

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING****Summary of Innovative teaching learning brought in by the Faculty in A.Y: 2024-25**

S.No.	Faculty Name	Class-Year	Course	Topics	Methodology/AID
1	K. Vijay Kumar	II-I	AC	BJT, UJT, FET	Experimental Demonstration
2	Dr. D. Surender	II-I	NAS	Two-Port Networks	PPT presentation
3	K. Jyothsna	II-I	DLD	Basic Gates, Combinational and Sequential Circuits	Quiz
4	G S Arun Kumar	III-I	IOT	Applications	Slip Test

**CO ORDINATOR****HEAD OF THE DEPARTMENT**

## Experimental Demonstration

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 becomes familiar with instruments, tools, measurements, and experimental procedures used in real engineering applications.
5. Encourages Analytical and Critical Thinking





## **PPT presentation**

PowerPoint presentations are widely used in education because they make teaching and learning more effective. The main advantages are:

### **Clear and Organized Content**

PPT helps present information in a structured and logical sequence, making concepts easier to understand.

### **Better Visual Learning**

Use of diagrams, charts, images, and graphs helps students grasp complex ideas quickly.

### **Improves Attention and Interest**

Attractive slides with colors and visuals keep students focused and reduce classroom monotony.

### **Simplifies Complex Concepts**

Difficult topics can be broken down into key points, flowcharts, and step-by-step explanations.

### **Enhances Note-Taking**

Students can easily follow slides and take accurate notes without missing important points.

### **Time-Efficient Teaching**

Teachers can cover more content effectively within limited class time.

### **Supports Different Learning Styles**

Visual, auditory, and reading learners benefit from PPT-based teaching.

### **Easy Revision and Review**

PPT files can be shared with students for later revision and exam preparation.

### **Consistency in Teaching**

Ensures uniform delivery of content across different classes or batches.

### **Encourages Interactive Learning**

PPTs can include questions, animations, videos, and hyperlinks to promote interaction.



## Conclusion:

PPT presentations enhance teaching effectiveness by making learning visual, organized, engaging, and student-friendly.



## Quiz

### Advantages of Quizzes for Students

#### 1. Improves memory and understanding

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

#### 2. Encourages regular study habits

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

#### 3. Builds confidence

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

#### 4. Provides quick feedback

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

#### 5. Makes learning interesting

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

#### 6. Develops thinking skills

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

#### 7. Reduces exam stress

Regular quizzes prepare students for bigger exams and lower anxiety.

#### 8. Encourages active participation





## Slip Test

### 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.

### 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.

### 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.

### 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.

### Formative Assessment Tool

Slip tests are part of formative evaluation, which focuses on continuous improvement rather than just final scores. They often carry weightage in internal assessments (e.g., 40% in some systems).



## Encourages Self-Evaluation

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





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