



Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)



BHARATH INSTITUTE OF SCIENCE AND TECHNOLOGY
No. 173, Agharam Road, Selaiyur, Chennai , 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" (online) -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.

HOD

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)
Chennai - 600 073. INDIA

DEAN ENGINEERING

DEAN (Engineering)

Bharath Institute of Science & Technology
BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed to be University U/S 3 of UGC Act, 1956)
Selaiyur, Chennai-600 073.



Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed-to-be University under section 3 of UGC Act 1956)

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
Department of Computer Science

To

Copy to CSE

Copy to IT



Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH
(Declared as Deemed-to-be University under section 3 of UGC Act 1956)

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
Department of Computer Science & Engg.
Jawahar Institute of Engineering & Research
Jawahar Institute of Engineering & Research
Jawahar Institute of Engineering & Research



Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH
 (Declared as Deemed-to-be University under section 3 of UGC Act 1956)

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

M. Priya
COURSE COORDINATOR

[Signature]
HEAD OF THE DEPARTMENT

Department of Computer Science and Engineering
 (Department of Computer Science and Engineering)
 Chennai-600 073, INDIA



Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH

(Declared as Deemed-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 4th July 2002)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING		
Date of Introduction of the Course: 02.07.2020		
B.Tech Computer Science and Engineering		
Traning on CCNA Routing and Switching		
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

COURSE FEEDBACK FORM

Academic Year		2020-2021					
Term							
Course Number							
Course Title		Training on CCNA Routing and Switching					
Number of Credits							
Type of Course	Regular		Elective		Add-on	✓	
I. Information on the Respondent: (Tick (✓) Appropriately)							
1. Percentage of classes attended							
0-20		20-40		40-60		60-80	✓
2. Number of hours per week spent on the course (Other than lecture hours)							
0-2		2-4		4-6		6-8	✓
3. Preparation for the course by the student:							
(i)	Have done part of this course earlier						No
(ii)	Has adequate prior exposure to the prerequisites						No
(iii)	Had to pickup relevant additional topics through concurrent study						Yes
(iv)	Have no exposure to the background material						No
4. The expectations for taking the course by the student are:							
(a)	Enhance by skill base in the area of specializations						Yes
(b)	Get exposed to a relevant subject						Yes
(c)	Curiosity						Yes
(d)	Better Employment Opportunity						No
(e)	Complete Course requirements						Yes
(f)	To Improve CGPA						Yes
About the Instructor: Information on the Respondent: (Tick (✓) Appropriately)							
		A	B	C	D	E	
1.	Pace of the Teaching/lecture	✓					
2.	Content of the Subject		✓				
3.	Clarity of expression	✓					
4.	Level of preparation	✓					
5.	Level of interaction		✓				
6.	Accessibility outside the class	✓					
7.	Others (please specify)	✓					
A: Excellent	B: Very Good	C: Good	✓	D: Satisfactory	E: Poor		


 HEAD OF THE DEPARTMENT

COURSE FEEDBACK FORM

Academic Year		2020-2021			
Term					
Course Number					
Course Title		Training on CCNA Routing and Switching			
Number of Credits					
Type of Course	Regular	Elective	Add-on	<input checked="" type="checkbox"/>	

I. Information on the Respondent: (Tick (✓) Appropriately)

1. Percentage of classes attended

0-20	20-40	40-60	60-80	80-100
				<input checked="" type="checkbox"/>

2. Number of hours per week spent on the course (Other than lecture hours)

0-2	2-4	4-6	6-8	8-10
			<input checked="" type="checkbox"/>	

3. Preparation for the course by the student:

(i)	Have done part of this course earlier	
(ii)	Has adequate prior exposure to the prerequisites	No
(iii)	Had to pickup relevant additional topics through concurrent study	Yes
(iv)	Have no exposure to the background material	Yes
		No

4. The expectations for taking the course by the student are:

(a)	Enhance by skill base in the area of specializations	Yes
(b)	Get exposed to a relevant subject	Yes
(c)	Curiosity	Yes
(d)	Better Employment Opportunity	No
(e)	Complete Course requirements	Yes
(f)	To Improve CGPA	Yes

About the Instructor: Information on the Respondent: (Tick (✓) Appropriately)

	A	B	C	D	E
1. Pace of the Teaching/lecture	<input checked="" type="checkbox"/>				
2. Content of the Subject		<input checked="" type="checkbox"/>			
3. Clarity of expression	<input checked="" type="checkbox"/>				
4. Level of preparation	<input checked="" type="checkbox"/>				
5. Level of interaction	<input checked="" type="checkbox"/>				
6. Accessibility outside the class		<input checked="" type="checkbox"/>			
7. Others (please specify)	<input checked="" type="checkbox"/>				

A: Excellent	B: Very Good	<input checked="" type="checkbox"/>	C: Good	D: Satisfactory	E: Poor
--------------	--------------	-------------------------------------	---------	-----------------	---------


HEAD OF THE DEPARTMENT

COURSE FEEDBACK FORM

Academic Year		2020-2021							
Term									
Course Number									
Course Title		Training on CCNA Routing and Switching							
Number of Credits									
Type of Course	Regular		Elective		Add-on	✓			
I. Information on the Respondent: (Tick (✓) Appropriately)									
1. Percentage of classes attended									
0-20		20-40		40-60		60-80	80-100	✓	
2. Number of hours per week spent on the course (Other than lecture hours)									
0-2		2-4		4-6		6-8	8-10	✓	
3. Preparation for the course by the student:									
(i)	Have done part of this course earlier						No		
(ii)	Has adequate prior exposure to the prerequisites						No		
(iii)	Had to pickup relevant additional topics through concurrent study						Yes		
(iv)	Have no exposure to the background material						No		
4. The expectations for taking the course by the student are:									
(a)	Enhance by skill base in the area of specializations						Yes		
(b)	Get exposed to a relevant subject						Yes		
(c)	Curiosity						No		
(d)	Better Employment Opportunity						Yes		
(e)	Complete Course requirements						Yes		
(f)	To Improve CGPA						Yes		
About the Instructor: Information on the Respondent: (Tick (✓) Appropriately)									
		A	B	C	D	E			
1.	Pace of the Teaching/lecture	✓							
2.	Comment of the Subject		✓						
3.	Clarity of expression	✓							
4.	Level of preparation	✓							
5.	Level of interaction		✓						
6.	Accessibility outside the class	✓							
7.	Others (please specify)	✓							
A: Excellent		B: Very Good		C: Good		D: Satisfactory		E: Poor	
				✓					


HEAD OF THE DEPARTMENT



Bharath UNIVERSITY

பாரத் பல்கலைக்கழகம்

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH

(Declared as Deemed-to-be-University, u/s 3 of the UGC Act, 1956)



CERTIFICATE OF PARTICIPATION



Mr. JOTHI R

For actively participating in the value added course "**Training on CCNA Routing and Switching**" Conducted by School of Computing, BIHER from 02-06-2020 to 11-06-2020 .

N. Priya

Course Coordinator

K. R. Jothi

Head of the Department

C. Vin

Director