

WORKSHOP PROPOSAL

“NS2”

Submitted by: -

E2MATRIX

(An ISO 9001:2008 Certified Company)

The Value of Trust



Return on Influence

***“Join hands for long relations because trust
matter”***

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The network simulator is discrete event packet level simulator. The network simulator covers a very large number of application of different kind of protocols of different network types consisting of different network elements and traffic models. Network simulator is a package of tools that simulates behavior of networks such as creating network topologies, log events that happen under any load, analyze the events and understand the network.

Well the main aim of our first experiment is to learn how to use network simulator and to get



acquainted with the simulated objects and understand the operations of network simulation and we also need to analyze the behavior of the simulation object using network simulation.

The main purpose of this “Hands-on Training on NS2” is to create awareness and enrich knowledge for research scholars, faculty and students in the area of Network simulation using NS2.

1-DAY WORKSHOP

1. OSI Architecture
2. NS2 Architecture
3. TCL scripting
4. Energy Model Construction
5. Set dest File creation method
6. Agent and Application creation method
7. VANET mobi Sim Construction

TIME DURATION: 4 hours

COST: 200/- PER STUDENT

2 - DAYS WORKSHOP

Module 1

1. OSI Architecture
2. NS2 Architecture
3. TCL scripting
4. Energy Model Construction
5. Set dest File creation method
6. Agent and Application creation method
7. VANET mobi Sim Construction

Module 2

1. Perl and AWK scripting
2. X-graph and Gnuplot Generation
3. Malicious Node Construction
4. Security Model
5. Threshold Model

TIME DURATION: 4 hours /day

COST: 300/- PER STUDENT

3-DAYS WORKSHOP

Module 1

1. OSI Architecture
2. NS2 Architecture
3. TCL scripting
4. Energy Model Construction
5. Set dest File creation method
6. Agent and Application creation method
7. VANET mobi Sim Construction

Module 2

1. Perl and AWK scripting
2. X-graph and Gnuplot Generation
3. Malicious Node Construction
4. Security Model
5. Threshold Model

Module 3

1. New Network layer protocol creation
2. New application layer protocol creation
3. New agent creation

Module 4

1. Construction of DDOS attacks in the network
2. Construction of security methodologies

Module 5

1. Construction of Multi-channeling
2. Construction of opportunity network

TIME DURATION: 4 hours /day

COST: 500/- PER STUDENT

TECHNOLOGY BASED WORKSHOP

CROSS LAYER APPROACH

1- DAY WORKSHOP

1. NS2 Architecture
2. TCL scripting
3. Construction of New MAC layer Protocol
4. Construction of Emergency MAC Model
5. Perl and AWK scripting
6. X-graph and Gnuplot Generation

TIME DURATION: 4 hours

COST: 200/- PER STUDENT

2-DAYS WORKSHOP

Module 1

1. OSI Architecture
2. NS2 Architecture
3. TCL scripting
4. Energy Model Construction
5. Set dest File creation method
6. Agent and Application creation method

Module 2

1. Construction of New MAC layer Protocol
2. Construction of Emergency MAC Model
3. Perl and AWK scripting
4. X-graph and Gnuplot Generation

TIME DURATION: 4 hours/day

COST: 300/- PER STUDENT

HANDOVER

1-DAY WORKSHOP

1. NS2 Architecture
2. TCL scripting
3. Vertical and Horizontal Handover in WSN
4. WIMAX Handover
5. Perl and AWK scripting
6. X-graph and Gnuplot Generation

TIME DURATION: 4 hours

COST: 200/- PER STUDENT

2-DAYS WORKSHOP

Module 1

1. OSI Architecture
2. NS2 Architecture
3. TCL scripting
4. Energy Model Construction
5. Set dest File creation method
6. Agent and Application creation method

Module 2

1. Vertical and Horizontal Handover in WSN
2. WIMAX Handover
3. Perl and AWK scripting
4. X-graph and Gnuplot Generation

TIME DURATION: 4 hours/day

COST: 300/- PER STUDENT

LTE

1-DAY WORKSHOP

1. OSI Architecture
2. NS2 Architecture
3. TCL scripting
4. Construction of LTE Network
5. TCL-TLE model
6. Perl and AWK scripting
7. X-graph and Gnuplot Generation

TIME DURATION: 4 hours

COST: 200/- PER STUDENT

2-DAYS WORKSHOP

Module 1

1. OSI Architecture
2. NS2 Architecture
3. TCL scripting
4. Energy Model Construction
5. Set dest File creation method
6. Agent and Application creation method

Module 2

1. Construction of LTE Network
2. TCL TLE model
3. Perl and AWK scripting
4. X-graph and Gnuplot Generation

TIME DURATION: 4 hours/day

COST: 300/- PER STUDENT

MANET

1-DAY WORKSHOP

1. NS2 Architecture
2. TCL scripting
3. Set dest File creation method
4. Agent and Application creation method
5. Opportunity based routing in MANET
6. Perl and AWK scripting
7. X-graph and Gnuplot Generation

TIME DURATION: 4 hours

COST: 200/- PER STUDENT

2-DAYS WORKSHOP

Module 1

1. OSI Architecture
2. NS2 Architecture
3. TCL scripting
4. Energy Model Construction
5. Set dest File creation method
6. Agent and Application creation method

Module 2

1. Opportunity based routing in MANET
2. Perl and AWK scripting
3. X-graph and Gnuplot Generation

TIME DURATION: 4 hours/day

COST: 300/- PER STUDENT

NETWORK SECURITY

1-DAY WORKSHOP

1. OSI Architecture
2. NS2 Architecture
3. TCL scripting
4. Construction of Malicious Network
5. Construction of DDOS Attacks
6. Security Analysis
7. Perl and AWK scripting
8. X-graph and Gnuplot Generation

TIME DURATION: 4 hours

COST: 200/- PER STUDENT

2-DAYS WORKSHOP

Module1

1. OSI Architecture
2. NS2 Architecture
3. TCL scripting
4. Energy Model Construction
5. Set dest File creation method
6. Agent and Application creation method

Module 2

1. Construction of Malicious Network
2. Construction of DDOS Attacks
3. Security Analysis
4. Perl and AWK scripting
5. X-graph and Gnuplot Generation

TIME DURATION: 4 hours/day

COST: 300/- PER STUDENT

ROUTING PROTOCOLS

1-DAY WORKSHOP

1. OSI Architecture
2. NS2 Architecture
3. TCL scripting
4. Creation new routing protocol
5. Creation a new agent in transport layer
6. Perl and AWK scripting

TIME DURATION: 4 hours

COST: 200/- PER STUDENT

2-DAYS WORKSHOP

Module 1

1. OSI Architecture
2. NS2 Architecture
3. TCL scripting
4. Energy Model Construction
5. Set dest File creation method
6. Agent and Application creation method

Module 2

1. Creation new routing protocol
2. Creation a new agent in transport layer
3. Perl and AWK scripting
4. X-graph and Gnuplot Generation

TIME DURATION: 4 hours/day

COST: 300/- PER STUDENT

VANET

1-DAY WORKSHOP

1. OSI Architecture
2. NS2 Architecture
3. TCL scripting
4. VANET MOBISIM Construction
5. Contention window construction
6. Perl and AWK scripting
7. X-graph and Gnuplot Generation

TIME DURATION: 4 hours

COST: 200/- PER STUDENT

2-DAYS WORKSHOP

Module 1

1. OSI Architecture
2. NS2 Architecture
3. TCL scripting
4. Energy Model Construction
5. Set dest File creation method
6. Agent and Application creation method

Module 2

1. VANET MOBISIM Construction
2. Contention window construction
3. Perl and AWK scripting
4. X-graph and Gnuplot Generation

TIME DURATION: 4 hours/day

COST: 300/- PER STUDENT

WSN

1-DAY WORKSHOP

1. OSI Architecture
2. NS2 Architecture
3. TCL scripting
4. Construction of Cluster based WSN
5. Mannasim network model
6. Perl and AWK scripting
7. X-graph and Gnuplot Generation

TIME DURATION: 4 hours

COST: 200/- PER STUDENT

2-DAYS WORKSHOP

Module 1

1. OSI Architecture
2. NS2 Architecture
3. TCL scripting
4. Energy Model Construction
5. Set dest File creation method
6. Agent and Application creation method

Module 2

1. Construction of Cluster based WSN
2. Mannasim network model
3. Perl and AWK scripting
4. X-graph and Gnuplot Generation

TIME DURATION: 4 hours/day

COST: 300/- PER STUDENT