**Mohitosh Jagdish Chaudhari (11016111)**

**Jeet Khunt (11016036)**

**Master of Engineering in Information Technology**

***SRH HOCHSCHULE HEIDELBERG***

***GERMANY***

***Communication Network***

Flow chart

START

Station A generate message and send it to Station B

Station B send Ack with the window size

YES

YES

NO

NO

Window slide

Station A receive Ack

Station B send Ack

Resend Previous Packets

Packet dropped

Timeout occured

Station B receive message

Station A generate message as per window size and send it to station B

Algorithm

Initialize():

1. set the value of timeout.

2. create the timeout event.

3. generate initial message(call generateMessage() function).

4. schedule the timeout.

handleMessage():

1. If self message or timeout occurs

- if there is an initial message timeout

- then reset the timer

- call generateMessage() function.

- schedule the timeout event again.

2. If an acknowledgment is received,

- Received by handle message of staion A and store the information required.

- call generateNewMessage() to send packets with new seq. no.

- schedule the timeout event.

generateNewMessage():

1. if the seq is low.

- create the initial packet

- new cMessage

2. if the

- generate multiple messages equal to window size.

- call new cMessage function to send the packet out.

Station\_B functioning:

Initialize():

Window size

handleMessage():

1. if the packet is lost

- delete the message.

2. if a packet is received successfully

- send back acknowledgement

-delete the message

- call generateNewMessage()

generateNewMessage():

1. if the temp is low.

- create initial packet with window size.

- send the packet out.

2. if generating a normal packet

- if the lost packet flag is high

- call new cmessage function,

- send the message

- make the counter 0

3. if we are receiving the correct sequence no.

- call sendMessage() function to send ack.

- if the sequence\_count is reached to 255, then set the repeat\_seq\_flag.

Station A

Station B

**B**

Now Station B will Receive the Packet from the last lost Packet.

Station A Receives the ack and get to know that packet 9 is lost. So it needs to resend packets from the next packet for which it receives the acknowledgement.

After Receiving the Acknowledgement

It will send the further Packets

Seq no. 6

Seq no.5

Seq no.4

Seq no.3

Seq no. 2

Received Acknowledgement from Station B

Packet Transfer Begins after Receiving Ack.

Ack\_Msg\_WindowSize=6

Init\_Control\_Msg\_Windowsize?

Query Received Asking for Window Size from Station A?

Sending Acknowledgement with Window Size.

Seq no.1

Ack 3

Ack 2

Ack 1

Ack 5

Ack 6

Ack 4

Seq no. 7

Seq no. 9

Seq no. 8

Seq no. 11

Seq no. 10

Seq no. 12

Ack71

lost

Ack 1

Ack 9

Ack 8

timeout

Seq no. 10

Seq no. 9

Seq no. 11

