



## **Grian Technologies Pvt Ltd**

### **NS2 Workshop**

#### **ABOUT NS2**

NS-2 is a very popular discrete event Network Simulator which is widely used in the research field of Wired, Wireless and Satellite Networks across both academia and industry as a way of designing, testing and evaluating new and existing protocols and architectures, and has also proven a very useful tool for teaching purposes. NS-2 comes fully equipped of protocols, models, algorithms and accessory tools. NS-2 is an open source network simulator which is freely available for academic research purpose. Therefore, in terms of scientific acceptance, number of tools/modules and cost, NS-2 would be a sort of ideal choice.

Ns is a discrete event simulator targeted at networking research. Ns provides substantial support for simulation of TCP, routing, and multicast protocols over wired and wireless (local and satellite) networks.

NS-2 started as a variant of the REAL network simulator in 1989 and has since been supported by the Virtual InterNetwork Testbed (VINT) project that is a DARPA-funded research project whose aim is to build a network simulator. The first version of NS was for wired networks but the demand to support wireless networking made the Monarch Group to create new version NS-2. NS-2 uses two languages C++ to implement protocols and Object Oriented Tcl (OTcl) for configuration and simulation the scripts.

#### **Syllabus**

The syllabus for the workshop would be the following:

- Introduction – Background and Overview
- Components and tools of NS2
- Tcl/OTcl Programming
- Creating a wired Scenario and Enhancing the NAM output
- Generation of node-movement and traffic-connection for wireless scenarios-creating a Wireless Scenario
- Creating Wired-cum-wireless Scenarios
- Tracing Support -Format for wired Traces, Old Format for wireless traces and Revised format for wireless traces
- Post Trace Processing & Graph Generation

## **DURATION**

The duration of this workshop is one day.

Timings: 10.00AM to 5.00PM

**Session 1:** 10.00AM to 01.00PM

**Session 2:** 02.00PM to 05.00PM

## **WHO CAN ATTEND**

- Academicians
- Research Scholars
- Under Graduate / Post Graduate Students
- Engineering Faculty
- Industrial Researchers

## **RESOURCE PERSON**

Sankar.S is a Senior Research Analyst about 39 years old with Research and Software experience of 16 years. He specializes in the implementation of Networking, Mobile Computing, Grid Computing, Wireless Communication, Web development. He has guided more than 1000 Engineering students for their academic projects. He has provided research guidance for more than 200 Ph.d scholars, for publishing their papers in international journals and conferences. His area of expertise include: Java, C++ and Network Simulator (NS). He has completed his Master of Science (M.Sc) in Mathematics He has been working as a Project Manager in Grian Technologies Pvt. Ltd, Nagercoil from 2003 to 2007 and Senior Research Analyst in Grian Technologies Pvt. Ltd, Chennai from 2007 to till date. Currently he is leading a technical team of 10 members in Research and Development.

He has provided guest lectures and seminars in colleges all over Tamilnadu. Some of the seminars and workshops conducted by him are:

- One day Seminar on “Introduction to NS2” in St. Joseph College of Engineering, Chennai.
- One day Seminar on “Introduction to NS2” in National Engineering College, Kovilpatti.
- One day Workshop on “Simulating Hierarchical Wireless Mesh Networks in NS2” at Eswari Engineering College, Chennai
- One Day Workshop on “Simulating Wireless Networks in NS2” at Jayaram Engineering College, Trichy
- Two days National Workshop on “Design Principles of Routing Protocols for Wireless Sensor Networks”, sponsored by CSIR, New Delhi, (Govt. of India) in association with Institution of Electronics & Telecommunication Engineers (IETE) at Bhajarang Engineering College, Chennai

## ORGANIZED BY

<b>Nagercoil</b>	
# 32/1 Cape Road, Veppamoodu Jn, Nagercoil - 1. Ph: +91- 4652-224818 , 220237	
<b>Branch Offices :</b>	
<b>Chennai</b>	<b>Bengaluru</b>
# 33, Arcot Road, Saligrammam, Chennai - 93. Ph: +91- 44 - 42049919	# 421,2nd Floor, 27th Main, Sector -1, HSR Layout, Near HSR Police Station, Bangalore -560102, Ph : +91 - 080 – 42152078, 9902940216
<b>Noida</b>	
# 603,MSX Tower-2, Plot B-2, Alpha Commercial Belt, Greater Noida -201308. Ph: +91-120- 4346276	