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UIT2401 - MICROPROCESSOR & MICROCONTROLLERS

ASSIGNMENT - 2

Write short notes on the following :

1) PCI :- The peripheral component interface (PCI) bus is a standard for connecting peripheral devices to a computer's central processing unit (CPU). It was designed to facilitate the intergration and functionality of peripheral components like network cards, graphic cards. etc.

FEATURES :- (i) high speed
(ii) Plug and play
(iii) Bus Mastering
(iv) Versatility
(v) Standardisation

Technical Specifications :-

(i) Data width
(ii) Speed
(iii) Throughput
(iv) Slots

2) USB :- The Universal Serial Bus is a standard for connecting, communicating and providing powe between computers and electron devices.

Developed in mid - 1990s

Characteristics :-

(i) Universal compatibility
(ii) Plug and play, Hot swappin
(iii) Power delivery
(iv) Connectors and Ports.

Advantages :-

Fast Data Transfer
Peripheral Connectivity
Charging
Audio / Video Modes.

3) CAN :- Controller Area Network is a robust vehicle bus standard designed to allow microcontrollers and devices to communicate with each other within a vehicle without a host computer.

Originally created by Bosch in 1986 for in - vehicle networking in cars, it has widely adopted in various other fields, including industrial automation and medical equipment.

FEATURES :- (i) Robustness
(ii) Multi - master capability
(iii) Scalability
(iv) Error handling

ADVANTAGES :-
(i) Reliable
(ii) Efficient
(iii) Flexible.

4) AGP :- The Accelerated Graphic Port is a high speed point-to-point channel for attaching a graphics card to a computer's motherboard, primarily to assist the acceleration of 3D computer graphics. It was introduced by Intel in 1996.

FEATURES :- (i) Dedicated path
(ii) Pipelining
(iii) Sideband addressing
(iv) Textures in Main Memory.

5) ZIGBEE WIRELESS INTERFACE :-
Zigbee is a specification for a suite of high-level communication protocols using low-power digital radios based on IEEE 802.15.4 standard. It is designed for creating Personal Area Networks with small, low power digital radios such as automation and offer low power, lower bandwidth for ~~batt~~ latency communication b/w devices

FEATURES :- (i) Low power consumption
(ii) Mesh networking
(iii) Low state rate
(iv) Short-range communication
(v) Security.