



ವಿಶ್ವೇಶ್ವರಯ್ಯ ತಾಂತ್ರಿಕ ವಿಶ್ವವಿದ್ಯಾಲಯ

"ವಿಜಯ ಅಧಿನಿಯಮ ೧೯೯೪"ರ ಅಡಿಯಲ್ಲಿ, ಕರ್ನಾಟಕ ಸರ್ಕಾರದಿಂದ ಸ್ಥಾಪಿತವಾದ ರಾಜ್ಯ ವಿಶ್ವವಿದ್ಯಾಲಯ
"ಜ್ಞಾನ ಸಂಗಮ", ಬೆಳಗಾವಿ-೫೯೦೦೧೮, ಕರ್ನಾಟಕ, ಭಾರತ

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Date: - 4 MAR 2021

CIRCULAR

Subject: Minor Correction for 20MCA18 regarding.
Reference: Chairperson BOS in MCA email dated 02.03.2021

Concerning the subject cited above, for the subject "COMPUTER NETWORK LAB" (20MCA18) minor corrections are made in the syllabus of part B, and the same is mentioned below-

Existing

- 4. Write a TCL Script to simulate the working of multicasting routing protocol and analyze the throughput of the network

To read as

- 4. Simulate working of multicasting routing protocol and analyze the throughput of the network/protocol.

A syllabus copy is enclosed with this circular for reference to the concerned.

All the Principals of Engineering Colleges are hereby requested to inform these corrections to the faculty who are handling this laboratory.

Encl: As mentioned above


Sd/-
REGISTRAR

To,

- All the Principals of the Engineering Colleges under the ambit of VTU Belagavi

Copy to:

- The Registrar(Evaluation) for information and needful
- The Registrar's Office, VTU, Belagavi, for information.
- The Special Officer, Academic Section, VTU Belagavi, for information.
- The Special Officer CNC section to upload the circular on the VTU web portal.


03.3.2021
REGISTRAR
1/1

Computer Networks Lab	
Choice Based Credit System	
Semester: I	CIE Marks:40
Course Code:20MCA18	SEE Marks:60
Contact Hours(L:T:P):0:0:4	Exam Hours:03
Course Outcomes: At the end of the course, the students will be able to	
<ol style="list-style-type: none"> 1. CO1: Apply the basic concepts of networking and to analyse different parameters such as bandwidth, delay, throughput of the networks for the given problem. 2. CO2:Apply different techniques to ensure the reliable and secured communication in wired and wireless communication 3. CO3:Analyse the networking concepts of TCP/IP for wired and wireless components 4. CO4:Identify the issues of Transport layer to analyse the congestion control mechanism 5. CO5:Design network topology with different protocols and analyse the performance using any simulator 	
PART-A	
Implement the following Computer Networks concepts using C/C++	
1. Write a program for distance vector algorithm to find suitable path for transmission.	
2. Using TCP/IP sockets, write a client-server program to make the client send the file name and to make the server send back the contents of the requested file if present.	
3. Write a program for Hamming code generation for error detection and correction.	
4. Write a program for congestion control using leaky bucket algorithm.	
PART-B	
(Simulate the following Computer Networks concepts using any network simulators)	
1. Simulate a three nodes point — to — point network with duplex links between them. Set the queue size and vary the bandwidth and find the number of packets dropped.	
2. Simulate the network with five nodes n0, n1, n2, n3, n4, forming a star topology. The node n4 is at the centre. Node n0 is a TCP source, which transmits packets to node n3 (a TCP sink) through the node n4. Node n1 is another traffic source, and sends UDP packets to node n2 through n4. The duration of the simulation time is 10 seconds.	
3. Simulate to study transmission of packets over Ethernet LAN and determine the number of packets drop destination.	
4. Simulate working of multicasting routing protocol and analyse the throughput of the network/protocol.	
5. Simulate the different types of internet traffic such as FTP and TELNET over a wired network and analyze the packet drop and packet delivery ratio in the network.	
Note 1: In the practical exam student has to execute one program from part-A and one from part-B (equal weightage of marks). For simulation of Part B problems any network simulator (either Graphical user interface or script based)can be used.	