

Academic Year 2016-17

Sl. No.	Name of Faculty	Course	Semester	Innovative method
1	A.Kumar	Electrical power utilization	7 th	Practical demo on Lighting system in BNMIT campus
2	Shubha Rao K	Artificial Intelligence	8 th	MCQ on Artificial Intelligence
3	Shubha Rao K	Modern control theory	5 th	Skill check on modern control theory
4	Priyashree.S	High voltage engineering	7 th	Word Puzzle on high voltage engineering
5	Ashwini .A	Basic Electrical Engineering	2 nd	Practical demo on cut section of DC machines, induction motor and transformer.
6	Smita.S.Patil	Digital system design	3 rd	Open book test on sequential circuit design
7	Champa P N	Transformers and Generators	3 rd	Quiz on transformers and generators
8	Smita.S.Patil	Linear ICs	4 th	Quiz on operational amplifiers and its applications.
9	Savita Sangappanavar	Electrical & Electronics Measurements	3 rd	Practical demo of construction and working of various instruments
10	Priyashree.S	High Voltage Engineering	7 th	Word Puzzle on HVE
11	Kruthi Jayaram	HVDC	7 th	Puzzle on HVDC transmission system
		Power generation & economics	4 th	Puzzle activity on grounding
		M & E	5 th	Case studies, Videos on management principles, functions and process, pick and speak
12	Savita Sangappanavar	Embedded systems	6 th	MCQ on Software architecture and interfacing ADC,DAC with microcontroller 6811/6808

B.N.M. Institute of Technology

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Department of Electrical & Electronics Engineering

Innovative Teaching Methods

Title of Innovative method/Activity: Practical demo on lighting system at BNMIT

Year: 2016-17

Faculty/Inventor: A.Kumar

Designation: Associate Professor

Goals/Objective of method:

To give awareness on the illumination methods which are discussed in the theory.(EPU)

Description of method:

The students were taken around the campus to show the various lighting methods, use of reflectors, use of different lighting schemes for class rooms, yard lighting etc.

Benefits of method:

The activity will bring a visual awareness of the concepts taught in the theory class. This will make the understanding of the subject better.

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Department of Electrical & Electronics Engineering

Innovative Teaching Methods

Title of Innovative method/Activity: Puzzle on Energy Conservation **Year:** 2015-16

Faculty/Inventor: A.Kumar

Designation: Associate Professor

Goals/Objective of method:

To create an awareness on energy conservation through a puzzle.

Description of method:

A jumbled words with clue related to energy conservation was given to the students. The students were asked to identify the correct word based on the question given.

Benefits of method:

This method provides the awareness on energy conservation which is a key of the subject Energy auditing and Demand side management.

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Department of Electrical & Electronics Engineering

Innovative Teaching Methods

Title of Innovative method/Activity: **Skill check**

Year: **2016-17**

Faculty/Inventor: Shubha Rao K

Designation: Associate Professor

Goals/Objective of method:

To assess a student knowledge and analytical skill in modern control theory.

Description of method:

Objective type questionnaires were prepared and given for the students to solve. This method improves a student analytical and reasoning ability.

Benefits of method:

This method improves a student analytical and reasoning ability.

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Department of Electrical & Electronics Engineering

Innovative Teaching Method

Title of Innovative method/Activity: **Quiz**

Year: **2016-17**

Faculty/Inventor: Shubha Rao K

Designation: Associate Professor

Goals/Objective of method: To improve logical/analytical skill in LISP programming language (AI in power systems).

Description of method:

A quiz was conducted on LISP programming language

Benefits of method:

It improves students understanding and reasoning ability.

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Feedback from students were taken on this activity and Most of them enjoyed the quiz activity and were of the view it helped to improve their knowledge in LISP and reasoning ability.

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Innovative Teaching Method

Title of Innovative method/Activity: Word Puzzle

Year: 2016-17

Faculty/Inventor: Priyashree S

Designation: Associate Professor

Goals/Objective of method:

Students are required to solve the cross word consisting of 12 questions for the clues given in the form of statements.

Description of method:

This concept gives an insight for the students about the basic definitions of terms related to applications of high voltage engineering and the terms related to the Electrostatic breakdown of gaseous, liquid and solid dielectric materials.

The definitions or descriptions of a particular term are mentioned as the clue in the form of a statement. The students are required to identify the term as indicated by the clue and encircle each these words in the jumbled letters.

The Quiz was evaluated based on the maximum marks scored by each student with a mapping of 1mark for each question. Three students were identified for the first three positions in the class.

Benefits of method:

The Module on applications of high voltage engineering and the Electrostatic breakdown of gaseous, liquid and solid dielectric materials consist of vast number of terminologies that form the basis for understanding the other modules of the course. The crossword puzzle helps to minimize the effort of memorizing the terms

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Department of Electrical & Electronics Engineering

Innovative Teaching Method

Title of Innovative method/Activity: Practical demo on cut section of DC machines, induction motor and transformer.

Year: 2016-17 (Even)

Faculty/Inventor: Mrs. Ashwini A

Designation: Asst. Professor

Goals/Objective of method: To give practical exposure to the construction of DC Machine, Induction motor & Transformer

Description of method :

The cut-section of DC Machine, Induction Motor & Transformer model is shown. The construction of each machine & its parts are discussed in detail. The working of each machine is explained for better understanding.

Benefits of method:

- Students will be able to understand the construction and working more clearly.
- Students will have clear idea about the actual parts of machine.
- It is very ideal for the students to understand and study the construction of various machines.

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Department of Electrical & Electronics Engineering

Innovative Teaching Methods

Title of Innovative method/Activity: Quiz

Year: 2016-17

Faculty/Inventor: Champa.P N

Designation: Assistant Professor

Goals/Objective of method:

The students are required to provide answer in one word from the syllabus including definitions and properties.

Description of method:

This concept gives an insight for the students about the basic definitions, terminologies and Characteristics of Transformers. The students are required to recollect and write these terms, definitions or Characteristics in order to complete the solution for the given question. The Quiz was evaluated based on the maximum marks scored by each student with a mapping of 1 mark for each question.

Benefits of method:

The quiz has been framed such that the students will get the familiarity about the definitions, significant application in real world. This quiz will provide awareness about the concepts being taught during the regular classes & facilitates as a revision for the internal assessment.

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Department of Electrical & Electronics Engineering

Innovative Teaching Methods

Title of Innovative method/Activity: Practical demo of construction and working of various instruments

Year: 2016-17 (Odd)

Faculty/Inventor: Mrs. Savita Sangappanavar

Designation: Asst. Professor

Goals/Objective of method: To understand the working of various measuring instruments.

Description of method:

The various measuring instruments such as Megger, Voltmeter, Ammeter, Multi-meter and Energy meter, the physical meters have shown and explained its construction and working operation.

Benefits of method:

- Students will clearly understand the construction and working of various measuring instruments.
- Students will have better insight on the above mentioned topics.

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Department of Electrical & Electronics Engineering

Innovative Teaching Methods

Title of Innovative method/Activity: PUZZLE ON HVDC TRANSMISSION SYSTEM

Year: 2016-17

Faculty/Inventor: Ms. Kruthi Jayaram

Designation: Assistant Professor

Goals/Objective of method: The objective of the activity was to know how well the students have learnt about the concept of HVDC transmission system and components used in the transmission HVDC system.

Description of method:

To understand the concepts of the subject puzzle activity based on the various aspects of HVDC transmission system. The activity comprised of using puzzle sheets given to each student with a time frame of 20mins. Students had to answer the puzzle questions based on the knowledge acquired in class. Later the sheets were evaluated and first three toppers were given chocolates.

Benefits of method: The students benefited from the activity by gaining the knowledge of HVDC concepts.

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Innovative Teaching Methods

Title of Innovative method/Activity: **PUZZLE**

Year: 2016-17

Faculty/Inventor: **Ms. Kruthi Jayaram**

Designation: Assistant Professor

Goals/Objective of method: The objective of the activity was to know how well the students have learnt about the concept of power generation & grounding systems.

Description of method:

To get the better understanding of the subject power generation & grounding system the innovative method taken was Puzzle activity. The students were given puzzle sheets and were made to individually write the answers according to the question given. Their knowledge of understanding about the subject was tested

Benefits of method: their understanding of the topic was analyzed.

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Innovative Teaching Methods

Title of Innovative method/Activity: PICK & SPEAK

Year: 2016-17

Faculty/Inventor: Ms. Kruthi Jayaram

Designation: Assistant Professor

Goals/Objective of method: The objective of the activity was to make students understand the concepts of management through pick and speak topics and thereby test their abilities on communication, time management.

Description of method : To understand the concepts of the subject through different speakers, the innovative method adopted was pick & speak. The topics were associated with the subjects like Management by objectives, Is management necessary?, Barriers of entrepreneurship, entrepreneur, How important is communication in workplace?, Creativity passion, etc. The students were randomly picked and selected the topic and spoke for 5mins. Faculty from EEE Dept acted as internal judge and evaluated the students based on 5 attributes.

Benefits of method: The students benefited from the activity by gaining the knowledge of concepts through different speakers (students).

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Department of Electrical & Electronics Engineering

Innovative Teaching Method

Title of Innovative method/Activity: MCQ on Software architecture and interfacing ADC, DAC with microcontroller 6811/6808

Year: 2016-17 (Even)

Faculty/Inventor: Mrs. Savita Sangappanavar

Designation: Asst. Professor

Goals/Objective of method: To understand the Software architecture and interfacing ADC, DAC with microcontroller 6811/6808 more clearly.

Description of method:

In this method, 30 objective type questions are framed each carrying one mark. It will cover the software architecture chapter. Students will be given 30 minutes to take up the test.

Benefits of method:

- Students will get prepared for exams.
- Students will have better insight on the above mentioned topics.

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