DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (CYBER SECURITY)

REPORT ON

"Skill Training Program"

DATE : 17th August 2026 (Monday) to 21 August 2026 (Friday)

VENUE : 1st Floor (Block C-1-18) Seminar Hall.

TOPIC : Hands-on Networking Fundamentals Skills

Expert Name:- Mr. Raj Arora , Software training institute , Nagpur

Introduction

The Department of Cyber Security organized a 5-day session on "Hands-on Networking Skills" led by Mr. Raj Arora , a renowned technical trainer. The program aimed to provide students with a comprehensive understanding of networking principles, practical skills, and exposure to real-world tools and techniques used in the field. Each day consisted of two sessions: a theoretical session in the morning and a practical session in the afternoon.

About the Trainer

Mr . Raj Arora is the CEO and founder of Revat Network, is widely recognized in the Central India region as an expert trainer in Computer Networking and Infrastructure . He has Comprehensive mastery of Cisco routing and switching, including the OSI model, TCP/IP stack, IPv4/IPv6 subnetting, and advanced routing protocols (OSI, RIP, EIGRP, OSPF, and BGP). He has conducted nearly **500 technical seminars**, corporate workshops, and live hands-on student training sessions. He frequently anchors faculty training sessions and college workshops at regional engineering hubs like St. Vincent Pallotti College. He serves commercial businesses and corporate offices by designing, building, and deploying physical and digital network frameworks.

Session Highlights

Day 1: Introduction to Routing Protocols

- **Morning Session:**
  - Introduction to computer networks and the role of routers.
  - Basic concepts and working of routing protocols.
  - Types of routing protocols and their applications.
  - Overview of routing tables and route selection.

- **Afternoon Session:**
  - Basic router configuration and network setup.
  - Configuration of routing protocols on routers.
  - Verification of routing tables and connected networks.
  - Testing connectivity between different networks.

Day 2: Routing Protocols and Network Routing

- **Morning session:**
  - Detailed study of different routing protocols.
  - Understanding how routers select the best available route.
  - Concepts of routing metrics and administrative distance.
  - Comparison of different routing protocols.
- **Afternoon session:**
  - Configuration of routing protocols in a network topology.
  - Assigning and verifying IP addresses on router interfaces.
  - Checking routing tables and learned routes.
  - Troubleshooting routing and connectivity issues.

Day 3: Router Security and Network Security

- **Morning Session:**
  - Introduction to router security and its importance.
  - Common network security threats and vulnerabilities.
  - Basic concepts of secure router configuration.
  - Importance of authentication and access control.
- **Afternoon Session:**
  - Basic security configuration on a router.
  - Setting passwords and access restrictions.
  - Configuring secure access to router interfaces.
  - Testing and verifying router security settings.

Day 4: DHCP Configuration on Router

- **Morning Session:**
  - Introduction to DHCP and its purpose in a network.
  - Understanding the DHCP address allocation process.
  - DHCP server, client and IP address pool concepts.
  - Advantages of using DHCP in computer networks.
- **Afternoon Session:**
  - Configuring DHCP services on a router.
  - Creating and configuring a DHCP IP address pool.
  - Configuring excluded IP addresses.
  - Verifying DHCP-assigned IP addresses and connectivity.

Day 5: VLAN, VTP and DHCP

- **Morning Session:**
  - Introduction to VLAN and its role in network segmentation.
  - Understanding VLAN configuration and VLAN IDs.
  - Introduction to VTP and its purpose in managing VLANs.
  - Understanding the relationship between VLAN, VTP and DHCP.
- **Afternoon Session:**
  - Creating and configuring VLANs on switches.

- Configuring VTP and managing VLAN information.
- Configuring DHCP for different network segments.
- Verifying VLAN connectivity and troubleshooting configuration issues.

Key Learnings

- **Understanding of Routing and Networking:** Gained practical knowledge of routing protocols, routing tables, and how routers communicate between different networks.
- **Network Security:** Learned the importance of router and network security, including basic security configurations and access control.
- **DHCP Configuration:** Understood the working of DHCP and learned how to configure IP address allocation and DHCP services on a router.
- **VLAN and VTP:** Learned how VLANs help in network segmentation and how VTP can be used to manage VLAN information across switches.

Conclusion

The **5-day Hands-on Networking Skills Training Program**, organized by the Department of Cyber Security and conducted under the guidance of **Mr. Raj Arora**, provided valuable exposure to both theoretical concepts and practical networking techniques. The training covered important topics such as routing protocols, router and network security, DHCP, VLAN, and VTP. Gained a clear understanding of routing concepts, routing protocols, routing tables, and how routers facilitate communication between different networks. Overall, the training enhanced our networking skills and gave us practical exposure to technologies that are essential for **cybersecurity and networking careers**.



Glimpses of Experts Lecture on "Skill Training Program"