6.2.1 The institutional Strategic/ perspective plan is effectively deployed

INSTITUTIONAL STRATEGIC/ PERSPECTIVE PLAN

I. Imparting Quality Education

a. **Quality Engineering Education is the main motto of this Institution and is ensured through qualified, experienced and committed members of the faculty.**

Quality of the faculty is maintained as per the norms of the approving body and the affiliating university as well as the standards of the Institution. Institution strives to ensure the quality of the faculty by continuous learning and skill upgradation through Faculty Development Programmes, Workshops, Weekly Technology Upgradation Meetings, internships, etc. Faculty Development Programmes are conducted during every semester on recent topics and current technological trends to prepare themselves ahead of the change in Curriculum. All faculties are encouraged to undergo online courses offered by IITs through NPTEL and/or various online courses offered by World Class Universities through COURSERA, EDX, UDEMY, etc. Faculty members are encouraged to pursue their research work and publish their research outcomes in national n international Conferences and Journals.

b. **Imparting training**

Various Training Programs related to skill development and placement readiness are conducted right from the First Semester onwards towards equipping the students with the necessary skills expected by Industries.

Engineering Orientation Program is conducted in the first semester to align the students with the Engineering Education and learning methodologies. Soft skills' training is conducted for the second year students to groom them for the Industry Standards. Various activities for interpersonal and intra-personal skill development are conducted as part of this training program. Team playing, self introduction, professional turn-out, group discussion, etc are conducted to ensure the professional development of students' right from the first year onwards.

Aptitude training is given for the second year and third year students to enable them to prepare themselves for the placements lined up during the seventh semester. Regular aptitude practice is ensured through the online cloud based practice portal available to all students. This cloud based online portal is available to these students at all times 24x7 until the student completes his four years of course. Students can practice aptitude, verbal and coding in this portal gradually at their own pace of learning. Faculty mentors are assigned to guide the students in learning and practicing the necessary skills on this portal.

Technical training is conducted for the students from their 5th semester onwards to ensure their placement readiness. Cloud based online practice portal is provided to the students for their continuous learning, upgradation and preparations.

c. Placement Trainings:

Apart from the knowledge in the regular curriculum courses, students are expected to have sound knowledge in problem solving, analytical thinking, leadership qualities, team playing skills, etc. Holistic development of making the students as a full fledged Engineering Graduate is given Company Oriented Trainings are conducted for the final year students towards the requirements of placing them in MNCs like TCS, INFOSYS, ACCENTURE, WIPRO, ZIFO, etc. Expert trainings for 30 hours to 90 hours on aptitude, verbal, soft skills and technical are organized according to the expectations of the Industries.

- Empowering the youth by providing professional leadership
- Developing centers of Excellence in frontier areas of Engineering & Technology
- Networking with Industry, Corporate and Research Organizations

d. Technical Clubs:

Technical Clubs at Prathyusha Engineering College are unique of its kind and is a platform focusing on equipping the students with the necessary expertise in the domains of the students' interest. Through these technical clubs, seminars, Industry Expert Interactions, workshops and Guided self-learning sessions are arranged to enable continuous learning in the respective technologies. Alumni and higher semester students will guide the juniors in learning and doing projects. Project Exhibitions and various activities including paper presentation, Idea Generation,

Quiz, etc are conducted by the student coordinators. Students are getting molded as a whole with the technical knowledge, problem solving skills, analytical skills, presentation, coordination, team playing skills and are becoming ready towards meeting the expectations of Industries. These technical club activities are very much help during placements as the students have a proven track record for their continuous learning and skill development.

The activities of the various clubs on the campus ensure that the students are dynamic and well groomed in social and event management skills. The technical clubs aim to develop the technical skills of the student through

- Industry Expert Interaction.
- Industrial Visits.
- Internal and External Contests.
- Workshops and seminars.

These activities provide,

- Knowledge exchange platform.
- Moulds them with industry based skills.
- Makes them globally competent.

These Clubs are also associated with IEEE (Institution of Electrical and Electronic Engineers), Computer Society of India, ISTE and Institution of Engineers (IE), ISHRE Societies where students are members and are encouraged to organize events towards knowledge exchange by experts from Industries and Academia.

The main focus of the clubs and Centers of learning (COL) is to provide a platform where students can exchange knowledge, build awareness, generate interest and receive recognition, to promote a spirit of team work and brotherhood among all students of the institute, bridging difference in the state origin, and diversity of the cultures and foster the social aspect, to create a truly multi-cultural environment where students from diverse cultural backgrounds share each other's experiences in a most cordial manner, to inculcate leadership, entrepreneurship and innovation among students, to provide a platform for students to display their talents, drive their passions and explore new horizons and to provide opportunity to the students connect, communicate and collaborate with industry experts.

e. Skill Development Academy:

Students' skill development academy have been established through the MoUs executed with various Industry Partners and Educational Partners like INFOSYS CAMPUS CONNECT, Ni LabView Academy, COURSERA, ORACLE ACADEMY, ICT ACADEMY, NPTEL etc.

National level seminars, workshops and learning initiatives are conducted through these academies to prepare our students towards competing with the peers at world level. Focused trainings are conducted for pre-final year students in specific technologies to enable them to get placed in the domains of their interests. Value added courses on CLAD certification training through NI LABVIEW, INFYTQ trainings through INFOSYS Campus Connect, Advanced Tool CATIA V5 Trainings, etc. are organized. These Academies are conducting workshops in current technologies such as sales force, Amazon Web services, Gaming & Hacking. All students are encouraged to undergo the online courses provided by IITs through NPTEL on various courses of their interest. Learning initiative through COURSERA has provided the students to undergo various courses that are offered by the most renowned Institutions and Universities across the Globe through Online and earn certificates.

II. Curriculum Development

Curriculum Development Prathyusha Engineering College is permanently affiliated to Anna University and adheres to the curriculum prescribed by Anna University, following the Regulations of the University. To upgrade the additional skills required by the Industries, 56 Technical Clubs are constituted in the departments enabling and facilitating students to train themselves. They are exposed to recent technologies through

1. Industry Expert Interaction
2. Industrial Visits
3. Internships
4. Projects/ MiniProjects
5. Hackathons
6. Online Certifications

These Technical Clubs are organized under two domains, Hardware and Software.

ELECTRONICS AND COMMUNICATION ENGINEERING

NAME OF THE TECHNICAL CLUB

- NI LAB VIEW
- Academy Communication
- Robotics Automation
- Embedded System
- Telemedicine
- Internet Of Things(Iot) For Health Care Service
- Antenna Design
- RF Component Design Testing
- IC Design Testing
- VLSI Design
- Signal Processing Image Processing
- Artificial Intelligence
- Pattern Recognition
- Wireless Sensor Networks

MECHANICAL ENGINEERING

- Auto CAD
- Ansys
- Bike Assembly
- Car Assembly
- Catia
- CNC
- Manufacturing Process Club
- ProE / CREO
- Automation Club

ELECTRICAL AND ELECTRONICS ENGINEERING

- Professional Lighting Design Club
- Manufacturing Process
- Support Motor Assembly Club
- Manufacturing Process Support
- Electrical Wiring Club
- ETAP Club

- PLC And SCADA
- Club Green Energy Club
- Instrumentation And Control Club
- PCB Design
- Power Electronics And Drives Club
- NI
- Lab VIEW
- Control Automation Club
- Digital Logic Circuit Club

CIVIL ENGINEERING
- Architectural Club
- Enviro Club Structural Club
- Survey Club
- CAD Club

BIOTECHNOLOGY
- Bioinformatics
- Tools And Application

COMPUTER SCIENCE AN ENGINEERING
SOFTWARE DOMAIN
- FOSS Club
- Mobile App Development
- Coding Club
- Analytics Club
- Intelligent Systems Club
- Computing – Tech Club
- EHack Club (Cyber security Ethical Hacking)
- WebTech Club
- Networking Club
- Graphics Gaming Club
- Project Management Club
- Agriculture in Women in Computer Science
- NextStep Club

III. Teaching and Learning

Teaching and Learning Specific pedagogical approaches are adopted through Quality Teaching Methodologies to motivate the students towards self learning traits which are the ultimate requirements of any recruiting company

• Students are encouraged to undertake NPTEL Online Certifications from the Second Year onwards.

• Power point Presentations for vivid explanations

• Animated videos to bring Engineering to reality

• Execution of Miniproject to gain practical knowledge

• Seminars to students beyond the curriculum

• Concept a Day to be shared by a student with at least one technological concept

• Role plays by students

• Quiz on topics related to the course

• Online Quiz through modern tools

• Assignments with deadlines and effective utilisation of the Library resources

• Real Time Case studies

• Webinars

• Guest Lectures by Eminents from Academia and Industrialists

IV. Examination and Evaluation

A centralised system is designed to organise Internal Assessment Tests and University Examinations. As per Anna University Regulations, the college conducts Internal Assessment Tests with Higher order Bloom's Taxonomy and also ensures the Course outcomes are satisfied. Three Internal Assessment Tests are conducted for students to examine the understanding level of the syllabus covered in each course as follows,

Internal Assessment Test 1 : Unit I

Internal Assessment Test 2 : Unit II and III

Internal Assessment Test3 : Unit IV and V

Model Examination : All Units There is effective mentoring system who ensure that students focus on their academics during these tests and also emphasize on the significance of performing well in these tests. The faculty handling subjects for various sections of students of various departments would value the answer scripts as per Anna University norms and make the students

aware of their mistakes and how to improve their presentation and performance in the ensuing Examination. Parents are also made aware of the performance of their wards by sending SMS to their registered mobile numbers and are called for a meeting for necessary interaction. Internal marks are awarded to the students based on their performance in the Internal Assessment Tests in 3 phases spread across a semester, after which the students are prepared for the End semester University Examinations. Students are also advised to maintain an minimum attendance of 75 to attend the University Examinations

IV. Research and Development

Prathyusha Engineering College always nurtures the research instinct amongst the faculty and students. There is an exclusive Research and Development Cell which concentrates on strengthening research in all the departments especially interdisciplinary research and to pursue funded research. The cell strives to receive funds from AICTE, DST, BRNS, CSIR, accreditation from SIRO, financially assisted research oriented workshops and seminars by IEEE, Funded International and National Conferences, etc. Faculty are encouraged to publish their research or review articles in referred journals indexed under SCI, Scopus and Thomson and Reuters. Faculty are also sponsored to participate in International Conference abroad and outside Chennai. Innovative projects and research are also encouraged to be extended as a patent and startups are also encouraged for the outgoing students. The Cell is also in the process of establishing an Incubation Cell for innovative Projects There are 6 Centres of Excellence to pursue research in various domains with the following aims and objectives,

1. Educate the students using Modern Tools
2. Enable Institute – Industry Interaction
3. Enable Industry based training
4. Internships in these Industries
5. Build Employability Skills
6. Placement in these Industries
7. Build a Research oriented Environment

The list of Centres of Excellence are as follows,

- IBM CAREER EDUCATION CENTRE : Training is scheduled for all Second Year students with basic software foundation skills. Advanced Courses are provided for Interested III Year students.
- NATIONAL INSTRUMENTS LAB VIEW ACADEMY: Training is provided for Interested students in modules to enable certifications such as CLAD, CLD and CLA.
- CISCO ACADEMY: It encourages students in Networking Courses and also enables students to get certified in CCNA courses.
- ROBOTICS LEARNING CENTRE EYANTRA: This centre trains the students to build applications in automations using Embedded C with basic processors such as Arduino and other processors such as Raspberry Pi, Microcontrollers and ARM processors
- CENTRE FOR RENEWABLE ENERGYNIWE: This Centre exposes the students to research oriented concepts with the development of radiation models and involvement in Green Corridor Project of SRRA.
- PEC TVS HARITA TECHSERV LAB: The Mechanical Engineering Students are trained in design automotive parts using CATIA and DELMIA recent versions.

Library, ICT and Physical

PEC has housed in a spacious area of 50, 000 sq ft, fully computerized and airconditioned with Reference Section, Magazine Section and Stack Area with more than 60,000 text books, reference books, dictionaries, encyclopedia, code books, and data sources books and reference volumes stacked for the benefit of staff and students. A comprehensive, bar coded, computerized library and reading hall equipped with internet connection, email facility, audio video CD and DVD, national and international journals, Technical Magazines, past students work in digital format and photocopying facilities are also available.

ICT Infrastructure: The digital Library Dspace provides online resources for interested students in Computer Assistant Learning to learn and certify in various courses within and beyond the specified curriculum, such as

1. NPTEL Online Certification Courses from Second Year onwards
2. MOOC Classes
3. Online Certification course by Udemy, Coursera, Sololearner, etc.

4. Webinars

5. Video Lectures by Eminent Academicians.

V. Human Resource Management

Recruitment/ Promotion: Based on the AICTE norms, deficiency of faculty are identified and advertisements are posted in Websites and dailies for efficient recruitment. After careful scrutiny of the resumes, interviews are scheduled for short listed candidates. Selection of candidate is done strictly on the basis of qualification experience. The evaluation of teaching skills, conceptual clarity communication skills and confidence is carried out by the authorities of the recruiting committee constituted by the Governing Council comprising of Experience faculty from various institutes like IIT, NIT etc. for finally selecting the best talent for the organization. The recruitment procedures, service rules and promotion policies are made transparent and employees are benefitted.

General Welfare Schemes:

- Preference is provided for wards of faculty studying at the college.
- Group insurance is provided for all the staff in case of emergencies.
- Food and Transport facilities are provided to the staff at nominal cost.
- Employee's salary will be credited in the bank account directly, the bank ATM counter works all days in the campus.
- Pay slips are issued to the employees every month.
- NonTeaching staff are provided with Provident Fund facility.
- For professional development of the faculty member, the institute delegates the faculty and staff to undergo development programs outside the institute, provides technical resources and financial assistance to undertake such development programs.
- The institution encourages the employees to their promotional activities in the form of higher education, presenting research papers in National/ International conferences with financial assistance.

Faculty are felicitated and recognised for their academic achievements and for implementation of special initiatives

VI. Industry Interaction / Collaboration

The college always introduces new and updated initiatives in bridging the gap between the Industry and academia. In this direction, the college has signed Memoranda of Understanding with various industries to ensure Training, Internships, Guest Lectures, Industrial Visits, Faculty Development Programmes and Recruitment of students. The list of organisations with which MoUs have been signed are as follows,

1. National Institute of Wind Energy SRRA Unit
2. IBM – Career Education and Cloud Computing
3. Infosys Campus Connect
4. TVS Harita Tech Serv Pvt. Ltd.
5. National Instruments – LabVIEW
6. Animal House recognised by CPCSEA
7. ICT Academy
8. Synchromax
9. CISCO

Faculty in association with the students also are motivated towards research with the infrastructural facilities available in these Centres of Excellence. There is also an Industry Institute Partnership Cell which manages to perform the bridging process.

VII. Empowering the youth by providing professional leadership
Empowering the youth by providing professional leadership

a. Activity Based Learning

Various activities including Idea Generation, Paper Presentation, Quiz, Poster Presentation, Debate, Singing, MEMEs creation, Painting and Drawing are conducted on a selected theme for a span of two weeks time. Themes like Air Pollution, Technology for Agriculture, Women safety, etc. are choosen by student coordinators and the set of activities for the theme are selected by the students. Activity coordinators will coordinate the activities by promoting the activities through social media, peer interactions, Interaction with HODs and staff.

b. Project Based Learning

Students are encouraged to do project/ mini projects during every semester to enable them to better understand the concepts learnt in their courses. Miniprojects are done by students as an

extension to the lab courses. All final year students students will be doing their project in the 8th semester and they are motivated to do in-house or industry projects. In-house projects are done according to the current research trends and/or societal challenges. Industry projects are done as per the problem statements provided by the respective industries.

- The students from all over the State are invited to the college to visit the facilities and also are introduced to the basic concepts of each discipline of Engineering through free Summer Training Courses.
- Project Exhibitions are conducted for students to understand the infrastructural facilities of the college and also get acquainted with the existing faculty of the organisation to understand the Education process of the college.

VIII. Admission of Students

• For under graduate programmes: the students are admitted through central process conducted by a state government body DoTE (Directorate of Technical education) and Anna University, Single window system

• For post graduate programmes: the students are admitted through a common entrance test (TANCET) conducted by the Anna University.

• Tuition fee waiver is provided to meritorious students at the time of admission.

File Description	Document
Any additional information	View Document
Link for Additional Information	View Document