


DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING
Summary of Innovative teaching learning brought in by the Faculty in A.Y: 2023-24

S.No.	Faculty Name	Class-Year	Course	Topics	Methodology/AID
1	E. Jyothi	III-II	AWP	Radiation Pattern	Experimental Demonstration of Antenna Trainer
2	G. Pratheepa	II-II	LICA	Data Converters	Slip Tests
3	P. Ajay Kumar	II-II	Signals and Systems	Basic Signals	Animation Video
4	B. Bharghavendra	III-I	Control Systems	Signal Flow Graphs, Root Locus	Quiz
5	R Srinivas	IV-II	Project	Arduino UNO	Hardware Demonstration and Performance

CO ORDINATOR
HEAD OF THE DEPARTMENT

Experimental Demonstration of Antenna Trainer

Experimental demonstrations play a vital role in engineering teaching–learning processes. They bridge the gap between theory and practice and make learning more effective. Key advantages include:

1. Better Conceptual Understanding Students can see theoretical principles in action, which helps them understand complex engineering concepts more clearly.
2. Enhanced Student Engagement Live experiments capture students' attention and encourage active participation instead of passive listening.
3. Improved Retention of Knowledge Learning through observation and hands-on experience helps students remember concepts longer compared to only lectures.
4. Development of Practical Skills Students become familiar with instruments, tools, measurements, and experimental procedures used in real engineering applications. Encourages Analytical and Critical Thinking



SLIP TEST

1. Continuous Learning and Revision

Slip tests are conducted regularly (often daily or weekly), ensuring students revise lessons continuously instead of cramming before exams. This builds a habit of consistent study and reduces exam stress.

2. Better Understanding of Concepts

Teachers can quickly assess whether students have understood the day's lecture. Students identify their weak areas immediately and can take corrective measures.

3. Improved Attention and Focus

Knowing that a slip test may follow a class motivates students to pay closer attention during lectures. Encourages active listening and participation.

4. Boosts Exam Performance

Slip tests simulate exam conditions in small doses, helping students practice time management and accuracy. In places like Trichy, daily slip tests have been introduced to improve board exam results.

6. Encourages Self-Evaluation

Students can measure their own progress regularly. Builds confidence when they see improvement over time



Animation Video

Animation video learning offers students a dynamic, visual, and interactive way to grasp concepts more effectively. It transforms abstract ideas into engaging stories, making education both enjoyable and memorable.

Simplifies Complex Concepts

Difficult topics (like science processes, math problems, or historical events) can be visualized step-by-step. Abstract ideas become concrete through animated diagrams and storytelling.

Boosts Engagement and Motivation

Animated videos are colorful, fun, and interactive, which keeps students interested. They reduce boredom compared to traditional lectures and encourage active participation.

Improves Retention and Recall

Visuals combined with audio narration help students remember lessons longer. Animation stimulates both visual and auditory memory, reinforcing learning.



QUIZ

Advantages of Quizzes for Students

Improves memory and understanding

Quizzes help students recall information, which strengthens long-term memory and understanding.

Encourages regular study habits

Knowing there may be a quiz motivates students to study consistently instead of cramming.

Builds confidence

Doing well in quizzes boosts self-confidence and reduces fear of exams.

Provides quick feedback

Students can quickly see what they know and what they need to improve.

Makes learning interesting

Quizzes can be fun and engaging, especially when done as games or competitions.

Develops thinking skills

Quizzes improve critical thinking, problem-solving, and decision-making skills.

Reduces exam stress

Regular quizzes prepare students for bigger exams and lower anxiety.

Encourages active participation

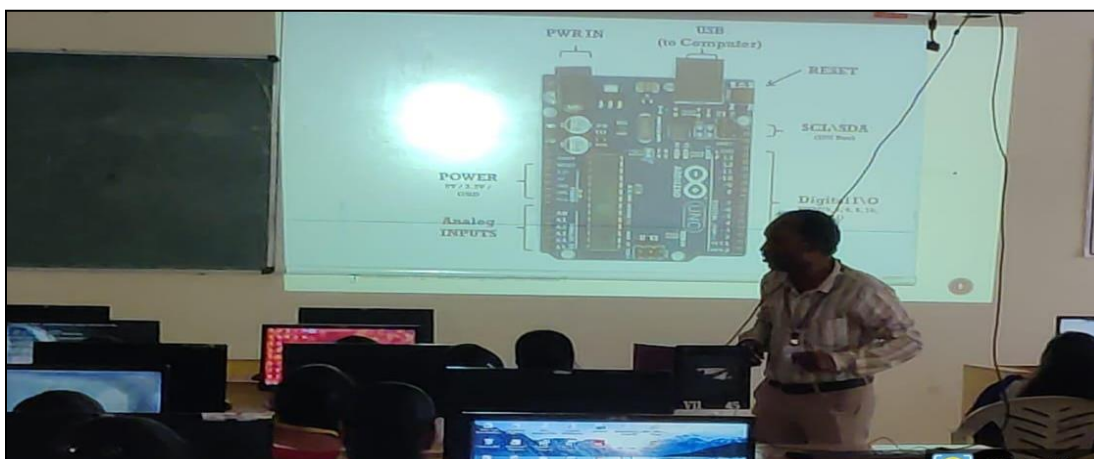
Students stay attentive and involved during lessons.



Hardware Demonstration and Performance

Hardware demonstrations play a vital role in engineering teaching–learning processes. They bridge the gap between theory and practice and make learning more effective. Key advantages include:

1. **Better Conceptual Understanding** Students can see theoretical principles in action, which helps them understand complex engineering concepts more clearly.
2. **Enhanced Student Engagement** Live experiments capture students' attention and encourage active participation instead of passive listening.
3. **Improved Retention of Knowledge** Learning through observation and hands-on experience helps students remember concepts longer compared to only lectures.
4. **Development of Practical Skills** Students become familiar with instruments, tools, measurements, and experimental procedures used in real engineering applications.
5. **Encourages Analytical and Critical Thinking**





VAAGESWARI COLLEGE OF ENGINEERING

(Sponsored by SREE VAAGESWARI EDUCATIONAL SOCIETY)

Accredited by NAAC with A+ Grade

Approved by AICTE New Delhi and Affiliated to JNTUH. Hyderabad

