## Chapter - 4 The channel Allocation publics: (1) Static channel Allocation -> The traditional way of allocating a single channel, such as telephone among multiple competing useus is ferequency division multiplexing. If there are N users the bandwealth is devided into N equal sixed poutions each user being assigned one pourtion. disadvontage: if there are N regions and feever than N users are interested in communicating then a lauge piece of bandwidth. is wasted 2) Dynamic Channel Allocation -> foregreeney bands are not permanently assigned to the useri. Instead channels are alloted to useus dynamically optimizes bandwidth usage and exesults in faster teransmission

--- to solve channel allocation peroblem ALOHA: -> pure Aloha (Abuamson) · 10 pulle AloHA a stotion does not lêsten to the channel before transmitting. · whenever two feames try to occupy the channel at same time there well be collision and both will be gaubled Thuoughput => S = Ge-29 Max throughput at G=0.5 and S=1/2e which is about 0.184 -> stotted ALOHA (Robult) divide time into disculte stots each stot converponding to one tuame o= Ge-G Max at G=1 and 8=1 e. which ie about 0.368 37 pencent success 26 percent collision

Councier sense Multiple Access Perotocols: perotocols in which efations lêsten for a causér and act accoudingly are called CIMA wooking peunciple when a station has feveres to tevansmit it attempts to detect persence of a causer signal Fewers other nodes connected to the shared channel If a caewieu eignal is detected it implies that a teansmission is in perogress.

Generally transmission by a node is yeceived by all other nodes connected to the channel. However if two nodes detect an idle channel at same time they may simultaneously initiate