

VISION

To impart quality education through state-of-the-art technologies to achieve academic excellence for transforming students into innovators.

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Creating a teaching-learning environment to produce industry ready and self-confident graduates. Motivate students to engage in creative projects throughout graduation.

To produce competitive graduates having creative skills and ethical values to succeed in their fields as well as the foundation for life-long learning.

PROGRAM EDUCATIONAL OBJECTIVES (PEO)

1. To provide students with strong basic and advanced programming concepts so that they can build solutions or systems for complex problems.
2. The program provides the fundamental and perspective to attain life-long learning in the thrust areas of Computer Programming.
3. To produce graduates who have ability to pursue research or have a successful career in academia or industries or as entrepreneurs.
4. The aim is inculcating technical knowledge of the programme and imbibe ethics with moral behaviour in the graduates.

PROGRAM SPECIFIC OBJECTIVES (PSO)

1. To acquire basic knowledge in hardware/software, algorithms, System Software, Computer graphics, Web design, Networking, and advanced computing for solving real-life and Research problems with the perspective of lifelong learning.
2. An ability to demonstrate Knowledge of data management systems like data acquisition and big data, Intelligent systems like AI, Data Science and Machine Learning, The techniques of data analytics like pattern recognition and knowledge discovery.
3. To develop skills which help to expand professional careers.

COURSE OUTCOMES (CO)

1. Understand network fundamental, concepts of OSI reference model and real-world protocol suite such as TCP/IP.
2. Learn different link layer terminologies like error detection-correction, multiple access protocol and link layer addressing used in network.
3. Ability to design network architecture and to apply various routing algorithms for network-layer packet delivery.
4. Learn essential principles of a connectionless and connection-oriented protocols used for reliable data transfer, flow control and congestion control.
5. Understand basic protocols of application layer and how they can be used to assist in network design and implementation.

Name:		Enrolment No:		Semester:	
Sr. No.	Definition	Date	Page No.	Signature	Remarks
01	Introduction to CISCO Packet Tracer software. 1. Use different types of devices like pc, switches, cables, pc with wireless card. 2. Create basic topologies and assign IP address, subnet mask, DNS, gateway IP address. 3. Test connectivity with ping command.				
02	Write a program; 1. To identify the class of given IP address in dotted decimal notation. 2. To Find First address, Last address, and No. of address of given IP address in dotted decimal notation with network mask specified using CIDR notation.				
03	Study of various networking commands in Windows.				
04	Introduction to Default & Static Routing and configuring the same in CISCO packet tracer.				
05	Introduction to Dynamic Routing and configuring RIP and OSPF in CISCO packet tracer.				
06	Configure DHCP and DNS Server in CISCO packet tracer.				
07	Configure Web Server and FTP Server in CISCO packet tracer.				
08	Examine Network Address Translation (NAT) in CISCO packet tracer.				
09	Introduction to packet capturing using Wireshark.				
10	Implement socket programming with UDP & TCP.				
11	Case Study: Understanding of network design & components available at your institute. OR Mini Project: Implement Network Desktop Manager				



**MADHUBEN & BHANUBHAI PATEL
INSTITUTE OF TECHNOLOGY**
(A CONSTITUENT COLLEGE OF CVM UNIVERSITY)

DEPARTMENT OF COMPUTER ENGINEERING
A.Y. 2022-23, ODD TERM
SUBJECT CODE: 102044501
SUBJECT NAME: COMPUTER NETWORKS
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