Okay, So we had done in the earlier video as looping algorithm. So after doing the slapping doing a loom, let us actually understand the same, actually network which period for looping algorithm ,how that actually can also be solved using the same pulse matrix technique .

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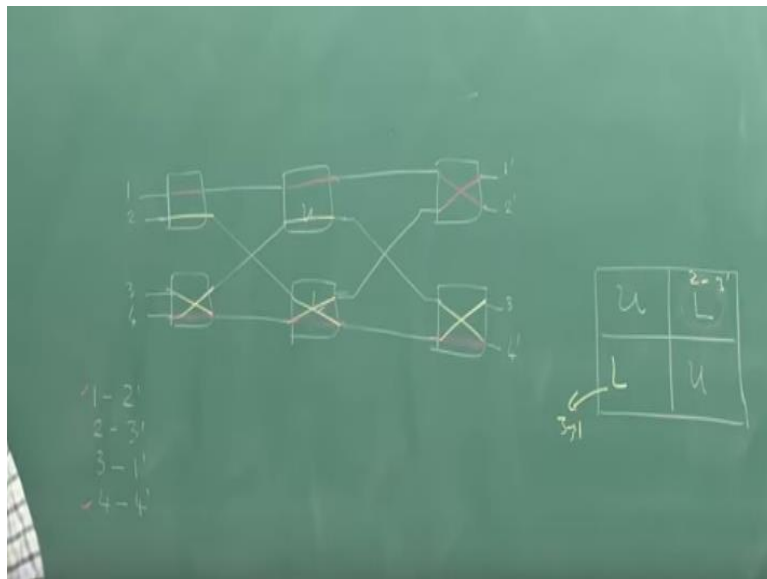
Okay, so I had this time I will again take same 4 /4 .I have taken it earlier also. Okay so we have to set up the connections. Here I can just define and now this time instead of using looping algorithm, we will be actually using the same pulse matrix. And you will be able to appreciate that looping algorithm is nothing but the same thing which we actually were doing we ensure that that chaining happens properly.

So if you want to set up a connection, say (1 - 2) prime (2 - 3), (3 - 1) prime and (4 - 4) prime. Let us try it out if this is going to work out, so 1 to 3 let me take a colored chalk again. So when I want to set up 1 - 2, I can do it whatever way I like. I can do it this way and this is connected k 2 - 3 maybe, 3 - 1. I would like to set up the only way, is going by this way infact there is ,no not going to be any blocking in this case .Or maybe, I can introduce a blocking by setting up this then 4 - 4. I will set it up now I want to set up 2-3 prime I have no path. So, I cannot go here I cannot go here it is not possible the blocking has happened. So let us look at the pulse matrix correspondingly.

In this case the pulse matrix will consist of a, 2 / 2 is a very simple one. We can tryout then for 8/8 also. And do the same exercise so in this case 1 is connected to 1 by upper .So, I am going to go this upper and lower .So, 1 is connected to 2 via upper and the 4 is connected to 4 via lower .Now when I am trying to connect 2 to 3 what I am doing is ,I am actually trying to put an element here. Look at the row, look at the column you know of these two consumes all the symbols. There is no symbol available but condition is A not satisfied for the ,of the slapping do it but the B is satisfied.

I can find out a pair if I find out a pair i do the chain search here it is actually very simple. So one of the element, I just have to convert it to(u) because chain will finish here and I will get a low here .So if I have to do the (u) 4 - 4 .So basically ,what i will say is connect this thing, via upper switch and then of course put 3 via lower one and connect to 1 prime and then of course the last one 2-3 also can be done.

So 2 – 3 will be .Yeah this is 2-3 can go buy a lower one. Right and this 3-1 corresponds to 3-1 corresponds to here and this is 2-3 brain. Okay, so this is again the same technique which is being used so let us do it for an 8/8. So that, my false metric size will be larger. I am not looking at the looping algorithm here.
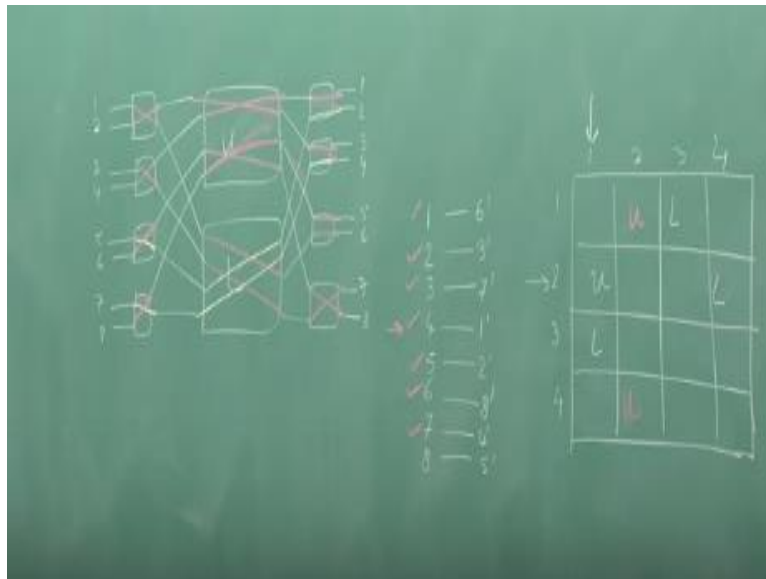
So I can do it ,so we have got again 8/8 and it is again to it is also reasonably on-blocking you can actually clearly see .So this also satisfies that, R 2 is equal $\geq$ 2M 1or N3. Here also r2 is greater than incoming or outgoing ports in the first or third stage. which is too so here if you want to set up some arbitrary connection. I can again use the something let me put up the numbers.

So I will put something about ready let us set up a connection and let us see what happens I have to do it again in arbitrary fashion normally if you root in sequence you will end up in actually on blocking system you will not get a blocking state. So 1-6 , if i want to do it lets me duty arbitrary fashion . 4 - 1 this cannot be done 4-1 you have ended up in the blocking state so let us build up the poles matrix this time it will be 4/4.

But remember any row can have at most two elements any column can have at most two elements. So 1-6 when I did it was through lower .So 1- 6 was through lower, than I did 3-7 which was lower and then I did 5 -2 which was upper. And then I was doing 4 to1 which corresponds to this row in this column but look at this row L is there and U is there you want do anything. So you have to again do the chain search so chain will end here chain will end here so I have to just take one of them.

So I can actually take make it L and make it you so 5-3 .I can instead of taking from the top I will take it from the bottom. And then i can set up 4-1 .then again try 7,4 . 2 -3 let means to I cannot do 2-3 again there is a blocking so I have done for 7-4 is here 7-4 has been done through upper and then I am doing 2 - 3 so 2 - 3 is this column so this is U this is l again can nothing can be done I have to replace something .

So I can either make it L and put in you here so which is 7-4 has to go buy a lower thing and then I can set up 2 - 3 okay then 6-8 prime that means if I can do it yeah it was through at 8-5 prime I could do the connection so you can see two times have done there arrangements and I have used the Paul's matrix same thing you could have solved using a looping algorithm also.

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