

7.3 Institutional Distinctiveness

Developing Competent Technocrats by Inculcating Holistic Approach through Techno-Societal Projects

➤ Objectives: -

- To develop Techno- Societal Approach by inculcating Human and professional values, and Environment & sustainability.
- To develop an insight towards resolving societal problems

National Education Policy directs towards imparting students with knowledge and skills that makes them an important element in the nation's development and enables them to face the global competencies. This technology driven era, requires students to be shielded with human values and professional ethics so that they use technology towards the betterment of the society through their quest for excellence. The Institute has followed these ideologies towards framing its Vision and Mission that focuses on holistic development, inculcating values and making students globally competent ultimately leading towards the attainment of Graduate attributes.

The distinctiveness of the Institute is based on the above-mentioned outcomes in inculcating social responsibility through Projects that have techno-societal approach. Focusing on the attainment of the overall development of the students, the institute has worked on several fronts and implemented diverse initiatives, apart from curriculum.

One such initiative that leads towards the attainment of majority of the graduate attributes are projects. Projects, that play a pivotal role in shaping the career of the students by developing an inquisitive approach, a thirst for learning, acquiring new knowledge, experimenting, creativity and the skill to apply the knowledge acquired.

The Institute focuses on developing a techno-societal approach in the students through projects that are carried out with a holistic approach of devising a solution to a societal or environmental problem. The students have evolved with wonderful projects that are an example of how young minds can be molded towards the problem-solving attitude. This skill will help them not only in their academic sphere but also during their professional career, where the industry demands a creative and out of box thinking ideology.

There are projects where solar energy is utilized resulting in saving electrical energy. Projects are based on utilization of waste material for manufacturing bricks. Students participate in various technical competitions where these projects are displayed and also win accolades for these projects. The Institute organizes project exhibition, where the students of all the departments put their projects on display. Experts from Industry are invited for the exhibition, and evaluate the projects. Projects are ideated and get shaped in the full-fledged and well-

equipped laboratories and workshops in the campus due to which the students can carry out their projects successfully in the Institute. The best projects are selected and are awarded. Inputs given by the experts contribute towards the progress of the projects.

In the current context utilizing Solar Energy has become the need of the hour, considering this aspect students have come up with wonderful projects like “Solar Panel Laminating Machine”, “Solar Portable Refrigeration system”, “Solar Tree for Sustainable Cities” and so on.

Some of the projects are relevant in the field of agriculture like, “NPK Evaluation Project” where a device is designed so as to test the PH of the soil, NPK value of the soil, humidity and temperature using Artificial Intelligence.

“Solar Operated Water Sprinkle” serves as a solution to save water and utilization of Solar Energy in the farms.

Projects like “Utilization of Industrial waste in partial replacement of cement and sand towards sustainable rigid pavement” have come up as a solution against the Industrial waste which is a major source of pollution.

The “Smart Chair” project comes up as a boon to the specially challenged individuals, resolving their difficulty of movement from one place to another.

Students Project for Environmental Promotion and Sustainability

Sr. No	Title of the Project
1	Forensic Assessment of Soil Contamination Due to Spillage of Spent Wash
2	Forensic Assessment of Ground Water Pollution Due to Spillage of Spent Wash
3	Utilization of Waste from Various Industries in Brick Manufacturing
4	Effect of Partial Replacement of Soil by Industrial Waste on Characteristics of Brick
5	Design and Development of Composter for Kitchen Waste
6	NPK Evaluation Project
7	Partial Replacement of Coarse Aggregate by Marble and Granite Waste in Concrete
8	Manufacturing of Bricks by using Road Dust
9	Stabilization of Brick Cotton Soil using Stone Dust and Plastic Granules as a Subgrade Material
10	Utilization of Industrial waste in partial replacement of cement and sand towards sustainable rigid pavement
11	Solar Operated Self Balancing Vehicle Product
12	Biogas Generation from Agrowaste

13	Development of Solar Tree for Sustainable Cities
14	Shoulder CPM Machine
15	Solar water purifier for rural masses with zero water reject
16	Solar Operated Milk Pasteurizing system
17	Solar Dehydration System
18	Solar Panel Laminating Machine
19	Solar Thermoelectric Refrigerator
20	Solar Portable Refrigeration system

The Institute has tie-ups with notable industries that has resulted in projects that are innovative and students are coming up with varied approaches towards resolving the problems existing in the society as well as the industry.

Today the Institute prides at the attainment of the required outcome, that is an Engineering Graduate should not only acquire theoretical knowledge but also be equipped with problem solving skills. Through projects the students achieve the highest level of Bloom's Taxonomy that of Creativity and engage in lifelong learning.