2.3.1 Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

In Criteria 2.3.1 Students centric methods the HEI has shown the proof for Computer Assisted learning, Interactive learning, E learning, independent learning and the Peer Team has accepted the same in the peer team report but marks awarded is less in the grade sheet. Hence HEI requests to reconsider the data provided.

Various Activity-based techniques are adopted by the faculty members are listed below:

- **Lecture method and Interactive learning**:
   The faculty use chalk and board and audio visual aids in teaching. Students are also encouraged to interact during the lecture hour by getting the doubts clarified on the spot.

- **Faculty using models & charts for interactive teaching**.

- **Project-based learning:**
   During the period of study in the III year II semester and IV year II semester, many real time projects are given to the students and they are guided by both faculty and Industry/Research personnel. During the period of study in the 6th to 8th semester, many real time projects are given to the students and they are guided by both faculty and Industry/Research personnel.

- **Computer-assisted learning:**
   The Institute has required number of computers, printers, LCD projectors, application software's and system software's. These are effectively used for teaching. The students are also encouraged to develop software's for the solution of the assignments and tutorials. Many final year projects are completed through the use of software.

- **Independent learning:**
   The institute provides well stocked library which consists of bulk of books, journals, project reports and other teaching materials for the use of students and faculty. The department provides well equipped and advanced labs for improving programming skills & logical thinking. Faculty and students has got the access to NPTEL, DELNET, MIT, CSI, and ACM video lectures for effective teaching learning practices. On necessary topics Interactive lectures with Industry experts are initiated.

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Students are encouraged to do projects starting from first year on the basics / fundamentals of subjects. The students are encouraged to attend workshops and conferences. Students are encouraged to take up engineering projects in community service. The students are encouraged to design their own applications using the available equipment in the laboratory and software. The faculty motivates the students to participate in model making, paper presentations, software contests to nurture critical thinking and various co-curricular activities in various events organized in and outside the college. The scientific temper among students is enhanced by providing additional laboratory hours and research activities.

Students are encouraged to participate in National and International Hackathon, project competitions and workshops with hands-on experience. Students are encouraged to take up industry oriented projects. Students are encouraged to gain knowledge in interdisciplinary subjects through electives, seminars and discussions with experts.

The college encourages participating in games & sports, NSS and other social activities to enhance their team work skills, self esteem, leadership quality and personality.

- **E-Learning/ICT:**

Efforts are made to maximize the use of Modern resources and aid to improve the teaching in the class rooms. The students are also encouraged to use computer software packages for their projects. NPTEL lectures, MIT Lectures E-Journals(DELNET) Faculty utilizes online resource course material of different International and National Universities. The departments conduct paper contest, poster presentation, and technical exhibition etc. under departmental association.
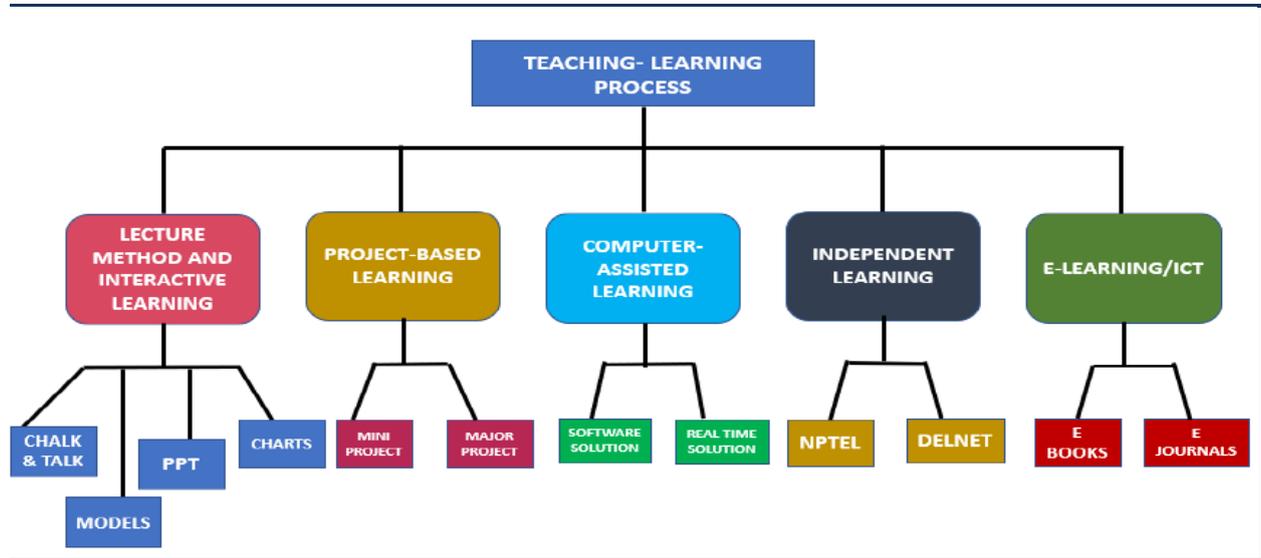
https://biet.ac.in/cse-faculty-innovations.php

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2.3.1. Student centric methods, such as experiential learning, participative learning and problem solving methodologies are used for enhancing learning experiences

To improve the level of understanding in students, the following innovative teaching approaches are undertaken by the institution.

1. ICT supported learning

2. Soft skill

3. Socio constructivist perspective

4. Classroom discussions

5. Short presentations

6. Group projects

7. Mind Map

8. Z to A approach

9. Role play

10. Brown bag

1. ICT SUPPORTED LEARNING:

Faculty enrolling NPTEL online courses of their interest and appearing for Certification Exam conducted by NPTEL. Faculty motivating students under their mentorship to enroll NPTEL courses and then solving Assignments with help of concerned faculty, listening NPTEL videos and appearing for certification exam.

Faculty prepares power point slides on some theoretical concepts and having complex diagrams and then presents in the respective class room.

ICT Learning

NPTEL Videos

NPTEL Student Certificate

2. SOFT SKILLS WORKSHOPS

"Aricent Academy" conducted specialized training to the faculty of Engineering at BIET during June 2016 by developing state-of-the-art facilities. They conducted one week workshop on "*PRESENTATION SKILLS"* which was attended by our faculty. The faculty has been using the workshop techniques in the class room to improve qualification of students.

BIET Management organizes *Student Development Program on* "PERSONALITY DEVELOPMENT AND SOFT SKILS" every academic year beginning for all students at Rama Krishna Math, Hyderabad in association with Vivekananda Institute of Human Excellence.

3. SOCIO CONSTRUCTIVIST PERSPECTIVE

Social constructivist perspectives focus on the interdependence of students in the co-construction of knowledge.

IDEA: To play a video related to a topic and make students answer a few questions related to it.

IMPLEMENTATION:

Playing a video on a particular topic of handling subject

Questionnaire: (About the topic given)

OUTCOME: Better understanding of a topic by students.

4. CLASSROOM DISCUSSION

IDEA: To make students discuss a given topic.

IMPLEMENTATION:

Select topic

Students are divided into three groups.

Each group is assigned a name based on topic selected.

Students are asked to give their views on the concept.

OUTCOME:

Active participation of students. Remembering the topic for a longer time.

Class room discussion

5. SHORT PRESENTATION

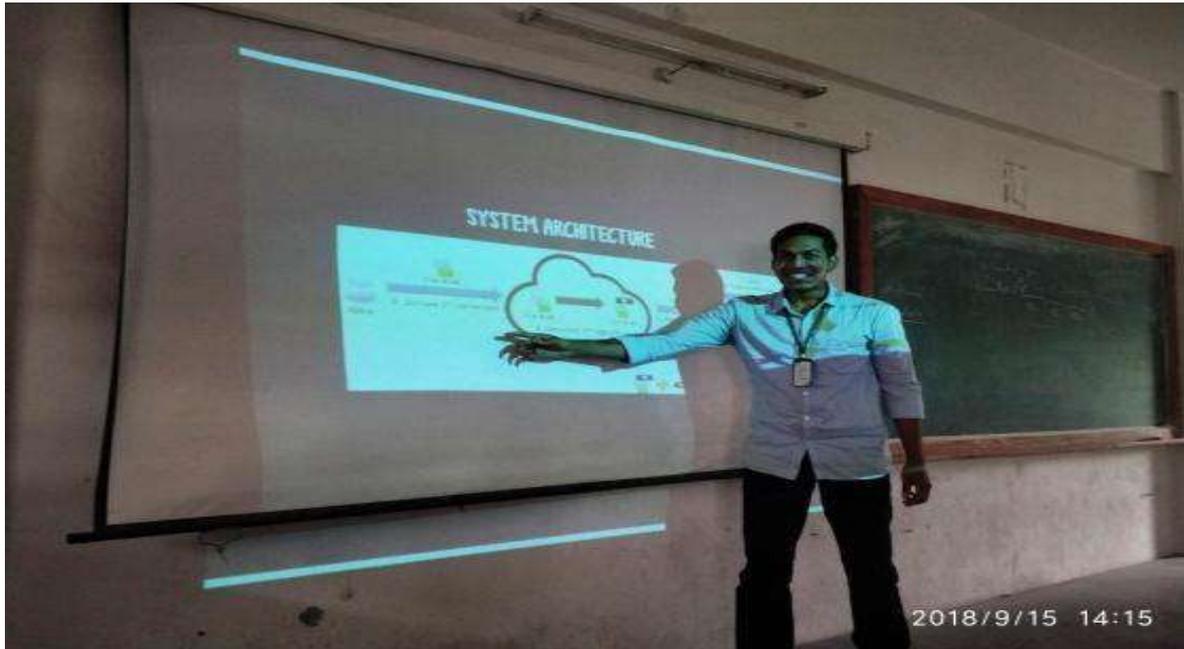**IDEA:** To make students give a presentation on a given topic

IMPLEMENTATION:

Selected 5 to 6 topics are given to some students.

They are asked to prepare and give seminars on the given topics.

OUTCOME:

Improved presentation skills of student and better analyzing of a topic.

Student's class room Seminars

6. GROUP PROJECTS

IDEA: To make students understand IEEE papers and implement a part of it.

IMPLEMENTATION: Students have implemented a few IEEE projects.

OUTCOME:

Bringing out the creative thoughts of students.

Student's Projects Exhibitions during PROJECT DAY Contest

7. MIND MAP

IDEA: Mind Maps can be used in class to brainstorm and generate discussions. This involves use of notes with keywords and images in classroom teaching.

IMPLEMENTATION: Following image is shown to students and they are asked to discuss it among themselves. ***Topic name (represent diagram example related to that topic)***

OUTCOME:

This will encourage students not only to participate but also to fully understand a topic and its nuances by creating connections between ideas. This makes students remember the topic for a longer time.

Students Experiential Learning

8. Z TO A APPROACH

IDEA: Attempt to explain the application for a particular concept first and then the concept

IMPLEMENTATION:

Listing different peripherals (like keyboard, mouse, LEDs and switches) used for better operation of 8086 microprocessor. Discussion of interfacing them with 8086. Drawing the need of using 8255 for interfacing 8086 with peripherals by increasing the number of I/O ports then discuss the 8255 architecture.

OUTCOME: Creating interest among the students in knowing the topic.

Students Coding Contest

9. ROLE PLAY

IDEA: Students are given a scenario and other options to solve a particular issue, then the students are exposed to decision making in a given environment.

IMPLEMENTATION: Some students are selected randomly. Each student is assigned a particular frequency. One students is selected to act as a low pass filter with particular cut-off frequency. He is made to stand at the door of classroom. Students come one by one. The student with frequency less than cut-off frequency is only allowed to enter the classroom. The other students are blocked at door.

Students Role Play during Projects Demonstration

10. BROWN BAG APPROACH

IDEA: A bag is filled with papers having different topics of the subject written on them. Each student is asked to pick a paper of his/her choice. And they are given an opportunity to explain it.

IMPLEMENTATION: The following topics are written on paper, and kept in bag. Add topic names up to 6

OUTCOME: This allows students to experience a real time exchange of knowledge.

Students Group random topic presentations

Students Demonstration in Hackathon

Student presentation of Charts

neering and...

Google

GPS Map Camera

Vastunagar, Telangana, India
Bharat College Rd, Vastunagar, Telangana 501510, India
Lat 17.206702°
Long 78.600485°
21/12/21 10:22 AM

Student Charts Preparation

AGRICULTURE ASSISTANCE SYSTEM (MODEL)
(KRISHI SAHAYATAH PRANALEE)

Participation of students in Smart India Hackathon Finale

Students usage of DELNET