

National Institute of Electronics & Information Technology, Kurukshetra

(An autonomous scientific society of Ministry of Electronics and Information Technology (MeitY), Govt. of India)

Government Polytechnic Campus, Umri, Kurukshetra, Haryana - 136 131

Short Term Training

Course Name : Certificate Course in Computer Networking and Troubleshooting

Duration : 4 Weeks/40 Hrs. (Theory: 16 Hrs. & Practical: 24 Hrs.)

6 Weeks/60 Hrs. (Theory: 16 Hrs., Practical: 24 Hrs. & Project: 20 Hrs.)

Prerequisite : N.A.

Eligibility Criteria: Diploma/B.E./B.Tech. in CS/IT/ECE/Instrumentation (Pre-final year/Final

year/Passout candidates)

Objective

This course is designed to enhance students knowledge about backbone communication networks. It provides students a theoretical background, as well as, configuration level knowledge of certain networking devices e.g. Routers, Switches etc. After completion of this course, the trainees will be able to:

- Acquire interest in Routing and Switching
- Know about various networking devices
- Understand how the intermediate devices get connected with each other and how they communicate
- How static and dynamic routing can be done
- Various Routing algorithms
- Configure VLANs and implement certain securities at networking device level
- Develop certain networking based virtual backbone environment

Topics/Units

- 1. Introduction to Computer Networks
- 2. Threats and Solution in networking
- 3. OSI layers and functions
- 4. Networking Layer & Data Link Layer
- 5. Routers, Switches and Hubs
- 6. Switch Configuration (Privilege assignment, VLAN Creation/Deletion, Port Assignment and configuration, Access/Trunk Mode etc.)
- 7. Routers Configuration (Privilege assignment, IP assignment, Static/Dynamic Routing, Routing Algorithms, Interfacing and sub-interfacing etc.)
- 8. Troubleshooting the network
- 9. Introduction to Wireshark (Packet Capture Software)

Trainer Details : Jitesh Kumar Prajapat

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