Methods for Enhanced Learning

Newly joined faculty members are made aware of the course delivery methods, Blooms Taxonomy and Outcome Based Education (OBE) through various workshops and faculty development programs conducted at the Department and Institute level.

Few such programs are as follows-

Infosys Campus Connect:

Campus Connect is a well-established industry-academia program aimed at enhancing the pool of capable talent for the requirements of IT Industry. This is a nation-wide program that focuses on preparing "industry-ready IT professionals" by aligning and enhancing engineering student competencies with the needs of the industry.

Spoken Tutorial-IIT Bombay:

IIT Bombay has launched the Spoken Tutorial Project which promotes IT literacy through Open Source Software. MVJCE is proud to be one of the resource centers (code KAR-00004) in Karnataka

Tinkering Lab:

The Tinkering Lab is a dedicated space on campus to explore ideas and experience the process of creation of technology from ideation to prototyping. The Lab provides basic machinery, materials, tools and instruments for students to give form to their imagination.

NI Lab View:

MVJCE has collaborated with National Instruments for establishing a lab at the MVJCE Center of Excellence. The lab established will be used to train and certify MVJCE students on the LAB View Platform. Students will use this lab to develop projects and conduct research and analysis in collaboration with MVJCE Faculty.

UAV Lab:

The UAV Lab helps the students learn and understand the design and fabrication of Unmanned Aerial Vehicles. It encompasses the application of Aerodynamics and Stability in a real aircraft model and helps the students to get a hands-on understanding in Aeronautical Engineering.

IUCEE's Outcome Based Education training:

The IUCEE's vision is to improve the quality and global relevance of engineering education and research in India and provide related benefits to US engineering educators, with focus on faculty development, student development, curriculum development, as well as improved teaching technologies and research.

Robotics and Industrial Automation Lab

The goal is to educate undergraduate and postgraduate students in robotics and provide a technically advanced platform to complete their mini projects and final year projects. The lab is well equipped with the latest advanced tools and equipment. This enables the students to bring their ideas to life provisions.

Lectures, e-materials, visual and demonstration classes, tutorial classes and assignments are the different methods of teaching at MVJCE

The college encourages teachers to use the latest pedagogical teaching technology including audio–visual teaching machines. Apart from the classroom lectures, basic concepts and introduction of the topic is delivered with PPT and models. Student learning is enhanced by adopting approaches / methods such as seminars, conferences and special lectures. The faculty members are encouraged to participate in State / National level seminars for which beneficial assistance is given by the college. Challenging assignments and projects are given to the students to hone up their intellectual calibre, sharpen their inquisitiveness, induce them to experience the thrill of learning and enjoy the pleasure of achievement. Discussion of previous question paper after every lecture prepares the students for examination on a daily basis.

Study material and periodic assignments are also made available to the students . This enables students to come prepared for the classes. This practice has led to better interaction in the classrooms and laboratories. Invited talks by experts from the industry and academia and add-on courses are organised by the departments to cover contents beyond the syllabus and recent trends. MOUs are signed with leading industries to bridge the gaps in the curriculum.
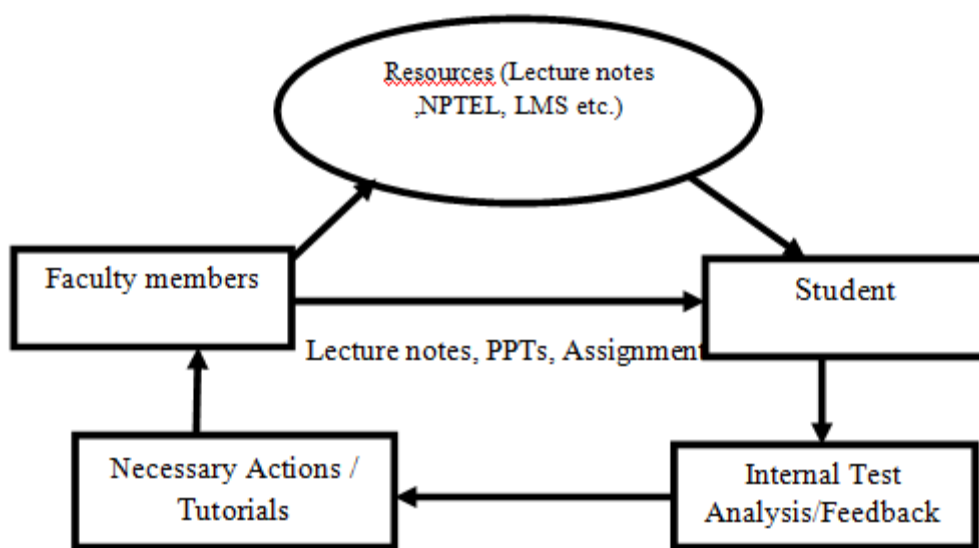
Class room teaching methodology
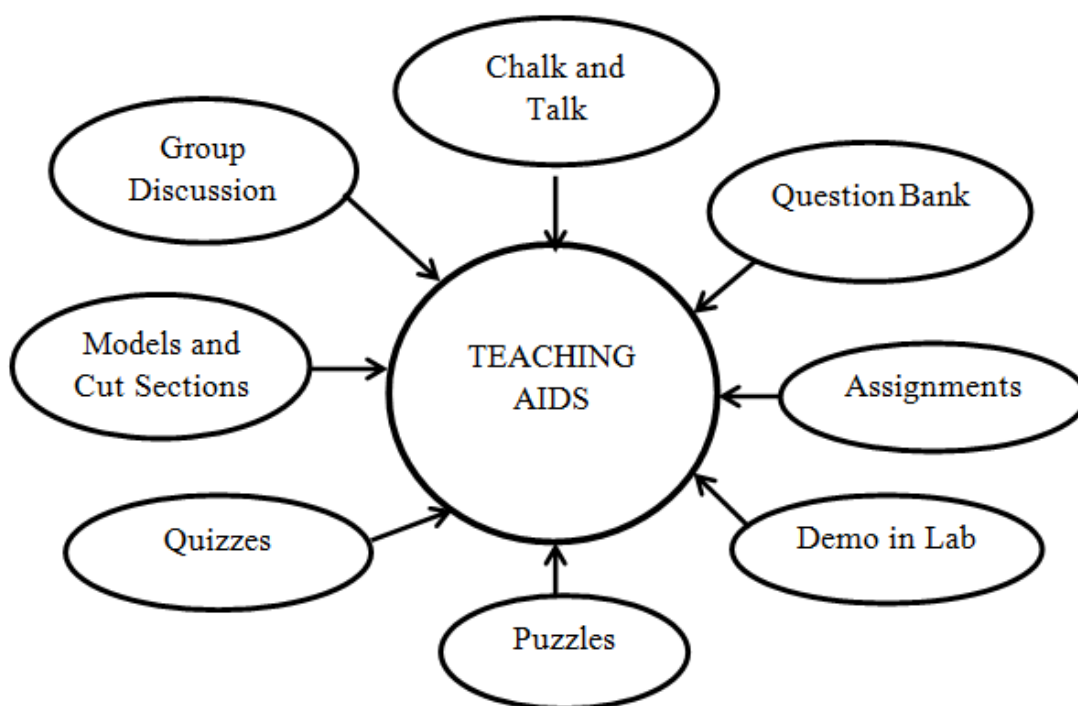
Effective teaching aids used for the program.

Course Delivery Methods:

• Lectures

• Class presentations

• Tutorials

• Lab experimental work

• Simulations and experimental exercises

• Written Assignments

• ELearning: identifying online resources for self-learning

• Learning management system(LMS) materials, NPTEL videos

• Case Studies / Technical reports

• EDUSAT

• Webinars

• Virtual lab

• IIT Bombay – spoken tutorial project

Lectures: An effective lecturer can communicate the intrinsic interest of a subject through their enthusiasm.

* Lectures can be specifically organized to meet the needs of particular audiences.

* Lectures can present large amounts of information.

* Lectures can be presented to large audiences.

* Lecturers can model how professionals work through disciplinary questions or problems.

* Lectures allow the instructor maximum control of the learning experience.

* Lectures present little risk for students.

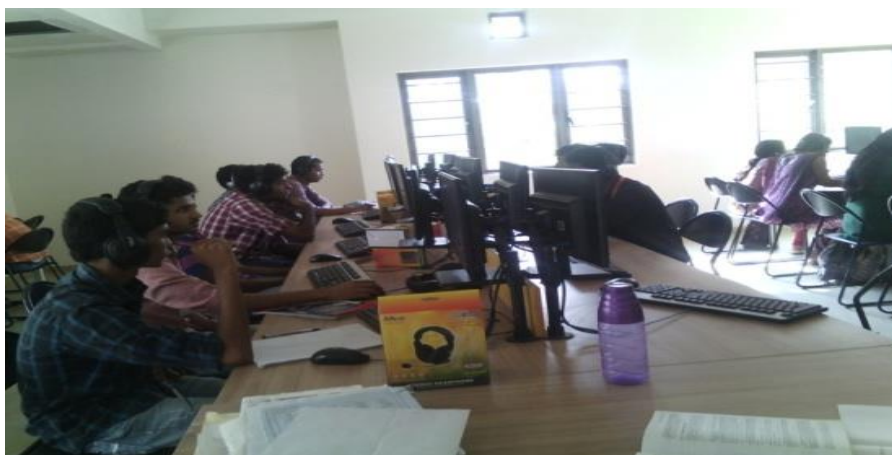* Lectures appeal to those who learn by listening.

Class Room Ambience

Class presentations

A presentation is a collection of data and information that is to be delivered to a specific audience. A PowerPoint presentation is a collection of electronic slides that can have text, pictures, graphics, tables, sound and video
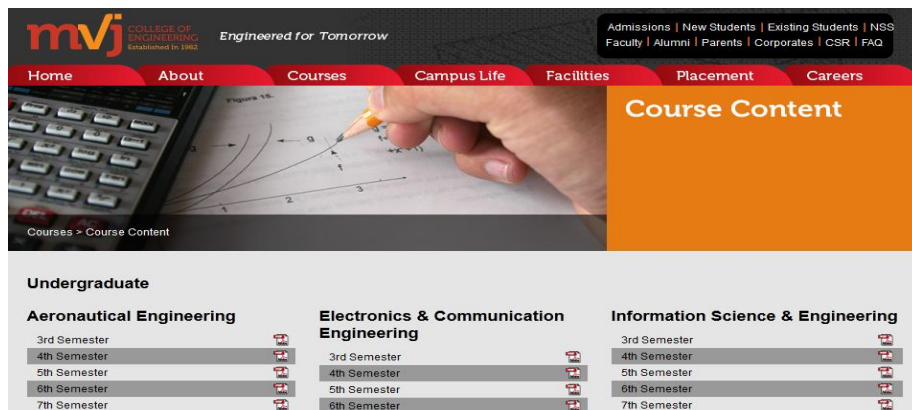
IIT BOMBAY- SPOKEN TUTORIAL

WEBINARS

IIT Bombay tutorial

Playing NPTEL video in Class Room

LMS Portal

Assignments and evaluation of assignments :

Apart from internal assessments for each course the faculty member also gives assignments to students which consists of questions at apply and analyze level in order to enhance POS and PSOs of the program. The Assignments are evaluated by the faculty members and returned to the students.

Interactive Learning Environment:

• It consists of the interaction between students and interactive e-learning platforms.

• Case study to impart skills and enhance students interaction and involvement in learning process.

• Another mode of providing learning experience to students is arranging for guest lectures, invited talks and student's seminars by the Department Associations.

Collaborative Learning

• The Institute also promotes industry sponsored projects and research projects.

• In activity based learning students are encouraged to participate in project competitions, design contests, and various technical festivals.

• Arranging industrial visits and field visits for special surveys.

Independent Learning

• E-learning platforms are provided to facilitate independent learning wherein students can access course contents online. Thus e-learning platforms bridge the gap from classroom learning, and also supplement advanced learning.

• Available e-learning platforms include Edulib, learning resources through CDs and DVDs.

• Wi-Fi facility is available on campus to allow students to access technical resources such as NPTEL Lectures, video clips, etc.

Student-centric learning is provided in the practical sessions. Experiential learning is ensured through individual or group projects. Team spirit is fostered through group discussions, debates and panel discussions. Modification of lab experiments make sure deep involvement of students in each lab work. Ability of problem solving is attained through algorithmic approach. ICT based learning is promoted through web-assignment, web-quiz etc. Analytical and presentation skills are shaped through case study. Interest in research is inculcated through paper presentation and publication.

Interactive lectures end with questions and assignments for which students have to consult books, CD ROMS, magazines, selected journals etc. from the library & also surf the internet Topic specific questions are also available for perusal of students. Group assignments are given with eliciting questions for which the learners have to be actively engaged in the library.