

**A Two Days Workshop  
On  
SIMULATION OF TCP VARIANTS  
USING NS3**

**April 15-16, 2016**

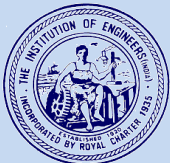


**Jointly Organized By**



IIIT Kota (Mentored by MNIT, Jaipur),  
ASRC & Department of Computer Engineering  
Poornima University, Jaipur

**Technical Co-sponsors**



**POORNIMA UNIVERSITY**

Poornima University is a proud constituent of Poornima Foundation (PF), established under the affluent intellect of Shanti Education Society. The university is situated in Sitapura the education hub of Jaipur in 32.67 acres sprawling, lush green campus. State-of-the-art building area of university with independent academic & administration block, hostels, laboratories, playgrounds, etc. provide scholarly ambience for learning & liberty. It creates a warm and protective environment with a professional atmosphere to bring out best in the students to face the cut-throat global competition. The Department of Mechanical Engineering and Electrical & Electronics Engineering is actively involved in various activities related to Renewable Energy and Energy conservation. Both the departments have also made efforts in commissioning and operation of 100 KW roof top solar PV plant at Poornima University along with various researches and educational activities. The university has been awarded the "BEST UPCOMING UNIVERSITY" by ASSOCHAM in year 2016. In addition to classroom lectures, the programme includes discussions, hands-on sessions, assignments and Ph.D. forum.

**INDIAN INSTITUTE OF INFORMATION  
& TECHNOLOGY, KOTA**

IIIT, Kota is one of the Indian Institutes of Information Technology located at Ranpur near Kota, Rajasthan. The academic session of IIIT Kota started from its temporary campus at Malviya National Institute of Technology Jaipur from year 2013. IIIT Kota is a joint venture of the Ministry of Human Resource Development, Government of India with Industries in Public-Private Partnership model. The Vision of IIIT kota is to create a center for imparting technical education of international standards and conduct research at the cutting edge of technology to meet the current and future challenges of technological development. The Mission of IIIT kota is to create technical manpower for meeting the current and future demands of industry: To recognize education and research in close interaction with industry with emphasis on the development of leadership qualities in the young men and women entering the portals of the Institute with sensitivity to social development and eye for opportunities for growth in the international perspective Malviya National Institute of Technology

**INDIAN SOCIETY FOR TECHNICAL  
EDUCATION (ISTE)**

The Indian Society for Technical Education is a national, professional, non-profit making Society registered under the Societies Registration Act of 1860. First started in 1941 as the Association of Principals of Technical Institutions (APTI), it was converted into "Indian Society for Technical Education" in 1968 with a view to enlarge its activities to advance the cause of technical education. The main goal is to serve as a common agency for stimulating and guiding its members to formulate the general goals and responsibilities of technical education for the service of mankind and the advancement of general welfare.

**INSTITUTION OF ENGINEERS INDIA**

The Institution of Engineers (India) is the largest body, recognizing professional engineers in the country as fellows, members and associates. It provides opportunity to the Engineering Diploma holders and Science students engaged in engineering profession to enhance their qualification. The Institution publishes research journals and newsletters to keep the members abreast with the latest technological advancements and activities of interest; Rajasthan State Centre is 52 years old with head quarter at Jaipur and four local centres at Kota, Udaipur, Jodhpur and Alwar. All are conducting various technical activities.

**RATIONALE**

The core objective of the workshop is give the insight view of the NS3 simulator by studying the core networking protocols like TCP and its variants.

**OBJECTIVES OF WORKSHOP**

The main objectives of the workshop are

- To make the students of Bachelor / Master degree understand use and installation of Network Simulator version 3.
- To make them understand the fundamental concepts of design and implementation of networked systems and the protocols.
- To provide depth of implementation and analysis of TCP & its variants.

## TARGET AUDIENCE

The program is targeted towards graduates, postgraduates, researchers, scholars, faculty members from Poornima University, IIIT Kota.

## COURSE METHODOLOGY

The workshop sessions will be delivered by the eminent experts who have expertise in using various tools and techniques related to networks simulation. Theory and practice sessions shall be conducted by the experts.

**Certificate will be issued to the participants at the end of workshop.**

## WORKSHOP SCHEDULE

DAY 1 (Friday, 15 <sup>th</sup> April)	
Session I	Pre-Workshop Assessment
Session II	Introduction to NS-3
Session III	NS-3 Development Environment
Session IV	Building Topology
Session V	Graph/Plotting
DAY 2 (Saturday, 16 <sup>th</sup> April)	
Session 1	TCP/UDP Socket using NS3
Session II	TCP Congestion Avoidance Algorithm
Session III	Implementation/Analysis TCP Variants
Session IV	Implementation/Analysis TCP Variants

## VENUE

**LAB-1, PRABHA BHAVAN,**  
**Malviya National Institute Of Technology**  
**Jawaharlal Nehru Marg, Jaipur**

## IMPORTANT DATES

Last date of Registration	12 <sup>th</sup> April. 2016
Acceptance Notification	13 <sup>th</sup> April. 2016

## REGISTRATION

Registration is free of cost but Limited seats are there in the workshop. The applicant will be permitted to participate in the above program, if selected. The candidates would be informed of their selection in advance by email.

## CHIEF PATRON

**Dr. S. M. Seth**

Chairperson, Poornima University, Jaipur  
Chairman, Poornima Group of Colleges & P J Foundation

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Professor, Department of CSE, MNIT, Jaipur  
Coordinator, IIIT, Kota

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**Mr. Rajendra Kumar Solanki**

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**Mr. Rahul Hada**

Assistant Professor, Poornima University, Jaipur

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<b>Mr. Devendra Somwanshi</b>	

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## USING NS3

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## REGISTRATION FORM

Full Name: \_\_\_\_\_

Designation: \_\_\_\_\_

Organization: \_\_\_\_\_

Qualification: \_\_\_\_\_

Specialization: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Pin Code: \_\_\_\_\_ Phone(M): \_\_\_\_\_

(O) \_\_\_\_\_ Email: \_\_\_\_\_

Accommodation required? Yes / No

Date: \_\_\_\_\_

Signature of Participant



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