

SRINIVASA EDUCATIONAL SOCIETY'S



PACE INSTITUTE OF TECHNOLOGY & SCIENCES **AUTONOMOUS**

Approved by AICTE and Govt. of A.P, Accredited by **NAAC(A Grade)**, Recognized under 2(f) & 12(B) of UGC,
Permanently Affiliated to JNTUK, An ISO 9001:2015, ISO 14001:2015 and ISO 50001:2018 Certified Institution

STRATEGIC PLAN **2024-2029**



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1.0 The Path Travelled

1.1 Preamble

PACE INSTITUTE OF TECHNOLOGY AND SCIENCES (PACE ITS) was established Under the Srinivasa Education Society in 2008 at Valluru village near Ongole. It has been running successfully since the academic year 2008-2009. PACE, being an NRI project, is committed to creating a world-class technical education.

The Institution was established in the year 2008 with a humble beginning with a modest strength of 240 students, by the founders Er.M.Venugopal Rao, Chairman, and Er.M.Sridhar, Secretary & Correspondent. Ever since it has been flourishing from the minimum strength to the immense student strength in the stewardship of enlightened management. PACE has been situated in a panoramic area of 12.87 acres. The institute has obtained a place of pride and become a pioneer in imparting higher education in the rural domain. The management has initiated courses such as B.Tech, M.Tech, MBA, and Diploma.



1.2 Academic Milestones (Commencement of various programmes)

2008 : PACE was established with 4 UG programmes (EEE, ECE, CSE and IT)

2009 : UG (Civil Engineering) and PG (MBA)

2010 : UG (Mechanical Engineering & Automobile Engineering)

2012 : PG (CSE)

2013 : PG (Power Electronics, VLSI & ES)

2014 : PG (Structural Engineering & Machine Design)

2019 : UG (Computer Science & Information Technology)

2020 : UG (CSE (IOT & CSBCT), AI & DS, AI & ML)

2022 : UG (CSE (Indian Approved Language))

2023 : UG (EE (VLSI Design and Technology))



1.3 Highlights

- ✓ Established in Rural area (2008)- Affiliated to JNTUK.
- ✓ Intake increased from 240 (2008) to 1374 (2023-2024).
- ✓ Three programs Accredited by NBA in 2017 & 2020.
- ✓ NAAC with 'A' grade (3.05 out of 4.0 CGPA) (March 2029).
- ✓ 10 Years Autonomous status by UGC (2018-19 to 2027-28).
- ✓ Accorded 2(f) and 12(B) status by UGC (13th, April 2018).
- ✓ ECE and CSE Departments are JNTUK recognized research centers.
- ✓ Received 70.38 Lakhs worth of projects from DST and AICTE.
- ✓ Unnat Bharath Abhiyan approved institute.
- ✓ Recognized as Host Institution of Incubation Component by MSME.
- ✓ ARIIA Promising Band Institution – 2021.
- ✓ Institute Innovation Council:
 - ✓ 2019 - 20 - 3.5 Star Rated Institution.
 - ✓ 2020 – 21 – 4 Star.
 - ✓ 2021 – 22 – 3.5 Star.
- ✓ NCC 34(A) Battalion & Govt. funded NSS (1) & NSS (2) Units.
- ✓ ISO 9001:2015 Quality Management System.
- ✓ ISO 50001:2018 Energy Management System.
- ✓ ISO 14001:2015 Environment Management System.
- ✓ MOUs with institutions and industries.
- ✓ As a green initiative 350kW Solar power plant has been installed in the campus.
- ✓ Permanently Affiliated to JNTUK, Kakinada.
- ✓ Pradhan Mantri Kaushal Vikas Yojna for Technical Institutions (PMKVY-TI) established a training centre.
- ✓ PM YUVA Yojana Empanelled Project Institute.
- ✓ PACE got "Best Engineering College in AP" Award from Indian Business Congress, Tamil Nadu.
- ✓ EDURAND rated PACE as the BEST COLLEGE AWARD among top 850 colleges in India.
- ✓ PACE was Rewarded with 'AAA+' rating by Career 360 Magazine.
- ✓ PACE Ranked as 49th best Private Engineering Institute in India by "The Higher Education Review".

2.0 Long Term and Short-Term Goals

Long Term Goals

1. To get Deemed-to-be-University Status.
2. To get NIRF Ranking (Top 200).
3. To encourage more student start-ups.
4. To get NAAC A++ Status.
5. To get NBA Accreditation for all Programs.
6. To Establish joint programs in emerging areas with foreign universities (PG Diploma and UG).

Short Term Goals

1. To facilitate and support Research, Development & Consultancy.
2. To have more MoUs with reputed Institutions and Industries.
3. To encourage innovation by students and faculty.
4. To establish Industry supported laboratories.



3.0 SWOC Analysis

Strengths

1. Accredited by NAAC with 'A' grade
2. Permanent Affiliation to JNTUK, Kakinada
3. Effective teaching by experienced faculty
4. NBA accredited Programs
5. Conferment of autonomous status by UGC in 2018
6. Good retention ratio
7. Around 90% admissions of all branches since 2013
8. An equipped training and placement cell

Weaknesses

1. Students, being from rural area, are striving to meet national and global standards in technical education and facing language barriers
2. Institute must upgrade their teaching community for more funded projects, quality research and development and patents and consultancy
3. Research and development, consultancy and extension activities are to be strengthened
4. Industry –Institution interaction not coming forth to the expected levels

Opportunities

1. Institute is continuously organizing various development programs for the benefit of faculty and students through seminars, workshops, conferences, symposiums, and other student meets.
2. Ever increasing demand for technical education at UG & PG level of Engineering & Technology
3. Demand for reputed colleges is on rise as people are looking for good colleges rather than a particular branch.
4. The strong alumni base of the college can be involved to contribute to the institution towards excellence and to help in the journey of being listed in one of the best colleges

Challenges

1. Interaction with the industries is one of the challenges to be met as very less number of industries is available nearby college
2. Government policies in fixing the fees structure
3. Quality of intake is coming down as many of the cream layer students are opting for deemed universities outside the state due to prolonged delay in admission process
4. Challenges to generate interest in students to become entrepreneurs due to diverse socio-economic background



4.0 Vision, Mission, and Quality Policy

Vision

- Our vision is to impart futuristic technical education to transform the students into technically superior, ethically strong, and self-disciplined to serve the nation as a valuable resource.

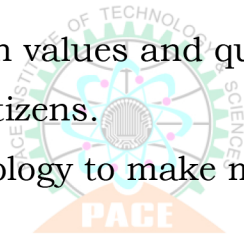
Mission

- To inculcate quality education by implementing innovative teaching-learning methods and state-of-the-art facilities.
- To enrich the intellectual know-how, credibility, and integrity of the students necessitate industry.
- To recognize as scholarly and influential leaders in engineering education and to develop human power with creativity and passion for the advancement of future nations.

Quality Policy

We are committed to:

- Deliver education rooted in values and quality to nurture students into capable, conscientious citizens.
- Utilize cutting-edge technology to make meaningful contributions locally and globally.
- Commit to ongoing enhancement of our services.



5.0 Strategic Plan for 2024-29

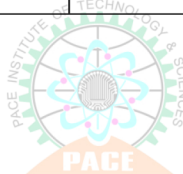
5.1 Teaching Learning Process

S.No	Goal	Present Status	Strategy	Expected Outcome
1	Introducing Innovative Teaching Methods	OBE is in practice	Design thinking/case study, Flipped Classroom, Practical oriented learning etc.	At least one activity per course.
2	Developing e-content to encourage self-learning aspects	e-content are being developed for some of the courses	Developing Videos and e contents.	Any 2 forms of e-content per department.
3	Enhancing multi - disciplinary approach in teaching	Open elective concept is being introduced	Promoting multidisciplinary projects.	One multidisciplinary project per student during 7 th or 8 th semester.
4	Providing personal and Career mentoring to students	Counseling cell is setup at college level	Enhancing mentoring activities.	<ul style="list-style-type: none"> • Number of meetings - at least 4 times per semester. • Slow learners coaching - at least 2 per semester. • Effectiveness – at least 40% improvement.
5	Promoting Technology Assisted self-learning	Students are undertaking NPTEL courses for credit transfer.	Encouraging students to undertake more online Courses (MOOCs)through self-study.	At least 4 course per student with/ without credit transfer during 4 years.
6	Converting Projects into Papers/products/ patents	Few projects converted to papers and products	Encouraging students to convert projects to papers /products/patents.	In each department: 80% - academic projects to papers. 15% - projects to products. 5% - projects to patents.

5.2 Resources – Infrastructure:

S.No	Goal	Present Status	Strategy	Expected Outcome
1	Laboratory up gradation	Laboratories are equipped as per the curriculum requirements.	Purchase of new equipment as per up gradation of syllabus.	Upgradation of lab equipment as per revised curriculum.
2	Improvement in Computing facility	Maintaining more than academic requirement.	Implementing Bring Your Own Device (BYOD) concept.	Each student should possess a laptop.
3	Creating smart class rooms/studios	<ul style="list-style-type: none"> Every class room and laboratory is equipped with projectors and some of the faculty members are using Tabs. All seminar halls are equipped with interactive panels. Studio available. 	For any new requirement of projectors, smart interactive panels will be installed.	All class rooms/labs/seminar halls will be equipped with smart interactive panels.
4	Creating Teaching & Learning resource repository	Implemented MOODLE platform	Developing e-learning resource repository consists of PPTs, Videos, short summary, formula, Q-bank prepared / compiled by Faculty members etc. and to be kept for free access to students.	All the e-contents should be made available to students to access outside the campus.
5	Creation of Continuing Education cell	Not existing	<ul style="list-style-type: none"> To organize brainstorming lectures and motivate faculty and students towards continuous learning. To create a platform for 	<ul style="list-style-type: none"> At least four programs per department in a year. At least one online course per department to be offered in a year.

			offering online courses in NPTEL, Coursera, Udemy, etc., by our faculty.	
6	Up gradation of Sports infrastructure facilities	Needs improvement	<ul style="list-style-type: none"> • Establish new play facilities in hostels. • Upgradation of the gym facilities, organize fitness camp and seminar. • Increase the number of Sports quota admissions. 	Minimum 15% increase in overall participation of the students and achievements every year.
7	Improvement in Library automation services & infrastructure	Library automation software is available.	<p>Establishing RFID based Library Management system.</p> <p>To implement software tools, so that the available e- resources can be accessed remotely</p>	<p>Minimum 20% increase in library access by students and faculty every year.</p> <p>Minimum 20% increase in purchase of books every year.</p>

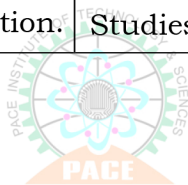


5.3.1 Human Resources – Faculty

S.No	Goal	Present Status	Strategy	Expected Outcome
1	Faculty retention	Good faculty retention is maintained.	Retain eminent professors after retirement as Emeritus Professors. Appointment of experts from industry & other institutions/ organizations as Adjunct faculty.	Minimum 1 Emeritus Professor. Minimum 2 Adjunct Faculty in every department.
2	Faculty student ratio	1:15	Recruiting faculty members to meet the ratio	AICTE, NAAC and NBA norms to be met.
3	Faculty Professional skill development	Few faculty are participating in the Professional skill development	<ul style="list-style-type: none"> • Online course completion • Participation in FDP (more than 5 days) • Outside world Interactions: • Participation in conferences/ workshops/seminars • Acting as resource person - expert lecturer, Chief Guest, chairperson, BOS member, etc. • Faculty exchange Program - National/International levels • Organizing FDPs/ Seminars/ Conferences –Sponsored /self Supporting and professional society activities 	<ul style="list-style-type: none"> • One training session per faculty in an academic year. • One refresher workshop per faculty in an academic year. • 50% of faculty per department in a year • Minimum 4 activities per department in a year (organizing).
4	Faculty Induction and Pedagogical program	1 Induction program / year Pedagogical program conducting on need basis.	<ul style="list-style-type: none"> • Training for faculty with less than two years' experience. • Refresher Workshop for faculty with two-to-five years' experience. 	<ul style="list-style-type: none"> • Minimum one activity at the institutional level per year.

5.3.2 Human Resources - Supporting Staffs

S.No	Goal	Present Status	Strategy	Expected Outcome
1	Staff retention	Good staff retention	Reward and recognition to be given every year based on the performance.	Average year of experience of staff member in every department should be 5 years.
2	Staff skill up gradation	Few programs conducted	Sponsoring staff to participate in skill development programs with minimum two to five days.	25-50% in each dept per year.
3	Staff Qualification up gradation	Faculty are encouraged to enroll for higher education.	Sponsoring staffs for higher Studies.	At least 5-10% at institutional Level.



5.3.4 Human Resources - Students

S.No	Goal	Present Status	Strategy	Expected Outcome
1	Student diversity	Mostly from AP state	Conducting National level competitions and promoting in other states.	5-10% from other states.
2	Quality Placements	Needs improvement	<ul style="list-style-type: none"> • Conducting core/software training programs. • Introducing regular one-credit courses for soft skills development. • Conducting value-added/one-credit courses. • Introducing comprehensive tests and viva in the 7th semester. • Identifying and inviting more reputed companies for placement. 	<ul style="list-style-type: none"> • Minimum 4 programs per department. • Every student must attend one. • Minimum of two core company drives to be organized in the department.
3	Student Participation in Innovation programs	Needs improvement	<ul style="list-style-type: none"> • Engaging students to develop innovative projects. • Providing funding support to develop projects. • Organizing exhibitions and hackathons. 	<ul style="list-style-type: none"> • Scaling up a minimum of 5 projects per department. • Ensuring that each student exhibits at least one project.
4	Competitive examination and Higher studies	Needs improvement	<ul style="list-style-type: none"> • Conducting awareness/training programs on IELTS, GRE, TOEFL etc for abroad studies • Gate classes to be conducted for aspiring students. 	<ul style="list-style-type: none"> • Ensuring a minimum of 20% of students involve in higher studies in each department. • Ensuring a minimum of 30% of students appear for competitive examinations with at least a 10% success rate.

5	Entrepreneurship development / Promoting Start up	Needs improvement	Conducting awareness programs, Encouraging students to participate in idea contest and Pitch decks.	At least 3 to 5 student startups per year.
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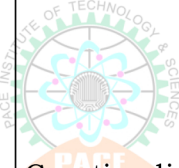
5.4. Research and Development

S.No	Goal	Present Status	Strategy	Expected Outcome
1	R&D Grants received	<ul style="list-style-type: none"> • 5 Research Projects Sanctioned: Rs.111.2 Lakhs. • The institution provides Seed money for internal projects to encourage initial research-related activities for young faculties. • The overhead charges of the grant received from the funding agency can be utilized for the purchase of equipment, as well as partly for travel expenses related to attending conferences abroad, etc. 	<ul style="list-style-type: none"> • Emphasize more on multi-disciplinary research. • Explore opportunities to obtain international funding. • Search for funding from other organizations such as NGOs or ministries. • Mandate that every faculty member with a Ph.D. qualification shall apply for a minimum of one funded research project per year. 	Minimum funding of 1.5 Crore per year is sought from external funding agencies.
2	Sponsored Research Program Organized	2 Sponsored Program Organized (7.56 Lakhs)	<ul style="list-style-type: none"> • Actively search for new and viable funding agencies to provide financial support for organizing Faculty Development Programs (FDP), workshops, and conferences. • The institution provides support for the organization of high-level conferences, workshops, and seminars. 	A minimum of 5 FDPs/workshops and 2 international conferences per year should be supported by an external funding agency.

3	Publication (Journals and Books)	Total Publication :680 Scopus/SCI Publications: 285 Book Published:13	<ul style="list-style-type: none"> • Publication of research work in Science Citation Index (SCI)/ Scopus journals. • Faculty members with Ph.D. qualifications should publish a minimum of one SCI paper per year, while faculty with Master's degree qualifications should also publish. • Faculty members are expected to publish a minimum of one Scopus indexed paper per year. • Faculty members who publish in Web of Science/Scopus indexed journals are appreciated with appropriate monetary incentives. • Faculty members are encouraged and motivated to write books and publish them with renowned publishers. 	<ul style="list-style-type: none"> • Average of one paper per faculty in SCI/Scopus journals. • Minimum 350 Scopus indexed publications, out of which 100 should be in SCI journals per year
4	Improvement of Citation Index	Total Scopus Citations: 1183	Faculty members should utilize drill bit to authenticate research papers and project proposals for plagiarism before submission. The similarity index should be less than 15%.	The average Scopus indexed citations should surpass 4 per paper for publications within the last 3 years.
5	Joint/Collaborative Research	Work Initiated	<ul style="list-style-type: none"> • The Institute encourages faculty members to establish networks with other higher institutions of learning and research organizations within India and abroad, and to pursue Memorandums of Understanding (MOUs). • The institution partly covers 	<ul style="list-style-type: none"> • 10 collaborative/joint research projects should be established with lead institutions, R&D laboratories, or industries. • At least two faculty members should undergo training with

			registration fees, travel, boarding, and lodging expenses for faculty members to participate in conferences, workshops, seminars, and other professional development activities.	collaboration partners and reputed organizations such as DRDO, CSIR, IITs, NITs, IISc, and foreign universities every year.
6	Patent/IPR	<ul style="list-style-type: none"> • 12 patents granted. • 30 patents published. 	<ul style="list-style-type: none"> • Financial and administrative support is provided to all faculty, staff, and students for filing patents and other Intellectual Property Rights (IPR) related activities. • Good projects are incubated by Vinutna with funding support. 	<ul style="list-style-type: none"> • 3 patents to be get granted every year • Minimum 15 patents should be filed per year. • At least one technology transfer needs to take place and one patent to be commercialized.
7	Centre of Excellence	Two centers are in the pipeline to be established	Based on the core strength and expertise available, each department should plan to establish one center of excellence.	One-Two Center of Excellence in each department.
8	Research Centre	2 Research Centers with 13 Ph.Ds.	Performance incentives are provided to eligible faculty members with PhD qualification per year based on their research performance evaluation i.e. research publications, patents, and extramural funded projects.	100% of PhDs should get recognized as supervisors.

5.5. Collaboration at National and International level

S.No	Goal	Present Status	Strategy	Expected Outcome
1	Promoting MoUs	Limited to local industries	Identifying more number of industries/Higher Education Institutions at national and international levels for collaborative works.	<ul style="list-style-type: none"> • At least four new MoUs per year in every department. • At least three activities (Expert lecture/Industrial Training, Internship, Industrial Visit, Industrial project) from each MoU in every academic year.
2	Industrial Training for Faculty	Needs Improvement	Encouraging Faculty members to get industrial exposure for minimum 5 days.	20% of faculty per department in a year.
3	Industrial Training for Students	Satisfactory	 <p>Creating list of core industries and encouraging students for Industrial visit, In-Plant Training and Internship</p>	<ul style="list-style-type: none"> • Master list of core industries to be kept in each department. • At least 2 industrial visits per academic year. • At least 2 industrial visits per student in four years. • At least 2 in-plant training sessions per student in four years. • 100% of students should go for internship at industries in every department.
4	Student exchange program	Not implemented	Sponsoring students to pursue education in reputed institutions in India and abroad under student exchange programs.	At least 1% of total students at the institutional level in an academic year should participate in programs.

5	Faculty Exchange program	Not implemented	Sponsoring Faculty members to teach /pursue research in reputed Institutions in India and abroad/ R&D laboratories.	At least 1% of total faculty members at the institutional level in an academic year should participate in programs.
6	Training Programs for Industrial Personnels	Needs improvement	Identifying the training needs of Industry and the relevant expert faculty	<ul style="list-style-type: none"> • Master list of areas of training. • Minimum one training program at the department level per year.
7	Promoting Industrial Consultancy Activities	Needs improvement	Identifying possible industrial consultancies and communicating with suitable industries	<ul style="list-style-type: none"> • Master list of possible industrial consultancies provided by each department. • At least one consultancy activities per department in a year.
8	Development of Sponsored Laboratories	Needs improvement	Identifying the possible areas for developing sponsored laboratories.	At least three sponsored labs to be developed at the institutional level in a year.
9	Collaboration with Alumni	Needs improvement	<ul style="list-style-type: none"> • Creating a master list of alumni contact details for every batch in each department. • Establishing alumni chapters in major places in India and abroad. • Creating a master list of renowned alumni in various categories such as Industrial experts, Academic experts, and renowned entrepreneurs. • Conducting Alumni lectures. 	<ul style="list-style-type: none"> • Master list of alumni contact details for every batch in each department should be available. • At least two activities should be initiated. • Minimum two alumni lectures per department in a year.

5.6. Governance

S.No	Goal	Present Status	Strategy	Expected Outcome
1	Data management System	Department level maintenance.	A separate ERP team must be framed. Full ERP implementation with centralized data collection and maintenance must be established.	To be established within two years
2	Exploring new avenues of fund raising	Needs improvement	<ul style="list-style-type: none"> • Establish centers through sponsorship from industries. • Attract benefits from Corporate Social Responsibility. • Increasing funds from research projects, consultancies. 	<ul style="list-style-type: none"> • At least 3 sponsored centers from industry. • Minimum of 5-10% increase of R&D fund every year.
3	Linkages with international universities for horizontal expansion	Only a few linkages currently. Needs improvement.	<ul style="list-style-type: none"> • Develop mechanisms for international relations. • Identify partner universities at the international level and sign MoUs. • Attract international faculty on contract appointments. • Organize joint activities like conferences, workshops, credit courses, expert lectures. 	<ul style="list-style-type: none"> • Organize 1 mega event at the international level every year. • Establish at least 1 MoU with international universities.

4	Bringing Alumni Engagement on board	Needs improvement	<ul style="list-style-type: none"> • Enable and facilitate seamless coordination between the alumni association and the Institute. • Provide multiple interaction modes, including interaction between alumni and students for mentoring, interaction between alumni and faculty, and soliciting alumni inputs for curriculum development. • Utilize alumni support for student placement and internships. • Enhance Institute responsiveness to alumni requests. • Establish alumni chapters all over the world. • Build a corpus fund for sustainable activities of the alumni association. 	4 activities at Institution level.
5	Advance Frontiers of knowledge	Needs improvement	<ul style="list-style-type: none"> • Encourage the conduct of advanced research conferences at the institute. • Encourage the formation of multidisciplinary research teams and centers. • Enhance facilities for Ph.D. students. • Implement proactive and flexible mechanisms to attract quality faculty and researchers. • Establish proactive boards of studies and academic councils. • Offer additional courses in areas such as Artificial Intelligence, Data Science, Data and Business Analytics, Robotics, Big Data, Machine Learning, Deep Learning, etc. 	<ul style="list-style-type: none"> • Organize 1 conference at the institute level per year. • Form multidisciplinary research teams as much as possible.

5.7. Community Engagement

S.No	Goal	Present Status	Strategy	Expected Outcome
1	Technology based projects for societal issues	A few projects have been done.	<ul style="list-style-type: none"> • Identification of societal issues to be solved using technology. • Effective utilization of resources of Vinutna and departments 	One project per department, per year.
2	Educating the public	<ul style="list-style-type: none"> • PACE ISR conducts programs on various topics • About 5 programs or events conducted every year through NCC, NSS, WEC and HWC 	<ul style="list-style-type: none"> • More programs useful for the community, such as those related to healthcare, agriculture, technology issues, etc., should be conducted. • Short-term courses, workshops, and skill-based programs should be organized for women, senior citizens, unemployed youth, etc. • These events may include rallies, fundraising programs, and community outreach initiatives. • Additionally, efforts should be made to associate with NGOs and self-help groups for further support community development initiatives. 	About 20 programs or events per a year.
3	Social Service (Blood donation, eye camp, health camp, environmental camp etc.)	<ul style="list-style-type: none"> • NSS conducts blood donation camps. • Tree plantation drives • Awareness on plastic free society 	Awareness creation staff, faculty. Clean and Green camps among students.	<ul style="list-style-type: none"> • Two health camps per year. • Two environmental camps per year.

6.0 Looking Ahead

The strategic plan we've crafted will not only help us keep track of our progress at different levels but will also provide guidance from management all the way down to the staff. It's important to regularly review how well we're meeting the plan and make any needed adjustments. We believe that with consistent effort, participation, monitoring, and support, we can achieve the goals outlined in this document.

