per bloom's levels to have a standard and balanced question paper.

Section-3: SWOC

Institutional Strength

- Visionary and benign management
- Vision, Mission, Programme Educational Objective are well defined and followed
- Availability of Strategic Planning
- Excellent infrastructure facilities
- Well qualified, committed and experienced faculty
- Internet with high bandwidth
- Well stacked library of text books, journals and digital resources
- Strong faculty with a balance of interest in teaching, research, and consultancy
- Innovative Curriculum Design and Development
- Purdue university courses in the curriculum

- Integrated Courses for enhancing the learning
- Alternate Assessment Tool (AAT); a freedom for the faculty to implement newer assessments tools
- Question papers are set as per Bloom's Taxonomy
- Assessment Rubrics for mini and major projects
- Practicing outcome-based Education
- Team work of faculty & staff
- Research Development and Growth in terms of several outcomes
- Active student environment-learning communities, programs, student organizations and clubs
- Robust network infrastructure in place
- Input quality of the students is good
- 95% to 100% admissions
- Good Success rate of students
- Good Faculty-Student Ratio
- Adequate research facilities
- University approved research centers
- Good placements record
- Good Classroom ambience for learning
- Use of ICT tools by all faculty members
- Well-equipped and neatly maintained Laboratories
- Documentation and Record keeping is good
- Ever-growing Innovation and Entrepreneurship awareness activities
- Adequate infrastructure for the start-up eco system
- Regular Parent-Teacher Meetings
- Alumni engagement for the institute growth & development
- Encouragement for Innovative teaching practices
- Student Competency (Skill) Development Cell with in house trainers
- Exclusive Training & Placement Cell with adequate facilities for training
- Active engagement of the Stakeholders
- Good relationships with the industry
- Industry specific add-on training programmes
- Extension lectures for strengthening learning
- Industrial Visits in every semester
- Self-learning for space and time for the students
- Well maintained hostels for boys and girls with additional amenities
- Indoor and outdoor sports facilities
- Separate students lounge
- Outreach and extension programs

Institutional Weakness

- Location of the institute
- Less priority for Sports and games activities and other extracurricular activities
- Student mentoring system
- Poor Communication skill of students: As most of the students are first generation learners, their communication skills need to be improved
- Lack of long-term budget planning and a process that is transparent
- Lack of diversity
- Lack of NRI student attraction

- Lack of targeted advertisements to students out-of-state or out-of-region

Institutional Opportunity

- Placement opportunities in IT sector
- Scope for tie up with institute of national and international repute such as IITH, UOH, ISB, CCMB, NIN etc.
- Scope to harness potential of strong Alumni base for betterment of college
- Scope for student internship opportunities in and around the city for students of all streams.
- Institute's proximity to airport may enable us to explore possibilities of networking with national and international personalities of repute
- The bane that the institute is located away from the city may become boon as most of the day scholars end up staying in the campus till the end of contact hours
- Transform pedagogical practices and adopt latest technological relevant courses in curriculum
- Scope to incubation facilities for tech-based startup providing higher viability for market Space

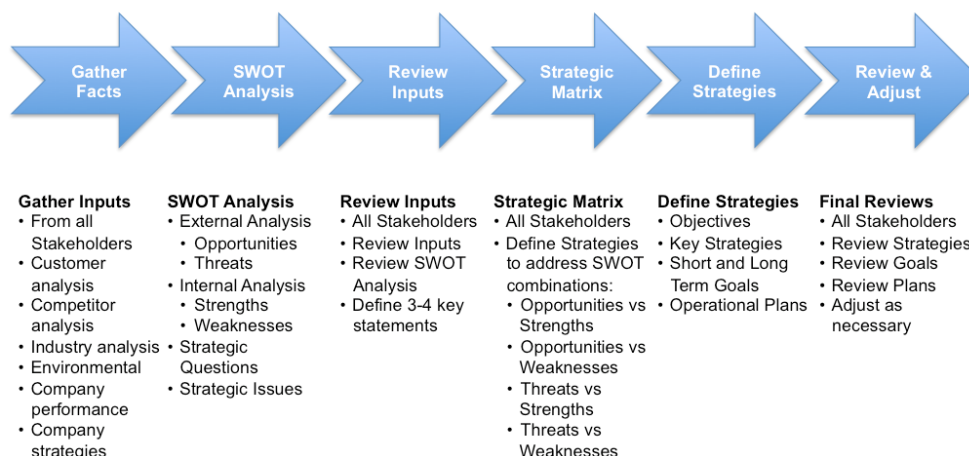
Institutional Challenge

- Decreasing placement opportunities for Core branches such as Mechanical, Electrical, Civil
- Input quality of students and their academic performance affects placement record
- Universities set up by Corporate in the vicinity of our campus.
- Saturation of engineering education market.
- Declining interest in traditional (CE, ME, EEE) programs by students.
- Continuous change in technology that challenges the employability of the students.
- To develop the language proficiency levels of the students with Telugu medium background and make them reach the expectations of the industry.
- There is a big challenge to retain experienced and qualified faculty
- Improper grading by ranking agencies.

Section-4: Strategic Plan:2021-2026

The process of setting the strategic plan

Strategic Plan Process



The Institution has a 5-year strategic plan from 2021-2026 to ensure steady growth of the organization.

The following are some of the key areas set for the strategic plan.

1. Governance
2. Physical Resources
3. Human Resources
4. Education Processes
5. Research and Innovation
6. Building Relationships

1. Governance

Governance is the mechanism and procedure by which an organization organizes itself to meet its mission. It deals with the systems and processes for decision-making, accountability, transparency, supervision, and codes of conduct. It is expressed through legislation, policies and by-laws, and informal norms. The goal of good governance is a robust organization that achieves the best results and is accountable to the people it serves.

Objectives

1.1 To enhance the diversity recruitment and retention of faculty, staff, and administrators.

Actions

- Initiate quality enhancement methods at all levels by considering suggestions from all stakeholders.
- Identify the changing trends in the global education sector and implementing the required.
- Encourage transparency and improve communication across the university through clear consultation and decision-making processes, substantive and timely communication of information, and access to shared, reliable institutional data.
- Ensure that individual and institutional annual review processes align with and support key

institutional strategic goals.

- Consolidate unit review and strategic planning processes, and where possible, align with accreditation processes, to ensure efficient assessment practices.
- Facilitate easy access to and use of institute services and systems, reduce duplication and complexity, and encourage cross-institutional administrative and operational collaboration.
- Develop a set of equitable, meaningful, and relevant measures to monitor the progress toward strategic goals and develop the tools required to report on them.

Metrics and Targets

- Recruit diversified faculty as per the norms of the institutions fulfilling the requirement in all domains of the department.
- Perform training need analysis for staff and faculty and depute for training.

1.2 To create new and/or update Governance models and processes that provide much greater autonomy at all levels.

Actions

- Establish internal and external audit committees for various departmental and institutional audits.
- Develop leadership through decentralization.
- Establish various statutory and non-statutory committees and cells for the institute development.
- Establish fair and transparent performance and appraisal system.
- Develop standard operating procedures for all processes and systems at department and institution level.
- Automate all units and establishments to make ease of accessing and retrieving data.

Metrics and Targets

- Conduct internal and external audits every year for the development of processes and procedures at department and institution level.
- Conduct audits every year on functioning of statutory and non-statutory committees.
- Conduct annual appraisal reviews for all faculty and staff by constituting a steering committee.

2. Physical Resources

Physical resources, which include facilities, equipment, land, and other assets, support student learning programs and services and improve institutional effectiveness. Physical resource planning is integrated with institutional planning.

Objectives

2.1 To provide a world class environment for enabling education, research, and innovation.

Actions:

- Continue to build, develop, and maintain the infrastructure with improved space utilization and minimum impact on environment.
- Strengthen infrastructure audit process to develop aesthetically appealing clean and green campus.

Metrics and Targets

- To identify potential industries who can establish Centers of Excellence department wise.
- To provide advanced facilities in Maker Space, Idea Labs and bring into full utilization by 2026.
- To construct 5 bedded health center, nearby residential accommodation, additional hostel facilities by 2026.

- To strengthen infrastructure audit process both internally and externally, do renewals and take remedial measures.
- To setup a cell which will monitor, implement, and enable policies and initiatives of the Green Campus Committee.
- To obtain infrastructure moderation and upgradation grants from regulatory bodies and other external agencies.
- To enhance indoor and outdoor sports and games facilities year on year to organize and encourage student's participation in state and national events.
- To renovate cafeteria and additional food courts with modern facilities and hygiene food.
- To reduce usage of raw power by installing more solar panels on block-3 by 2023 and block-5 by 2026, coupled with generator and UPS facility to ensure continuous and uninterrupted flow of electricity.
- To reduce electricity bills by installing solar panels and LED lighting.
- To install automated firefighting facilities in strategic places.
- To enhance timely maintenance and cleanliness of infrastructure and create eco-friendly green environment.

2.2 To enhance the library resources.

Actions:

- Continue to enhance library resources and infrastructure.
- Increase the subscription for online journals and databases.

Metrics and Targets

- To increase the investment for library resources every year.
- To implement RFID system for self-check-in and check-out, inventory accuracy, security activities, etc.
- To develop an Institutional Repository at VCE using with DSpace.
- To make use of OER/free e-Learning Courses by the Ministry of Education, Govt. of India.
- To organize workshops/conferences for Library and Information Science Professionals.
- To increase computers in digital library, increase reading rooms and extend Library facility to alumni and needy students in the nearby areas.

2.3 To improve the ICT enabled services.

Actions:

- Provide state-of-the-art computing facilities along with other ICT devices for enhancing TLP.
- Provide sufficient bandwidth and uninterrupted connectivity for content delivery.
- Record video lectures and upload on the institutes YouTube channel or to make accessible for broad range of students
- Create virtual laboratories to enhance learning experience by conducting experiments virtually from remote places

Metrics and Targets

- To develop 20 ICT enabled smart classrooms by 2026.
- To conduct training on ICT enabled services and make 100% adoption by faculty and students.
- To upgrade with sophisticated firewall that supports 1500 concurrent users by 2023 and 4000 users by 2026.
- To increase internet bandwidth to 1 GBPS by 2023.
- To set up private cloud and create Virtual labs
- To enhance e-governance by installing complete ERP in the college, paperless communication,

cashless payments, admission, and exam automation.

- To strengthen studio room with advanced facilities for e-content development by internal faculty and industry experts.

3. Human Resources

Objectives

3.1 To transform and become an aspirational destination for students and faculty.

Actions:

- Attract students from all over India, not just from a few states.
- Attract, nurture, and retain quality faculty.

Metrics and Targets

- Increase the strength of the quality faculty better than 1:15.
- Recruit or generate internally 50% of faculty with PhD qualification and involve them in research by 2026.

3.2 To increase personal and professional development of faculty and staff.

Actions

- Conduct Training Need Analysis for both staff and faculty.
- Conduct FDPs/STTPs/Conferences at departmental and institutional level for the professional development of faculties.
- Conduct skill development programs for technical staff.
- Conduct special courses for administrative staff.
- Motivate faculty to interact with industry and do internships for at least three weeks.

Metrics and Targets

- Increase budget by 10% for faculty projects and developments.
- Send 5% of faculty to industry to establish links and involve in collaborative projects.
- Send 5% of technical staff to industries for training, skill development and higher studies.
- Send 5% of ministerial staff for administrative enrichment.

4. Education Processes

Institution, as a seat of learning, exists for providing quality education by creating, advancing, and disseminating knowledge with collective wisdom. It is a premier higher education institution (HEI) engaged in fulfilling educational requirement of diverse sections of the society in the core academic disciplines. It aims at achieving academic excellence through multidisciplinary course curriculum, blended teaching methods and technology enabled joyful learning environment. In addition to acquire subject knowledge and required skills, the students will be groomed to think, perform, and communicate in a critical, creative, and effective manner.

Objectives

4.1 To provide quality education at all levels.

Actions

- Bring rigor to teaching-learning processes through carefully designed and implemented multidisciplinary course curriculum, session plans, student assignments, regularity, participation, and involvement.

- Well-designed examination systems with transparent evaluation processes.
- Develop quality study material available as e-content on website as well as hard copy in the libraries.
- Regular student feedback on teaching-learning process, curriculum, and administrative facilities to ensure quality control and regular updating.
- Introduce innovative self-financing programmes in core areas engineering.
- Promote an educational environment that values contributions from all levels of teaching faculty.
- Conduct Add-on courses and Value-added courses to the students.

Metrics and Targets

- Increase success rate without backlogs
- 100% of students at UG and PG level should be placed in reputed companies.
- 40% of students should pursue higher education in India or abroad.
- 20% of students should become entrepreneurs.
- Conduct 200 value added courses per year across all programs offered by the institution.

4.2 To initiate multidisciplinary courses for emerging needs of stakeholders including industries, research institutions, government organizations and society.

Actions

- Strengthening existing academic programmes by enriching course curriculum in the light of global standards, theoretical advancements, and industry requirements.
- Providing academic freedom and flexibility in design of innovative course curriculum and teaching learning processes.

Metrics and Targets

- Design 50 innovative multidisciplinary projects by 2025.
- 10 best project awards by participating in competitions at national and international level.

4.3 To innovate and adopt technology enabled pedagogy.

Actions

- Use of blended teaching methodology involving traditional, interactive, and ICT enabled pedagogical techniques.
- Encourage faculty and students to acquaint with ICT enabled teaching learning processes.

Metrics and Targets

- Record video lectures of all courses and upload in YouTube channel by 2026.
- Develop LMS that serves all purposes of content delivery and assessment.
- Develop technology enabled activity tools to make understand the concepts of core courses

4.4 To chalk out scholastic and co-scholastic activities to make the educational environment more lively, vibrant, congenial, and conducive.

Actions

- Provide support services that ensure a premier academic experience for all our students
- Enhance co-curricular activities that encourage collaboration among students, faculty, staff, and the community.
- Reward the best performers and achievers in academics and in co-curricular activities.
- Develop facilities for recreation
- Organize various competitions and social events at institute and departmental level for encouraging participation by students and faculties

- Conduct training sessions and guest lectures on confidence building, motivation and life skills for students and faculties
- Increase cultural and global competence of college personnel and students.
- Facilitate the development of knowledge and competencies needed for success in a diverse and global society.

Metrics and Targets

- 100 students should participate in a year in intra-institutional co-curricular or extra-curricular activities.
- Conduct 20 training sessions and guest lectures on personality development and soft skills per year
- Organize 10 competitions and social events per year at departmental or institutional level.

5. Research and Innovation

The Institution is committed to high quality research and innovation. To facilitate research activities, the Institution has developed a well drafted Research Policy to guide, encourage, fund, support and monitor core and interdisciplinary research. Individuals in the Institution are encouraged to achieve and sustain research excellence.

Objectives

5.1 To establish centers of excellence in emerging areas to promote research.

Actions

- Identify core areas of potential research.
- Identify institutions and industries for collaborative research.
- Establish centers of excellence in emerging areas of potential research.
- Equip research centers with state-of-the-art research facilities to encourage students and faculty to carry out their research.
- Encourage faculty to prepare project proposals and submit for funding agencies.
- Encourage faculty and students towards innovation and entrepreneurship.
- Generate income through consultancy.

Metrics and Targets

- Establish 10 research laboratories by 2026 with the support from industries.
- Exchanging 20 MOUs with IITs, NITs and Universities by 2026 for collaborative research activities
- Generate 50 Lakh income through consultancy by 2026.

5.2 To improve research quality, productivity, and impact.

Actions

- Encourage faculty to publish papers in high quality peer reviewed journals.
- Encourage faculty to submit project proposals to funding agencies.
- Establish relation with various research organizations and institutions to collaborate in research activities

Metrics and Targets

- To have 50 sponsored ongoing research projects from outside funding agencies.
- To have 50 active Memoranda of Understanding (MoUs) with International and National Institutions and Organizations.
- To achieve h-index of VCEH as 20 by 2026.
- To produce 20 intellectual properties every year and 500 publications every year in reputed

Journals by 2026.

5.3 To promote a culture of Innovation and Entrepreneurship.

Actions

- Develop systems and frameworks that maximize awareness of our capabilities and inventions and match these to external needs and opportunities.
- Create visible and accessible expert teams to support industry and our people.
- Promote an ongoing program of education, including research, innovation, and entrepreneurial training, that supports staff and students.

Metrics and Targets

- Build a co-learning innovation hub that is well connected to similar hubs locally, nationally, and internationally.
- Create an innovation fund for selective early-stage investment.

6. Building Relationships

Objectives

6.1 To expand transformational education experiences through community service, global outreach, and innovative study-abroad opportunities.

Actions

- Collaborate with outside world to expand educational experiences.
- Establish career guidance cell and provide services for higher education in India and abroad.
- Sign MOUs with foreign universities for student and faculty exchange programs.
- Motivating students and faculty to participate in the competitions, project exhibitions, workshops, Hackathons etc., conducted by Industry and Academia at National and International Level.

Metrics and Targets

- Strengthen the reputation and visibility of the institution with focused branding and marketing.
- Represent the institution in various national and international events.
- Motivate students to participate in national and international competitions.
- By 2026, arranging 50 invited talks per year by International University Professors or industry experts (Global Leader's) on higher studies and other opportunities aboard.

6.2 To strengthen alumni interaction.

Actions

- Track and enhance value of alumni visits to VCEH.
- Involve alumni in the process of curriculum design
- Impart industry ready skills to students through alumni interactions
- Conduction of Alumni Meet – MITRA at different locations based on Alumni stay through Employability, Entrepreneurship and Higher Studies. Also increase the frequency of Alumni Meets
- Initiatives for supporting alumni needs for continued learning and career improvement.
- Identifying distinguished Alumni branch wise and facilitating them as mentors to guide the Students for Internships, Project Work, Career Guidance and Higher Studies Opportunities.
- Strengthen the Vardhaman Alumni Network (VAN) Portal and keep alumni connected with the alma mater.
- Engage alumni to mentor students on roll for career guidance and improvement.

Metrics and Targets

- Number of alumni visitors to Alumni Centre and the Institute should increase to 1000 per year.
- Number of courses/workshops/networking events conducted by alumni should be 10 per year.
- Create an Alumni Centre at the Institute to support alumni visits, activities, and engagement.

6.3 To strengthen industry interaction.

Actions

- Impart industry ready skills to students through industry interactions.
- Involve industry personnel in the process of curriculum design.
- Conduction of HR Conclave with industry at campus.
- Invite eminent personalities from Government Organizations, Industry Corporates to the institution at various occasions.

Metrics and Targets

- Increasing the percent of courses with partial content delivery by industry experts.
- Conduct 10 advanced technology trainings per year in collaboration with industry to prepare the students industry ready.
- Increase the spectrum of industry experts and frequency of industry survey to incorporate their feedback in curriculum design.
- 1000 students and faculty should participate in industry summits by 2025.

6.4 To strengthen community interaction.

Actions

- Engage students in solving social problems face by the local community.
- Establishing relationship with local and regional bodies to assess their requirements and issues.
- Encouraging faculty and students to undertake socially relevant projects in their academic pursuits.
- Collaborate with NGOs and social entrepreneurs by signing MoU to expand innovations leading to social entrepreneurship.
- Sensitize all stakeholders about issues of local and regional areas and work for their resolution.
- Strengthening NSS wing of the Institution for ensuring greater contribution to society and Nation.
- Provide solutions to societal problems (targeting Sustainable Development Goals) through Engineering Projects In Community Service (EPICS)

Metrics and Targets

- Organizing 10 extension activities per year in the areas of education, health, hygiene, child and women welfare, local governance, and national social service.
- Generate and implement 20 innovative ideas and solutions in local region by 2025.
- Sign 20 MoUs with NGOs and social entrepreneurs to collaborate.

6.5 To establish a widespread visibility of the Institution in academics, industry, and society.

Actions

- Popularizing Institution vision, mission, quality policy and core values by them on boards in all the departments, offices, brochures, and other places of strategic importance.
- Becoming member of all important institutions and associations of academic interest.
- Publishing quarterly Institute newsletter with contributions from faculty and students and circulate to internal and external circulation via social media.

- Setting up Institute Information Center to help and facilitate students, faculty, visitors, and other stake holders.
- Effective designing, updating and maintenance of Institutes website for complete information, smooth navigation, and operations.
- Effective use of social media such as face book, twitter, Instagram, and blogs for increased interaction.

Metrics and Targets

- Increase the score of perception in NIRF ranking by 2026.
- Hosting 500 events including Conferences, FDPs, Workshops, Hackathons, and Pool Campus Drives at campus by inviting other college students and faculty.
- Conduct faculty conclave, industry-academia conclave, academic leadership summit by inviting faculty and industry experts from various corners of the country and abroad.

Section-5: Planning and Evaluation Committee

S No.	Name of the Member		Position
1.	Dr. JVR Ravindra	Principal and Professor of ECE	Chairman
2.	Dr. P. Nageswara Rao	Dean IQAC and Professor of ECE	Convener
3.	Dr. H. Venkateswara Reddy	COE and Professor of CSE	Member
4.	Dr. H. S. Jain	Professor of EEE	Member
5.	Dr. A. Rajanikanth	HOD and Professor of CSE	Member
6.	Dr. J. Krishna Chaithanya	Dean (R&D) and Associate Professor of ECE	Member
7.	Mr. S. Rajendar	Associate Dean (Academic) and Associate Professor of ECE	Member
8.	Dr. N. Kiran Kumar	HOD and Professor of EEE	Member
9.	Mr. Md. Asif	Associate Dean (Student Affairs) and Associate Professor of EEE	Member
10.	Dr. G. Venkata Krishna Reddy	Professor of CE	Member

Functions & Responsibilities:

- To send proposals to AICTE, UGC etc., for continuation of approval / introduction of new courses / Reduction in Intake / Closure of Course etc.
- To send the proposals to University for extension of affiliation.
- To prepare, implement and execute strategic plan.
- To co-ordinate among the departments to apply for various schemes/grants to AICTE and other funding agencies.
- To plan and execute various activities to be conducted in a year.
