

From

Chennai

The Head of the Department

10-02-2022

Department of Biomedical Engineering

BIHER

To

The Dean

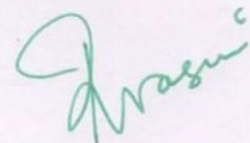
BIHER

Respected Sir

Sub: Approval to conduct a value added course on "IoT in Medical Application" -  
reg

It has been planned by the Department of Biomedical Engineering to start a Value Added Course on "IoT in Medical Application" for the benefit of B.Tech Biomedical Engineering, B.Tech Industrial Biotechnology and B-Tech Genetic Engineering students from 20<sup>th</sup> February, 2022. The duration of the course is 30 hrs comprising of both theory and practical classes. I request you to kindly approve for the same.

Thanking you



Yours sincerely





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

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

**Date: 13-02-2022**

**SCHOOL OF BIOENGINEERING  
CIRCULAR**

**Notification for Value added courses offered by the School of Bioengineering**

The Department of Bio Medical Engineering, School of Bioengineering, is scheduled to offer a Value added Course on **“IoT in Medical Application”** from 20/02/2022 for a period of 3 weeks. Interested students can approach Mrs.S.Geetha, Assistant Professor and Course Coordinator, Department of Bio Medical Engineering, for registration and further details on or before 18<sup>th</sup> February 2022.

**Eligibility-II, III and IV B-Tech IBT, GE and BME**

Course Coordinator

HOD

**Copy to:**

Vice Chancellor  
Pro Vice Chancellor  
Additional Registrar  
Deans  
CoE  
Heads of Departments



**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

**SCHOOL OF BIO-ENGINEERING**

**DEPARTMENT OF BIO MEDICAL ENGINEERING**

**VALUE ADDED COURSE ON IoT IN MEDICAL APPLICATION**

**2021-2022**

**COURSE CO-ORDINATOR DETAILS**

**Faculty Name: Mrs.S.Geetha,**

Assistant Professor,

Department of Bio Medical Engineering.

**Email ID: geethag24@gmail.com**

**Mobile number: 9841600771**

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

**SCHOOL OF BIO-ENGINEERING**

**DEPARTMENT OF BIO MEDICAL ENGINEERING**

**2021-2022**

**VALUE ADDED COURSE SYLLABUS**

**IoT IN MEDICAL APPLICATIONS**

**MODULE 1**

Introduction to IOT Understanding IoT fundamentals, IOT Architecture and protocols, Various Platforms for IoT, Real time Examples of IoT, Overview of IoT components and IoT Communication Technologies, Challenges in IOT.

**MODULE 2**

Sensor & Actuators with Arduino Overview of Sensors working, Analog and Digital Sensors, Interfacing of Temperature, Humidity, Motion, Light and Gas Sensor, Arduino Interfacing of Actuators with Arduino, Interfacing of Relay Switch and Servo Motor with Arduino.

**Module 3**

NSUM Technique for Diabetes Patients, Healthcare Monitoring system through Cyber-physical system, An IoT Model for Neuro sensors, AdaBoost with feature selection using IoT for somatic mutations evaluation in Cancer, A Fuzzy-Based expert System to diagnose Alzheimer's Disease, Secured architecture for IoT enabled Personalized Healthcare Systems, Healthcare Application Development in Mobile and Cloud Environments, Approach to predict Diabetic Retinopathy through data analytics, Diagnosis of chest diseases using artificial neural networks.

Total Contact Hour: 30

**SCHOOL OF BIO-ENGINEERING****DEPARTMENT OF BIO MEDICAL ENGINEERING****VALUE ADDED COURSE****IOT IN MEDICAL APPLICATION**

Session	Topic	Date	Duration	Resource person
Session I	Introduction to IOT Understanding IoT fundamentals, IOT Architecture and protocols, Various Platforms for IoT,	20.02.2022	4	Dr.R.Vasuki
Session II	Real time Examples of IoT, Overview of IoT components and IoT Communication Technologies, Challenges in IOT.	21.02.2022	4	Dr.R.Vasuki
Session III	Sensor & Actuators with Arduino Overview of Sensors working,	22.02.2022	3	Ms.S.Geetha
Session IV	Analog and Digital Sensors, Interfacing of Temperature, Humidity, Motion, Light and Gas Sensor	27.02.2022	4	Ms.S.Geetha
Session V	Arduino Interfacing of Actuators with Arduino	28.02.2022	3	Mr.S.Prasath
Session VI	Interfacing of Relay Switch and Servo Motor with Arduino	01.03.2022	3	Mr.S.Prasath
Session VII	NSUM Technique for Diabetes Patients, Healthcare Monitoring system through Cyber-physical system, An IoT Model for Neuro sensors, AdaBoost with feature selection using IoT for somatic mutations evaluation in Cancer	06.03.2022	3	Mr.R.Sundararaj
Session VIII	A Fuzzy-Based expert System to diagnose Alzheimer's Disease, Secured architecture for IoT enabled Personalized Healthcare Systems	07.03.2022	3	Mr.R.Sundararaj
Session IX	Healthcare Application Development in Mobile and Cloud Environments, Approach to predict Diabetic Retinopathy through data analytics, Diagnosis of chest diseases using artificial neural networks	08.03.2022	3	Mr.R.Sundararaj

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**  
**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF BIO MEDICAL ENGINEERING**  
**VALUE ADDED COURSE**  
**IoT IN MEDICAL APPLICATION**  
**STUDENTS NAME LIST**

S.NO	REG.NO	NAME
1	U14BM001	AKASH MISRA
2	U14BM002	AKKAL DEV DIVYA
3	U14BM003	ALAKANTI KARTHIK
4	U14BM004	AMIRTHAVALLI J
5	U14BM005	ARAVIND BHARATHWAJ .V.S.
6	U14BM007	ATHINA DAS
7	U14BM008	BIRRU VIKAS
8	U14BM014	GAGANDEEP KOUR
9	U14BM016	KAMAKSHI.M
10	U14BM025	MANISHA.N
11	U14BM032	PADMAVATHY .M
12	U14BM037	RAMKUMAR .K
13	U14BM045	SUDEEP LAMICHHANE
14	U14BM055	ZAKIR AHMAD LONE
15	U14BM059	NINU.P.S.
16	U15BM001	ABHIJITH T UNNIKRISHNAN
17	U15BM002	ABINAYA K
18	U15BM003	AMBATI SNEHA SREE
19	U15BM004	ANAGHA B
20	U15BM005	ANEESA JAN
21	U15BM006	ARAVINDHAN A
22	U15BM013	FAIZAL AHMED S
23	U15BM014	FATHIMA FARSANA M
24	U15BM015	GANGAPALLI SRUTHI
25	U15BM016	GAYATHRI E.K
26	U15BM017	GILEAD LILLY R
27	U15BM018	JAGARLAMUDI MOHAN SAI DURGA PRASAD
28	U15BM019	JAVVADI SAI RISHITA
29	U15BR001	AJIT KARTHIKEYAN T
30	U15BR002	ARUTHRA B
31	U15BR003	CHANDRAKUMAR S
32	U15BR004	GANGA N
33	U15BR005	GOPINATHKUMAR S
34	U15BR006	I. SUNETHA
35	U15BR007	JEMI JOAN SILVIYA K
36	U15BR008	M N VINITHA
37	U15BR009	MANASA M S
38	U15BR010	NIVEDITHA SELVAKUMAR

39	U15BR011	NIVETHA B
40	U15BR012	PALADI DHEERAJ
41	U15BR013	PRIYANKA P
42	U15BR014	RUSHMITHA ANBARASU
43	U15BR015	SARAH BEGUM A
44	U15BR016	SHARMILEE M
45	U15BR017	TAWFEEQ HAARIS BUHARI
46	U15BR018	TEJASVINI M
47	U15BR019	VISHALI R C
48	U15BR020	BHUKYA PAVAN KALYAN
49	U15BR021	VIDHYA SHREE E
50	U15BR022	B. PRIYANKA
51	U15BR023	AKILA R
52	U15BT001	ARUMAI RATCHAGAN S.R
53	U15BT002	DEVA V
54	U15BT003	KALAISELVAN A
55	U15BT004	KANIKA P G

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**  
**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF BIO MEDICAL ENGINEERING**  
**VALUE ADDED COURSE**  
**IoT IN MEDICAL APPLICATION**  
**Students Result**

S.NO	REG.NO	NAME	RESULT
1	U14BM001	AKASH MISRA	S
2	U14BM002	AKKAL DEV DIVYA	A
3	U14BM003	ALAKANTI KARTHIK	A
4	U14BM004	AMIRTHAVALLI J	A
5	U14BM005	ARAVIND BHARATHWAJ .V.S.	A
6	U14BM007	ATHINA DAS	S
7	U14BM008	BIRRU VIKAS	S
8	U14BM014	GAGANDEEP KOUR	A
9	U14BM016	KAMAKSHI.M	S
10	U14BM025	MANISHA.N	S
11	U14BM032	PADMAVATHY .M	S
12	U14BM037	RAMKUMAR .K	S
13	U14BM045	SUDEEP LAMICHHANE	A
14	U14BM055	ZAKIR AHMAD LONE	S
15	U14BM059	NINU.P.S.	S
16	U15BM001	ABHIJITH T UNNIKRISHNAN	S
17	U15BM002	ABINAYA K	S
18	U15BM003	AMBATI SNEHA SREE	S
19	U15BM004	ANAGHA B	S
20	U15BM005	ANEESA JAN	S
21	U15BM006	ARAVINDHAN A	S
22	U15BM013	FAIZAL AHMED S	S
23	U15BM014	FATHIMA FARSANA M	A
24	U15BM015	GANGAPALLI SRUTHI	S
25	U15BM016	GAYATHRI E.K	S
26	U15BM017	GILEAD LILLY R	S
27	U15BM018	JAGARLAMUDI MOHAN SAI DURGA PRASAD	S
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34	U15BR006	I. SUNETHA	S
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46	U15BR018	TEJASVINI M	S
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54	U15BT003	KALAISELVAN A	S
55	U15BT004	KANIKA P G	S



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**NAAC**  
NATIONAL ASSESSMENT AND  
ACCREDITATION COUNCIL



**SCHOOL OF BIO ENGINEERING  
CERTIFICATE OF PARTICIPATION**

*This is to certify that Mr/Ms/Mrs/Dr ARAVINDHAN A has completed the value added course on "IoT in Medical Application" organized by the Department of Biomedical Engineering, Bharath Institute of Higher Education and Research, Chennai (TN), India during 20<sup>th</sup> February to 8<sup>th</sup> March, 2022.*

  
Dean

  
HOD

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

**SCHOOL OF BIOENGINEERING**

**DEPARTMENT OF BIOMEDICAL ENGINEERING**

Name : KANIKA . P . G

Register Number : U15BT004

Academic year: 2021-2022

Name of the course offered : IOT in Medical Application

**Student Feedback**

S.No	Criteria	Rating				
		Excellent	Very Good	Good	Fair	Satisfactory
1	Course content	✓				
2	Skill development	✓				
3	Motivation		✓			
4	Regularity of the faculty	✓				
5	Coverage of the syllabus	✓				
6	Resourse person interaction with students	✓				
7	Outcome	✓				
8	Individual Attention	✓				

Signature of the Course co-ordinator

Signature of the Student

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH

SCHOOL OF BIOENGINEERING

DEPARTMENT OF BIOMEDICAL ENGINEERING

Name : Aathina Das

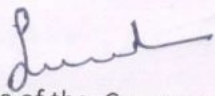
Register Number : U14BM007

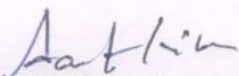
Academic year: 2021-22

Name of the course offered : IOT in Medical Applications

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2	Skill development	/	/			
3	Motivation	/				
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5	Coverage of the syllabus	/				
6	Resourse person interaction with students		/			
7	Outcome	/				
8	Individual Attention	/				

  
Signature of the Course co-ordinator

  
Signature of the Student