**`[ 2CEIT503 COMPUTER NETWORKS]**

Practical: 9



**AIM- Define a ring topology of ten nodes for a dynamic**

**network where the routing adjusts to a link failure.**

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**Example3.tcl**

#Create a simulator object

set ns [new Simulator]

#Tell the simulator to use dynamic routing

$ns rtproto DV

#Open the nam trace file

set nf [open out.nam w]

$ns namtrace-all $nf

#Define a 'finish' procedure

proc finish {} {

global ns nf

$ns flush-trace

#Close the trace file

close $nf

#Execute nam on the trace file

exec nam out.nam &

exit 0

}

#Create seven nodes

for {set i 0} {$i < 10} {incr i} {

set n($i) [$ns node]

}

#Create links between the nodes

for {set i 0} {$i < 10} {incr i} {

$ns duplex-link $n($i) $n([expr ($i+1)%10]) 1Mb 10ms DropTail

}

#Create a UDP agent and attach it to node n(0)

set udp0 [new Agent/UDP]

$ns attach-agent $n(0) $udp0

# Create a CBR traffic source and attach it to udp0

set cbr0 [new Application/Traffic/CBR]

$cbr0 set packetSize\_ 500

$cbr0 set interval\_ 0.005

$cbr0 attach-agent $udp0

#Create a Null agent (a traffic sink) and attach it to node n(3)

set null0 [new Agent/Null]

$ns attach-agent $n(3) $null0

#Connect the traffic source with the traffic sink

$ns connect $udp0 $null0

#Schedule events for the CBR agent and the network dynamics

$ns at 0.5 "$cbr0 start"

$ns rtmodel-at 1.0 down $n(1) $n(2)

$ns rtmodel-at 2.0 up $n(1) $n(2)

$ns at 4.5 "$cbr0 stop"

#Call the finish procedure after 5 seconds of simulation time

$ns at 5.0 "finish"

#Run the simulation

$ns run





