

STRATEGIC PLANNING

2024-2029



Feb - 2024

GOAL



NARASARAOPETA
ENGINEERING COLLEGE
(AUTONOMOUS)

Strategic Plan (2024-2029)

February 2024

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Founder



Sri Mittapalli Venkata Koteswara Rao, Chairman.

It gives me immense pleasure addressing the core mission of this institution, which is to impart value-based quality education. We, at NEC, strive towards achieving this mission by providing world-class education to our students and preparing them to become the new-age leaders.

Located on 40 acres of land in Palanadu region of Guntur, our college has been walking on the path of growth and development for the last two decades. It has now transformed itself into one of the finest engineering institutes in Andhra Pradesh, which I can assure you is just the tip of the iceberg. We, the entire management of NEC, are taking huge initiatives to ensure the progress of all our students, faculty and the institute.

NEC believes in identifying the need of the hour and raise the benchmark of the education being provided in every discipline we offer. We recognize the rapid pace by which technology is evolving in the 21st Century and are striving to create the innovators and critical thinkers who can help our region and the nation adapt to this pace.

To achieve our mission, we have developed modern infrastructure, laboratories, and smart classrooms, and have gathered some of the most qualified and prominent faculty members and staff to impart quality education in the fields of Civil, Computer Science, Electrical, Mechanical, Business Administration, Humanities & Sciences, and others.

For every three years we introduce a renewed curriculum based on the changing industry trends and demands. We also induce in our students a sense of social and national commitments so that they can utilize their knowledge and expertise for the benefit of the Society as well.

NEC is set to become the leader among the higher-education institutions established in Andhra Pradesh, and we welcome you to join us in this journey towards excellence and unleash a bright future for yourself.

Message



It is heartening to note that NEC has embarked upon scientific way of formulating strategic development plan document for 2024-2029. Progressive institution like NEC must clearly spell out and articulate vision, mission and set the direction. NEC has made its mark and is the most preferred institution in the Andhra Pradesh state as well as at National level. This is right time that the institute decides its direction of growth in the next decade. I am confident that the distinguished faculty members under the leadership of Principal, Deans and HoDs brought out the best possible detailed vision, mission, high level goals, strategies and its implementation plan. Any good strategic plan will be successful, when fully implemented and its outcomes are evaluated. I am sure that this leadership will implement the strategic plan in its total spirit.

I take this opportunity to congratulate all the leadership team, HODs, Faculty and staff who relentlessly worked towards bringing out this strategic development plan document as a master piece reference mentor for the period of 2019 - 2024.

With Best Wishes!

M S Chakravarthi, B.E., M.S.(USA), Exec.MBA (ISB)

Vice Chairman, NEC.

Chairman, Governing Body, NEC.

Message



Narasaraopeta Engineering College (NEC) is most admired institution for pursuing technical education. The institution aims to provide support to faculty and students to attain the knowledge as well as the skills that they aspire for. The institution also aims at a good governance framework towards improving quality of technical education. NEC enhances existing capacities of the institutions to become dynamic, demand-driven, quality conscious, efficient and always forward looking. NEC emphasises on enhancement of campus placements apart from Outcome Based Education (OBE) for undergraduate programs. The mandate is also good governance at all levels focusing on the improvement of the quality of learning, teaching and research outcomes. Good governance focuses on effective leadership, planning, ethics, responsibilities and accountabilities, both within and outside institution. Towards achieving Good Governance, an attempt has been made with the involvement of management, all heads of department and senior faculty members to prepare this Strategic Plan 2024-2029. I am sure SP report will definitely give us direction & confidence in accomplishing vision and mission of our Institution.

Looking at a future with excellence!

Mr. M. Ramesh Babu,
Hon'ble. Secretary, NEC

Principal's Message



It is an absolute pleasure to welcome all the aspiring young and creative minds to NEC. I firmly believe that technical and management education is the backbone of our nation and also the stepping stone for a country towards its journey to becoming a developed economy.

At NEC, our goal is to provide students with world-class education and transform them into innovators, entrepreneurs, and industry leaders. Through this, we plan to achieve our mission of transforming rural India and its future.

To accomplish this mission, our eco-friendly campus is equipped with state-of-the-art infrastructure. We have well-equipped labs, workshops, libraries, and smart classrooms to help students in attaining the highest standard in academics, research, and professional skills.

We also believe in creating an environment conducive to the all-round development of the students and their evolution into strong and focused professionals. And for this, we have adequate sports infrastructure. We continuously work on developing each and every student's soft skills and domain skills at our campus.

We give prime importance to empowering our students with sound knowledge, wisdom, experience, and training at the academic level so that they can realise their goals. To help us empower you and allow you to achieve your goals, we have proficient and dedicated faculty teams. Our faculty members also contribute to providing an enjoyable and easy learning experience.

We lay special emphasis on Outcome-Based Education (OBE) and Experiential Learning. In line with the college's vision and mission, we aim at providing excellent academic ambience and a student-centric teaching process.

For our academic achievements, infrastructure, co-curricular activities and other developments, we have been accredited by the NAAC, an autonomous body of UGC, with an 'A+' grade. We also have been thrice accredited by the NBA and permanently affiliated to JNTUK-Kakinada, and recognised by the UGC under section 2(f) and 12(B) of UGC Act, 1956.

We also have won the autonomous status, which helps us in the constant revision of our curriculum to meet the needs of the Industry. This in turn helps our students to gain a competitive edge over others in terms of attitude and knowledge of Industry trends. I can proudly say that we are equipped with a highly active Training & Placement Cell, which is responsible for imparting the necessary training and plays a crucial role in helping students to kick-start their dream careers.

I believe that success is definite where foresightedness, firm determination, hard work, and discipline exist. I can assure that you will become a confident and successful professional after completing four years at Narasaraopeta Engineering College.

Wishing good luck!

Dr. S. Venkateswarlu
Principal

Preface

An Engineering institution like any other organization requires high level goals with long range planning and strategies to accomplish the Vision and Mission, which it dreams of. Strategic planning is a continuous process with a specific focus on accomplishing short-, mid- and long-term goals in this highly competitive world. Strategic Development Plan (SDP) analyses current environment expected future scenarios and envisages the direction towards which the institution should move to achieve its set goals and objectives.

The first part of SDP addresses vision, mission and working on bringing out a good quality policy along with core values. These are achieved through many deliberations with all the stakeholders (Management, leadership, HODs, faculty, staff, industry, students, parents and alumni). Scientific scanning of internal and external environment is done through SWOC analysis. After scanning the environment, institutional goals were set up and strategies to achieve them are arrived at for the institution.

Based on Institutional Vision & Mission, the goals are drawn by holding brainstorming sessions with Deans, HODs and Professors. Institutional strategic goals and strategies are formed with action plans. The process of implementation is worked out and circulated to all the departments. Financial constraints and fund availability is one of important parameters of SDP. Internal Revenue Generation has been given due importance. SDP evaluation and committees to monitor the effectiveness has been clearly spelt out. The final outcomes are discussed and approved by the Governing Body (GB).

As a good practice, inputs are drawn from stakeholders through active participation and collective inputs. The SDP will streamline the processes and progress of the institution, it will also ensure that NEC becomes a torch bearer among technical education institutions at National level.

Strategic Plan of the Narasaraopeta Engineering College

The Chairman, Vice Chairman, Secretary and the members of the Governing Body have felt the need of preparing a strategic development plan for the institution in a formal written document format. The mandate was given to the Principal to develop strategic plan **2024-2029** for the institution. The management & top leadership team met and brain stormed on SWOC and stake holders' expectations. The Leadership team met a number of times, deliberated in detail and arrived at vision, mission, quality policy and core values for NEC. Environment scanning was done keeping vision in mind. The team also discussed about Institutes strategic High-Level Goals to be achieved by 2029.

Institution strategic goals formed the main theme for arriving at strategies, sub strategies and road to accomplish them. Each Strategy was deliberated and sub-strategies were arrived towards implementation plan. Implementation plan worked out all details such as budget, resources needed and leaders responsible to implement with time lines. This implementation is separately maintained by the head of the institution.

Departments play a pivotal for the institution; hence each department worked out on their vision, mission and short, mid & long term goals. The implementation plan for the departments also reflected all details such as budget, resources needed as well as leader responsible with time lines. HODs form the core team for implementing departmental goals under the guidance of Deans/ Principal.

Strategic Development Plan emphasizes on evaluation measures, monitoring team along with deviation steps if any over a period of time. The evaluative components for each stake holder are clearly spelt out along with periodicity of performance evaluation reviews.

The final draft document was discussed with GB and after its detailed review, the suggestions were incorporated towards its effective implementation. This comprehensive plan forms the guiding plan for the years 2024-2029.

Vision of the Institution

The new millennium is witnessing unprecedented challenges and opportunities in higher education, arising from the effect of changing economic policy of liberalization and globalization. Knowledge is increasingly recognized as the main force behind economic growth and development in the context of global economy, coupled with information and communication revolution, the emergence of world-wide labour market leading to significant change in the global socio-political environment across the world. Technical Education plays a vital role in human resource development of the country by creating skilled manpower, enhancing industrial productivity and improving the quality of life of its people. Technical Education covers wide gamut of programs and specializations.

The GOI vision is “To develop and nurture a technical education system in the country which would produce skilled manpower of the highest quality, comparable to the very best in the World and in adequate numbers to meet the complex technological needs of the economy; providing the nation a comparative advantage in the creation and propagation of innovative technological solutions and in the development of a technological capacity of the highest order, both for its application in the economic development of the country and for becoming a major supplier of technology and technological services in the World.”

In tune with the GOIs Vision and other strategic information scanned from other stake- holders in the society, NEC has set its vision as

VISION

“To emerge as a Centre of excellence in technical education with a blend of effective student centric teaching learning practices as well as research for the transformation of lives and community”:



The process of defining and assuring the quality of technical education and training must include consideration for the context in which technical education and training occur. It is also critical to remember that education has many clients.

Leadership in quality technical education to-day has many characteristics that are needed which perhaps were not necessary ten, or fifteen years ago. Technology's impact on how students learn and how teachers teach has had educational leadership think about more innovative ways in which to prepare, deliver, and assess curriculum. It is necessary now to empower our teachers and to lead in a way that reflects unconditional positive regard through relationships and displaying

that they are in the fore-front of change and are key agents of change.

It is equally as imperative stay abreast of current and future trends in business and industry and to encourage technical educators to stay current in their professional and trade areas as well as in pedagogy and research.

Interdisciplinary research is a type of study or research that draws from two or more disciplines in order to gain a better developed perspective, or discover something new. In academic discourse, interdisciplinary typically applies to four realms: knowledge, research, education, and theory. Interdisciplinary knowledge involves familiarity with components of two or more disciplines. Interdisciplinary research combines components of two or more disciplines in the search or creation of new knowledge, operations, or artistic expressions. Interdisciplinary education merges components of two or more disciplines in a single program of instruction. Interdisciplinary theory takes interdisciplinary knowledge, research, or education as its main objects of study. Creativity often requires interdisciplinary knowledge. Many intellectual, social, and practical problems require interdisciplinary approaches, Inter-disciplinarians may help breach communication gaps in the modern academy, thereby helping to mobilize its enormous intellectual resources in the cause of greater social rationality and justice, by bridging fragmented disciplines. Inter disciplinarians might play a role in the defense of academic freedom. Innovation is recognized as a driver of economic growth and poverty eradication. In this context, innovation can be understood in broad terms, including "technical and nontechnical aspects, business model innovation, eco- innovation, demand and user-driven innovation, innovation in services and design, and public-sector innovation."

Innovations in science and technology are an integral component of sustainable development. Sustainable Development is balancing the fulfilment of human needs with the protection of the natural environment so that these needs can be met not only in the present, but in the indefinite future. Inclusive growth means more and more schemes and support to attain the desired rate of economic and human development to foster economic growth, wealth distribution, social justice, adopting suitable technologies and industrial development.

Sustainable development is "development that meets the needs of the present without compromising the ability of future generations to meet their own needs of Sustainable development". It is important to realize that sustainable development combines three pillars of development: social, economic, and environmental. Inclusive growth is a strategy where the growth will be achieved through certain instrumentalities so that the benefits reach the

largest section of the society and that the maximum number of people are able to derive benefits from the developmental projects. Generation of employment and livelihood opportunities, poverty reduction, and removal of regional and social disparities, agricultural and industrial growth and environmental sustainability are key elements of inclusive growth.

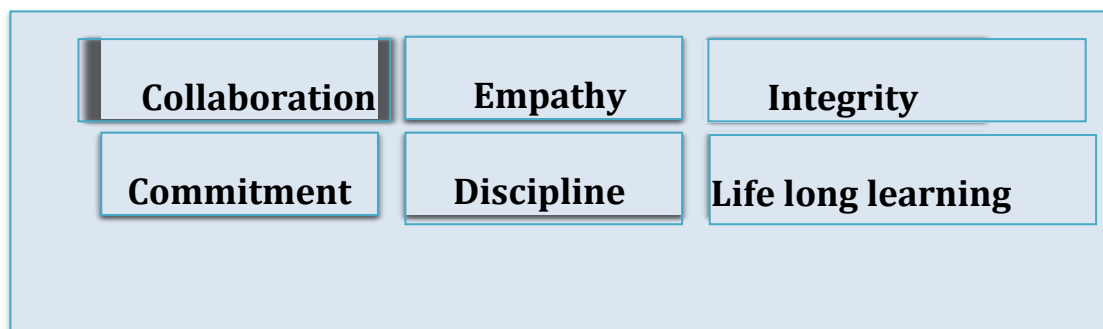
Mission

- Provide the best class infrastructure to explore the field of engineering and research.
- Build a passionate and a determined team of faculty with student centric teaching, imbibing experiential, innovative skills
- Imbibe lifelong learning skills, entrepreneurial skills and ethical values in students for addressing societal problems.

Quality Policy

NEC is committed in imparting quality technical education to the growing needs of the society with an aim of continuous improvement.

Core Values



Accreditations:

The college was duly accredited by NAAC for the period of five years, starting from the year 2015 with CGPA 3.05 A grade. Reaccredited by NAAC in the year 2022 with CGPA 3.29, A+ grade. Departments of ECE, CSE were accredited by NBA in the year 2017 for the period of 3 years, one year extension is given in due to pandemic, reaccredited by NBA in the year 2022 for a period of 3 years. Department of ME is accredited by NBA, valid till 2026.

1.1 Profile of NEC

Narasaraopeta Engineering College is an engineering college for higher education in India, located in Narasaraopeta, Guntur District, Andhra Pradesh, India. Established in 1998, NEC is an Autonomous Institution with permanent affiliation to JNTUK, Kakinada and is promoted and Sponsored by Gayatri Educational Development Society (GEDS). The institution is approved by the All India Council for Technical Education, New Delhi, and has been accredited by the National Board of Accreditation (NBA) and National Assessment and Accreditation Council (NAAC) with 'A' Grade. The college is certified with ISO 9001:2015. The founder **Sri. Mittapalli Venkata Koteswara Rao**, who is an influential philanthropist and industrialist in Guntur District. NEC was the first technical education institution in the Palnadu Region of Guntur district, Andhra Pradesh. In the last two decades, the institute has produced prominent engineers, bureaucrats, and leaders in the region. It has been the centre for innovation, research, and entrepreneurship.

Sri. M.V.Koteswara Rao acts as the chairman of the college managing committee. Mr. Chakravarthi Mittapalli is the Vice Chairman of NEC Group of Institutions, who looks after the transformations in engineering, technical and professional education. Mr. Chakravarthi has been acting as the key person behind the industry-institute collaboration. It is under his leadership that NEC has been selected for setting up Indo-European Skilling centres for Mechatronics and Industrial Robotics - in collaboration with APSSDC & ARC (Applied Robot Control), Germany. Mr. Ramesh Babu is the Secretary of the NEC.

Narasaraopeta Engineering College campus spreads across 40 acres of land. It is 120 km away from Vijayawada airport. Narasaraopet is 50 km from Guntur and 25 km from Chilakaluripet (NH5) by road. The campus consists of a central library, classrooms with digital projectors enabled to facilitate the students with E-learning, Wi-Fi enabled computer labs, and workshops-mechanical, civil, electrical.

Hostels are available for students (A.C & Non-A.C), canteen, medical centre, and indoor Games. The campus has a good cricket ground. The campus also contains a good playground for athletics and various sports.

Narasaraopeta Engineering College has 9 independent departments- Mechanical Engineering (**ME**), Civil Engineering (**CE**), Computer Science Engineering (**CSE**), Electronics and Communication Engineering (**ECE**), Electrical and Electronics Engineering (**EEE**), Information Technology (**IT**),

Computer Science & Engineering (**Artificial Intelligence**), Computer Science & Engineering (**Artificial Intelligence and Machine Learning**), Computer Science & Engineering (**Data Science**), Computer Science & Engineering (**Cyber Security**).

Master of Business Administration (**MBA**), Master of Computer Applications (**MCA**), and Basic Sciences & Humanities (**BSH**). Each department has their individual blocks, Head of Departments and facilities.

Undergraduate Programmes (10)

- B.Tech – Mechanical Engineering (ME)
- B.Tech – Civil Engineering (CE)
- B.Tech – Computer Science and Engineering (CSE)
- B.Tech – Electronics and Communication Engineering (ECE)
- B.Tech – Electrical and Electronics Engineering (EEE)
- B.Tech - Information Technology (IT)
- B.Tech – Computer Science & Engineering (Artificial Intelligence and Machine Learning)
- B.Tech – Computer Science & Engineering (Cyber Security)
- B.Tech – Computer Science & Engineering (Artificial Intelligence)
- B.Tech – Computer Science & Engineering (Data Science)

Post-graduate programs (8 M.Tech, MBA, MCA)

- M.Tech – Computer Science and Engineering
- M.Tech – Digital Systems and Computer Electronics
- M.Tech – Digital Electronics and Communication Systems
- M.Tech – Power and Industrial Drives
- M.Tech – (VLSI and Embedded Systems)
- M.Tech – Thermal Engineering
- M.Tech – Machine Design
- M.Tech – Structural Engineering
- MBA (Master of Business Administration)
- MCA (Master of Computer Applications)

Quality Initiatives IQAC

- NBA accreditation and NAAC reassessment
- NIRF and ARIIA participation
- Academic Administration Audit Planning
- Training Program for Faculty members
- E-Resource Development
- Outcome Based Policy-
- Webinar Series

- Structured Committee Activities

1.2 Why Strategic Plan?



During the past decade, engineering and management education has undergone immense changes. While the demand for excellent quality education has increased steadily, the number of technical institutes students and faculty. It is essential in this dynamic environment to determine the strategic objectives and quantifiable targets, measuring the performances of the predetermined indicators, and monitor & evaluate the strategic plan. It is a participative approach that enables the institute to prioritize the resources in accordance with the objectives mentioned in the strategic plan.

Strategic planning process was conceived as an IQAC initiative. The IQAC, with the inputs of principal, heads of departments, section in charges and senior faculty members developed the strategic plan. The plan is aligned with the institute's vision, mission, and goals and capable of guiding strategic decisions and action plans

Strategic plan is an important tool for a college to manage itself effectively because it:

- provides a framework for effectiveness and sense of direction
- outlines the goals and measurable targets
- is useful for guiding day-to-day actions
- helps in evaluating progress and changing approaches when moving forward

It is an iterative process at both the stages, i.e., while framing and when implementing as well, as shown in Figure 1.



Figure 1. Strategic plan cycle

The plan is developed to establish deep roots that provide firm foundation for the constant up-gradation of the institution, as well as to energize the drive of experimentation and innovation, keeping the focus on Institution vision and mission. The strategic plan sets out a framework of priorities for the Institution.

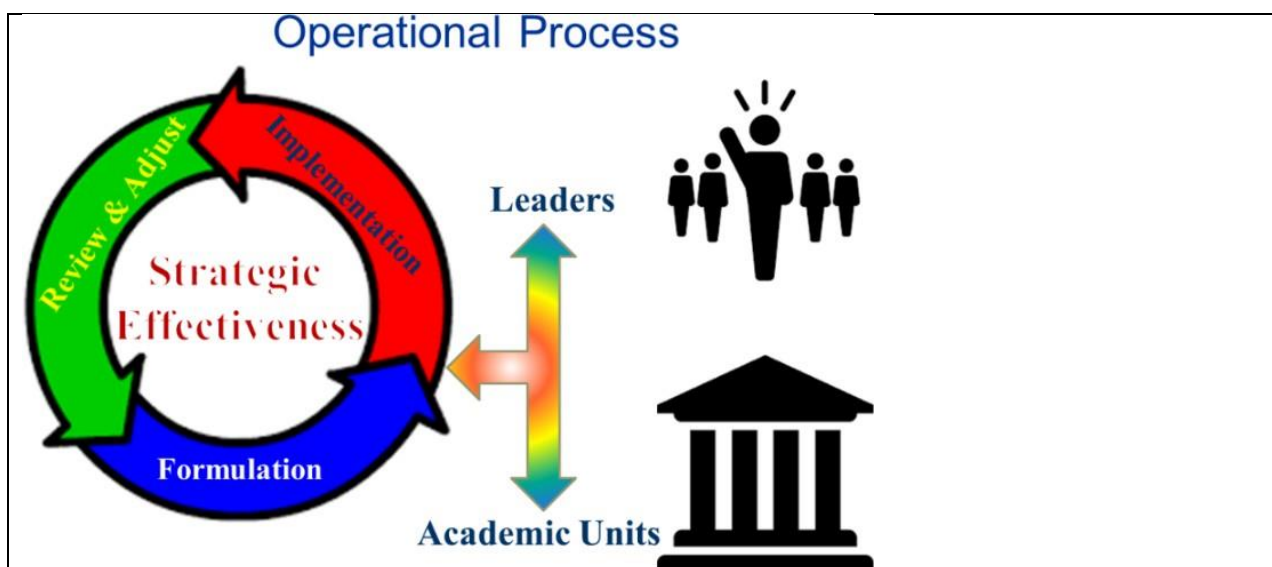


Figure 1.2: The effective strategic plan process

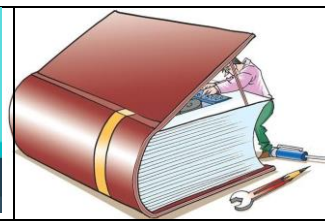
The first step in the implementation process is the evaluation of the strategic plan. The plan must be reviewed carefully, and any elements of the plan that might be especially challenging must be highlighted, e.g., any part of the plan that might be unrealistic or excessive in cost, either in terms of time or money.

Deployment of teams, with assigned team leaders, is necessary to implement the plan. Monitoring progress with a close watch on the collective efforts and timelines will lead the team towards accomplishments. At the same time, fine-tuning may be applied to the strategy, if required.

Stake Holders' Expectations

Management	<ul style="list-style-type: none"> • Global Brand • Sustainability • Good Governance • University Status • Social Responsibility
Leadership Team	<ul style="list-style-type: none"> • NEC ranking with in top 100 in India • NEC ranking with in top 5 in Andhra Pradesh • Competent Faculty • Internal Revenue growth for sustainability • Industry oriented /continuing education programmes • Bench marking through Accreditation of programs and institution • Creation of Centers of excellence
Faculty & Staff	<ul style="list-style-type: none"> • Good academic & working ambience • Career growth, Research facilities & incentives • Academic independence with accountability • Transparency and uniform processes
Students	<ul style="list-style-type: none"> • Good academic & research ambience • Support for co-curricular & Extracurricular activities • State of the art infrastructure • Experiential learning & Opportunity for talent exposure • International learning at affordable cost • Quality Placement, career guidance and entrepreneurial opportunities
Parents	<ul style="list-style-type: none"> • Branding • Quality teaching- learning • Disciplined students • Good placements
Industry	<ul style="list-style-type: none"> • Industry ready professionals with proper attitude • Strong fundamentals • Strong Industry-Institution interaction • Collaborative research, consultancy • Brand and accreditations of the institute
Society & Others	<ul style="list-style-type: none"> • Graduates with Moral, Ethical and Responsible citizenship • Social service activities by the institution • Skill development for needy • Resource center for other institutions Consultancy and Continuing education Programs

1.3 Environmental Assessment and Analysis



Economic Factors are analyzed, GDP is at 7.7 % for 2020-2021, with new government in place, GDP is likely to grow to more than 12%. Huge opportunities may come up in terms of placement, Higher Education, research and innovation. This will have a positive impact for the institutes providing quality education and research.

Social Factors were analyzed and the parent community and society are encouraging their wards and looking for placements but not on real education which will enhance knowledge. This trend may pose grave dangers in the years to come. Placement should be one of the goals in students mind but not the only goal, this trend will bring down the curtains on innovation and entrepreneurship.

Technological Factors were discussed and the extensive use of technology in teaching-learning need to be a key enabler in higher education. Emerging technologies and need for training faculty to face these challenges. E-learning /online learning/online examination may replace traditional class room teaching-learning practice. The faculty need to change their pedagogical skills to match these challenges.

Political Factors at the state & center are not favoring faculty in research facilitation for those working in private institutions. Also there is no clarity on admission policy and fee structure from government which could be a challenge. Higher education is getting a big priority from political decision making. National Skill Development is the need of the hour and funding with a specific focus on building skill inventory needs to be strategically planned.

Regulatory Factors are of concern as NEC though being autonomous is plagued by several unscheduled inspections, the slow pace of Accreditation is also a worrying factor though NEC is the most preferred institute to pursue technical education.

Entering of Foreign Universities may pose a great challenge in the years to come in the form of competition. No immediate challenges seen for NEC. However, faculty retention and need to look into curriculum reforms to keep pace with flexible system of foreign universities needs an immediate looking in.

Market /Competition Factors are posing some challenges as many Deemed /Private state universities- Industry lead universities are getting started in many states. Infrastructure and funding may not be a differentiator any more. Quality teaching, research, ambience and placements could be critical factors. There needs to be a serious thought on incentives for performers for this a consensus has to be arrived at. An internal IQAC will take care with external experts.

1.4 Competitive Analysis and Benchmarking

Benchmarking

It is the continuous action of comparing a process, a product or a service with a similar activity, known as being the best in that field, with the purpose of establishing ambitious but real improvement objectives and actions so as to become and keep the number one position among the best within a reasonable period of time.



We did a benchmarking exercise with regards S R K R Engineering College, GMRIT, RVR JC college of Engineering with respect to student strength; faculty-student ratio; research outcome; and rankings. This exercise provided us insights into our strengths and weaknesses.

1.5 SWOC Analysis

The more commonly used practice in strategic planning is to do SWOT analysis. However, for the educational institutions, threat is to be considered as challenge, and hence SWOC analysis stands for: Strengths, Weaknesses, Opportunities and Challenges. It is a simple analysis system designed to check the strategic position of a particular university in its field of operation, and because of its methodological simplicity.

Strengths

- Good Brand
- Committed Visionary Management
- Autonomous
- Best Faculty
- Decades of Expertise
- Good Placement
- Good Campus & Infrastructure
- Recognized Research Centre
- Rural location giving very good ambience for studies Open spaces in campus supplement to elevate the grandeur of the environment and provide calm, peaceful and conducive atmosphere for academic pursuit



Weaknesses

- Geographical disadvantage to attract excellent staff and students
- Student's intake from poor socio-economic background with low entry level scores and poor language competence
- No control over selection of students
- Even though academically autonomous, no full freedom to frame industry/ research-oriented curriculum right from the first year.
- Located far away from industries
- IPR and Patents
- Alumni engagement with the college



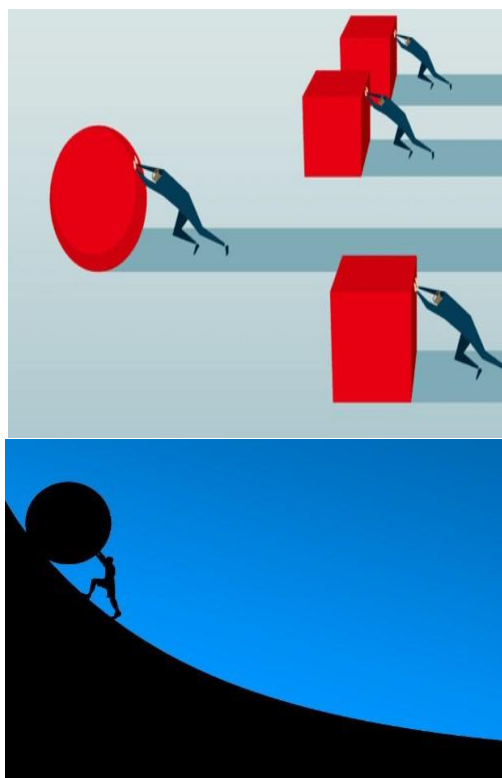
Opportunities

- New courses in Engineering
- Continual education with industries
- Innovative learning and teaching
- Global Initiatives
- Use of latest technology (ICT)
- Collaborative Research & Development activities with industries
- Developing more centers of excellence.
- Consultancy opportunities
- To develop research centers in every department and get research grants
- University status



Challenges

- New emerging technologies
- Training 'Generation Z' for 'Industry 4.0'
- Competition-Admission of Quality Students
- Faculty retention.
- Continuation of Industry Recession
- Too many private Universities getting started
- To get adequate number of full-time PhD students for enhancing research outcomes. To maintain the higher teachers cadre ratio due to due to scarcity of competent Ph.D. holders
- Rapid changes in all the disciplines and correspondingly changing expectations from industry and society
- Impediment in generating funds from tuition fees due to government delayed procedures.

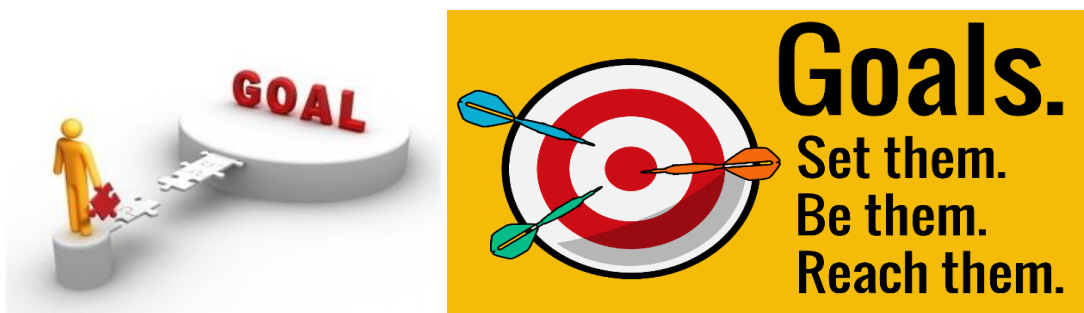


1.6 Positioning Analysis

Analysis of the present position of the college is to be done based on various rankings. We intend to emerge as the top ranked college in Andhra Pradesh. We strive to emerge among the top five state colleges and among top 100 colleges in India.

1.7 Strategic Goals

Considering the vision mission quality policy core values SWOC analysis, following strategic goals were finalized by the members of the IQAC committee to improve the quality and quantity of research, holistic development of students, engagement with industry and alumni, and enhance the student experience



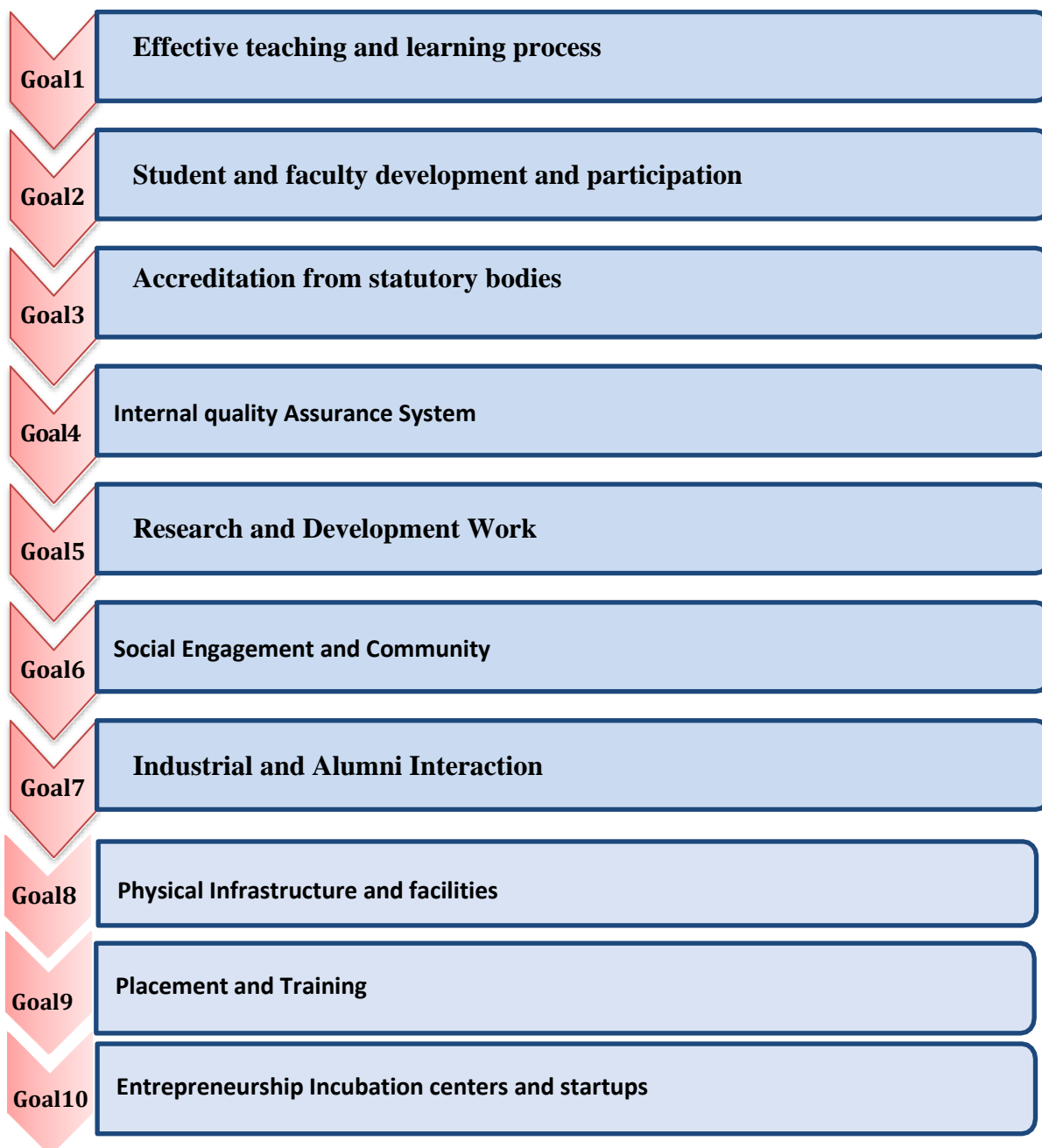
Short Term Goals

- Quality assurance and endurance through Accreditation NBA and NAAC
- Academic excellence by achieving by 100% pass in examinations
- Encouraging students' participation in co-curricular, and extracurricular activities
- Honing life skills of the students
- To conduct add-on programs relevant to Industry
- Organizing programs on entrepreneurship
- Arranging 100% placement for students
- To start new UG/PG programs in emerging areas thus improving the potential of employability among students

Long Term Goals

- To attain the status of Center of Excellence in Technical Education and Research
- To be ranked at top in the list of NIRF Technical institutions in India
- To offer viable programs of relevance for upliftment of rural students and populace
- To integrate the academics and R&D programmes by forging alliances with research organizations, government entities, industries and alumni.

1.8 Strategies, Targets and Implementation Plan



1.9 Strategic Planning and Deployment

Strategic Plan	Deployment
<p>Effective teaching and learning process</p> <p>To sustain in the current competitive environment, it is immensely important to impart high-quality education. Thus, it is essential to bring rigor to academic processes. The first step towards the same is to strengthen the planning of academic and administrative activities throughout the academic year. Institute has a well-planned teaching-learning process and has a robust methodology for rolling out the process. The institute believes in quality teaching. Content delivery and dissemination methods are continuously updated to make teaching-learning more prolific.</p>	<ul style="list-style-type: none"> • Adopting innovative teaching methods • Content delivery- traditional teaching methods be supplemented with lecture management through digital platform methods (e-content / eassignments/ ppts etc.) • Encouraging e-learning • Developing Interactive learning by using videos, presentations, software and labs • Implementing Project based learning • Regular feedbacks from the students • Enhancing overall personality and confidence of student • Providing career and personal mentoring and counselling to students • Continuous assessment by the multiple layers of hierarchy • Establishing virtual labs and latest technology trends in department • Additional content on Institute's E-learning Portal and encouragement of MOOCs and NPTEL
<p>Student and faculty development and participation</p>	<ul style="list-style-type: none"> • Training sessions and Guest lectures on confidence building, motivation and life skills for students and faculties • Formation of department forums and student's committee • Organizing various competitions and social events at institute and departmental level for encouraging participation by students and faculties • Rewarding the best performers and achievers in academics and in co-curricular activities. • Developing facilities for recreation • Establishing Research and Innovation cell
<p>Accreditation from statutory bodies</p>	<ul style="list-style-type: none"> • Formulation of plans by top management and IQAC committee • Resource and funds planning • Constituting committees • Inspection of the available institute and departmental data • Creating and organizing all the required institutional and departmental data • NBA and NAAC accreditation with good grade • NIRF Ranking

Internal Quality Assurance System	<ul style="list-style-type: none"> • Reviewing and updating IQAC plans and policy • Reframing of IQAC members and coordinator • Framing vision and mission department wise for quality working • Regular evaluation IQAC activities by the top management Developing effective IQAC initiatives for the quality improvement of the institute • Initiating quality related suggestions from staff, faculties, students, alumni, employers and management • Identifying the changing trends in the global education sector and implementing the required
Research and Development Work	<ul style="list-style-type: none"> • Funds raising projects and proposals for the research work • Apply for various governmental schemes for funds and grants • Creating a dedicated Research and Development cell • Conducting seminars/ conferences on recent and upcoming trends and technology Providing effective and updated Research facilities • Identifying and listing various schemes and policies of the government and educational bodies.
Social engagement and Community service The institute expects that such engagements are required to build the perspective and to create the awareness among faculty and students about the needs and issues of the society.	<ul style="list-style-type: none"> • Resource and funds analyzing for the social and community activity • Analyzing the social and community requirements in the surrounding rural areas • Promoting and sponsoring educational awareness • Initiating the NSS and departments to design and organize community development drives and events • Encouraging students to participate in social and community activities Organizing various social activities in college • Conducting student's visits to ashrams, old age and orphanage homes
Industrial and Alumni Interaction Alumni is one of the key stakeholders of the institute. The feedback received from the alumni is vital for the progression and growth of the Institute. Institute has Alumni committee in place to manage alumni interactions.	<ul style="list-style-type: none"> • Dedicated faculties and organized activities for alumni interaction building • Establishing dedicated Alumni cell • Generating and maintain the database of all alumni and industrial contacts • Recognition of successful alumni • Engaging faculties and students with alumni and experienced industrial persons by inviting them for guest sessions • Focusing on developing professional relations, generating sponsorships and signing MoUs with the industries • Supports for internships, visits, training and guest seminars

	<ul style="list-style-type: none"> • To start alumni chapters in prominent places where most of our alumni are employed or doing business • To create an eco-system for alumni to give back to the Institution in cash or kind • Increase social media presence of NEC in Facebook, LinkedIn
Physical infrastructure and facility	<ul style="list-style-type: none"> • Enhancing the classrooms and laboratories • Planning and analyzing the requirement of facilities • Establishment of e-learning and virtual labs • Establishing various cells for dedicated purpose • Enhancing basic amenities of the college • Upgradation of departments and library • Improving safety and security management • Adopting efficient and economical sources for power, water and waste management • Dedicated staff for infrastructure maintenance and regular audit of the facilities
Placements, Internships & Career Guidance	<ul style="list-style-type: none"> ▪ Supports for internships, visits, training, guest seminars, Carrier guidance Dedicated team ▪ Modernization of infrastructure (interview & conference rooms) ▪ Video recording of mock up interviews of students and feedback ▪ Awareness programmes ▪ Company specific training programmes
Entrepreneurship and Incubation	<ul style="list-style-type: none"> • Establishment of dedicated EDP cell • Identification of emerging areas of entrepreneurship • To identify students who are possessing entrepreneurial interests • To organize special awareness and training for students in developing the requisite skill set for entrepreneurship with the participation of successful entrepreneurs • To arrange for interactions of students with Angel investors and other financial entities for prospective funding for their ideas • Gap year concept • To establish incubation centers in specialized areas of Engineering • To encourage students and faculty to establish research and development start-ups on campus

1.10 Monitoring and Alignment: Structure and Systems

Monitoring of plan implementation will be done institute level. The plan will be implemented and closely monitored by a core team that will meet in three months and review the progress. Besides, the Institutional Committee will hold review meetings on a monthly basis and will facilitate the proper implementation of the strategic plan.

1.11 Conclusion

The Strategic Development Plan (SDP) is an outcome of management commitment, institute leadership commitment, steering committee's detailed deliberations with all the stake holders. This collective wisdom ensures participation, ownership of the plan among all the stake holders. The institutional strategic goals have strategies: strategies have sub strategies with detailed implementation plan to ensure success and sustainability over a period of time. The execution and operational implementation is monitored by stringent evaluation standards and speaks the quality of the strategy itself. The caveat is strategy itself can do nothing but its implementation holds the key. The strategy is not static document but dynamic due to continuous changing environment and it is an ongoing process to evolve as per the necessity.

The strategic plan is an effort to sketch down a pathway for the development and accomplishing the goals of the institute. The framework is designed for conveying the goals of the institute for upcoming years. The proper implementation of strategic and regular evaluation will be carried out through team work with good spirit to lead success and sustainability over the time.

Goal 1: Effective teaching and learning process

Goal 2: Student and faculty development and participation

Goal 3: Accreditation from statutory bodies

Goal 4: Internal Quality Assurance System

Goal 5: Research and Development Work

Goal 6: Social engagement and Community service

Goal 7: Industrial and Alumni Interaction

Goal 8: Physical infrastructure and facility

Goal 9: Placement and Training

Goal 10: Entrepreneurship

Goal 11: Incubation centers and startups

COURSES

UG-B.TECH

Civil Engineering
Electrical & Electronics Engineering
Mechanical Engineering
Electronics & Communication Engineering
Computer Science and Engineering
CSE (Artificial Intelligence)
CSE (Artificial Intelligence & Machine Learning)
CSE (Data Science)
CSE (Cyber Security)
Information Technology

PG-M.TECH

Computer Science and Engineering
CIVIL - Structural Engineering
ECE - Digital Electronics and Communication Systems
Digital Systems and Computer Electronics
VLSI and Embedded Systems
EEE - Power and Industrial Drives
Mech - Thermal Engineering
Machine Design

PG: MBA, MCA

Master of Business Administration (Dual Specialization)
Master of Computer Applications (Two Years Programme)



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