70. Pure Aloha

Outcomes of the Lecture are –

* Know the various multiple Access Control.
* Understand Collision.
* Understand Pure Aloha.

The multiple Access protocols are –

1. Random Access Protocol.

* ALOHA.
* CSMA – Carrier sense multiple access.
* CSMA/CD – Carrier sense multiple access with Collision detection.
* CSMA/CA – Carrier sense multiple access with Collision Avoidance.

1. Controlled Access Protocol –

* CAP Reservation
* CAP Polling.
* CAP Token Passing.

1. Channelization Protocols –

* FDMA – Frequency Division Multiple Access.
* CDMA – Code Division Multiple Access.
* TDMA – Time Division Multiple Access.

ALOHA

* Aloha is the errors occurred while the data transmission takes place in a single medium at a same time.
* When multiple stations send the data to the station which is having multiple data transmission as well, the collision time between two frames is recorded which makes the data damaged.
* This is known as Pure ALOHA.
* The stations use the same transmission medium on the same time, hence the collision occurs.
* Pure ALOHA allows the station to transmit the data whenever they have a data to be sent.
* When the data is transmitted, the receiver sends an ack and the ack does not receive within allotted time, the PURE ALOHA waits for a random amount of time which is known as Back-Off time and re-sends the data.
* Pure Aloha allows the sender to wait for back off time to avoid the collision between data transmission.
* Usually the data frames are uniform in length to avoid the collision and Pure Aloha can act at its fullest to avoid mishaps.

The Two types of Aloha are

1. Pure Aloha.
2. Slotted Aloha.

Pure Aloha

