

INSTITUTION BEST PRACTICES

The institution has established an Internal Quality Assurance Cell (IQAC). The Institution follows the norms laid down by the regulatory authorities namely AICTE and Anna University. Four meetings of the IQAC are conducted in an academic year to review various points related to the academic programme, other initiatives and its improvement. The minutes and action taken are notified to the members of faculty through Heads of the department.

IQAC has significantly contributed for quality improvement. The two initiatives that can be considered to be part of academic process are (1) Academic Audit on teaching-learning process (2) Question paper audit for Continuous Internal Assessment and evaluation process. These audits are done three times in a semester.

Academic audit ensures the progress of the teaching –learning process carried out by the faculty member. It gives a feed back to the faculty member on his/her completion of the required quantity of academic work.

Question papers prepared for the continuous internal assessment test is an important input to the assessment process of the student. Hence auditing on question papers ensures the proper questions are being asked.

Apart from this with significant contribution from IQAC, **two major initiatives that have been institutionalized** at ACET are,

- (1) Implementation of “Google Classroom” for all courses
- (2) “Earn while you learn scholarship scheme” to recognise and encourage meritorious students for excellence in academics

“Google Classroom (GCR)” is a universal API (Application Programming Interface) and easy to use tool that helps teachers manage their academic work for their courses. Teachers can create classes, upload the class work content under various categories such as class notes, question bank, assignment, quiz, additional materials etc., through GCR. The platform is customized to have a structured appearance which permits the teachers to upload the necessary details for all the courses in the same way. This facilitates both teacher and students to see everything in one place and allows 24 x7 access. As GCR is a transparent platform, the teacher who actually teaches the course can invite other teachers, head of the department and Principal as co-teach. This helps the academic hierarchy to verify whether the intended task has been carried out both by the teacher and the students. It also supports mobile application.

“Earn while you learn scholarship scheme” is a novel initiative which promotes healthy competitive learning among the students through the period of study. This scheme recognizes those students who score outstanding grades in every semester examinations conducted by the University. In this scheme, the students who score a CGPA of 9 and above are provided a scholarship of Rs.2000/- per month, 8.5 and above but below 9 with a scholarship of Rs.1000/- per month and 8 and above but below 8.5 given a scholarship of Rs.500/- per month. This scheme is extended to all the students across all programmes in all semesters. This scheme helps in encouraging the students to study well and attain academic excellence thereby improving quality of the academic programme.

BEST PRACTICE-I

1.	Title of the Practice	:	VALUE ADDED PROGRAMMES FOR ALL STUDENTS
2.	Objectives of the Practice	:	<p>The objectives of this practice are</p> <ul style="list-style-type: none"> • To bridge the gap between Institution and Industry • To enrich the knowledge of students beyond the curriculum • To prepare the students for placement • To inculcate life –long learning among the students for career development and growth • To facilitate the students to get certificates from renowned industries and other agencies
3.	Context	:	<p>As the institution is affiliated to Anna University, the students have to follow the syllabus prescribed by the University for various courses. The Rapid advancements in Science and Technology have put forth the demand for more flexibility in the curriculum and syllabus. However, the institution has no control over the curriculum based syllabus and the University revises the regulations every four years only. Further, the industry too needs employable graduates. Therefore, Value Added Courses /Value Added Programmes serve as a tool to bridge the gap between the university curriculum and the industrial needs. Resource persons/Experts from industry and renowned agencies provide the students an awareness on state of the art technology and also improve their skills. This enhances the knowledge of the students and develops their personality. The value addition through such programmes/courses provide confidence to the students to face challenging interviews and secure placement as well as plan their career.</p>

4.	The Practice	:	<p>A committee consisting of qualified professors and experts from industry is constituted to formulate the value added programmes and major contents of the syllabus for the same. External Resource persons and Internal staff who are specialised in the relevant area are assigned to handle these programmes. The sessions for value added courses are allotted in the regular timetable itself without any loss of class hours for regular course work prescribed by Affiliating University. If necessary, extra class hours or working hours beyond the regular time period are given to accommodate value-added programmes in addition to regular subjects. Hands on training and/or practical sessions are encouraged to supplement theory classes, wherever required, so that the students can gain expertise in trouble shooting also. The practice is followed for all the students from semester III to semester VII.</p>
5.	Evidence of success	:	<ul style="list-style-type: none"> • All the students gain knowledge beyond the curriculum and get trained in industry specific requirements. This has increased and sustained the placement of students. • The students acquire sound technical skills demanded by the industry. This has given the confidence to do quality project by all the students. • The students are able to participate in project contest and win prizes/ awards. • The number of patents filed by the students and project guides have increased. • The students are able to appear for certificate programmes and get certificates e.g. NPTEL

6.	Problems encountered and Resources required	:	<ul style="list-style-type: none"> • The identification of Resource persons from Industries is quite demanding. • Time management is a necessary problem to balance the regular academics, tests and Value Added courses. • Slow learners find difficulty in managing the regular subjects based on University Curriculum. • As it is necessary to work beyond college working hours, day scholar students especially girls find tough to reach home late. • It is also a challenging task to arrange transport. • There is a need to establish centre of excellence in collaboration with industries.
7.	Notes(optional)	:	<p>The curriculum based syllabus under Choice Based Credit System given by Anna University extends the scope of learning to some extent but value addition beyond the curriculum is a necessity. The university should have a plan to include Industry Specific Projects and training as a part of the curriculum in future.</p>

BEST PRACTICES-II

1.	Title of the Practice	:	TECH DAY IN-HOUSE PROJECT DISPLAY
2.	Objectives of the Practice	:	<ul style="list-style-type: none"> Students will be able to to apply the knowledge acquired through curriculum based education to work on a project useful to the society Students will be able to refer published literature over and above the course work and apply the concept to design and develop a product by working on a project. Students will be able to work in a team of the same discipline and/or interdiscipline areas and develop group dynamics. Students will be able to think and apply innovative ideas in visualising and working on a project which exposes the creativity among them. Students will be able to work in a competitive environment which will help them to acquire self-confidence. To recognise the competitiveness and quality of projects through awards/prizes which motivates all the students to participate in the project contest.
3.	Context	:	<p>The institution provides a platform to show case the talents and skills of all the students so that the basic knowledge gained through regular course work(both theory and laboratory practice) along with an innovative mind will improve the placement potential of the students especially in core industries. Although the main context is placement, this practice can also promote entrepreneurship among the students. The challenging issue in designing and implementing this practice is allocation of project guides specialised in certain areas. Another challenging issue is to arrange total participation of students in this practice as the students have to spend money for the project which is not a part of the curriculum.</p>
4.	The Practice	:	<ul style="list-style-type: none"> The uniqueness of the practice – all the students from second year to final year B.E. participate in the contest with teams chosen by themselves irrespective of year of study and discipline (programme/branch of study). Further, this practice is carried out in the odd semester and also in the even semester independently. First year B.E students participate in this practice during the even semester. The project teams are chosen by the students themselves with a team size of maximum four members drawn from second, third and final year of the same discipline or

			<p>interdiscipline. The majority of the teams are from the same discipline but may be from the same year or different year of study.</p> <ul style="list-style-type: none"> • Head of the department allocates the guide depending upon their specialisation and expertise to supervise the project chosen by the students. • The project teams present the title of Project and a brief Abstract to the HoD. • The project teams work after regular working hours upto 6.30 PM and at home/hostel. • The project(product) demonstration is given to the HoD by the teams before completion. • The project(product)is displayed and report presented by the student teams on Engineer's Day(Tech day) during odd semester. Projects(products)conceived and completed during even semester by the students are presented on a day notified by the authorities. • During both semesters, Judges for each discipline from Industry/ Alumni depending upon their specialisation, inspect and evaluate the projects in each department based on innovation, concept and societal value and declare the prize winners 1,2,3 for each department. • During the even semester, the Judges after finalisation of winners 1,2,3 from each department, inspect jointly the prize winning projects and declare the overall prize winners 1,2 and 3. • Cash prizes of Rs.5000/-, Rs.3000/- and Rs.2000/- are awarded to prize winners 1,2,3 from each department during the odd semester. • Overall prize winners are taken for a trip to Malaysia and the other prize winners to Bangalore on flight Journey , fully sponsored by the institution, during the even semester.
5.	Evidence of success	:	<ul style="list-style-type: none"> • Some of the projects are taken up for regular final year project works as a part of the curriculum. • Patents are filed for some of the selected projects(products).[12 patents filed 12 patents published] • Some of the project works gave scope for placement in Industries. Placement in core industries have improved. • Students could participate in project competitions conducted by leading Institutions/Industries. • The students have participated in Texas InstrumentsInnovation Challenge (IICDC), Webench, DrishTI and MSP430 contests at all India level during 2015-2016 to 2018-2019 and won prizes/awards.

			<ul style="list-style-type: none"> • They have participated in Mitsubishi Electric Cup during 2015-2016 to 2018-2019 and won prizes/awards. • The students have participated in FAER(Foundation of Advanced Education and Research) scholarship award 2015-2016 to 2018-2019 and won prizes/awards. • They have participated in Tamilnadu Science city award conducted by TN Government and won prizes. • Two students have participated in Quest Global Ltd project contest and won prizes as well as placement in the company.
6.	Problems encountered and Resources required	:	<p>The problems encountered in organising Tech Day Project display are (a) time management by the students for doing Tech Day Project in addition to time spent on regular academic programme (b) some Projects not giving expected results/output (c) some students not able to present well through the project work may be good (d) Absence of students (10 to 15 %) during project presentation (e) lack of concentration by students in regular academics.</p> <p>The resources required for organising Tech Day Project display i.e space, computers, work benches, electric power including back-up generator etc... are available in the institution.</p>
7.	Notes(optional)	:	<p>The Tech Day project scheme envisaged by the institution is aimed to enrich the knowledge of students irrespective of year of study and promote innovation. It is recommended that the affiliating University (Anna University) places this subject in the Board of Studies of various programmes and include this practice in the curriculum so as to promote innovation leading to product development.</p>