PRAGATI ENGINEERING COLLEGE



(Autonomous) ADB Road, Surampalem, E.G.Dt., A.P. – 533 437 (Approved by AICTE, Permanently Affiliated to JNTUK, Kakinada) (Recognized by UGC Under Sections 2(f) and 12 (B) of UGC act, 1956) Ph: 08852 – 252233, 34. Website: <u>www.pragati.ac.in</u>

Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which are reflected in Programme Outcomes (POs), Programme Specific Outcomes (PSOs) and Course Outcomes (COs) of the various Programmes offered by the Institution.

Pragati Engineering College (PEC) is dedicated to providing high-quality education to its students by following a well-defined curriculum that adheres to the guidelines set by AICTE, APSCHE, the affiliating university, and incorporates feedback from stakeholders in line with the institute's vision and mission. The curriculum maintains a balanced composition of basic science, humanities, professional courses, and distributes them as core and elective offerings, ensuring breadth in education.

Each department at PEC has a vision and mission that is designed based on the Program Educational Objectives (PEOs), while the Program Outcomes (POs) and Program Specific Outcomes (PSOs) are formulated to ensure domain-specific knowledge and skills are achieved in line with the Course Outcomes (COs). The curriculum is developed in alignment with the POs and PSOs and is regularly updated by the Board of Studies (BOS) for each program. To foster lifelong learning, the COs are designed for each course using the revised Bloom's Taxonomy, encouraging students to analyze, evaluate, and apply concepts, processes, and principles.

The curriculum strikes a balance between core, practical, and technical knowledge, enhancing students' analytical and problem-solving skills. Students also learn important skills such as report writing and communication through language laboratories. To promote teamwork, mini-projects, projects, and internships are encouraged. Additionally, to meet industry requirements, frequent industry visits and technical sessions are arranged through industry-institute interactions. Value-added and add-on courses are offered based on students' interests and inclinations.

The design of the curriculum considers various factors, including the syllabi of reputed Indian and international universities, the model curriculum prescribed by AICTE, programspecific outcomes from professional bodies, suggestions from industry experts, alumni and syllabi from competitive exams like GATE and IES.

The process for curriculum design involves discussions in the Department Advisory Committee (DAC) and the BOS, which includes experts from industry, academia, alumni, and senior faculty members. The curriculum is then presented for approval during the Academic Council (AC) meeting. The institutional autonomy allows for frequent curriculum revisions based on feedback and needs from stakeholders. In rural areas where the institution is located, curriculum revisions mainly focus on introducing new courses to improve soft skills, general aptitude, and technical aptitude. The introduction of Major, Minor and Honors programs in regulation R20 allows students to specialize in their respective branches and pursue their special interest areas beyond their chosen discipline. To enhance students' knowledge, they are required to undergo MOOCs courses through NPTEL and internships are made compulsory. Furthermore, various value-added courses are conducted to upgrade students' skills and make them industry-ready.

The curriculum is designed to integrate relevant issues of national and global importance, ensuring the sustainability of future generations. A practical and mandatory course, the Community Service Project (CSP), is included in the curriculum, requiring students to identify local problems and develop sustainable and environmentally friendly solutions in various parts of society.