

BEST PRACTICES

1. Title of the Practice: Enlightening the students of their responsibilities towards the society and Nation.

The Engineering curriculum is designed to impart the requisite domain skills to the students along with the soft skills, which has now become mandatory. These competencies would fetch the student an appropriate career in his area of interest. But, it hardly enlightens the students on the pertinent issues afflicting the society and his contribution in alleviating these problems for advancing the quality of life. The institution has therefore taken a positive step in this direction in creating an environment, where the student is given an abundant opportunity to participate in social activities in the neighborhood of the institution.

The institution has started an NSS unit in the right earnest through which a plethora of activities having social relevance are conducted. The college is also recognized by IIT Delhi as a participating member in UNNAT BHARAT ABHIYAN Program, a scheme which works under the aegis of central government. The services of the faculty and students are also utilized under this scheme for organizing welfare activities in the adopted villages.

Objectives of the practice:

1. Imbibing altruistic qualities in the students which would create a genuine conscientiousness on his responsibilities in fulfilling the needs of society.
2. To foster the collective strength of students for the general welfare of the community through philanthropic schemes.
3. To develop a culture in the student fraternity towards moral values through an exposure to the broad-spectrum of needs of the society.

The practice:

The institution has always been proactive and worked with missionary zeal in providing solace to the needy people. The college has selected neighbourly villages (7 numbers) and as a prerequisite, conducted a door-to-door survey for identifying their problems. This study has provided adequate information on the problems being faced by them and the course of action to be implemented. Some of the problems identified and the solution accomplished by the students are as given under:

i) Lack of education on digitalization: The students took upon themselves in educating the children and youth in the neighboring villages in usage of computers and cell phones for routine works.

ii) Promoting awareness in public for leading healthy lives: The students formed ensemble of groups with each assigned a task of educating the natives of neighboring villages on topics like RAIN WATER HARVESTING, PROMOTING GREENARY THROUGH PLANTATION, BANNG SINGLE USE PLASTIC, COVID PREVENTIVE MEASURES, SWACHH BHARAT and other socially relevant issues.

iii) Distribution of Alms to orphanages, destitute centers and old-age homes: The students of the institution have as a token of generosity distributed the basic needs like Rice, Pulses, Vegetables, Clothes, and Medicines during natural disasters.

iv) Distribution of masks, medicines, packed foods during COVID pandemic: The students have been magnanimous and had the fortitude and courage to participate in the dispensation of the basic needs and medicines to the patients who were affected by COVID and were under home quarantine.

The NSS unit of ANITS has played a pivotal role in the successful organization of these benevolent schemes. The college has endeavored to further its presence in the neighboring villages by forming a part in “UNNAT BHARATH ABHIYAN”, a program initiated by the Government of India to promote the participation of educational institutions in the development of the country. The college has obtained funds from IIT-Delhi through UBA scheme and with matching grants from internal resources implemented the following schemes:

i) Installation of Eco-friendly solar-cell based LED lights for illumination of streets at Nammivanipeta village, Visakhapatnam.

ii) Rain-water harvesting by digging pits.

iii) Providing portable water by installation of a filtration plant in the village.

The students played a significant part in accomplishment of these schemes. The institution has received critical acclaim from various government agencies like District collectorate, City Municipal Corporation, MGNCRE, Andhra University etc., for its spirited work in fulfilling its social responsibilities.

Obstacles faced, if any and strategies adopted to overcome them:

The key to success for handling socio-economic problems in the society lies in motivating the students at the outset. The student's participation is the most critical aspect in implementing such schemes as their youthful and unnerving energies and potential can be utilized to the maximum extent. Further, the availability of funds is also a significant issue.

The students of our institution have been very pragmatic and always leading from front through their steady and uncompromising participation in all such activities which reflect the community requirements. There has never been a crunch for financial resources as the management always been supportive in sponsoring such programs. The involvement of students in these programs without impairing their regular academics has trained them to transform into dutiful citizens of the country.

Impact Analysis

The program of developing the rural areas surrounding the institution using the services of students and faculty has paid rich dividends for the society and the students as well.

- The quality of life of the neighboring villages has improved considerably by the series of schemes implemented.
- Educating the inhabitants of surrounding villages on COVID protocols has substantially reduced the spread of the dreaded Corona virus.
- The vegetation in and around the institution has exhibited an upsurge through the unimpeded efforts of the students and faculty in plantation.
- Promoting Clean & Green through the **Swachh Bharat Abhiyan** program has resulted in a hygienic and unpolluted ambience.
- The unprecedented participation of the students in large numbers has brought about a distinct change in their outlook towards the society.

2. Title of the Practice: - Promoting self-Learning using ICT tools.

Digitalization has invaded our lives enforce and education field hasn't been left behind. The value of digital technology in the knowledge based sector was experienced during the COVID period, when its usage has reached its pinnacle. Having observed its wide impact and far reach of learners across all age groups, there is a paradigm shift in the thought process of educationists.

The institutions across the world have commenced using different platforms available on-line for promoting e-learning along with the traditional teaching methods. Our institution has indeed realized the significance of e-learning years back, and put this into practice straightaway after attaining Autonomous status. E-learning is certainly an innovative idea which could be prudently blended with class room learning to enhance the cognizant levels of the students appreciably. This method was therefore deployed in the course structures across all the departments of the institution. Promoting self-learning using a range of e-learning tools available through the internet has undeniably transformed the teaching –learning process and placed it on a higher echelon.

The objectives of the practice

1. Empowering the students with futuristic thoughts by providing E-learning resources.
2. Providing e-learning content to compliment the class room teaching processes.
3. Transforming the student into life-long learners.
4. Positioning the student on a higher pedestal in terms of job skills.
5. Allowing the students to transcend the regular curriculum and opt for advanced courses offered on-line.
6. Enhancing the efficacy of teaching-learning process.
7. Engaging the knowledge seekers outside the class rooms.
8. Igniting the thought processes of the learner by motivating him/her to inculcate the habit of self- learning.
9. Laying a path for the students to develop their abilities using IT enabled resources.

10. Developing the all-round competencies of the students by adopting a blend of traditional learning and e-learning.

The Practice:

IT revolution has brought about metamorphic changes in our lives. Educational policies of the governments are also rapidly changing. It is therefore pertinent upon schools, colleges and universities to espouse themselves to the new systems. The surge in usage of computers and cell phones in all spheres of life due to the unprecedented growth in IT sector has motivated the education policy makers and software giants like GOOGLE, INFOSYS etc., in using the technology for quenching the thirst of students for knowledge. The institutions worldwide are therefore steadily transiting towards a holistic approach of education, with e-learning becoming a major constituent. It is also very significant to bring in the usage of e-learning platforms on a larger scale into the curriculum.

ANITS has made available a maximum number of e-resource links at the door step of the student. NPTEL-SWAYAM , COURSEERA , edX, MOODLE etc., are the most popular e-learning resources with the students. The student is given the flexibility for registering an online course in lieu of some of the regular courses. This practice has the potential to develop the self-learning skills of the students. The college has further identified certain value added courses in each domain from the e-resources available through the internet. The students are motivated to register for these certified courses and complete them within the stipulated duration. Such courses have given an impetus to the placement opportunities of the students. In addition to these resources, the college has also employed other learning management systems like MOODLES for reaching the student beyond the working hours. The faculty uploads course plans, lecture notes, assignments, quizzes etc., into this platform from which the students can freely access for self-study. This platform provides a much needed flexibility for both the faculty and students to interact at an opportune time.

The above illustrated protocols which have been put into practice after attaining autonomous status have produced impeccable results.

Obstacles faced, if any and strategies adopted to overcome them.

The convention of on-line learning has to come to stay, since it is an easy and unique way of gaining knowledge. But this custom is also associated with typical problems that may not be initially explicit. The college has instituted the tradition of self-learning by students

using the e-resources and teaching notes developed by the faculty. Though the college and the students have faced certain hindrances in the initial stages, they have successfully circumvented them.

- Availability of high speed internet is one major problem that is faced by the students who reside in remote areas. Without a consistent and affordable internet connection, there could be a drop in the commitment and interest levels in the students. This constraint was surmounted by motivating the students to use the computers available in the college digital library. The working hours of the library were also extended to cater to the needs of such students.
- The success of self-learning system depends on the motivational levels of the students to acclimatize to it. The proctors played a key role in inspiring the students by enlightening them on the benefits that ensue with it. Moreover the faculty were also prepared in the initial stages for spending extra hours with the students in assisting them in the process of e-learning.
- Some of the students were not be able to choose appropriate subject from a myriad of courses available on-line. The faculty again played a pivotal role in assisting the student select a subject which has the content of quality and standards necessary for upgrading the skills.

Impact Analysis:

There is a large repository of on-line courses available for the students to explore. The implementation of self-learning by subscribing to these on-line courses has produced impeccable results which are enumerated below:

- The academic capabilities of the students have enhanced appreciably which has reflected in terms of their performance in the exams.
- With a wide exposure to online information, the curiosity and inquisitiveness in the students has increased manifold. This has had a cascading effect on his confidence levels in facing interviews, participation in national/international events like Hackathons, GO-karts, Robotics etc., and winning prizes.

- Subscription to on-line programming languages has considerably improved proficiency in writing programming codes. This additional feather in the student's repertoire has substantially enhanced the placement avenues.
- The adeptness in securing jobs or selecting appropriate careers of his/her preference has been observed to be immaculate.