

B.N.M. Institute of Technology

Approved by AICTE, Affiliated to VTU, Accredited as grade A Institution by NAAC.

All UG branches – CSE, ECE, EEE, ISE & Mech.Engg accredited by NBA for academic years 2018-19 to 2020-21 & valid upto 30.06.2022

Post box no. 7087, 27th cross, 12th Main, Banashankari 2nd Stage, Bengaluru- 560070, INDIA

Ph: 91-80- 26711780/81/82 Email: principal@bnmit.in, www.bnmit.org

Department: Electrical & Electronics Engineering

Innovative Teaching Method

Academic Year 2021-22

Sl. No.	Name of Faculty	Course	Semester	Innovative method	Whether published in website? (Yes/No)
1.	Champa P N	Renewable Energy sources	VI	Paper Publication (Literature Review articles) & Technical Seminar presentation	Yes
2.	Champa P N	Renewable Energy sources	VI	Debate Competition	Yes
3.	A Kumar	Microcontroller	V	Mini Project	Yes
4.	Dr S Sudalai Shunmugam	High Voltage Engineering	V	Introduction to the High Voltage Measurement and Testing Techniques	Yes

B.N.M. Institute of Technology

Department of Electrical & Electronics Engineering

Innovative Teaching

Activity: Paper Publication (Literature Review articles) & Technical Seminar presentation

Faculty/ Inventor: Smt. Champa PN

Designation: Assistant Professor

Academic Year: 2021-22

Goals/ objective of methods:

- Create, promote, and sustain an innovative digital learning culture.
- Encouraging active and collaborative learning among students.
- Assessing students' understanding of assessment criteria and learning outcomes
- Discussion and instructional impact are enhanced through social learning.

Description of method:

A review article, often known as a literature review, is a compilation of previously published research on a certain subject. It should provide a summary of current thinking on the subject and, unlike a research article, will not include new experimental data.

A literature review's goal is to give a critical assessment of the data available from existing studies. Review papers can help researchers find new study areas to investigate, and they can also derive new conclusions from existing data.

Group members are encouraging and complimentary of one another, using the right frameworks and documentation for the project.

Benefits of method:

- Student investment in writing and helps students understand the relationship between their writing and their coursework
- Provide students opportunities to learn from one another and to think carefully about the role of writing in the course at hand.
- Feedback from peers helps in the development of skills and knowledge
- Teams produce higher quality results and can improve writing skills.

List of Technical Review Articles published in UGC Approved Journal, Q3 & Q4 Scopus Indexed Journals:

1. <http://stradresearch.org/Volume-8-Issue-7-2021/>
2. <https://jusst.org/how-renewable-energy-affects-our-planets-future/>
3. <http://www.ezeichen.com/volume-7-issue-8-2021/>
4. <http://cdjournal.com/index.php/vol26num8>
- 5 Sustainable Accomplishment of Solar E-waste Recycling -A Review - Journal of University of Shanghai for Science and Technology (jusst.org)

E-mail of the Faculty/ Inventor for Review and critique: champapn@bnmit.in

B.N.M. Institute of Technology

Department of Electrical & Electronics Engineering

Innovative Teaching

Activity: Debate Competition

Faculty/ Inventor: Smt. Champa P N

Designation: Assistant Professor

Academic Year: 2021-22

Goals/ objective of methods:

- Encouraging students to learn from peers
- Improving confidence and presentation skills

Description of method:

Debate is an activity in which students will speak about the given topic either for or against for 15-20 minutes.

Students were given the opportunity to speak for a few minutes about new terminologies and methodologies. Students may ask questions about the activity and will participate, which will help them gain confidence in the subject.

Benefits of method:

- Speech from the peers helps the students to understand the topics through a discussion.
- The activity builds confidence in students to come over the stage fear and express their knowledge.

E-mail of the Faculty/ Inventor for Review and critique:

champapn@bnmit.in

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Department of Electrical & Electronics Engineering

Innovative Teaching Method

Title of Innovative method/Activity: Mini project

Year: 2021-22

Faculty/Inventor: A. Kumar

Designation: Associate Professor

Course Name: Microcontroller (18EE52)

Goals/Objective of method: The objective was to make students physically use microcontroller for real life applications and understand the interface between hardware and microcontroller better

Description of method (8-10 lines):

The method involves creating student groups. Minimum of 2 students to maximum of 4 students per group is permitted. The students select a project based on microcontroller with necessary hardware interface involved. The group executes the project and shows the output to the course faculty. The activity helps the students to learn the real life scenarios involving microcontrollers like automation, security etc. and also to learn the interfacing of external devices to microcontroller.

Benefits of method: As explained earlier, the benefits are:

1. Students learn to implement a real life scenario using microcontroller.
2. They understand the use of sensors and different types of sensors.
3. They understand the interface between microcontroller and external devices.

For review and critique contact:

akumar@bnmit.in, hodeee@bnmit.in

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Department of Electrical & Electronics Engineering

Innovative Teaching Method – High Voltage Engineering (18EE56)

Title of Innovative method/Activity:

1. Introduction to the High Voltage Measurement and Testing Techniques

Year: 2021-22

Faculty/Inventor: Dr S Sudalai Shunmugam

Designation: Associate Professor

Goals/Objective of method:

1. To give the introduction about the various testing measurement and testing techniques followed as per national and international standards
2. To share the videos and pictures of the actual field measurement and laboratory testing procedure.

Description of method (8-10 lines):

- A brief introduction of testing standards adopted (IEC and IS)
- To elaborate the difference between type test and routine test
- HVE measurement & testing pictures and videos of on and off-field conditions were shared with the students

Benefits of method:

- Awareness of testing techniques adopted in the industries.
- A brief introduction about power system component interaction with the immediate environment.

For review and critique contact:

E-Mail address of faculty and HoD:

sudalai.shunmugam@gmail.com