From   Chennai

    The Head of the Department   01-08-2016

    Department of Biomedical Engineering

    BIHER

To

    The Dean

    BIHER

Respected Sir

Sub: Approval to conduct a value added course on "Introduction to Matlab Programming "-reg

It has been planned by the Department of Biomedical Engineering to start a Value Added Course on "Introduction to Matlab Programming" for the benefit of B.Tech Biomedical Engineering, B.Tech Industrial Biotechnology and B-Tech Genetic Engineering students from 8th August, 2016. 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: 3-08-2016

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 **"Introduction to Matlab Programming"** from 8/08/2016 for a period of 3 weeks. Interested students can approach Mr.M.Sundaraj, Assistant Professor and Course Coordinator, Department of Bio Medical Engineering, for registration and further details on or before 7th August 2016.

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 INTRODUCTION TO MATLAB PROGRAMMING

2016-2017

COURSE CO-ORDINATOR DETAILS

Faculty Name: Mr.R.Sundaraj,

Assistant Professor,

Department of Bio Medical Engineering.

Email ID: sundar.r@gmail.com

Mobile number: 9881685022

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
SCHOOL OF BIO-ENGINEERING
DEPARTMENT OF BIO MEDICAL ENGINEERING
2016-2017
VALUE ADDED COURSE SYLLABUS
INTRODUCTION TO MATLAB PROGRAMMING

MODULE 1

Introduction to MATLAB , The MATLAB Environment , MATLAB Basics – Variables, Numbers, Operators, Expressions, Input and output. Vectors, Arrays – Matrices, Built-in Functions, User defined Functions.

MODULE 2

Graphics with MATLAB, Files and File Management – Import/Export, Basic 2D, 3D plots, Graphic handling.

Module 3

Programming with MATLAB, Conditional Statements, Loops, MATLAB Programs – Programming and Debugging, Applications of MATLAB Programming. Algebraic equations, Basic Symbolic Calculus and Differential equations, Numerical Techniques and Transforms.

Total Contact Hour: 30

SCHOOL OF BIO-ENGINEERING

DEPARTMENT OF BIO MEDICAL ENGINEERING

VALUE ADDED COURSE

INTRODUCTION TO MATLAB PROGRAMMING

Session	Topic	Date	Duration (Hr)	Resource person
Session I	Introduction to MATLAB , The MATLAB Environment	8.08.2016	3	Dr.R.Vasuki
Session II	MATLAB Basics – Variables, Numbers, Operators	9.08.2016	4	Dr.R.Vasuki
Session III	Expressions, Input and output. Vectors, Arrays – Matrices, Built-in Functions, User defined Functions.	10.08.2016	4	Ms.S.Geetha
Session IV	Graphics with MATLAB	15.08.2016	3	Dr.Emerson Solomon
Session V	Files and File Management – Import/Export	16.08.2016	3	Dr.Emerson Solomon
Session VI	Basic 2D, 3D plots, Graphic handling	17.08.2016	3	Ms.S.Geetha
Session VII	Programming with MATLAB, Conditional Statements, Loops	22.08.2016	3	R.Sundaraj
Session VIII	MATLAB Programs – Programming and Debugging, Applications of MATLAB Programming. Algebraic equations	23.08.2016	3	R.Sundaraj
Session IX	Basic Symbolic Calculus and Differential equations, Numerical Techniques and Transforms.	24.08.2016	4	R.Sundaraj

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
SCHOOL OF BIO-ENGINEERING
DEPARTMENT OF BIO MEDICAL ENGINEERING
VALUE ADDED COURSE
INTRODUCTION TO MATLAB PROGRAMMING
STUDENTS NAME LIST

S.NO	REG.NO	NAME
1	U14BM002	Akkal Dev Divya
2	U14BM003	Alakanti Karthik
3	U14BM008	Birru Vikas
4	U14BM010	Damini Sarkar
5	U14BM016	Kamakshi.M
6	U14BM026	Manivannan
7	U15BM001	Abhijith T Unnikrishnan
8	U15BM002	Abinaya K
9	U15BM003	Ambati Sneha Sree
10	U15BM004	Anagha B
11	U15BM005	Aneesa Jan
12	U15BM006	Aravindhan A
13	U15BM007	Balasubramanian S
14	U15BM011	Denallenni E
15	U15BM016	Gayathri E.K
16	U15BM025	Koshik S
17	U15BM031	Mohamed Suhail Z
18	U15BM032	Monisri V
19	U15BM033	Muchakayala Harsha Vardhan
20	U15BM048	Shaik Riyaz
21	U15BM061	Anjana R
22	U15BM062	Udarapu Deva Sai
23	U15BM063	Karthika M
24	U15BM064	Mathrapu Karthika
25	U15BM065	Priyali Jha
26	U15BM067	Alamuri Susmitha
27	U15BM068	S.Rambalaji
28	U15BM069	Aamir Hussain Bhat
29	U15BM070	K Kanaga Priya
30	U15BM071	Vanga Rupesh Kumar
31	U15BM073	Vanga Rana Prathap
32	U15BM074	Vijayalakshmi A
33	U15BM075	Pravenna A
34	U15BR002	ARUTHRA B
35	U15BR003	BHUKYA PAVAN KALYAN
36	U15BR004	CHANDRAKUMAR S
37	U15BR005	GANGA N
38	U15BR008	JEMI JOAN SILVIYA K

39	U15BR009	M N VINITHA
40	U15BR010	MANASA M S
41	U15BR011	NIVEDITHA SELVAKUMAR
42	U15BR012	NIVETHA B
43	U15BR001	AJIT KARTHIKEYAN T
44	U15BR006	I. SUNETHA
45	U15BT001	ARUMAI RATCHAGAN S.R
46	U15BT002	DEVA V
47	U15BT003	KALAISELVAN A
48	U15BT004	KANIKA P G
49	U15BT007	L. JEEVITHA
50	U15BT008	MURALIRAM T
51	U15BT009	PRITAM SASMAL
52	U15BT011	SELVA JANANI S
53	U15BT013	VAIRAMOORTHY M
54	U15BT014	VIJAYA LAKSHMI N
55	U15BT015	NEHA SINGH
56	U15BT016	PUNITHAVATHY R
57	U15BT017	SUGANYA RAJESHWARI E
58	U15BT019	SATHISH KUMAR.R
59	U15BT020	VIMALANBAN S
60	U15BT021	KALAIVANI R

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
SCHOOL OF BIO-ENGINEERING
DEPARTMENT OF BIO MEDICAL ENGINEERING
VALUE ADDED COURSE
INTRODUCTION TO MATLAB PROGRAMMING
Students Result

S.NO	REG.NO	NAME	RESULT
1	U14BM002	Akkal Dev Divya	S
2	U14BM003	Alakanti Karthik	S
3	U14BM008	Birru Vikas	S
4	U14BM010	Damini Sarkar	S
5	U14BM016	Kamakshi.M	S
6	U14BM026	Manivannan	S
7	U15BM001	Abhijith T Unnikrishnan	S
8	U15BM002	Abinaya K	A
9	U15BM003	Ambati Sneha Sree	S
10	U15BM004	Anagha B	S
11	U15BM005	Aneesa Jan	S
12	U15BM006	Aravindhan A	S
13	U15BM007	Balasubramanian S	S
14	U15BM011	Denallenni E	S
15	U15BM016	Gayathri E.K	A
16	U15BM025	Koshik S	A
17	U15BM031	Mohamed Suhail Z	A
18	U15BM032	Monisri V	A
19	U15BM033	Muchakayala Harsha Vardhan	A
20	U15BM048	Shaik Riyaz	A
21	U15BM061	Anjana R	A
22	U15BM062	Udarapu Deva Sai	S
23	U15BM063	Karthika M	S
24	U15BM064	Mathrapu Karthika	S
25	U15BM065	Priyali Jha	S
26	U15BM067	Alamuri Susmitha	S
27	U15BM068	S.Rambalaji	S
28	U15BM069	Aamir Hussain Bhat	S
29	U15BM070	K Kanaga Priya	S
30	U15BM071	Vanga Rupesh Kumar	A
31	U15BM073	Vanga Rana Prathap	A
32	U15BM074	Vijayalakshmi A	A
33	U15BM075	Pravenna A	A
34	U15BR002	ARUTHRA B	S
35	U15BR003	BHUKYA PAVAN KALYAN	S
36	U15BR004	CHANDRAKUMAR S	S
37	U15BR005	GANGA N	S
38	U15BR008	JEMI JOAN SILVIYA K	S
39	U15BR009	M N VINITHA	A

40	U15BR010	MANASA M S	A
41	U15BR011	NIVEDITHA SELVAKUMAR	S
42	U15BR012	NIVETHA B	S
43	U15BR001	AJIT KARTHIKEYAN T	S
44	U15BR006	I. SUNETHA	S
45	U15BT001	ARUMAI RATCHAGAN S.R	S
46	U15BT002	DEVA V	S
47	U15BT003	KALAISELVAN A	A
48	U15BT004	KANIKA P G	A
49	U15BT007	L. JEEVITHA	S
50	U15BT008	MURALIRAM T	A
51	U15BT009	PRITAM SASMAL	S
52	U15BT011	SELVA JANANI S	S
53	U15BT013	VAIRAMOORTHY M	S
54	U15BT014	VIJAYA LAKSHMI N	S
55	U15BT015	NEHA SINGH	S
56	U15BT016	PUNITHAVATHY R	S
57	U15BT017	SUGANYA RAJESHWARI E	S
58	U15BT019	SATHISH KUMAR.R	S
59	U15BT020	VIMALANBAN S	S
60	U15BT021	KALAIVANI R	S

Bharath

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

NAAC
NATIONAL ASSESSMENT AND
ACCREDITATION COUNCIL

SCHOOL OF BIO ENGINEERING

CERTIFICATE OF PARTICIPATION

This is to certify that Mr/Ms/Mrs/Dr *Gayathri E.K S* has completed the value

added course on "*Introduction to Matlab Programming*" organized by the

Department of Biomedical Engineering, Bharath Institute of Higher Education

and Research, Chennai (TN), India during 8th August to 24th August, 2016.

Dean

HOD

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH

SCHOOL OF BIOENGINEERING
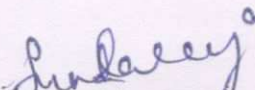
DEPARTMENT OF BIOMEDICAL ENGINEERING

Name : Vijayalaxshmi A

Register Number : U15BM074

Academic year: 2016 – 2017

Name of the course offered : Intro to Matlab Programming

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 : A. Aravindan

Register Number : VI5BM006

Academic year: 2016- 2017

Name of the course offered : Introduction to MATLAB Programming

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

From

The Head

Faculty of Bio-Engineering

BIHER

Chennai

25-09-2016

To

The Dean

BIHER

Respected Sir,

Sub: approval to start a value added course on "Project based learning using UTLP" –reg.

It has been planned by the Faculty of Bio engineering to start a Value Added Course on "Project based learning using UTLP" for the benefit of the B-Tech IBT, GE and BME students from 1st November, 2016. The duration of the course is 30 hrs comprising of both theory and practical classes. I request you to kindly approve of the same.

Thanking you

Yours sincerely
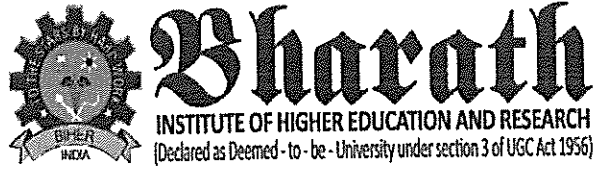
BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH

Date: 05-10-2016

FACULTY OF BIO-ENGINEERING

CIRCULAR

Notification for Value added courses offered by the Faculty of Bio-Engineering

The Faculty of Bio-Engineering is scheduled to offer a Value added Course on Project based learning using UTLP from 01/11/2016 for a period of 3 weeks. Interested students can approach Dr.S.Selvakumar, Associate Professor and Course Coordinator, Faculty of Bio-Engineering, for registration and for further details on or before 26th October 2016.

Eligibility-IV year- 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

FACULTY OF BIO-ENGINEERING

VALUE ADDED COURSE ON PROJECT BASED LEARNING USING UTLP

2016-2017

COURSE CO-ORDINATOR DETAILS

Faculty Name: Dr.S.Selvakumar

Associate Professor, Department of Industrial Biotechnology, Faculty of Bio-Engineering

Email ID: selvakumarmss@gmail.com

Mobile number: 9840917984.

PROJECT BASED LEARNING USING UTLP

UNIT: 1. TECHNICAL KNOWLEDGE AND REASONING

Knowledge of underlying sciences, Core engineering fundamental knowledge Advanced engineering fundamental knowledge, Personal and professional skills and attributes

UNIT: 2. ENGINEERING REASONING AND PROBLEM SOLVING

Problem Identification and Formulation, Estimation and Qualitative Analysis, Analysis With Uncertainty, Solution and Recommendation, Experimentation and knowledge discovery, Survey of Print and Electronic Literature, Experimental Inquiry

UNIT 3: PERSONAL SKILLS AND ATTITUDES

Initiative and Willingness to Take Risks, Perseverance and Flexibility, Creative Thinking Critical Thinking, Awareness of One's Personal Knowledge, Skills, and Attitudes, Curiosity and Lifelong Learning, Time and Resource Management, Professional Ethics, Integrity, Responsibility and Accountability, Professional Behavior, Proactively Planning for One's Career, Staying Current on World of Engineer

UNIT 4: EXTERNAL AND SOCIETAL CONTEXT

Roles and Responsibility of Engineers, The Impact of Engineering on Society, Society's Regulation of Engineering, The Historical and Cultural Context, Contemporary Issues and Values, Developing a Global Perspective, Appreciating Different Enterprise Cultures Enterprise Strategy, Goals and Planning, Technical Entrepreneurship, Working Successfully in Organizations

Total hours-30 hrs

FACULTY OF BIO ENGINEERING
VALUE ADDED COURSE
PROJECT BASED LEARNING USING UTLP -2016-2017

| Session	Topic	Date	Duration (Hr)	Resource person
Session I	Knowledge of underlying sciences	11/1/2016	3	Dr. S. Selvakumar
Session II	Estimation and Qualitative Analysis	11/2/2016	3	Dr. M.R.K.Rao
Session III	Professional Ethics	11/4/2016	4	Ms. S.Sharmila
Session IV	Professional Behavior	11/7/2016	3	Dr.S.Anbuselvi
Session V	Roles and Responsibility of Engineers	11/8/2016	3	Ms.Merina Paul Das
Session VI	Goals and Planning	11/9/2016	4	Dr. S. Selvakumar
Session VII	Technical Entrepreneurship	11/11/2016	3	Ms. E.Kowsalya
Session VIII	Disciplinary Design	11/14/2016	3	Dr. S. Selvakumar
Session IX	Project Management	11/16/2016	4	Ms. D.Sharmila

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
FACULTY OF BIO-ENGINEERING
VALUE ADDED COURSE
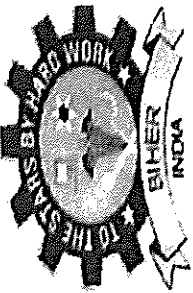## PROJECT BASED LEARNING USING UTLP -2016-2017
Students Name List

S.No	Reg No	Name
1	U13BR001	AFI SINGH
2	U13BR002	DURGA LAXSHMI
3	U13BR003	HARSHAVARDHINI.B
4	U13BR004	LALAN GUPTA
5	U13BR005	MOHAMMED ABRAR
6	U13BR006	NISMABI.N
7	U13BR007	PAVITHRA.S
8	U13BR008	RAJAT KUMAR
9	U13BR009	RAMKUMAR.N
10	U13BR010	REEBA.C.R
11	U13BR011	REVATHY.G
12	U13BR012	SABY.P.S
13	U13BR013	SHRI VISHALINI.R
14	U13BR014	SOJA. N.J
15	U13BR015	STENI JOSE
16	U13BR016	SUPRABUDDHA
17	U13BR018	SWETHA.M
18	U13BM001	AARTHI R
19	U13BM002	ABHISHEK SARKAR
20	U13BM004	CHITIPIRALLA YUVA CHAITANYA
21	U13BM005	DEBJYOTI PATRA
22	U13BM006	IRFANA BEGUM A
23	U13BM007	JENNY E
24	U13BT002	ALBEENA REJI
25	U13BT003	ANUP SONAVAL
26	U13BT004	DIMPLE SONA TANTY
27	U13BT005	JYOTI KUMARI BAGAT
28	U13BT006	KOTTEESWARAN N
29	U13BT008	MAYUKU GANGOPADHYAY
30	U13BT009	NABADEEP PATHAK
31	U13BT010	PRIYANGA
32	U13BT011	PRIYANKA
33	U13BT012	PUSHPHANJALI CHODHARI
34	U13BT013	RAFEEQUA ZAIBUNISA A M
35	U13BT014	RAJKUMAR P
36	U13BT015	RAVINDRAN M
37	U13BT016	SANJAY KR SING
38	U13BT017	SIVAGAMI K
39	U13BT018	SUKANYA S
40	U13BT019	ANIRBAN BHATTACHARJEE
41	U13BT020	ALAKESH DUTTA
42	U13BT021	SWATHY PRIYA L

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
FACULTY OF BIO ENGINEERING
VALUE ADDED COURSE
PROJECT BASED LEARNING USING UTLP -2016-2017
Students Feedback

S.No	Reg No	Name	Rating
1	U13BR001	AFI SINGH	3.5
2	U13BR002	DURGA LAXSHMI	4.5
3	U13BR003	HARSHAVARDHINI.B	4.5
4	U13BR004	LALAN GUPTA	3
5	U13BR005	MOHAMMED ABRAR	4.4
6	U13BR006	NISMABI.N	3.5
7	U13BR007	PAVITHRA.S	4.5
8	U13BR008	RAJAT KUMAR	5
9	U13BR009	RAMKUMAR.N	4.5
10	U13BR010	REEBA.C.R	5
11	U13BR011	REVATHY.G	4.6
12	U13BR012	SABY.P.S	5
13	U13BR013	SHRI VISHALINI.R	4.4
14	U13BR014	SOJA. N.J	3.7
15	U13BR015	STENI JOSE	4.5
16	U13BR016	SUPRABUDDHA	4.5
17	U13BR018	SWETHA.M	5
18	U13BM001	AARTHI R	5
19	U13BM002	ABHISHEK SARKAR	5
20	U13BM004	CHITIPIRALLA YUVA CHAITANYA	5
21	U13BM005	DEBJYOTI PATRA	4.5
22	U13BM006	IRFANA BEGUM A	5
23	U13BM007	JENNY E	4.5
24	U13BT002	ALBEENA REJI	5
25	U13BT003	ANUP SONAVAL	4.5
26	U13BT004	DIMPLE SONA TANTY	4
27	U13BT005	JYOTI KUMARI BAGAT	5
28	U13BT006	KOTTEESWARAN N	4.5
29	U13BT008	MAYUKU GANGOPADHYAY	5
30	U13BT009	NABADEEP PATHAK	4
31	U13BT010	PRIYANGA	4.5
32	U13BT011	PRIYANKA	5
33	U13BT012	PUSHPHANJALI CHODHARI	5
34	U13BT013	RAFEEQUA ZAIBUNISA A M	5
35	U13BT014	RAJKUMAR P	4.5
36	U13BT015	RAVINDRAN M	5
37	U13BT016	SANJAY KR SING	4.5
38	U13BT017	SIVAGAMI K	4.5
39	U13BT018	SUKANYA S	5
40	U13BT019	ANIRBAN BHATTACHARJEE	5
41	U13BT020	ALAKESH DUTTA	5
42	U13BT021	SWATHY PRIYA L	4.5
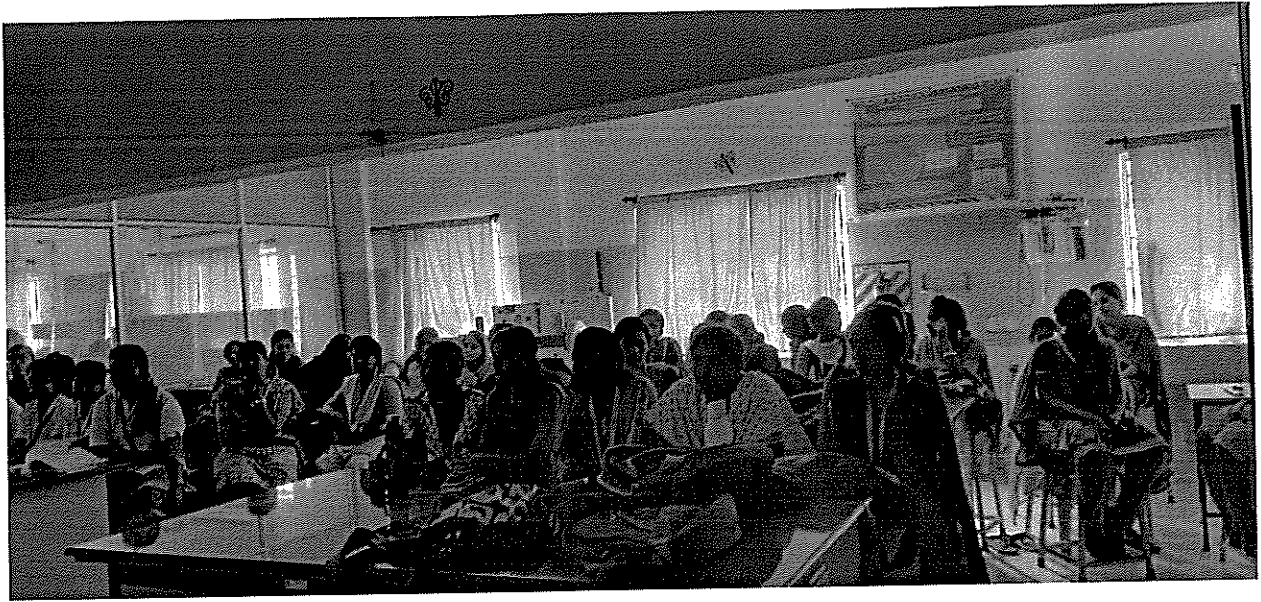
Value added course on Project based learning using UTLP 01-11-2016

Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH

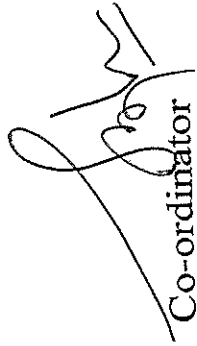(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

FACULTY OF BIO-ENGINEERING

VALUE ADDED COURSE ON PROJECT BASED LEARNING USING UTLP

Certificate of Participation

This is to certify that Ms **ALBEENA REJI** has attended three weeks value added course on " **PROJECT BASED LEARNING USING UTLP**" conducted by Department of Industrial Biotechnology, Faculty of Bio-Engineering at Bharath Institute of Higher Education and Research, Chennai (TN), India from 01-11-2016 to 18-11-16.

Co-ordinator

HOD

From   Chennai

The Head of the Department   10-02-2017

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 20th February, 2017. 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

Date: 13-02-2017

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 20/02/2017 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 18th February 2017.

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

2016-2017

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

2016-2017

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 loT Model for Neuro sensors, AdaBoost with feature selection using loT for somatic mutations evaluation in Cancer, A Fuzzy-Based expert System to diagnose Alzheimer"s Disease, Secured architecture for loT 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,	20.02.2017	4	Dr.R.Vasuki
Session II	Real time Examples of IoT, Overview of IoT components and IoT Communication Technologies, Challenges in IOT.	21.02.2017	4	Dr.R.Vasuki
Session III	Sensor & Actuators with Arduino Overview of Sensors working,	22.02.2017	3	Ms.S.Geetha
Session IV	Analog and Digital Sensors, Interfacing of Temperature, Humidity, Motion, Light and Gas Sensor	27.02.2017	4	Ms.S.Geetha
Session V	Arduino Interfacing of Actuators with Arduino	28.02.2017	3	Mr.S.Prasath
Session VI	Interfacing of Relay Switch and Servo Motor with Arduino	01.03.2017	3	Mr.S.Prasath
Session VII	NSUM Technique for Diabetes Patients, Healthcare Monitoring system through Cyber-physical system, An loT Model for Neuro sensors, AdaBoost with feature selection using loT for somatic mutations evaluation in Cancer	06.03.2017	3	Mr.R.Sundararaj
Session VIII	A Fuzzy-Based expert System to diagnose Alzheimer''s Disease, Secured architecture for loT enabled Personalized Healthcare Systems	07.03.2017	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	08.03.2017	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
28	U15BM019	JAVVADI SAI RISHITA	S
29	U15BR001	AJIT KARTHIKEYAN T	S
30	U15BR002	ARUTHRA B	A
31	U15BR003	CHANDRAKUMAR S	S
32	U15BR004	GANGA N	S
33	U15BR005	GOPINATHKUMAR S	S
34	U15BR006	I. SUNETHA	S
35	U15BR007	JEMI JOAN SILVIYA K	S
36	U15BR008	M N VINITHA	S
37	U15BR009	MANASA M S	A
38	U15BR010	NIVEDITHA SELVAKUMAR	S

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

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 20th February to 8th March, 2017.

Dean

HOD

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

NAAC
NATIONAL ASSESSMENT AND
ACCREDITATION COUNCIL

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH

SCHOOL OF BIOENGINEERING

DEPARTMENT OF BIOMEDICAL ENGINEERING

Name : KANIKA . P . G

Register Number : U15BT 004

Academic year : 2016-2017

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

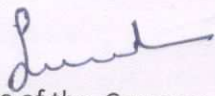# DEPARTMENT OF BIOMEDICAL ENGINEERING
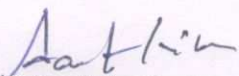
Name : Aathina Das

Register Number : U14BM007

Academic year : 2016-17

Name of the course offered : IoT in Medical Applications

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

From   Chennai -73

The HOD   4-4-2017

Department of Biomedical Engineering
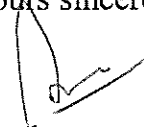
BIHER

To

The Dean

BIHER

Respected Sir

Sub: approval to start a value added course on "Introduction To Bio Informatics" - reg

It has been planned by the Faculty of Biomedical Engineering to start a Value Added Course on "Introduction To Bio Informatics" for the benefit of the B.Tech Biomedical Engineering students from 23rd April 2017. The duration of the course is 30 hrs comprising of both theory and practical classes. I request you to kindly approve of 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: 10-04-2017

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 **INTRODUCTION TO BIO INFORMATICS** from 24/04/2017 for a period of 3 weeks. Interested students can approach S.GEETHA, Assistant Professor and Course Coordinator, Department of Bio Medical Engineering for registration and for further details on or before 23rd April 2017.

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 INTRODUCTION TO BIO INFORMATICS

2016-2017

COURSE CO-ORDINATOR DETAILS

Faculty Name   : S.GEETHA

Designation   : Assistant Professor

Department   : Biomedical 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

VALUE ADDED COURSE TIMETABLE

2017-2018

Days / Period	I 9.00 – 9.50	II 9.50 – 10.40	III 10.50 – 11.40	IV 11.40 – 12.30	12.30 – 1.30	V 1.30 – 2.10	VI 2.10 – 2.50	VII 2.50 – 3.30
MON	IBI					IBI		
TUE	IBI				L U N C H B R E A K	IBI		
WED								
THU								
FRI								
SAT								

SUBJECT CODE	SUBJECT NAME	STAFF
Theory		
Value added course	Introduction To Bio Informatics (IBI)	Ms.S.Geetha
	Room No	SK504

SCHOOL OF BIO-ENGINEERING
DEPARTMENT OF BIO MEDICAL ENGINEERING
VALUE ADDED COURSE
COURSE ON INTRODUCTION TO BIO INFORMATICS (2017-2018)

Session	Topic	Date	Duration (Hr)	Resource person
Session I	INTRODUCTION TO BIOINFORMATICS	24.04.2017	3	Dr.F.Emerson Solomon
Session II	INTRODUCTION TO BIOINFORMATICS	24.04.2017	3	Dr.R.Vasukidevi
Session III	DATABASES	25.04.2017	4	Ms.S.Geetha
Session IV	DATABASES	25.04.2017	3	Mr.S.Prasath
Session V	TOOLS	01.05.2017	3	Dr.F.Emerson Solomon
Session VI	TOOLS	01.05.2017	4	Dr.R.Vasukidevi
Session VII	MACHINE LEARNING IN BIOINFORMATICS	02.05.2017	3	Ms.S.Geetha
Session VIII	MACHINE LEARNING IN BIOINFORMATICS	08.05.2017	3	Mr.S.Prasath
Session IX	ALGORITHMS	09.05.2017	4	Ms.S.Geetha

BHARATH INSTITUTE OF HIGHER EDUICATION AND RESEARCH
SCHOOL OF BIO-ENGINEERING
DEPARTMENT OF BIO MEDICAL ENGINEERING
VALUE ADDED COURSE
COURSE ON INTRODUCTION TO BIO INFORMATICS (2017-2018)

ChapName	Name	Sno
Topic	Sub Topic	Duration
UNIT I BIOINFORMATICS	Introduction of Bioinformatics	1 hour
UNIT I BIOINFORMATICS	Overview of structural Bioinformatics	1 hour
UNIT I BIOINFORMATICS	Characteristics	1 hour
UNIT I BIOINFORMATICS	Categories	1 hour
UNIT I BIOINFORMATICS	Navigation and information retrieval of Bioinformatics databases	1 hour
UNIT I BIOINFORMATICS	Navigation and information retrieval of Bioinformatics databases	1 hour
UNIT II DATABASES	Description and Organisation of Sequence	1 hour
UNIT II DATABASES	Description and Organisation of Sequence	1 hour
UNIT II DATABASES	Structure and Other databases	1 hour
UNIT II DATABASES	Structure and Other databases	1 hour
UNIT II DATABASES	Database Warehousing and data mining in Bioinformatics	1 hour
UNIT II DATABASES	Database Warehousing and data mining in Bioinformatics	1 hour
UNIT III TOOLS	Need for tools	1 hour
UNIT III TOOLS	Knowledge discovery	1 hour
UNIT III TOOLS	Industry trends and data mining tools	1 hour
UNIT III TOOLS	Data submission tools	1 hour
UNIT III TOOLS	Data analysis tools	1 hour
UNIT III TOOLS	Prediction tools and modelling tools	1 hour
UNIT IV MACHINE LEARNING IN BIOINFORMATICS	Neural network	1 hour
UNIT IV MACHINE LEARNING IN BIOINFORMATICS	Genetic and fuzzy logic applications in Bioinformatics	1 hour
UNIT IV MACHINE LEARNING IN BIOINFORMATICS	Modelling for Bioinformatics	1 hour
UNIT IV MACHINE LEARNING IN BIOINFORMATICS	Hidden Markov	1 hour

UNIT IV MACHINE LEARNING IN BIOINFORMATICS	Comparative	1 hour
UNIT IV MACHINE LEARNING IN BIOINFORMATICS	probabilistic and molecular modelling	1 hour
UNIT V ALGORITHMS	Classification algorithms	1 hour
UNIT V ALGORITHMS	implementing algorithms	1 hour
UNIT V ALGORITHMS	biological algorithms	1 hour
UNIT V ALGORITHMS	bioinformatics tasks and corresponding algorithms and algorithms and bioinformatics software	1 hour
UNIT V ALGORITHMS	Data analysis algorithms – Sequence comparison	1 hour
UNIT V ALGORITHMS	Substitution matrices and sequence alignment optimal algorithm	1 hour

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
SCHOOL OF BIO-ENGINEERING
DEPARTMENT OF BIO MEDICAL ENGINEERING
VALUE ADDED COURSE
COURSE ON INTRODUCTION TO BIO INFORMATICS (2016-2017)
Students Name List

S.NO	REG.NO	NAME	SEM/ YEAR	DEPART MENT
1.	U16BM001	Subabalan M	VIII/IV	BME
2.	U16BM009	Devasneha D P K	VIII/IV	BME
3.	U16BM006	Siva Harish S	VIII/IV	BME
4.	U16BM018	Ajith Kumar P	VIII/IV	BME
5.	U16BM021	Chrysolyte Precious Rani S	VIII/IV	BME
6.	U16BM026	Mohammad Abraar Ahmad	VIII/IV	BME
7.	U16BM027	Komatiguntla Brahmendra	VIII/IV	BME
8.	U16BM036	Tulabandula Geetha Madhuri	VIII/IV	BME
9.	U16BM041	Vignesh K	VIII/IV	BME
10.	U16BM043	V Mownika	VIII/IV	BME
11.	U16BM052	Revathi N	VIII/IV	BME
12.	U16BM053	Shaik Farhana	VIII/IV	BME
13.	U16BM060	Divi Divya Sree	VIII/IV	BME
14.	U16BM068	Gajji Sai Mounik	VIII/IV	BME
15.	U16BM074	Shouvik Poddar	VIII/IV	BME
16.	U16BM078	Bhuban Bogait	VIII/IV	BME
17.	U13BM027	GANTA ABHIKIRAN	V / III	IBT
18.	U13BM025	SUDHA P M	V / III	IBT
19.	U13BM017	RAFIQ AHMAD	V / III	IBT

20.	U13BM014	NASIR RIYAZ	V / III	IBT
21.	U13BM012	MYTHILI G	V / III	IBT
22.	U13BM007	JENNY E	V / III	IBT
23.	U13BM006	IRFANA BEGUM A	V / III	IBT
24.	U13BM005	DEBJYOTI PATRA	V / III	IBT
25.	U13BM002	ABHISHEK SARKAR	V / III	IBT
26.	U13BM001	AARTHI R	V / III	BI
27.	U13BM016	PREM RANJAN KUMAR	V / III	BI
28.	U13BM010	KM PREM LATA	V / III	BI
29.	U13BT002	Albeena Reji	V / III	IBT
30.	U13BT003	Anup Sonowal	V / III	IBT
31.	U13BT005	Jothi Kumari Bhagath	V / III	IBT
32.	U13BT0012	Pushpanjali Choudhary	V / III	IBT
33.	U13BT008	Mayukh gangopadhyay	V / III	IBT
34.	U13BT009	Nabadeep pathak	V / III	IBT
35.	U13BT010	Priyanga K	V / III	IBT
36	U13BT019	Anirban Bhattacharjee	V / III	IBT
37	U13BT016	Sanjay KR Singh	V / III	IBT
38	U13BT011	Priyanka R	V / III	IBT
39	U13BT021	Swathy Priya L	V / III	IBT
40	U13BT020	Alakesh Dutta	V / III	IBT

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
SCHOOL OF BIO-ENGINEERING
DEPARTMENT OF BIO MEDICAL ENGINEERING
VALUE ADDED COURSE
COURSE ON INTRODUCTION TO BIO INFORMATICS (2016-2017)

Students Name List

S.NO	REG.NO	NAME	RESULT
1.	U16BM001	Subabalan M	A
2.	U16BM009	Devasneha D P K	A
3.	U16BM006	Siva Harish S	S
4.	U16BM018	Ajith Kumar P	A
5.	U16BM021	Chrysolyte Precious Rani S	S
6.	U16BM026	Mohammad Abraar Ahmad	A
7.	U16BM027	Komatiguntla Brahmendra	S
8.	U16BM036	Tulabandula Geetha Madhuri	S
9.	U16BM041	Vignesh K	S
10.	U16BM043	V Mownika	A
11.	U16BM052	Revathi N	A
12.	U16BM053	Shaik Farhana	S
13.	U16BM060	Divi Divya Sree	B
14.	U16BM068	Gajji Sai Mounik	A
15.	U16BM074	Shouvik Poddar	B
16.	U16BM078	Bhuban Bogait	A
17.	U13BM027	GANTA ABHIKIRAN	A
18.	U13BM025	SUDHA P M	S
19.	U13BM017	RAFIQ AHMAD	S

20.	U13BM014	NASIR RIYAZ	S
21.	U13BM012	MYTHILI G	S
22.	U13BM007	JENNY E	S
23.	U13BM006	IRFANA BEGUM A	S
24.	U13BM005	DEBJYOTI PATRA	S
25.	U13BM002	ABHISHEK SARKAR	B
26.	U13BM001	AARTHI R	A
27.	U13BM016	PREM RANJAN KUMAR	A
28.	U13BM010	KM PREM LATA	A
29.	U13BT002	Albeena Reji	A
30.	U13BT003	Anup Sonowal	B
31.	U13BT005	Jothi Kumari Bhagath	S
32.	U13BT0012	Pushpanjali Choudhary	S
33.	U13BT008	Mayukh gangopadhyay	S
34.	U13BT009	Nabadeep pathak	S
35.	U13BT010	Priyanga K	A
36	U13BT019	Anirban Bhattacharjee	S
37	U13BT016	Sanjay KR Singh	A
38	U13BT011	Priyanka R	A
39	U13BT021	Swathy Priya L	B
40	U13BT020	Alakesh Dutta	A

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
SCHOOL OF BIO-ENGINEERING
DEPARTMENT OF BIO MEDICAL ENGINEERING
VALUE ADDED COURSE
COURSE ON INTRODUCTION TO BIO INFORMATICS (2016-2017)
Students Name List

S.NO	REG.NO	NAME	RATING
1.	U16BM001	Subabalan M	4.5
2.	U16BM009	Devasneha D P K	4.9
3.	U16BM006	Siva Harish S	5
4.	U16BM018	Ajith Kumar P	4.5
5.	U16BM021	Chrysolyte Precious Rani S	4.7
6.	U16BM026	Mohammad Abraar Ahmad	4.7
7.	U16BM027	Komatiguntla Brahmendra	5
8.	U16BM036	Tulabandula Geetha Madhuri	4.7
9.	U16BM041	Vignesh K	4.9
10.	U16BM043	V Mownika	4.8
11.	U16BM052	Revathi N	4.9
12.	U16BM053	Shaik Farhana	4.9
13.	U16BM060	Divi Divya Sree	4.7
14.	U16BM068	Gajji Sai Mounik	4.6
15.	U16BM074	Shouvik Poddar	5
16.	U16BM078	Bhuban Bogait	4.9
17.	U13BM027	GANTA ABHIKIRAN	4.9
18.	U13BM025	SUDHA P M	4.8
19.	U13BM017	RAFIQ AHMAD	4.9

20.	U13BM014	NASIR RIYAZ	4.6
21.	U13BM012	MYTHILI G	5
22.	U13BM007	JENNY E	4.9
23.	U13BM006	IRFANA BEGUM A	4.9
24.	U13BM005	DEBJYOTI PATRA	4.3
25.	U13BM002	ABHISHEK SARKAR	4.9
26.	U13BM001	AARTHI R	4.5
27.	U13BM016	PREM RANJAN KUMAR	5
28.	U13BM010	KM PREM LATA	4.8
29.	U13BT002	Albeena Reji	4.5
30.	U13BT003	Anup Sonowal	4.3
31.	U13BT005	Jothi Kumari Bhagath	4.8
32.	U13BT0012	Pushpanjali Choudhary	4.9
33.	U13BT008	Mayukh gangopadhyay	4.5
34.	U13BT009	Nabadeep pathak	5
35.	U13BT010	Priyanga K	4.9
36	U13BT019	Anirban Bhattacharjee	4.5
37	U13BT016	Sanjay KR Singh	5
38	U13BT011	Priyanka R	4.9
39	U13BT021	Swathy Priya L	4.9
40	U13BT020	Alakesh Dutta	5

INTRODUCTION OF BIOINFORMATICS

UNIT I BIOINFORMATICS

Introduction, Overview of structural Bioinforamtics ; Characteristics, Categories,Navigation and information retrieval of Bioinformatics databases,

UNIT II DATABASES

Description and Organisation of Sequence, Structure and Other databases; Database Warehousing and data mining in Bioinformatics.

UNIT III TOOLS

Need for tools, Knowledge discovery, Industry trends and data mining tools; Data submission tools, Data analysis tools, Prediction tools and modeling tools.

UNIT IV MACHINE LEARNING IN BIOINFORMATICS

Neural network, Genetic and fuzzy logic applications in Bioinformaitcs; Modeling for Bioinformatics – Hidden Markov, Comparative, probabilistic and molecular modelling

UNIT V ALGORITHMS

Classification algorithms, implementing algorithms , biological algorithms, bioinformatics tasks and corresponding algorithms and algorithms and bioinformatics software; Data analysis algorithms – Sequence comparison, Substitution matrices and sequence alignment optimal algorithm

TEXT BOOKS:

1. Orpita Bosu and Simminder Kaur Thukral, Bioinformatics Databases, Tools and Algorithms, Oxford University press, New Delhi, 2007.

2. Yi – Ping Phoebe Chen, Bioinformatics Technolgies, Springer International Edition, New Delhi, 2007.
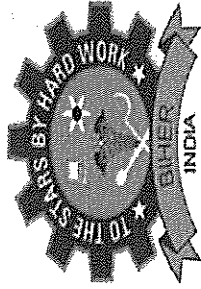
Bharath

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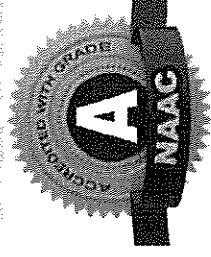
SCHOOL OF BIO-ENGINEERING

VALUE ADDED COURSE ON INTRODUCTION TO BIO INFORMATICS

Certificate

This is to certify that Mr. Ajeesh has attended three weeks value added course on INTRODUCTION TO BIOINFORMATICS conducted by Department of Biomedical Engineering at Bharath Institute of Higher Education and Research, Chennai (TN), India during 24th April - 9th May, 2017.

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HOD