

INSTITUTE OF HIGHER EDUCATION AND RESEARCH



BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY No. 173, Agharam Road, Selaiyur, Chennal, T.N. - 600 073.

Requisition Letter

Date: 26.05.2020

From
Dr. K.P.Kaliyamurthie,
Professor & Head,
Department of CSE,
Bharath Institute of Higher Education and Research,
Chennai

To
The Dean Engineering,
Bharath Institute of Higher Education and Research,
Chennai

Respected sir

Subject: Request of Permission to conduct a value-added course on "Training on CCNA Routing and Switching" (on line) -Reg

With reference to above subject, I would like to bring to your kind notice that, our department interested to organize value added course on "Training on CCNA Routing and Switching" in our campus premises on 02.06.2020, students would be participating in this course. We request you kindly to give permission to organize this event.

Timing: 9:30 AM to 12:30 PM (FN) and 1:30 PM to 4:30 PM(AN) and Saturday (FN&AN).

Submitted to Principal for approval to organize this value-added course.

HEAD OF DEPARTMENT

Department Of Computer Science & Engg.,
Bharath Institute Of Higher Education & Research
(Declared as Deemed to be University U/S 3 Of UGC Act, 1956)
Chennal - 600 073. INDIA

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Bharath Institute of Science & Federalogy
Bharath institute of Higher (Ducation & Research
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CIRCULAR

29.05.2020

The school of computing, Bharath Institute of Higher Education and Research is planned to conduct a certification value added course on **Training on CCNA Routing and Switching** for the benefit of students. This course is scheduled from 02.06.2020 to 11.06.2020 which includes theory and practical. The timings are 9:30 AM to 12:30 PM (FN) and 1:30 PM to 4:30 PM(AN) and Saturday (FN&AN).

| All Registered Students must attend all the classes without fail. The following faculty members are assigned to handle the course. S.NO | Name of the Faculty | Designation |
|---|---------------------|---------------------|
| 1 | Dr. G. Michael. | Professor |
| 2 | Mrs. N. Priya | Assistant Professor |

Head of Department

HEAD OF DEPARTMENT

To

Copy to CSE

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CERTIFICATE COURSE ON Training on CCNA Routing and Switching

Date of Introduction of the Course: 02.07.2020

COURSE SYLLABUS

1. Network Fundamentals

To learn the role and function of network components (Routers, Switches, Bridges and Hubs). OSI and TCP/IP models Data flow between two hosts across a network

2. Characteristics of network topology architectures

Learn about 2 tier, 3 tier, Spine-leaf, WAN, Small office/home office (SOHO), On-premises and cloud

3. LAN Switching Technologies

Configure and verify initial switch configuration. Switch operation (ping, telnet), Identify enhanced switching technologies

4. Switching concepts

MAC learning and aging, Frame switching, Frame flooding, MAC address table

5. IP Routing Technologies

Basic routing concepts, describe the boot process of Cisco IOS routers, Configure and verify basic Router configuration

6. IP Connectivity

Interpret the components of routing table

7. IP Services

Configure and verify DHCP (IOS Router), ACL (Types, Features & Applications of ACLs), and Identify the basic operation of NAT, Describe SNMP v2 & v3

8. WAN Technologies

Identifying different WAN Technologies

9. IP addressing (IPv4 / IPv6)

Private and public IP addresses for IPv4, IPv6 addressing scheme, IPv4 addressing scheme using VLSM and summarization

10. Network Device Security

Define key security concepts, Describe security program elements, and Describe security password policies elements, such as management, complexity, and password alternatives

11. Troubleshooting

Utilize net flow data, Troubleshoot and Resolve VLAN problems, Identify and correct common network problems

12. Automation and programmability

How automation impacts network management, traditional networks with controller-based networking

COURSE OBJECTIVES

This course is designed to impart knowledge about detailed knowledge of Computer Networks, various protocols used in Communication, Managing and configuring Switches and Routers and various WAN technologies.

Students will learn

- 1. Understanding Network Fundamentals
- 2. Understanding LAN Switching Technologies
- 3. Analyse IP Routing Technologies
- 4. Understanding different WAN Technologies
- 5. Demonstrate Private and public IP addresses for IPv4, IPv6 addressing scheme
- 6. Knowing to resolve VLAN problems

COURSE COORDINATOR

HEAD OF THE DEPARTMENT

HEAD OF DEPARTMENT
Lepartment of Computer Scie 2 Engg.
Letter Land Computer Scie 2 Learnth



CERTIFICATE COURSE ON STATISTICS WITH R SPECIALIZATION

Date of Introduction of the Course: 02.07.2020

The timings are 9:30 AM to 12:30 PM (FN) and 1:30 PM to 4:30 PM (AN) Saturday (FN&AN).

Time Table & Lesson plan

| CLASS | DATE | TOPIC |
|-------|-------------------------|--|
| 1 | 02-06-2020(FN) | 1.Network Fundamentals To learn the role and function of network components (Routers, Switches, Bridges and Hubs). OSI and TCP/IP models Data flow between two hosts across a network |
| 2 | 03-06-2020 (FN) | 2.Characteristics of network topology architectures Learn about 2 tier, 3 tier, Spine-leaf, WAN, Small office/home office (SOHO), On-premises and cloud |
| 3 | 04-06-2020 (FN) | 3. LAN Switching Technologies Configure and verify initial switch configuration. Switch operation (ping, telnet), Identify enhanced switching technologies |
| 4 | 05-06-2020 (FN) | 4. Switching concepts MAC learning and aging, Frame switching, Frame flooding, MAC address table |
| 5 | 06-06-2020 (FN) | 5. IP Routing Technologies Basic routing concepts, describe the boot process of Cisco IOS routers, Configure and verify basic Router configuration |
| 6,7 | 06-06-2020 (FN & AN) | 6. IP Connectivity Interpret the components of routing table 7. IP Services Configure and verify DHCP (IOS Router), ACL (Types, Features & Applications of ACLs), and Identify the basic operation of NAT, Describe SNMP v2 & v3 |

| 8 | 08-06-2020 (FN) | 8. WAN Technologies Identifying different WAN Technologies |
|-------|-------------------------|---|
| 9 | 09-06-2020 (FN) | 9. IP addressing (IPv4 / IPv6) Private and public IP addresses for IPv4, IPv6 addressing scheme, IPv4 addressing scheme using VLSM and summarization |
| 10 | 10-06-2020 (FN) | 10. Network Device Security Define key security concepts, Describe security program elements, and Describe security password policies elements, such as management, complexity, and password alternatives |
| 11,12 | 11-06-20 20(FN & AN) | 11. Troubleshooting Utilize net flow data, Troubleshoot and Resolve VLAN problems, Identify and correct common network problems 12. Automation and programmability How automation impacts network management traditional networks with controller-based networking |

HEAD OF THE DEPARTMENT

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Estatath INSTITUTE OF HIGHER EDUCATION AND RESEARCH (Declared as Deermed-to-be University under section 3 of UGC Act. 1956) (Vide Notification No. F.9-5/2000 - U.3, Ministry of Human Resource Development, Govt. of India, dated 4" July 2002)

| | DEPART | TMENT OF COMPUTER SCIENCE AND ENGINEERING | |
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| S. No | REG.NO | NAME OF THE CANDIDATE | |
| 1 | U15CS042 | DILLIGANESH V | |
| 2 | U15CS043 | DIVAKAR M | |
| 3 | U15CS044 | DIVYA VANI T | |
| 4 | U15CS045 | DODDI PUJITHA | |
| 5 | U15CS046 | DOOLIGANTI AKHIL REDDY | |
| 6 | U15CS047 | DUPUGUNTLA BHANU SIVA KASINADH | |
| 7 | U15CS048 | GANDLUR REDDY GREESHMA | |
| 8 | U15CS049 | GANESH BAG | |
| 9 | U15CS050 | GANGARAJU RAHUL | |
| 10 | U15CS051 | GANGARAPU UKESH | |
| 11 | U15CS052 | GANGU BHAGYA | |
| 12 | U15CS053 | GLADSON J | |
| 13 | U15CS054 | GOLI SUDEEP KRISHNA | |
| 14 | U15CS055 | GOLLAPUDI KALYAN KUMAR | |
| 15 | U15CS056 | GORRE THIRUPATHI REDDY | |
| 16 | U15CS057 | GUJJETI MAHESH | |
| 17 | U15CS058 | GUNDA VINAY KUMAR | |
| 18 | U15CS059 | HANUMAN B | |
| 19 | U15CS060 | HARI HARAN M | |
| 20 | U15CS061 | HASTHI RUCHITHA | |
| 21 | U15CS062 | HEMA NARAYANAN R | |
| 22 | U15CS063 | INAPARTHI RAGHAVA | |
| 23 | U15CS064 | INJE RAVI TEJA | |
| 24 | U15CS065 | INNURU SWATHI | |
| 25 | U15CS066 | JAGADEESH K | |
| 26 | U15CS067 | JAGADEESWARA RAO JADDU | |
| 27 | U15CS068 | JAICHAND KUMAR | |
| 28 | U15CS069 | JANAKI RAMAN V | |
| 29 | U15CS070 | JHA ABHISHEK AJAY | |
| 30 | U15CS071 | JOHN PARAM JYOTHI JYOTHULA | |
| 31 | U15CS072 | JOTHI R | |
| 32 | U15CS073 | K THULASIRAM | |
| 33 | U15CS074 | KADALI VINAY NARASIMHA | |

| 34 | U15CS075 | KADUMU MOUNIKA | |
|----|----------|--------------------------------|--|
| 35 | U15CS076 | KAIPU PRANAY REDDY | |
| 36 | U15CS077 | KALYANAM JASWANTH NAIDU | |
| 37 | U15CS078 | KAMBLE NIKHIL KUMAR | |
| 38 | U15CS079 | KANCHARLAPALLI LOKESHWAR RAO | |
| 39 | U15CS080 | KANCHUMARTHI BHUVANESWAR VINAY | |
| 40 | U15CS081 | KANCHUPATI JAGANMOHAN RAO | |
| 41 | U15CS082 | KANDI ASHOKA REDDY | |
| 42 | U15CS083 | KANDI MOUNIKA | |
| 43 | U15CS084 | KANDUKURI JESHWANTH | |
| 44 | U15CS085 | KANDULA SRINATH | |
| 45 | U15CS086 | KARAPAREDDY BHARGAVI | |
| 46 | U15CS087 | KARTHEESWARAN P | |
| 47 | U15CS088 | KARTHICK S | |
| 48 | U15CS089 | KARUTURI SREE RAM | |
| 49 | U15CS090 | KATTA NARENDRA | |
| 50 | U15CS091 | KHALYAN S N | |
| 51 | U15CS092 | KISHORE VENKAT | |
| 52 | U15CS093 | KM AYUSHI JAISWAL | |

N. Priys COURSE CO. ORDINATOR

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COURSE FEEDBACK FORM

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|) | Get exposed to a relevant subject | | | | | | | | | |
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HEAD OF THE DEPARTMENT

COURSE FEEDBACK FORM

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| | (i) | Have done part of this course earlier | | | | | | | | | | | |
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| | (iii) | S concurrent study | | | | | | | | | | | |
| | (iv) | Have no exposure to the background material | | | | | | | | | | | |
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| | (d) | Better Employment Operatority | | | | | | | | | | | |
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| | (f) | To Improve CGPA | | | | | | | | | | | |
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HEAD OF THE DEPARTMENT

COURSE FEEDBACK FORM

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| | Percentage of classes attended | | | | | | | | | | |
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| | (ii) | Has adequate prior exposure to the prerequisites | | | | | | | | | |
| | (iii) | Had to pickup relevant additional topics through concurrent study 488 | | | | | | | | | |
| | (iv) | Have no exposure to the background material | | | | | | | | | |
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| • | 200 | e expectations for taking the course by the student are: | | | | | | | | | |
| | | (a) Enhance by skill base in the area of specializations YOS | | | | | | | | | |
| | (b) | Get exposed to a relevant subject | | | | | | | | | |
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HEAD OF THE DEPARTMENT

