

# St. ANN'S COLLEGE OF ENGINEERING & TECHNOLOGY



(An Autonomous Institute with Permanent Affiliation to JNTUK, Kakinada)

Accredited by NAAC WITH 'A' Grade | Accredited by NBA | Permanently Affiliated to JNTUK  
Approved by AICTE | Recognized by UGC U/S 2(f) & 12(B) | Awarded "A" Grade by AP State Govt

Nayunipalli (V), Vetapalem, Chirala - 523187, Bapatla Dist., Andhra Pradesh.

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## Institutional Development Plan (2025-2035)

## INSTITUTIONAL DEVELOPMENT PLAN (IDP) STRATEGIC ANALYSIS ROADMAP: 2025 – 2035

### 1. INTRODUCTION & INSTITUTIONAL PROFILE

**St. Ann's College of Engineering & Technology (SACET), Chirala** was established with the noble vision of bringing quality technical education to the coastal and rural regions of Andhra Pradesh. Sponsored by the St. Mary's Educational Society, the institution has grown into a premier hub for engineering and technological education, offering diverse Undergraduate and Postgraduate programs.

**St. Ann's College of Engineering & Technology** was established in the year 2001 at Vetapalem Mandal, Chirala, Bapatla District, Andhra Pradesh by The St. Mary Educational Society, pioneered by Educationalists, Industrialists and Philanthropists. The College is housed amidst lush green fields, in serene environment, free from pollution and conducive for the pursuit of education. Bay of Bengal is just two km away from the college.

The Institution is Approved by All India Council for Technical Education (AICTE), New Delhi and is Permanently Affiliated to the Jawaharlal Nehru Technological University, Kakinada. Five Programmes were Accredited by National Board of Accreditation (NBA). The Institution is Accredited by NAAC with 'A' Grade in 3 CYCLES. The Institution is recognized by UGC under section 2(f) and 12(B). The Institution is awarded 'A' grade by Andhra Pradesh State Government. The Institution is Permanently recognized by Institution of Engineers(I). Institution is selected for Andhra Pradesh State Technical Skill Development Center (Siemens). The College has a glory of experience in teaching from 2001 onwards. The College is situated along the Bypass Road at 6 KMs distance Chirala town in Chirala-Ongole stretch. The College campus has a sprawling area of around 24.3 1/2 acres, with serene atmosphere, sylvan settings and environs, conducive for academic activities. The college is well connected by rail and road links because of its ideal location.

The institution is committed to holistic development, state-of-the-art infrastructure, disciplined academic environments, and robust research frameworks to nurture industry-ready graduates and ethical global leaders.

## 1.1 Institutional Overview

- **Name of the Institution:** St. Ann's College of Engineering & Technology (SACET)
- **Location & Address:** Nayunipalli (V), Vetapalem, Chirala - 523187, Bapatla District, A.P.
- **Status & Affiliation:** Autonomous Institution, Permanently Affiliated to JNTUK, Kakinada
- **Accreditation Status:** Accredited by NAAC with 'A' Grade, NBA Accredited UG Programs
- **Recognitions:** Approved by AICTE, New Delhi; Permanently affiliated to JNTUK, Kakinada
- **Head of the Institution:** Dr K Jagadeesh Babu, Principal

## 1.2 Vision & Mission Statements

### VISION

To develop **St. Ann's College of Engineering & Technology – AUTONOMOUS** into an Institution of Global standards catering to the educational needs of students and also contribute to the welfare of local Community.

### MISSION

To impart total quality education at Under Graduate and Post Graduate levels by: Inculcating best teaching and learning practices; providing opportunities for faculty development, Consultancy, Research; striving for maximum results in the examinations; Creating avenues for industry interaction to provide training and placement opportunities; managing the institution with good governance and transparency and strive for well-being of local community.

## 2. STRENGTHS, WEAKNESSES, OPPORTUNITIES & CHALLENGES (SWOC)

A strategic SWOC framework was conducted to identify key internal capabilities and external opportunities to drive institutional growth over the next decade (2025–2035)

### **Institutional Strengths**

- Permanent JNTUK Affiliation, NAAC 'A' grade, and NBA accreditation for all eligible UG branches.
- Structured teaching-learning methodology with proactive IQAC oversight.
- Strong student discipline, active grievance redressal, and dedicated women cell.
- Expansive campus with modern lab infrastructure, library, and sports amenities.
- High faculty retention ratio.
- High emphasis on faculty welfare, training, and participative governance.
- Departments of CE, EEE, ME, ECE & CSE are recognized as Research Centers by the affiliating University JNTUK, Kakinada.
- Active NPTEL participation
- Power back up with Un-interrupted HT power supply 33 KV and Electrical Power back up (3 DG sets) (1) 62.5 KVA (2) 250 KVA and (3)160KVA
- Solar panel enabled power supply to the entire campus with power capacity of 250 KVA
- MoUs with premiere Institutions and companies.
- Establishment of incubation centers and center of excellence for making students industry ready.

### **Institutional Weaknesses**

- Rural background of entry-level students requiring foundational skill bridging.
- Scope for scaling up high-impact consultancy and industrial revenue generation.
- Limited R&D funding projects.
- Need for further boosting high-index SCI/Scopus research publications.
- Placements in top MNCs with impressive packages.

### **Institutional Opportunities**

- To cater to the educational needs of local and rural students
- Leveraging proximity to coastal, aqua, and industrial hubs for specialized R&D.
- Utilizing autonomous status to rapidly update curriculum as per industry dynamics.
- Enhancing alumni network engagement for placements and mentorship.
- The Institute being in the rural area has lot of scope in serving the society through community programs.
- Opportunity to train the local unemployed youth for skill development using Siemens laboratory established in collaboration with AP state Govt.

### **Institutional Challenges**

- Proliferation of deemed universities and rapid shifts in engineering preferences.
- Keeping pace with rapid technological obsolescence and industry skill gaps.
- Attracting merit and better ranked students.
- Faculty recruitment in specialized emerging technology domains.
- Getting consultancy services and R&D funding.
- Farther distance from city environment is limiting the continuous exposure of students and faculty to industrial practices
- Unable to fill all the PG seats.
- Financial sustainability relying heavily on fee structures and government reimbursements.

### **3. LONG-TERM GOALS & STRATEGIC VISION (2025–2035)**

To systematically elevate St. Ann's College of Engineering & Technology into an institution of highly reputed, the following primary goals and enabling strategies have been set for the 10-year period:

- **Goal 1:** Achieve NIRF Ranking within the Top 150 nationally by 2030 and Top 100 by 2035.
- **Goal 2:** Obtain Tier-1 NBA Accreditation for all eligible UG & PG programs.
- **Goal 3:** Establish multidisciplinary Centers of Excellence (CoE) in emerging technologies.
- **Goal 4:** Transform into a Research-Intensive Autonomous Institute with Deemed-to-be university status aspirations.
- **Goal 5:** Ensure 90%+ quality career outcomes through placement, entrepreneurship, and higher education.
- **Goal 6:** Achieve 100% green energy campus sustainability with solar microgrids and zero liquid discharge.

### **4. TEN-YEAR STRATEGIC IMPLEMENTATION PLAN (2025–2035)**

The implementation roadmap is structured across 6 core institutional enabling criteria. To ensure clarity, scan ability, and precise tracking, the strategic analysis is presented in a detailed, structured narrative format with explicit milestone splits between **Phase I (2025–2030 Medium-Term Outcomes)** and **Phase II (2030–2035 Long-Term Targets)**.

## Criterion 1: Academic Enablers & Teaching-Learning Methodology

### 1.1 Structured Teaching-Learning & Curriculum

- **Present Baseline:** Preparation of academic calendar, widespread ICT adoption, and regular remedial classes for bridging learning gaps.
- **Strategic Action:** Update curriculum dynamically as per Industry 4.0 requirements; introduce minor degree programs in Quantum technologies, Artificial Intelligence, Data Science, IoT and Robotics along with flexible open electives.

**1. Expected Outcome (2025–2030 Phase I Target):** 75% of curriculum updated to reflect current market trends; minor degree pathways fully operationalized across all engineering departments.

**2. Expected Outcome (2030–2035 Phase II Target):** 100% of curriculum fully aligned with Industry 4.0/5.0 standards, emerging technology skillsets, and dynamic industry requirements.

### 1.2 E-Content & Virtual Labs

- **Present Baseline:** Digital notes provided to students alongside partial e-learning materials.
- **Strategic Action:** Establish an institutional e-content recording studio and develop a fully equipped virtual laboratory per each engineering department.

**1. Expected Outcome (2025–2030 Phase I Target):** State-of-the-art e-content studio setup complete; one virtual lab functional across all core departments; 60% adoption of blended learning.

**2. Expected Outcome (2030–2035 Phase II Target):** Comprehensive self-learning ecosystem fully established; 100% of faculty actively utilizing blended learning models and advanced virtual lab simulations.

### 1.3 Innovative Pedagogy & ABC Integration

- **Present Baseline:** Active practice of blended learning, PowerPoint-assisted instruction, and project-based learning.
- **Strategic Action:** Implement Flipped Classrooms, advanced simulation tools, and full integration with the Academic Bank of Credits (ABC) portal.

**1. Expected Outcome (2025–2030 Phase I Target):** Flipped Classrooms and interactive simulation tools fully integrated into daily teaching; 100% student onboarding achieved on the ABC portal.

**2. Expected Outcome (2030–2035 Phase II Target):** Seamless multidisciplinary credit transfers, flexible degree pathways, and maximized student academic engagement across all streams.

### 1.4 Indian Knowledge System (IKS) & Ethics

- **Present Baseline:** Periodic organization of cultural events and ethical awareness workshops.
- **Strategic Action:** Integrate dedicated Indian Knowledge System (IKS) modules and professional ethics courses directly into the core credit curriculum.

**1. Expected Outcome (2025–2030 Phase I Target):** IKS and professional ethics fully integrated as mandatory audit/credit courses across all undergraduate programs.

**2. Expected Outcome (2030–2035 Phase II Target):** Deeply reinforced value-based engineering education and holistic student character development embedded across the institutional culture.

## Criterion 2: Human Resources & Student Support Enablers

### 2.1 Faculty Qualification & Cadre Ratio

- **Present Baseline:** Over 30% of faculty hold Ph.D. degrees with strong merit-based recruitment norms.
- **Strategic Action:** Sponsor existing faculty for doctoral completion; actively recruit doctorates from premier national institutes (IITs/NITs); maintain a 1:15 faculty-student ratio in all the departments.

- 1. Expected Outcome (2025–2030 Phase I Target):** Over 45% of faculty holding Ph.D .degrees; 1:15 faculty-to-student ratio strictly maintained across all departments.
- 2. Expected Outcome (2030–2035 Phase II Target):** Over 60% of faculty holding doctorates; optimal CADRE ratio fully met as per NBA Tier-1 accreditation norms.

## **2.2 Faculty & Staff Advancement**

- **Present Baseline:** Annual performance appraisal systems and faculty welfare measures currently operational. Incentives to faculty for publishing research papers in indexed journals and conferences and for fetching funding projects.
  - **Strategic Action:** Enhancement of incentives; Conduct targeted training; upskill non-teaching technical staff; construct modern residential staff quarters.
- 1. Expected Outcome (2025–2030 Phase I Target):** active engagement of faculty in R&D activities, 15% of non-teaching staff upskilled annually;
  - 2. Expected Outcome (2030–2035 Phase II Target):** 20% non-teaching staff upskilled annually; high faculty retention rate maintained (>90%); complete staff quarters facility fully operational.

## **2.3 Student Support & Career Guidance**

- **Present Baseline:** Active Training and Placement (T&P) cell providing regular aptitude and competitive exam coaching.
  - **Strategic Action:** Provide vigorous GATE/CAT external coaching, intensive mock interview drives, and structured career guidance.
- 1. Expected Outcome (2025–2030 Phase I Target):** Campus placement rate elevated to 75% with a noticeable rise in median salary; 15% of graduates pursuing higher education.
  - 2. Expected Outcome (2030–2035 Phase II Target):** At least 85% placement rate achieved with top-tier median salary packages; 15%+ of graduates pursuing higher studies in premier global institutes.

## 2.4 Grievance Redressal & Student Discipline

- **Present Baseline:** Active Discipline Committee, comprehensive CCTV coverage, Internal Complaints Committee (ICC), and Women Redressal Cell.

- **Strategic Action:** Deploy an automated online grievance redressal portal and organize periodic mental health, wellness workshops, and counseling sessions.

1. **Expected Outcome (2025–2030 Phase I Target):** Fully functional automated grievance portal live; regular mental wellness and counseling sessions integrated into the calendar.

2. **Expected Outcome (2030–2035 Phase II Target):** 100% safe, inclusive, disciplined, and empowering campus environment maintained with zero tolerance for ragging.

## Criterion 3: Physical Infrastructure & Digital Resource Enablers

### 3.1 Physical Infrastructure Augmentation

- **Present Baseline:** Well-equipped classrooms, departmental laboratories, central library, and spacious sports amenities.

- **Strategic Action:** Construct modern academic blocks, smart digital classrooms, expanded student hosteling capacity, and an advanced sports complex.

1. **Expected Outcome (2025–2030 Phase I Target):** Construction of a new academic block completed; 50% of classrooms upgraded to smart rooms; student hostel capacity expanded by 30%.

2. **Expected Outcome (2030–2035 Phase II Target):** State-of-the-art integrated campus infrastructure fully established, supporting expanded intake and potential Deemed-to-be University status.

### 3.2 Digitalization & IT Infrastructure

- **Present Baseline:** High-speed campus Wi-Fi (1000+ Mbps), central computer labs, and basic ERP software for academic management.

- **Strategic Action:** Upgrade campus Internet bandwidth to 10 Gbps, deploy high-density access points, and implement automated RFID systems in the central library.

**1. Expected Outcome (2025–2030 Phase I Target):** Bandwidth upgraded to 5 Gbps; automated RFID library system fully functional; hybrid cloud ERP implemented across academics and finance.

**2. Expected Outcome (2030–2035 Phase II Target):** Seamless digital campus experience achieved with 100% cloud-integrated academic, administrative, and research management.

### 3.3 Green Campus & Sustainability

- **Present Baseline:** Basic green cover, structured waste collection, and localized energy conservation measures.
- **Strategic Action:** Install a 1000 KVA rooftop solar power microgrid; build a Sewage Treatment Plant (STP) and biogas conversion facility.

**1. Expected Outcome (2025–2030 Phase I Target):** 300 kVA solar microgrid installed; partial zero-waste management practices introduced.

**2. Expected Outcome (2030–2035 Phase II Target):** Achieved 60%+ reliance on self-generated renewable energy and attained complete Zero Liquid Discharge (ZLD) green campus status.

### Criterion 4: Research, Innovation & Consultancy Enablers

#### 4.1 Sponsored R&D Projects

- **Present Baseline:** Institutional seed grant scheme active; initial state-level research proposals submitted.
- **Strategic Action:** Mandate Ph.D.-holding faculty to regularly submit funding proposals to DST, AICTE, ISRO, and SERB, supported by institutional matching grants.

**1. Expected Outcome (2025–2030 Phase I Target):** 50% of doctorate faculty successfully secure externally funded research projects from major agencies like DST, AICTE, and ISRO.

**2. Expected Outcome (2030–2035 Phase II Target):** 100% of doctorate-holding faculty actively leading at least 1 major sponsored research grant.

## 4.2 Research Publications & Citations

- **Present Baseline:** Faculty actively publishing research articles in Scopus/SCI indexed and UGC-CARE and peer-reviewed journals.
- **Strategic Action:** Enhance financial incentive policies for publishing in high-impact SCI and Scopus-indexed journals while fostering interdisciplinary R&D.

**1. Expected Outcome (2025–2030 Phase I Target):** Achieved an institutional average of 1 SCI/Scopus publication per faculty member per year; measurable increase in citation h-index.

**2. Expected Outcome (2030–2035 Phase II Target):** Institutional average elevated to 2+ high-impact SCI/Scopus papers per faculty per year; substantially higher citation h-index.

## 4.3 Patents & Consultancy Services

- **Present Baseline:** Basic intellectual property (IP) filings initiated; localized material and structural testing consultancy.
- **Strategic Action:** Establish a dedicated IPR Facilitation Cell and aggressively market departmental technical consultancy services to regional manufacturing and industrial units.

**1. Expected Outcome (2025–2030 Phase I Target):** 1+ patents published/granted annually by each faculty; total annual institutional consultancy revenue reaching ₹25 Lakhs.

**2. Expected Outcome (2030–2035 Phase II Target):** 2+ patents published/granted annually by each faculty; annual consultancy and technology transfer revenue exceeding ₹50 Lakhs.

## Criterion 5: Networking, Innovation & Community Engagement Enablers

### 5.1 Incubation & Entrepreneurship (EDC)

- **Present Baseline:** Entrepreneurship Development Cell (EDC) active; Incubation center active; periodic expert lectures organized on startup fundamentals.

- **Strategic Action:** Enhance the activities in Incubation Center featuring a Maker Space, FabLab, Idea Lab, and modern co-working infrastructure.

1. **Expected Outcome (2025–2030 Phase I Target):** 4–5 student-led technology startups successfully incubated annually.

2. **Expected Outcome (2030–2035 Phase II Target):** At least 10 student-led deep-tech ventures successfully incubated, registered, and commercialized per year.

### 5.2 Industry Collaboration & MoUs

- **Present Baseline:** Active MoUs with regional software firms and local core industrial units.

- **Strategic Action:** Expand strategic MoUs with Tier-1 MNCs, national R&D laboratories, and foreign institutions to secure student internships and faculty exchanges.

1. **Expected Outcome (2025–2030 Phase I Target):** 15+ active MoUs with Tier-1 MNCs established; all undergraduate students complete mandatory industry internships in Tier-1 companies.

2. **Expected Outcome (2030–2035 Phase II Target):** 100% of undergraduate and postgraduate students complete high-quality, structured corporate internships.

### 5.3 Alumni Network & Outreach

- **Present Baseline:** Registered Alumni Association actively contributing through guest lectures and technical talks.
- **Strategic Action:** Develop an interactive dedicated alumni web portal; build an alumni-sponsored seed fund, mentorship ecosystem, and global placement drive.

**1. Expected Outcome (2025–2030 Phase I Target):** Dedicated alumni portal launched; seed funding pool created to mentor and fund promising student projects.

**2. Expected Outcome (2030–2035 Phase II Target):** Vibrant, active global alumni network driving institutional development, endowments, research partnerships, and international placements.

### Criterion 6: Governance, Leadership & Financial Planning Enablers

#### 6.1 Effective Governance & Participative Leadership

- **Present Baseline:** Decentralized committee structure with active involvement from faculty and student representatives.
- **Strategic Action:** Strengthen IQAC oversight, institute rigorous annual academic/administrative audits, and build transparent policy management systems.

**1. Expected Outcome (2025–2030 Phase I Target):** Comprehensive e-Governance implemented across all academic and administrative wings; external peer audits conducted annually.

**2. Expected Outcome (2030–2035 Phase II Target):** Exemplary governance standards, transparent operational frameworks, and maximum stakeholder satisfaction across all departments.

## 6.2 Financial Planning & Resource Mobilization

- **Present Baseline:** Structured annual budgeting mechanisms supported by regular internal and external financial audits.
  - **Strategic Action:** Diversify institutional revenue streams through expanded consultancy, sponsored research grants, alumni endowments, and CSR funding.
1. **Expected Outcome (2025–2030 Phase I Target):** 10% growth achieved in non-tuition revenue through competitive grant funding and expanded consultancy services.
  2. **Expected Outcome (2030–2035 Phase II Target):** Robust financial self-sustainability achieved, with over 15% of operating revenue derived from non-tuition sources to fund ongoing infrastructure modernization.

## 7. GOVERNANCE FRAMEWORK & MONITORING MECHANISM

To ensure the effective execution of this 10-Year Institutional Development Plan and to rigorously monitor the transition from Phase I (2025–'30) to Phase II (2030–2035), SACET will utilize a multi-tiered governance framework led by the Internal Quality Assurance Cell (IQAC) and the Governing Body.

- **IQAC Review Committee:** Quarterly progress tracking against defined targets for each department, ensuring Phase I interim targets are met on schedule.
- **Governing Body Oversight:** Annual evaluation of financial utilization, R&D outputs, infrastructure expansion, and national accreditation benchmarks.
- **Stakeholder Audit:** Bi-annual feedback from industry partners, alumni, and external academic auditors to recalibrate strategic actions for Phase II.

