

Network simulator (NS - 2 & 3)

Network simulator (ns) is a discrete event simulator targeted at networking research. It provides a virtual environment for an assortment of desirable features such as modeling a network based on a specific criteria and analyzing its performance under different scenarios. It is the name for series of network simulators, specifically ns-1, ns-2 and ns-3. All of them are discrete-event network simulators, primarily used in research and teaching. The ns supports coupling, interoperability, good memory management, debugging of split language objects, coding in C++ and object oriented concepts, and it is most suitable for wireless network simulation. The objective of the workshop is to provide hands-on training in ns-2 and ns-3 to extend the knowledge of research scholars, faculty and students in the area of computer networks.

Topics to be Covered:

Day 1

Overview of ns-2 and Installation

Creating wired scenario and familiarization with NAM

Trace file analysis using AWK script and Perl script

Plotting with xgraph and gnuplot

Simulation of wireless network

Performance evaluation of routing protocols in wired network

Performance evaluation of different queues

Day 2

Creation wired cum wireless networks and Mobile IP simulations

Applying patches in ns-2

Introduction of Make utility and recompiling ns-2 source files

Introduction to ns-3

Comparison of ns-2 and ns-3

Execution of ns-3 scripts

Tools used with ns-3



Eligibility: It's a basic level workshop so there are no prerequisites. Anyone interested, can join this workshop. Strongly recommended for Engineering/ IT/ computer science/networking students, final year students, MS students and researchers.

Fee: Rs. 1200/- per participant (inclusive of all taxes)

