



Ref: SDC/SET/04-24

Dt:30.07.24.

## SET 04 – Computer Networks Labs Using CPT Simulator

### Faculty development Training



In collaboration with Dept. of CSE, ECE & G-FTDC.

Basics to Advanced Networking



Topic : Computer Networks using CISCO PT simulator.  
Event : Hands-on workshop FDP.  
Dates : From 05.07.24 to 09.07.24  
Duration : 05 Days, (10 AM to 3 PM)  
Venue : 4512 (ECE, Block 4)

Registration link:

1. [www.grietsdc.in](http://www.grietsdc.in) - newofferings

OR

2. Scan QR Code:



### Welcome to SET Series of Work Shops:

SDC Education Transformation, an ecosystem dedicated to conducting industry-relevant workshops.

Our hands-on approach supplements academic learning, empowering students with practical skills beyond the curriculum.

We encourage student-led workshops, providing full support from topic selection to preparation.



## COMPUTER NETWORKS LABS USING CPT SIMULATOR

Cisco stands for commercial and industrial security corporation. Cisco is the global leader in IT and networking. Cisco primarily provides networking-related assistance for companies of all sizes and helps them to connect, interact, and collaborate.

Cisco Packet Tracer is a comprehensive, networking technology teaching and learning program that offers a unique combination of realistic simulation and visualization experiences, assessment and activity authoring capabilities, and opportunities for multiuser collaboration and competition.

The innovative features of Packet Tracer help students and teachers collaborate, solve problems, and learn concepts in an engaging and dynamic social environment. Some of the benefits of Packet Tracer are:

- Provides a realistic simulation and visualization learning environment that supplements classroom equipment, including the ability to see internal processes in real-time that are normally hidden on real devices
- Enables multi-user, real-time collaboration and competition for dynamic learning
- Enables authoring and localization of structured learning activities such as labs, demonstrations, quizzes, exams, and games
- Empowers students to explore concepts, conduct experiments, and test their understanding of network building
- Allows students and teachers to design, build, configure, and troubleshoot complex networks using virtual equipment
- Supports a variety of teaching and learning opportunities such as lectures, group, and individual labs, homework, games, and competitions
- Supports feature expansion through external applications using an API to enhance the functionality of Cisco Packet Tracer in areas such as curriculum and assessment delivery, games, accessibility, and interfacing with real equipment.



## TOPICS COVERED

1. Configure network devices, such as hubs and switches within a network topology using Packet Tracer software.
2. Construct a single LAN and understand the concepts and operation of ARP.
3. Configure and implementation of a Switch within a Network using Packet Tracer.
4. Learn and implement basic commands of Computer network like PING, traceroute, nslookup etc.
5. Configure and implementation of a Router within a Network using Packet Tracer.
6. Configure and examine Network Address Translation (NAT)
7. Configure network topology to implement VLANs with using Packet Tracer software.
8. Configure network topology and implement static routing using Packet Tracer Software.
9. Configure network topology and implement dynamic routing protocol such as RIP, OSPF etc. using Packet Tracer.
10. Configure DHCP Server in the Network using packet tracer software.
11. Configure a remote login using SSH and Telnet.
12. Establishing a Web Server Connection Using the PC's Web Browser
13. Install Wireshark and view
14. Network Traffic. ii).Wired and wireless NIC information. iii).Examine Ethernet Frames
15. Adding IoT devices to Smart Homes using Packet Tracer
16. Connect and Monitor IoT Devices using Packet Tracer

**Speaker:** Dr. G.S.Bapi Raju, Accredited CISCO Instructor.

### Program details:

SET Series : 04  
Topic : Computer Networks labs Using CISCO PT simulator  
Duration : 05.08.24 to 09.08.24 (5 Days)  
Time : 10 AM to 3 PM  
Venue : 4512 (ECE Seminar Hall)  
Audience : Faculty

**Note:** Faculty are advised to install the latest CISCO Packet Tracer 8.2 or above version on their laptops before attending the workshop. Our team will guide you in advance and stay in touch with you through the WhatsApp group.



**GRIETSDC**  
Development Through Skills  
(www.grietsdc.in)

**Registration QR Code:**



or

Registration link: <https://forms.gle/9ut7xHUKi34JncFV6>

**Registration last date : 03.08.24 - 4pm.**

Dr.G.S.Bapi Raju  
Chief Instructor, SDC