

SRI INDU COLLEGE OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
BEST PRACTICES

1. VIRTUAL CLASSROOM SUPPORTS AND VIDEO CONFERENCING USING ZOOM MEETING

Objective:

- The main objective is to increase the quality of Teaching – Learning Processing by incorporating ICT modes like, online classes and webinars.
- Zoom Meeting and Google Classroom that aims to simplify creating virtual classroom, interacting and distributing the materials in a paperless way.
- This practice is to share needy resources between teachers and students.

The Context:

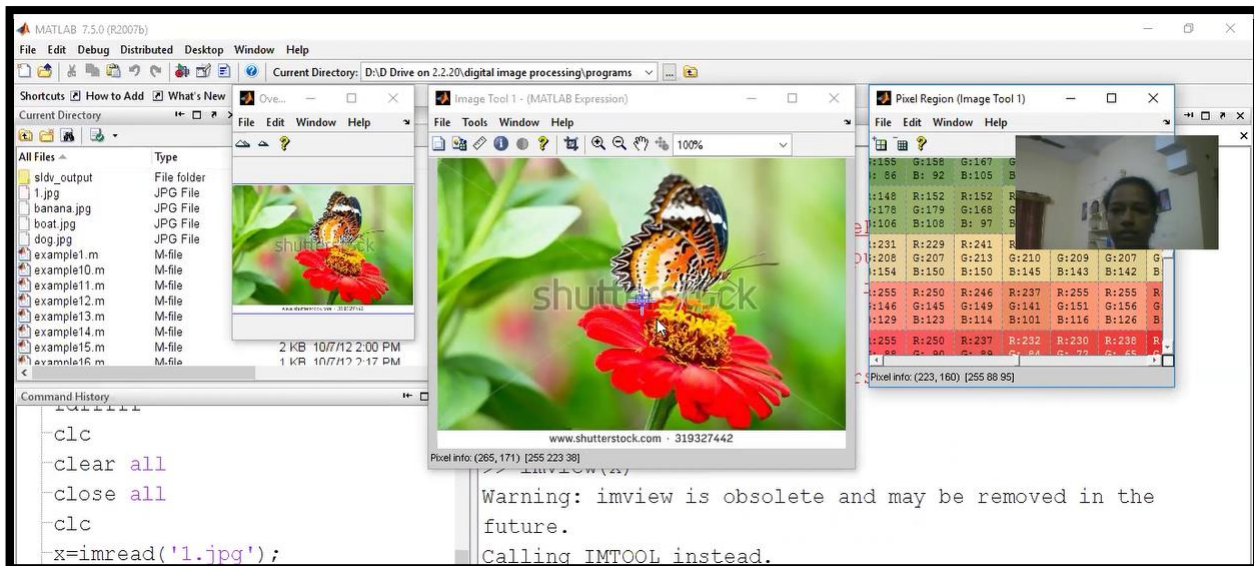
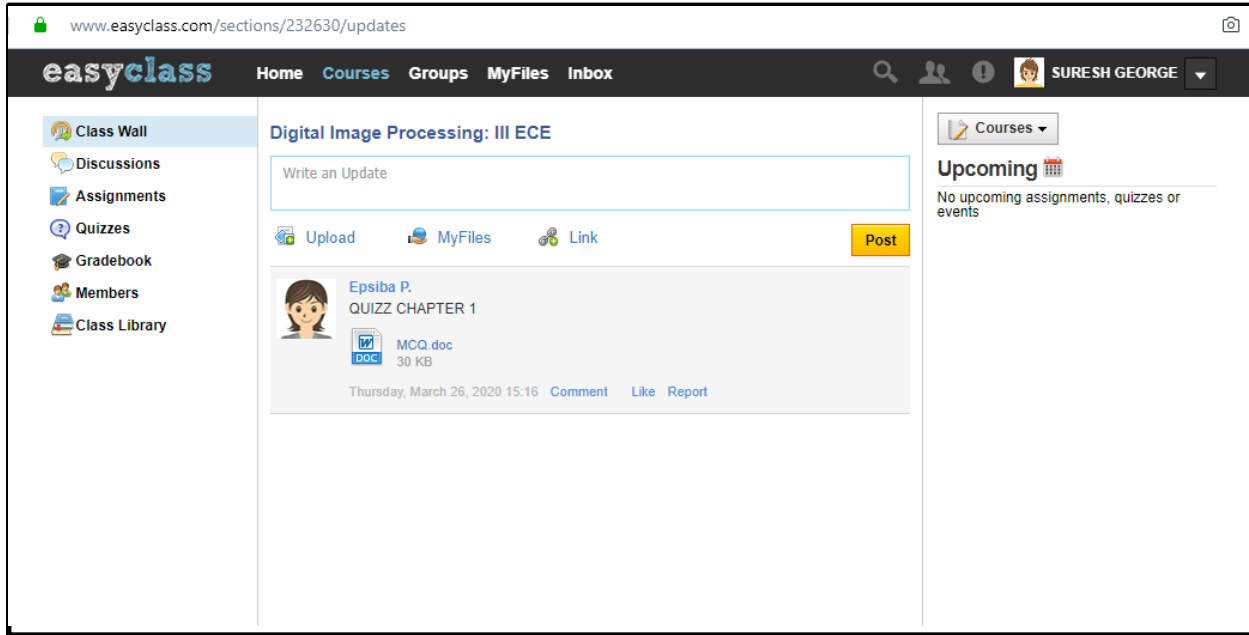
- Virtual Classroom supports and video conferencing using zoom meeting impacts to increase the students learning.
- Teachers can schedule the task dynamically and have the option to attach files to the assignment which students can view, edit, or get an individual copy.
- Students can create their own study materials, Assignment reports and their innovations effectively.
- Teachers have the option to monitor the progress of each student
- It allow the students to review the classes, assignments and other tasks for detailed understanding.
- Time Management, Evaluation, Assessment Report generation and remedial process become very easy with these types of ICT modes.

Evidence of Success:

- The method helped all students for referring of syllabus, topics covered, important questions in the theory exam, previous year's question papers etc.
- Students can access it from their home or where ever and whenever they are free.
- Progress will be monitored timely.

Challenging Issues:

- Uploading resources are the main challenges
- Internet connectivity



2. DIGITAL POSTER PRESENTATION BY STUDENTS

Objective:

- To cultivate out of box thinking, such as inter-disciplinary thinking, synthesizing knowledge of different disciplines and to cope with complexity among students.
- To ensure the knowledge acquiring among the students community.
- To make them understand the emerging concepts from known concepts.

- To stimulate in-depth learning of the concepts and understanding of various topics.

The Context:

- This event is to provide an opportunity for the students to share their knowledge with the peer group members.
- The digital poster is prepared in advance with desired technical framework to share the knowledge on inter-disciplinary fields.
- This activity will lead to encourage the students to participate in symposia, technical presentation.

The Practice:

- The schedule is prepared and given to the faculty members to prepare and present the acquired
- This presentation is recorded for review and template for the other participants.

Evidence of Success:

- Outcome of this practice enables the students to
 - ✓ Participate in technical presentation
 - ✓ Conferences
 - ✓ Project Expo
 - ✓ Participate in skill oriented competitions

Challenging Issues:

Resources are the main challenges for participation in the competition.

- For success of such practices require attitude and willingness without which it is difficult to motivate students which is the target audience of the Institute.
- Degree of motivation required in the minds of the students can result in success of such practices.

ELECTRONICS

We are surrounded by devices that rely on electronics.
We rely on electronics for communication, to light and heat our homes.

EXAMPLES OF ELECTRONICS



Mobile Phone



Calculator



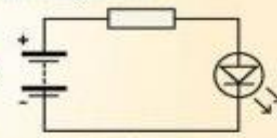
Computer

CIRCUITS

In electronics, circuit diagrams are used to show how a circuit works.
Symbols are used to represent the components.



Circuit



Circuit Diagram

PCB (PRINTED CIRCUIT BOARDS)



Circuits are made on a Printed Circuit Board (PCB).
This is a board with thin copper tracks that link the components together.

Traditional PCBs have the components on one side and the soldering on the other.

Surface Mounting

On modern PCBs, the copper tracks and components are surface mounted onto the same side of the board. The components are miniaturized.



Satellite Mobile Communication



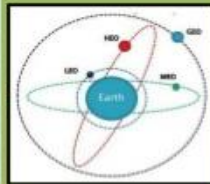
Introduction:-

- A satellite is an object that orbits another large object like planet.
- A communication satellite is a station in space that is used for telecommunication, radio and television signals.
- In simplest form, a satellite communication can be thought of as microwave repeater in the sky.



Types:-

- Geostationary or geosynchronous earth orbit (GEO).
- Quasi-Zenith Satellite.
- Low Earth Orbit (LEO).
- Medium Earth Orbit (MEO).
- Highly Elliptical Orbit (HEO).



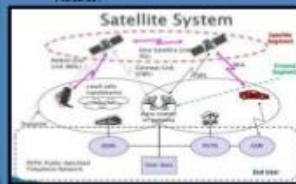
Working:-

Modulation:

- Amplitude Shift Keying
- Frequency Shift Keying
- Phase Shift Keying

Multiple Access Technique:

- Frequency division Multiple Access (FDMA).
- Time Division Multiple Access (TDMA).
- Code Division Multiple Access (CDMA).
- Wideband Code Division Multiple Access.

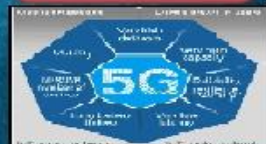


Application:-

- Weather Forecasting.
 - Radio and TV Broadcasting.
 - Military Application.
 - Navigation Application.
 - Connecting Remote Areas.
 - Global Mobile communication.
- And Much More.....

References:-

- Mobile Communication Systems, Datta
- Discom, Maharashtra Sahakar
- www.satellitecommunication.com



3. CAREER GUIDANCE TRAINING

Title of the Practice

We offer career guidance on all aspects of career planning, job opportunities and options of post-graduate studies for students to help them choose the right career path based on their interests and capabilities. The Institute works towards enhancing the individual and institutional culture to better turn out graduating students with appropriate attitude, capability and temperament to serve the needs of an ever-changing and dynamic needs of the community.

Objectives of the Practice

The practice of continuous and improved career guidance serves to achieve the following objectives,

To broadly explore various career options. The practice helps the students to think of various forms of careers that can be taken up by them after completing the graduation

To enable students to select appropriate higher education program after completing the undergraduate program

To identify and facilitate the students (with a desire to explore entrepreneurship) in making them aware of the necessary resources (Process, Technology and Enterprises) needed to explore entrepreneurship as a career path.

To impart oral and written communication skills and knowledge essential to successfully navigate the placement process.

To provide a platform for gaining knowledge on various aspects relating to civil services examinations along with Interaction with some already successful candidates.

Evidence of Success

1. The number of students attending the career guidance programs willingly have increased over the years.
2. The retention rate of graduates in their employed organizations is better than before.
3. Alumni feedback indicates that the students who have undergone life skills training programs are really helpful in balancing their work and life.
4. Star-up activities are initiated by incubation center where the students are facilitated in putting ideas into practice
5. The students have progressively gained confidence in managing the placement interviews better.
6. The success rate of students in getting placed (who opt for placements) have improved continuously and even good during downturn years.
7. A few of the students have become successful in selecting and getting through civil services examinations.
8. Some students have become successful entrepreneurs also.



Estd.2001

Sri Indu

College of Engineering & Technology

UGC Autonomous Institution

Recognized under 2(f) & 12(B) of UGC Act 1956,

NAAC, Approved by AICTE &

Permanently Affiliated to JNTUH



NAAC

NATIONAL ASSESSMENT AND
ACCREDITATION COUNCIL



HANDOUT

Third Year ECE- Semester II

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

ACADEMIC YEAR 2020-21

DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING

HANDOUT- INDEX

S. No	Contents
1	Vision, Mission, PEOs, POs, PSO's & COs
2	Institution Academic Calendar
3	Department Academic Calendar
4	Subject wise
i)	Syllabus Copy
ii)	Lesson Plan
iii)	Question Bank
iv)	End Examination Questions (Previous 3 Academic Year)
v)	Mid-1 & Mid-2 Questions (Previous 3 Academic Year)

4. HANDOUT SYSTEM

Handout system is introduced in all the departments. All the pre-requisites are preparing well in advance and shared to the students on day one class for effective progress of the academic semester (in .pdf).

This practice will be ensured by the academic audit cell.

Objective:

1. To strengthen the teaching learning process
2. To enhance the quality of Teaching
3. To increase the students' involvement
4. To ensure the faculty readiness
5. To improve the overall performance of the students.

5. INTERNAL ACADEMIC AUDIT SYSTEM

Purpose:

To promote self-reflection/ self-improvement measures among all departments being audited.

To conduct quality checks on different activities undertaken in all departments/ Students activity of the institution to meet expected outcomes.

To promote adoption of best practices and innovative methods for quality teaching-learning process.

The Following Areas will be covered:

Functioning of classes
Students' Academic Performance (Mid Exam)
Students Attendance/ Regularity
Faculty Cooperation/Involvement
Syllabus coverage as per course plan
Use of ICT enabled teaching & Digital courses
Maintenance of Course File/TFPR with updation
Syllabus coverage of practical courses
Corrective and Preventive Action
Innovation and Best Practices for T-L Process
Files Management / Periodical Updation
Special Effort
Slow Learner Support

Periodical Attendance Upload

Workshop/seminar attended

Support for students co-curricular and extra-curricular activities

Criteria wise NAAC progress

Lab Verification