

#### ANIL NEERUKONDA INSTITUTE OF TECHNOLOGY & SCIENCES "UGC AUTONOMOUS"

(Affiliated *to Andhra University, Approved by AICTE & Accredited by NBA*) Sangivalasa-531 162, Bheemunipatnam Mandal, Visakhapatnam Dt. DEPARTMENT OF INFORMATION TECHNOLOGY

## **BEST PRACTICES IN INFORMATION TECHNOLOGY**

SLNO	BEST PRACTICE	INITIATED IN ACADEMIC
		YEAR
1	Mock Interviews	2020-2021
2	Programme Skill Development	2020-2021
3	Virtual Coding interviews	2020-2021
4	Campus specific training	2020-2021
5	Mini Projects	2019-2020
6	Students Clubs	2019-2020
7	Using rubrics as a tool in the assessment processes to	2018-2019
	implement outcome base education system in the institute in true spirit.	
8	Using MOODLES as an ICT tool for enhanced learning	2017-2018
9	To inculcate writing scientific papers and publishing in indexed journals by students along with faculty	2015-2016
10	Identification of weak and bright students	SINCE INCEPTION
11	Student monitoring and mentoring system	SINCE INCEPTION

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## **BEST PRACTICES**

#### 1) Mock Interviews

A mock interview helps you learn how to answer difficult questions, develop interview strategies, improve your communication skills, and reduce your stress before an actual job interview. During a mock interview, the interviewer may use a semi-structured interview format rather than asking a formal list of questions.

Mock Interviews create a platform to all the final year students who have eligibility for getting into companies after their final year. This mock interview will be conducted by different Industry Experts from various Industries over the globe. Alumni Experts also will be included for conducting the mock interviews. Different rounds like Technical and HR will be included while conducting the mock and also the suggestions will be given to each and every student by the expert and based on those suggestions, they will improve their skills while attending the real placements.

Due to this Mock Interviews each and every student will be benefited and also the positiveness will be created and most of our department students have been placed on campus as well as off campus too and mainly the fear in them while attending the actual interview will be gradually decreased due to these mock interviews.

## 2) Program Skill Development

To prepare programming question banks by internal faculty consisting of **THREE** difficulty levels of programs (Low, Moderate & High). Every weekend question will be picked from the QB and will be posted in a suitable online platform (Hacker Rank). Initially programs of Low level are posted and given 24 hours of duration to solve each question. This is a cycle of 1 week. When students couldn't solve the given question, reference material or links will be provided to brush-up their basics. After a week, scores are calculated based on the test cases student met in each program. Based on the score student attained in the previous level students are promoted to next level. If not attained same level will be repeated with different set of programs. Programs will be little tough then previous so, duration is increased for 6 more hours in level 2 ( i.e 24+6 hrs). Only 3 complex programs will be posted and to be solved in a week for level 3( i.e each program duration is not fixed). The above guidelines will be repeated till a student reaches the level 3.After a student clears all the 3 levels, he/she will be given Company specific Assessments. This will help students in continuous practice in programming and perfection in at-least one Programming Language by the time they appear for placement Logical Tests.

## 3) Virtual Coding interview

The process of assessing how a candidate thinks and collaborates and utilizes various languages, frameworks, libraries, or APIs. It is done before hiring. Aside from being hosted remotely, an online coding interview is considered as natural as a physical interview. Virtual coding interviews come in handy in saving significant time and ensuring that a company stays a step ahead in hiring the best talent.

## 4) Campus specific training

ANITS as an educational institute strives towards outcome-based education in developing the employability skills of a student. For this cause a student has to be trained towards a placement. Different well-established organizations look towards variable skill sets in a student before they consider them to be employed into a prescribed position. This goal can be achievable only when a student is introduced into procedures and requirement of an offering company. So placement specific training is a high prioritized aspect of our department.

Over goals of this training include:

- Training and development are used together to bring about the overall acclimation, improvement, and education of an individual
- Understanding a specific process, or performing certain procedures with great precision
- Specific skill set development for the intending recruiting company
- Understanding several company specific recruitment procedures.

This placement specific training improves fresh students' capabilities in facing the recruitment process which can help them in achieving their goals in a productive and simplest manner.

## 5) Mini Projects

During COVID 19 few of the second-year students who have interest and passion were assigned mini projects on real problems to improve their skills.

The mini projects assigned are:

- Faculty leaves management system.
- Automatic seating plan for examinations.
- Placements management system.

## 6) Student clubs

Clubs and professional bodies are a big part of college life. Students join clubs and professional bodies to develop soft skills, behave in a team, develop networking and deal with diverse people, gain leadership qualities and do service to community.

ANITS has National Service Scheme (NSS) unit since its inception and is active in organizing donation drives, technology transfer program under Unnat Bharat Abhiyan, awareness programs, swatch Bharat etc. ANITS has been sanctioned with National Cadet Corp (NCC) in the year 2020-21.

The various student clubs are Coding club, Voice club, UI/UX club, Entrepreneurship club.

## Coding Club

Coding club is for everyone regardless of their career stage or current level of knowledge. Coding club is place that brings people together regardless of their gender and background. We all have right to learn, and we believe learning is more fun and efficient when we help each other along the way.

Coding Club is to encourage and Improve coding skills in the students by creating Competitive events among students and encouraging them by declaring winners and runners for the events. In every event conducted by the Coding club we used the Hacker rank platform which is one of the best and free sources to conduct online coding events. Students of all departments are invited to participate in the events online. Coding club events conducted once in every month. The following are the events conducted by the Club and summary of the events.

## Voice Club

As its name suggests, this club is about channelizing the power of the voice. It is a student speaking club. The members learn to understand the impact of the spoken word, whether it is the voice modulations that are required for elocution, the strategizing required for the simple thrust and parry of debating. They learn the nuances of public speaking, the importance of forming unbiased opinions and above all the power of mediation and consensus.

## UI /UX CLUB

Our world is changing, and technology is quickly becoming an essential part of our daily routines. From buying products to paying bills, we do much of it online through our various devices.

How we think and feel about our digital experiences is largely tied to how these products and platforms work and look—and this creates a high demand for people who are responsible for that design. Graphic designers, UX/UI designers, and motion designers shape a product's user experience.

User Interface (UI) makes the user's interaction as simple and efficient as possible, in terms of accomplishing user goals. User Experience (UX) Development is the procedure of improving the overall experience of the users when they interact with the application or website.

## **Entrepreneurship Cell**

Entrepreneurship is the ability and readiness to develop, organize and run a business enterprise, along with any of its uncertainties to make a profit. The most prominent example of entrepreneurship is the starting of new businesses. In economics, entrepreneurship connected with land, labour, natural resources and capital can generate a profit.

# 7) Using rubrics as a tool in the assessment processes to implement outcome base education system in the institute in true spirit

In the 21st century, professional skills (also known as soft skills, generic skills, or transferable skills) have emerged as important attributes of a graduate engineer. Studies show that Industry / employers around the world value these abilities (non-domain skills) on par with the disciplinary knowledge (domain skills). The assessment of these global competencies is an important aspect in

outcome-based education. It is of utmost important to have reliable methods / proper assessment tools to evaluate the student works for attainment of those outcomes known as Programme outcomes in tune to graduate attribute as mentioned in Washington accord.

A rubric is a scoring guide with criteria for evaluating students' work in direct relation to one or more of the program's learning outcomes and a rating scale indicating differing levels of performance.

They can be used to assess student performance in course assignments, exams, practicals and internships, research papers, portfolios, group projects, public presentations, and many other types of work. The overall scores and any subscales developed to measure more specific elements of performance are easily aggregated for further analysis at the program level.

## 8) Using MOODLES as an ICT tool for enhanced learning

The objective is to enhance the quality of learning of the students through blended learning Technology by using MOODLE which is aimed at stimulating students' interest in learning engineering curriculum by motivating and engaging the learners, bring life to concepts and processes, provide flexibility, provide access to world of information, offer collaborative opportunities and communication, systematic assessment & making the students lifelong learners.

The use of the platforms under teaching assets is suitable for teachers and students to carry out collaborative activities and incorporate them successfully into the dynamics of the teaching–learning process The Moodle platform, from a functional perspective, has easy configurable characteristics, which allows the creation of student assessment processes (questionnaires and online tests) and the management of their tasks. It can also enrich learning by providing an automated and adaptive educational assessment These platforms allow the development of new participatory strategies that are focused on students in their own learning and in the development of meta cognitive strategies that strengthen their autonomy. Thus, a more democratic conception of networking is created based on interaction, feedback, debate, and collaborative work. Also, through these collaborative learning environments, students develop competencies that encourage the formulation of questions, explaining and justifying opinions, articulating reasoning, developing, and reflecting on knowledge gained on the basis of didactic activities available in questionnaires, surveys, forums and wikis, where the role of teachers is fundamental in designing didactic activities as well as in evaluating specific learning processes.

Identifying the significance, all the faculty are advised to upload the relevant information in the MOODLE based e-learning resources of ANITS. A team of members each from each department with act as coordinator for mapping of the subjects to faculty in each semester. One chief coordinator will act as an administrator for the entire activities in the institute. The complete information uploaded by the faculty is put up in cloud and students can access the information from anywhere in the world. The process was initiated in 2017 and now entire faculty of the college made the e-resources of respective subjects which are available 24x7 to the students.

## 9) Identification of weak and bright students

Remedial classes are conducted for slow learners. Bright students are encouraged to participate in inter college and intra college events like paper presentation, model expo, coding contes Class toppers are encouraged by awarding with merit certificates. The salient features of teaching and learning process are, identifying the capabilities of individual student and training them accordingly. This process starts soon after the students enter 3 and universities. Also, students are

guided and groomed as per their areas of interest such as research, professional field, civil services etc. This complete task is accomplished by the encouraging them to concentrate on studies.

#### 10) Writing Scientific papers and Publishing in indexed Journals by students along with faculty

All the final year students have done one paper publication in UGC referred journals with the guidance of faculty members in the department. It is known to be a best practice by considering the following points.

- Every faculty has followed the current research trends and applies the same to be implemented by the student.
- This can be very useful to students to know what the growth of particular technology used and the importance in the industry as well.

## 11) Student Monitoring and Mentoring system

College can be a stressful time for a lot of students. Effective stress management in young people goes a long way in their success. Proctors or counselors often help students to maintain academic standards and set goals for academic success, develop skills to improve organization, study habits, time management, Work through personal problems that may affect academics or relationships, improve social skills, Identify interests, strengths, and aptitudes through assessment and career guidance.

In this system, faculty members are designated as Proctors and about 15 students are assigned to each proctor. The proctor acts as the campus guardian, mentor, and guide to all those students assigned to him/her and keeps a record of their academic performance, attendance, academic & personal problems, if any, by maintaining informal interaction with them as well as with their parents. It is hoped that this would create a student friendly and student-centric environment in the institute, which will be conducive to the healthy growth and the intellectual development of the students.