



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: 05.08.2020

From
Dr. K.P.Kaliyamurthi,
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 "HAND ON TRAINING
"IOT" (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 "HAND ON TRAINING "IOT"" in our campus premises on 10.08.2020, 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, T.N

DEAN ENGINEERING

DEAN (Engineering)

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



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CIRCULAR

07.08.2020

The school of computing, Bharath Institute of Higher Education and Research is planned to conduct a certification value added course on **Certificate Course of Hand on Training "IOT"** for the benefit of students. This course is scheduled from 10.08.2020 to 21.08.2020 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. R. Karthikeyan	Professor
2	Ms. Snidhar R	Assistant Professor

Head of Department

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)

To

Copy to CSE

Copy to IT



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INSTITUTE OF HIGHER EDUCATION AND RESEARCH

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CERTIFICATE COURSE ON STATISTICS WITH HAND ON TRAINING "IOT"

Date of Introduction of the Course: 12.09.2020

COURSE SYLLABUS

1. Introduction to IOT

Understanding IoT fundamentals , IOT Architecture and protocols, Various Platforms for IoT

2. Real time Examples of IoT

Overview of IoT components and IoT Communication Technologies, Challenges in IOT

3. Arduino Simulation Environment

Arduino Uno Architecture, Setup the IDE, Writing Arduino Software

4. Arduino Libraries

Basics of Embedded C programming for Arduino, Interfacing LED, push button and buzzer with Arduino, Interfacing Arduino with LCD

5. Sensor & Actuators with Arduino

Overview of Sensors working , Analog and Digital Sensors

6. Interfacing of Temperature, Humidity, Motion, Light and Gas Sensor with Arduino

Interfacing of Actuators with Arduino, Interfacing of Relay Switch and Servo Motor with Arduino

7. Basic Networking with ESP8266 WiFi module

Basics of Wireless Networking, Introduction to ESP8266 Wi-Fi Module

8. Various Wi-Fi library

Web server- introduction, installation, configuration, Posting sensor(s) data to web server NIELIT DELHI Page

9. IoT Protocols • M2M vs. IOT

Communication Protocols 6. Cloud Platforms for IOT, Virtualization concepts and Cloud Architecture

10. Cloud computing, benefits

Cloud services -- SaaS, PaaS, IaaS, Cloud providers & offerings

11. Study of IOT Cloud platforms

ThingSpeak API and MQTT

12. Interfacing ESP8266 with Web services

Brief note on Interfacing ESP8266 with Web services

COURSE OBJECTIVES

This Course focuses on hands-on IoT concepts such as sensing, actuation and communication. It covers the development of Internet of Things (IoT) prototypes—including devices for sensing, actuation, processing, and communication—to help you develop skills and experiences. The Internet of Things (IOT) is the next wave, world is going to witness.

Specifically, the course has the following objectives:

Students will learn

1. Describe what IoT is and how it works today
2. Recognise the factors that contributed to the emergence of IoT
3. Design and program IoT devices
4. Use real IoT protocols for communication
5. Secure the elements of an IoT device
6. Design an IoT device to work with a Cloud Computing infrastructure.
7. Transfer IoT data to the cloud and in between cloud providers
8. Define the infrastructure for supporting IoT deployments



COURSE COORDINATOR



HEAD OF THE DEPARTMENT

HEAD OF DEPARTMENT

Department Of Computer Science & Engg.,
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Chennai - 600 073, INDIA



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CERTIFICATE COURSE ON HAND ON TRAINING "IOT"

Date of Introduction of the Course: 12.09.2020

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	10-08-2020(FN)	1.Introduction to IOT Understanding IoT fundamentals, IOT Architecture and protocols, Various Platforms for IoT
2	11-08-2020 (FN)	2.Real time Examples of IoT Overview of IoT components and IoT Communication Technologies, Challenges in IOT
3	12-08-2020 (FN)	3. Arduino Simulation Environment Arduino Uno Architecture, Setup the IDE, Writing Arduino Software
4	13-08-2020 (FN)	4. Arduino Libraries Basics of Embedded C programming for Arduino, Interfacing LED, push button and buzzer with Arduino, Interfacing Arduino with LCD
5	14-08-2020 (FN)	5. Sensor & Actuators with Arduino Overview of Sensors working , Analog and Digital Sensors
6,7	15-08-2020 (FN & AN)	6. Interfacing of Temperature, Humidity, Motion, Light and Gas Sensor with Arduino Interfacing of Actuators with Arduino, Interfacing of Relay Switch and Servo Motor with Arduino 7. Basic Networking with ESP8266 WiFi module Basics of Wireless Networking, Introduction to ESP8266 Wi-Fi Module
8	17-08-2020 (FN)	8. Various Wi-Fi library Web server- introduction, installation, configuration, Posting sensor(s) data to web server NIELIT DELHI Page

9	18-08-2020 (FN)	8. Various Wi-Fi library Web server- introduction, installation, configuration, Posting sensor(s) data to web server NIELIT DELHI Page
10	19-08-2020 (FN)	9. IoT Protocols • M2M vs. IOT Communication Protocols 6. Cloud Platforms for IOT, Virtualization concepts and Cloud Architecture
11	20-08-2020 (FN)	10. Cloud computing, benefits Cloud services – SaaS, PaaS, IaaS, Cloud providers & offerings
12	20-08-2020 (FN)	11. Study of IOT Cloud platforms ThingSpeak API and MQTT
13	21-08-2020 (FN)	12. Interfacing ESP8266 with Web services Brief note on Interfacing ESP8266 with Web services

Q. Sridhar

COURSE COORDINATOR

K. H. H.

HEAD OF THE DEPARTMENT

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Department Of Computer Science & Engg.,
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Chennai - 600 073, INDIA



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(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: 12.09.2020

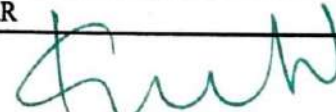
B.Tech Computer Science and Engineering

HAND ON TRAINING "IOT"

S. No	REG.NO	NAME OF THE CANDIDATE
1	U15CS091	KHALYAN S N
2	U15CS092	KISHORE VENKAT
3	U15CS093	KM AYUSHI JAISWAL
4	U15CS094	KOLUKULURI ADITHYA RAGHAV VARMA
5	U15CS095	KONATALA PUSHPA
6	U15CS096	KONDURU PREM KUMAR
7	U15CS097	KONGARA KIRAN KUMAR
8	U15CS098	KOPPA SEKHAR SAI VISWAM
9	U15CS099	KOTHAPALLI ARYAN VARMA
10	U15CS100	KOTIPALLI SRI SAI SURYA PRASANTH
11	U15CS101	KOTNANI KRISHNA VAMSI
12	U15CS102	KRISHNA KUMAR YADAV
13	U15CS103	KUMMETA SAI VAMSI KRISHNA REDDY
14	U15CS104	KUNISETTY JYOTHSNA
15	U15CS105	LALJEE
16	U15CS106	LINGAMPELLY SANNITH REDDY
17	U15CS107	LOHESH WARAN S
18	U15CS108	M SHIVA PRAKASH
19	U15CS109	M UTTEJ
20	U15CS110	M. DINESH REDDY
21	U15CS111	M.YESHWITHA REDDY
22	U15CS112	MAILE ARUN KUMAR
23	U15CS113	MAMUNDURU BHARATH KUMAR
24	U15CS114	MANCHALA ROHITH
25	U15CS115	MANCHIKANTI RAJITHA

26	U15CS117	MANOJ KUMAR R
27	U15CS118	MANUGUNTA BHARGAVI
28	U15CS119	MARRIBOYINA GOVARDHAN YADAV
29	U15CS120	MARRIPUDI KRISHNA CHAITANYA
30	U15CS121	MD MINHAZ RAZA HASHMI
31	U15CS122	MOHAMED SAJEEN N
32	U15CS123	MOHAMMAD ASLAM SHAREEF
33	U15CS124	MOHANKUMAR J
34	U15CS125	MOLAPANTI SIVA KALPANA
35	U15CS126	MOORABOINA NARESH
36	U15CS127	MUPPALLA SURENDRA
37	U15CS128	MURARI KUMAR CHAUDHARY
38	U15CS129	N SWAPNA RAAGA
39	U15CS130	NAGANNAGARI JAGADISH
40	U15CS132	NALLANALLI SATYA SANDEEP KUMAR
41	U15CS133	NALLURI AKHIL BABU
42	U15CS134	NAMBURI VIJAY KUMAR


Course Coordinator


HOD
HEAD OF DEPARTMENT
Department Of Computer Science & Engg.,
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Chennai - 600 073. INDIA

COURSE FEEDBACK FORM

Academic Year		2020-20 21			
Term					
Course Number					
Course Title		Hand on Training "IOT"			
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"/>

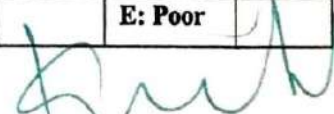
3. Preparation for the course by the student:	
(i)	Have done part of this course earlier Yes
(ii)	Has adequate prior exposure to the prerequisites NO
(iii)	Had to pickup relevant additional topics through concurrent study NO
(iv)	Have no exposure to the background material Yes

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 NO
(f)	To Improve CGPA NO

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.	Comment 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	<input checked="" type="checkbox"/>	B: Very Good		C: Good		D: Satisfactory		E: Poor	
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COURSE FEEDBACK FORM

Academic Year		2020-2021					
Term							
Course Number							
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Number of Credits							
Type of Course	Regular		Elective		Add-on	<input checked="" type="checkbox"/>	
I. Information on the Respondent: (Tick (✓) Appropriately)							
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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						Yes
(iii)	Had to pickup relevant additional topics through concurrent study						Yes
(iv)	Have no exposure to the background material						Yes
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						Yes
(e)	Complete Course requirements						Yes
(f)	To Improve CGPA						No
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.	Comment 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	<input checked="" type="checkbox"/>	B: Very Good		C: Good		D: Satisfactory	E: Poor

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COURSE FEEDBACK FORM

Academic Year		2020-20 21			
Term					
Course Number					
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Number of Credits					
Type of Course	Regular		Elective		Add-on <input checked="" type="checkbox"/>

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

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(c)	Curiosity No
(d)	Better Employment Opportunity No
(e)	Complete Course requirements No
(f)	To Improve CGPA No

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.	Comment 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	<input checked="" type="checkbox"/>	B: Very Good		C: Good		D: Satisfactory		E: Poor	
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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. M. DINESH REDDY

For actively participating in the value added course “**Hand on Training**
“**IOT**” Conducted by School of Computing, BIHER
from 10-08-2020 to 21.10.2020 .


Course Coordinator


Head of the Department


Director