<https://slogix.in/source-code/ns2-sample-for-mobile-ad-hoc-network/how-to-create-mobile-ad-hoc-network-manet-in-ns2/>

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* MOBILIE ADHOC NETWORK \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*#

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* MOBILITY MODEL \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*#

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Multiple node Creation and communication model using UDP (User Datagram Protocol)and CBR (Constant Bit Rate)\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*#

# Simulator Instance Creation

set ns [new Simulator]

#Fixing the co-ordinate of simulation area

set val(x) 500

set val(y) 500

# Define options

set val(chan) Channel/WirelessChannel ;# channel type

set val(prop) Propagation/TwoRayGround ;# radio-propagation model

set val(netif) Phy/WirelessPhy ;# network interface type

set val(mac) Mac/802\_11 ;# MAC type

set val(ifq) Queue/DropTail/PriQueue ;# interface queue type

set val(ll) LL ;# link layer type

set val(ant) Antenna/OmniAntenna ;# antenna model

set val(ifqlen) 50 ;# max packet in ifq

set val(nn) 2 ;# number of mobilenodes

set val(rp) AODV ;# routing protocol

set val(x) 500 ;# X dimension of topography

set val(y) 500 ;# Y dimension of topography

set val(stop) 10.0 ;# time of simulation end

# set up topography object

set topo [new Topography]

$topo load\_flatgrid $val(x) $val(y)

# general operational descriptor- storing the hop details in the network

create-god $val(nn)

# configure the nodes

$ns node-config -adhocRouting $val(rp) \

-llType $val(ll) \

-macType $val(mac) \

-ifqType $val(ifq) \

-ifqLen $val(ifqlen) \

-antType $val(ant) \

-propType $val(prop) \

-phyType $val(netif) \

-channelType $val(chan) \

-topoInstance $topo \

-agentTrace ON \

-routerTrace ON \

-macTrace OFF \

-movementTrace ON

# Node Creation

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

set node\_($i) [$ns node]

$node\_($i) color black

}

#\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*Defining Communication Between node0 and all nodes \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

for {set i 1} {$i < 10} {incr i} {

# Defining a transport agent for sending

set udp [new Agent/UDP]

# Attaching transport agent to sender node

$ns attach-agent $node\_($i) $udp

# Defining a transport agent for receiving

set null [new Agent/Null]

# Attaching transport agent to receiver node

$ns attach-agent $node\_(0) $null

#Connecting sending and receiving transport agents

$ns connect $udp $null

#Defining Application instance

set cbr [new Application/Traffic/CBR]

# Attaching transport agent to application agent

$cbr attach-agent $udp

#Packet size in bytes and interval in seconds definition

$cbr set packetSize\_ 512

$cbr set interval\_ 0.1

# data packet generation starting time

$ns at 1.0 "$cbr start"

# data packet generation ending time

#$ns at 6.0 "$cbr stop"

}