



DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING

• **Innovative Teaching Practices** : Lecture method and Interactive learning. The faculty use chalk and board and audio-visual aids in teaching. ...

1. Smart Classroom. ...
2. Google Classroom. ...
3. Chart and Model-based teaching. ...
4. Self- learning Courses. ...
5. Cooperative Teaching/ Peer learning. ...
6. Laboratory/ Video-based Demonstration.

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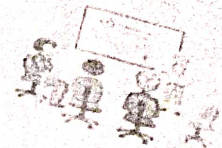
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DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING



TEACHING LEARNING METHODS



COURSE: B.TECH

Year & Department: III-I SEM & ECE

Activity: Students Presentation

Instructor: Mr. Ch. Sreedhar

Date :05.08.2022 & 09.08.2022

Class topic /subtopic	Activity	Specific Question asked	Details of implementation.	Time allotted
IPV6.ALOHA.CSMA/CD	Board Presentation	NO	Explanation on of IPV6	30min

Reflection Questions:

- What is the specific reason to choose the mentioned activity for the above topic?
 - To learn easily by students ,teaching by student in Class room
- What are the areas to be improved while implementing this pedagogical activity for the next time?
 - To be improved by adding PPTs .
- How would you ensure that the students have benefited from this activity?
 - 100 % students can be befitted as exam point of view.

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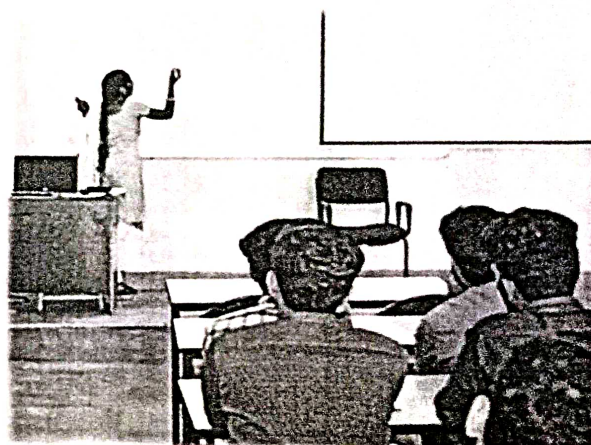
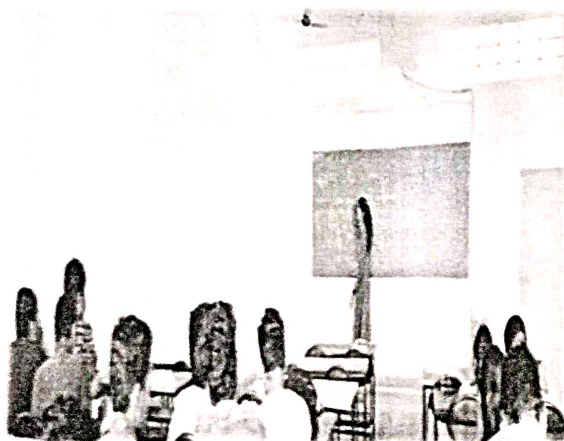
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4. What was the best and the challenging moment while implementing this activity?

- Students grasped very easily the topic

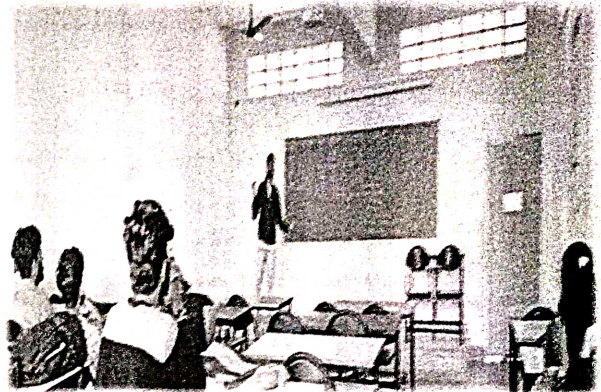
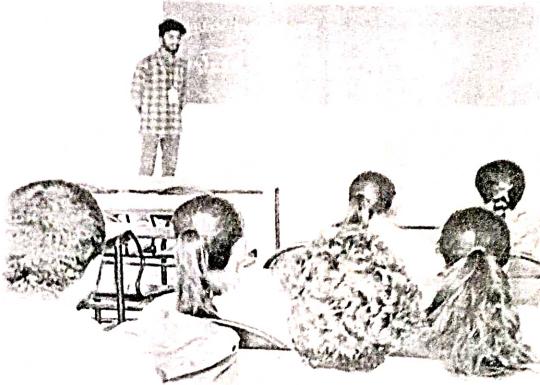
Snap Shots of the Activity: (Minimum 4 Pictures of the Activity with Date and Time Mentioned)





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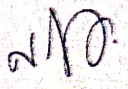


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Faculty Signature


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HOD
Head of the Department
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Department of ECE

EVENT REPORT ON TEACHING-LEARNING METHODOLOGY

DATE:

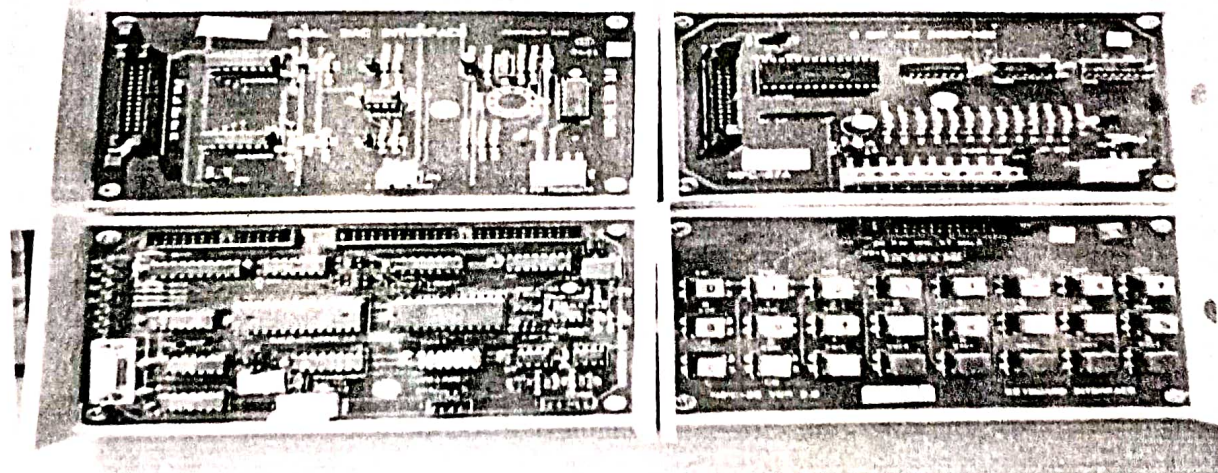
VENUE: 3rd year ECE classroom

EVENT NAME: Teaching –Learning Methodology – VISUAL AID BASED TEACHING

FACULTY: Mrs.B Mamatha, Assistant Professor

SUBJECT: MicroProcessors & MicroControllers- Unit III

Visual Aid Based Teaching:

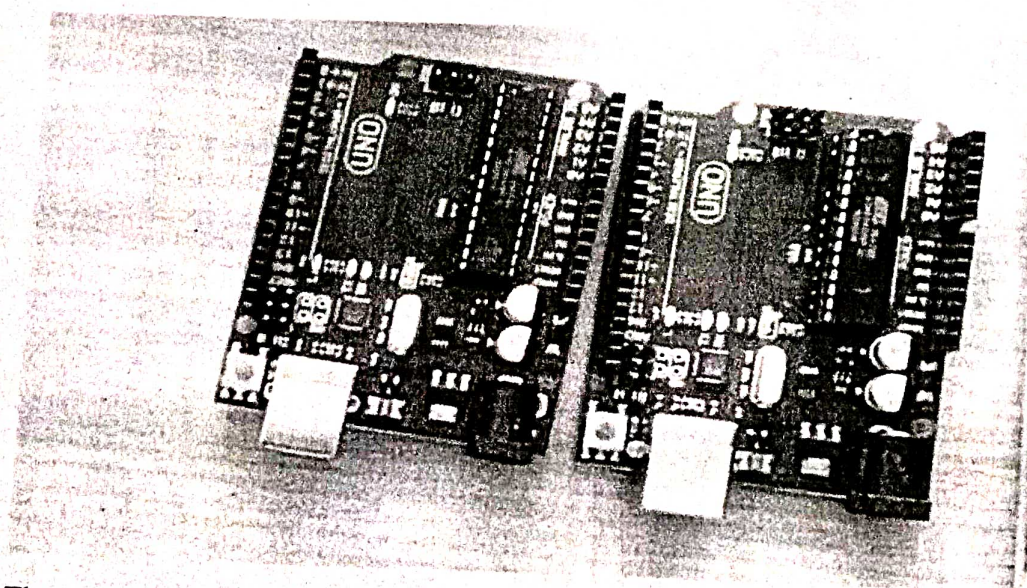


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Topics involved:

- Ardino UNO.



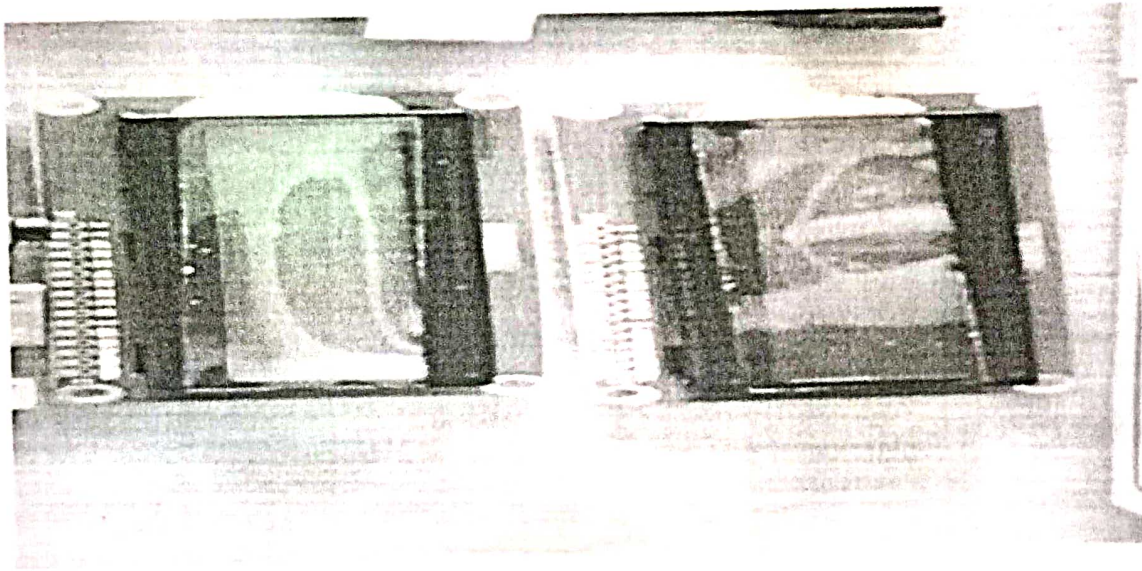
The Arduino UNO is a standard board of Arduino. Here UNO means 'one' in Italian. It was named as UNO to label the first release of Arduino Software. It was also the first USB board released by Arduino. It is considered as the powerful board used in various projects. Arduino.cc developed the Arduino UNO board.



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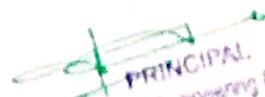


- 16*2 LCD



“Liquid Crystal Display.” LCD is a flat panel display technology commonly used in TVs and computer monitors. It is also used in screens for mobile devices, such as laptops, tablets, and smartphones.

- Pin1 (Ground/Source Pin): This is a GND pin of display, used to connect the GND terminal of the microcontroller unit or power source.
- Pin2 (VCC/Source Pin): This is the voltage supply pin of the display, used to connect the supply pin of the power source.
- Pin3 (V0/VEE/Control Pin): This pin regulates the difference of the display, used to connect a changeable POT that can supply 0 to 5V.
- Pin4 (Register Select/Control Pin): This pin toggles among command or data register, used to connect a microcontroller unit pin and obtains either 0 or 1 (0 = data mode, and 1 = command mode).


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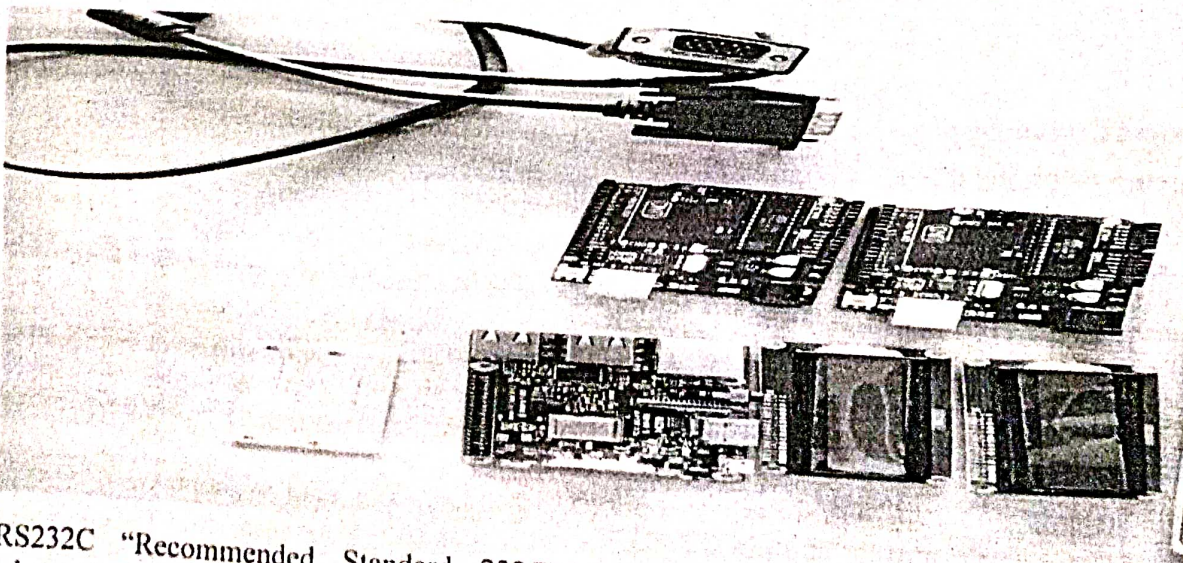
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- Pin5 (Read/Write/Control Pin): This pin toggles the display among the read or writes operation, and it is connected to a microcontroller unit pin to get either 0 or 1 (0 = Write Operation, and 1 = Read Operation).
- Pin 6 (Enable/Control Pin): This pin should be held high to execute Read/Write process, and it is connected to the microcontroller unit & constantly held high.
- Pins 7-14 (Data Pins): These pins are used to send data to the display. These pins are connected in two-wire modes like 4-wire mode and 8-wire mode. In 4-wire mode, only four pins are connected to the microcontroller unit like 0 to 3, whereas in 8-wire mode, 8-pins are connected to microcontroller unit like 0 to 7.
- Pin15 (+ve pin of the LED): This pin is connected to +5V
- Pin 16 (-ve pin of the LED): This pin is connected to GND.



• RS-232 & USB



RS232C "Recommended Standard 232C" is the recent version of Standard 25 pin whereas, **RS232D** which is of 22 pins. In new PC's male D-type which is of 9 pins.



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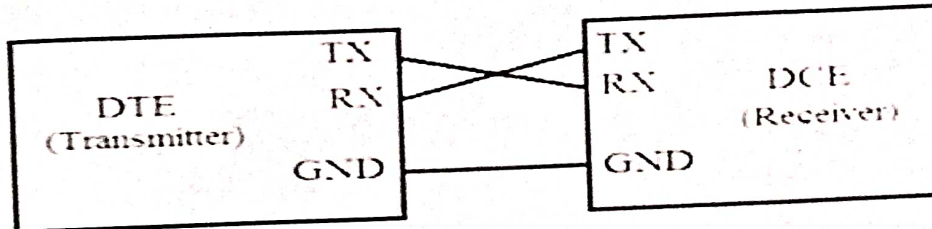
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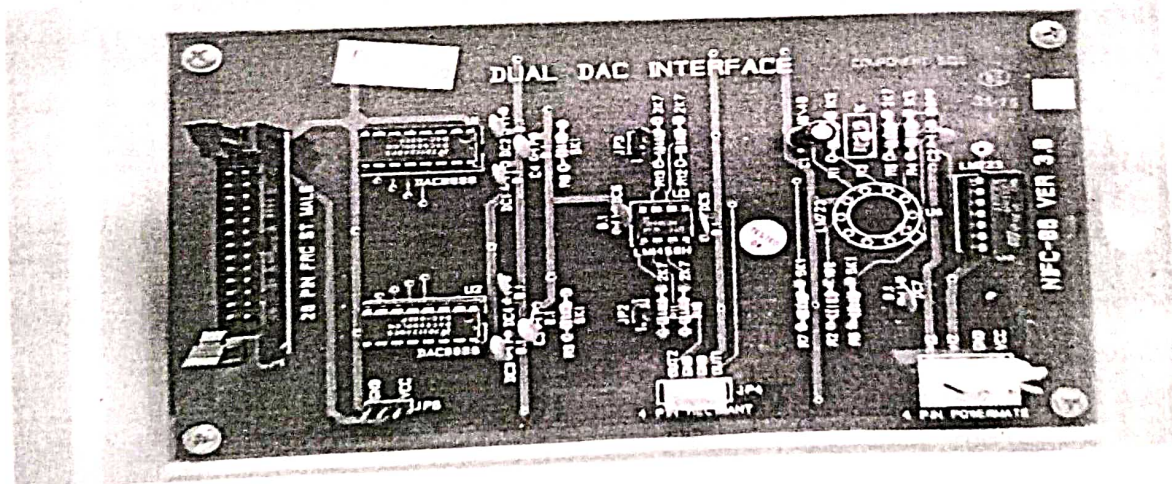
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RS232 is a standard protocol used for serial communication, it is used for connecting computer and its peripheral devices to allow serial data exchange between them. As it obtains the voltage for the path used for the data exchange between the devices. It is used in serial communication up to 50 feet with the rate of 1.492kbps. As EIA defines, the RS232 is used for connecting Data Transmission Equipment (DTE) and Data Communication Equipment (DCE).



- ADC & DAC Interface



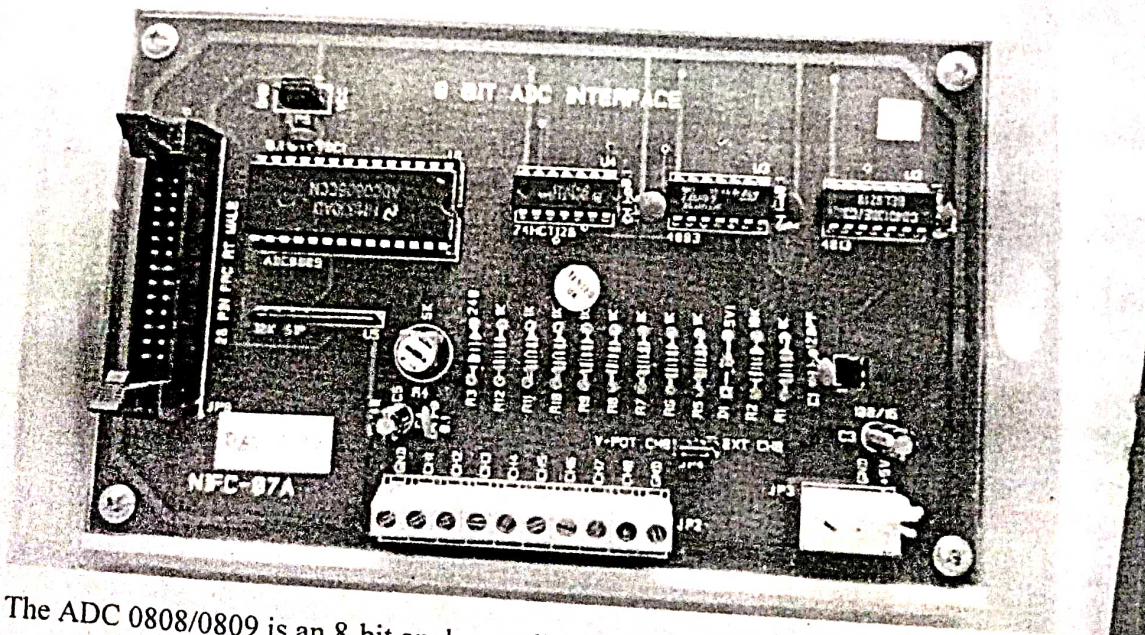
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The Dual DAC interface can be used to generate different interesting waveforms using microprocessor and micro controller. There are two eight-bit digital to analog converters provided, based on DAC 0800. The digital inputs to these DAC's are provided through the Port A and Port B of 8255 used as output ports.



- 8 bit ADC Interface.

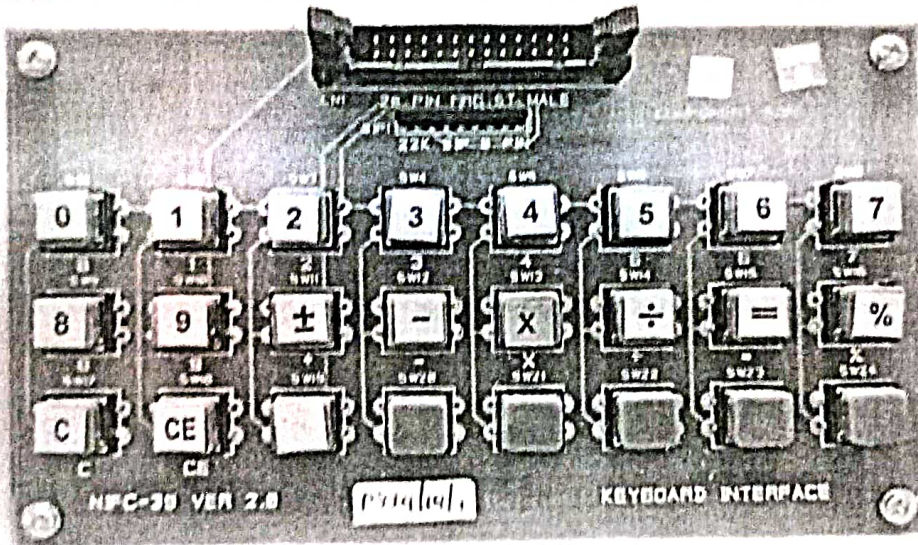


The ADC 0808/0809 is an 8-bit analog to digital converter. It has 8 channel multiplexer to interface with the microprocessor. This chip is popular and widely used ADC. ADC 0808/0809 is a monolithic CMOS device. This device uses successive approximation technique to convert analog signal to digital form.


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- MATRIX KEYBOARD Interface



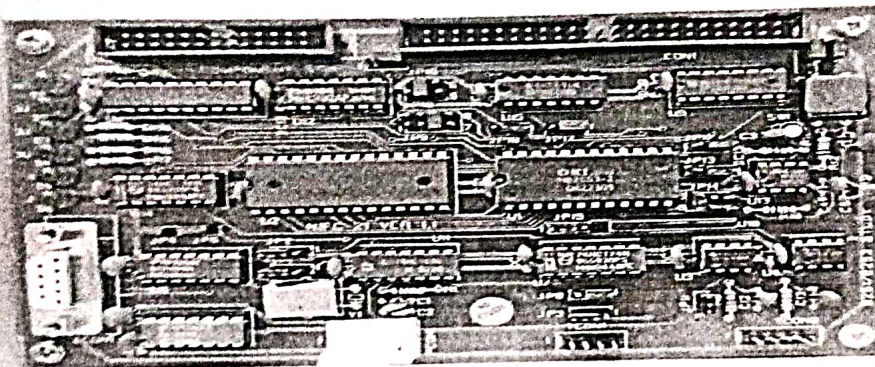
There are several ways of connecting a keyboard to a system unit (more precisely, to its keyboard controller) using cables, including the standard AT connector commonly found on motherboards, which was eventually replaced by the PS/2 and the USB connection. Prior to the iMac line of systems, Apple used the proprietary Apple Desktop Bus for its keyboard connector.





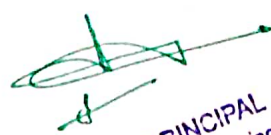
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- 8251-UART Interface



The 8251 and 8253 study card incorporates Intel's 8251 (programmable communication Interface) and 8253 (Programmable Interval Timer). This interface is designed to explain all the facilities available in 8251 & 8253. This manual presents the functional description of these devices, implementation of the circuit and some simple software examples for using this card with Hi-Q 86 and 51 trainers.


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TEACHING AND LEARNING METHODOLOGY

Focused on developing professional academic skills for supporting and supervising student learning and effective teaching, the fifth edition of *A Handbook for Teaching and Learning in Higher Education* recognises the complex demands of teaching, research, scholarship and academic management in higher education institutions.

Fully updated to reflect changes in practice and policy, this new edition has been written to enhance excellence in teaching and learning design and support all involved in facilitating a world-class inclusive education. Offering plentiful and rich practical advice, this rigorous and sound introduction to the basics of teaching and learning in higher education draws together a large number of expert authors and a range of global case studies. A definitive guide for anyone working in higher education, this edition:

- Offers new chapters covering an inclusive curriculum, the importance of student well-being and the scholarship of teaching and learning
- Considers the impact of technological changes on policy and practice
- Discusses the use of digital learning environments
- Explores how best to engage students in their disciplines and embed skills for employability

The ultimate guide to support all those involved in providing student learning of the highest quality, *A Handbook for Teaching and Learning in Higher Education* is essential reading for all new lecturers. It will be particularly useful for anyone taking an accredited course in teaching and learning in higher education, as well as more experienced lecturers who wish to improve their teaching practice.

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Teaching - Learning Processes

2.2.1 Describe Processes followed to improve quality of Teaching & Learning (25)

Introduction

Teaching is an art which includes knowledge, presentation, an art of dissemination and above all every aspect of paralinguistic's. Teaching demands broad knowledge of subject matter in all horizons, complete curriculum with standards, positive and caring attitude with Enthusiasm and a desire for learning and techniques of classroom management and a desire to make a difference in the lives of young people. I am sure that nobody will deny the fact

A teacher digs out the material from the classroom and uses accordingly we can use some materials:

SNO	METHOD
1	Like-Pair-share
2	Five minute pause
3	Recollection of the topic
4	Observation Method
5	Face-to-Face conversation

1. **Like- Pair-Share:** In this process students can think individually, then in pairs, and then share with the class. A teacher can involve the students in a better way where they can talk and share their experience with more confidence. This material opens up the ways of honing speaking skills where the students will be speaking after sharing their thoughts which help them to reproduce many thoughts because when we talk about second language, students say that they are unable to find out the Words/thoughts while speaking in English. So, this material can provide the platform of ideas/thoughts.

2. **Five minute pause:** The three minute pause provides a chance to the students to think and interpret the concepts and ideas that have just been introduced to and it would be easy for him/her to make connections to their prior knowledge for better understanding. Human being is a creature with impetus thoughts and for effective communication the synchronization of thoughts is very necessary. The instructed three minute break can help out the students to think and comprehend in a better way.

3. Recollection of the topic: The teacher should take care of the topic which he is covering in the assigned class. He starts by making a bridge between the previous knowledge and the current knowledge (to be taught) and this can be better attained by providing recapitulation (recollecting). This can be achieved by asking questions related to the topic. Topic can be recapitulated by organizing quizzes in the class or the students can be asked to explain the topic like a teacher to the class and it really catalyses the learning environment of the classroom. Just introduced topic should be recapitulated by the students which would hone the understanding skill of the students.

4. Observation Method: Teacher can divide the classroom into the group and after assigning some task, teacher can walk around the classroom and observe students as they work to check for learning. The observation plays a vital role to tackle the mixed ability classroom. By this method, a teacher can pay attention towards the weak students of the class who do not pay attention to the class and hesitate to ask questions in front of the entire class.

5. Face-to-Face conversation: A teacher should try to have a face to face interaction with the students which is a key material to know the exact problems of the students. The level of understanding of the students can be better understood by F2F. The CSE Department using high end teaching and learning ~~ais~~