

## UNIT - 4

Class - III<sup>rd</sup> Year 6<sup>th</sup> Sem  
Subject - Microcontroller for Embedded  
System.

Paper Code - BT-607

Lecture No - 4.2

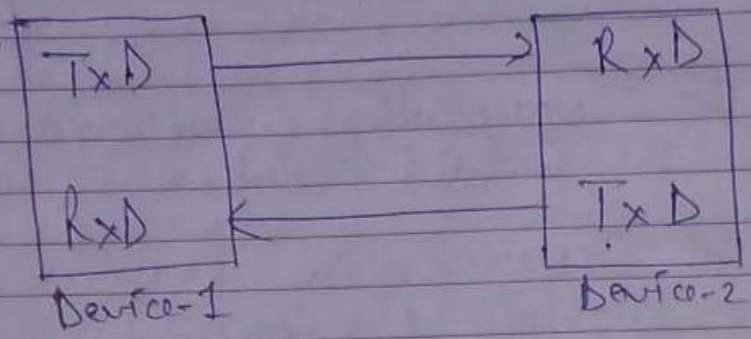
Topic - UART and USB  
interfacing.

Faculty Name - Dr. Nidhi Chauhan.

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\* Synchronous / Asynchronous Interface  
(like UART, USB, SPI and I2C)

### UART Interface -



### Feature of UART interface.

- \* The full name is Universal Asynchronous Receiver / Transmitter -
- \* UART supports lower data rate.
- \* Receiver needs to know baudrate of the transmitter before initiation of reception i.e., before communication to be established.
- \* UART is simple protocol. It uses Start bit (before data word), Stop bits (before one or two, after data word), parity bit (even or odd), in its basic format for data formatting. Parity bit helps in one bit error detection.

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## USB interface -

Universal Serial Bus (USB) is a packet Mode data link protocol that transfers data using synchronous serial communication.

This type of communication always pairs the data line with a clock signal and allows you to perform a USB transfer with a single function call.