



# 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: 01-06-2017

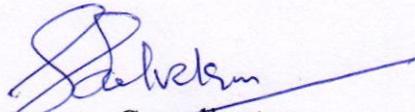
**SCHOOL OF BIOENGINEERING**

## CIRCULAR

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

The Department of Industrial Biotechnology, School of Bioengineering, is scheduled to offer a Value added Course on Instant Foods from 07/07/2017 for a period of 3 weeks. Interested students can approach Dr. S. Selvakumar, Associate Professor and Course Coordinator, Department of Industrial Biotechnology for registration and for further details on or before 20<sup>th</sup> June 2017.

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

  
Course Coordinator

  
HOD



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Pro Vice Chancellor

Additional Registrar

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Heads of Departments

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

**SCHOOL OF BIO-ENGINEERING**

**DEPARTMENT OF INDUSTRIAL BIOTECHNOLOGY**

**INSTANT FOODS**

**2017-2018**

**COURSE CO-ORDINATOR DETAILS**

**Faculty Name: Dr.S.Selvakumar, AssociateProfessor, Department of Industrial  
Biotechnology**

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

**Mobile number: 9840917984**

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**  
**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF INDUSTRIAL BIOTECHNOLOGY**  
**VALUE ADDED COURSE SYLLABUS**  
**2017-2018**

**INSTANT FOODS**

**Module 1**

Introduction to food packaging, Importance, definition and function of food packaging, Form-Fill-Seal packaging machines, types of packaging materials, Glass (construction of jars and bottles, optical, thermal and mechanical properties of glass), Metal (types of base metal sheets, construction of metal cans, lacquering), Plastics- substituted olefins, tetrafluoro ethylene, PET, polyamides, polyesters.

**Module 2**

Environmental factors and food stability: Effect of oxygen and light, Light Protection characteristics of packages, permeability to gases and vapors, methods of measuring permeability, permeability to fixed gases, permeability to humidified gases, flow through pin holes, cracks and imperfect seals, permeability of multilayer materials. Packaging tests: tensile strength, compression, bursting, tear and impact test for packages. Integrity testing of packages, cushioning effect on packaged foods.

**Module 3**

Deterioration of packaged foods, shelf life calculation for packaged foods. Aseptic packaging techniques, aseptic systems Tetrapack, Bag-in-Box), integrity testing of aseptic packages

**SCHOOL OF BIO-ENGINEERING  
DEPARTMENT OF INDUSTRIAL BIOTECHNOLOGY  
VALUE ADDED COURSE  
INSTANT FOODS (2017-2018)**

Session	Topic	Date	Duration (Hr)	Resource person
Session I	Introduction to food packaging	07.07.2017	3	Dr.L.Jeyanthi Rebecca
Session II	Plastics- substituted olefins, tetrafluoro ethylene, PET, polyamides, polyesters.	08.07.2017	3	Dr.S.selvakumar
Session III	Types of packaging materials	08.07.2017	4	Dr.S.Sharmila
Session IV	Environmental factors and food stability	14.07.2017	3	Dr.S.Anbuselvi
Session V	Packaging tests	15.07.2017	3	Ms.Merina paul Das
Session VI	Integrity testing of packages	15.07.2017	4	Dr.Ram Krishna Rao
Session VII	Deterioration of packaged foods	21.07.2017	3	Ms.D.Sharmila
Session VIII	Shelf life calculation for packaged foods	22.07.2017	3	Ms. R.Kamalambigeswari
Session IX	Aseptic packaging techniques	22.07.2017	4	Ms.E.Kowsalya

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**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF INDUSTRIAL BIOTECHNOLOGY**  
**VALUE ADDED COURSE**  
**INSTANT FOODS (2017-2018)**  
**Students Name List**

S.NO	REG.NO	NAME OF THE STUDENT
1	U14BT007	BARNALI SARKAR
2	U14BT008	DARPAN BARIK
3	U14BT014	KAJAL KUMARI
4	U14BT022	RAHILA PARVEEN.S
5	U14BT023	RENUKA.M
6	U14BT024	SAMPAD SHIL
7	U14BT025	SANDEEP KUMAR SIRDAR
8	U14BT031	MADHAN KUMAR.U
9	U14BT032	JUPAKA SINDHUJA
10	U14BT033	B.SAI KIRAN
11	U14BT034	M.DINESH
12	U14BT035	B.SHRIVATSAN
13	U14BT036	SHAIK SADIK
14	U15BT008	MURALIRAM T
15	U15BT009	PRITAM SASMAL
16	U15BT011	SELVA JANANI S
17	U15BT013	VAIRAMOORTHY M
18	U15BT014	VIJAYA LAKSHMI N
19	U16BT003	SANKAR SINGH.T
20	U16BT004	BALAJI
21	U16BT005	KADAR JASSIM MMS
22	U16BT013	VULLI KEERTHANA
23	U16BT014	PUVIYARASI S
24	U16BR013	GAYATHRI DEVI A
25	U16BR014	GETCYAL DEVAKIRUBAI M
26	U16BR015	PRAVEEN SUNDAR C S
27	U16BR016	MUTHUMEENAKSHI B
28	U16BR017	GOWTHAM S P
29	U16BR018	B REDDY RAGHAVA DEEPAK
30	U15BR004	GANGA N
31	U15BR005	GOPINATHKUMAR R S
32	U15BR006	I SUNETHA
33	U14BR017	RAHUL P
34	U14BR018	RAMKI S
35	U14BR019	RENJU R K

36	U14BR020	RUDRA MISHRA A
37	U14BR021	SATHIK SHAJAHAN I
38	U14BR025	SUGITHA E
39	U14BR028	VASUNDRA H P
40	U14BR030	SYED MOHAMED KHALEEL
41	U16BM057	UPPUHOLLA ROHITH
42	U16BM058	ARIDEEP SIDDHANTA
43	U16BM059	NAGA JAGADESH REDDY
44	U16BM060	DIVI DIVYA SREE
45	U16BM062	DIVYA KERKETTA
46	U15BM032	MONISRI V
47	U15BM033	MUCHAKAYALA HARSHA VARDHAN
48	U15BM034	MURUGANANDHAM S
49	U15BM035	N NIVETHA
50	U15BM036	NANDHINI T
51	U15BM037	NANDYLA SRIGIRI AMANI
52	U14BM018	KETHINENI DIVYA
53	U14BM020	MAHENDIRAN.A
54	U14BM021	MAHENDRAN.S
55	U14BM022	MAHFOOZ AAMIL D.S
56	U14BM023	MALGARI SHANTHI SWAROOP
57	U14BM052	VANDHANA.M
58	U14BM059	NINU.P.S.
59	U14BM060	SIVA
60	U14BM701	KATHIRESAN

## VALUE ADDED COURSE

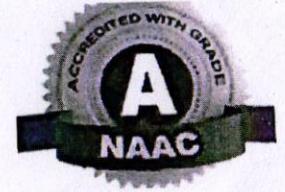
### INSTANT FOODS





# Bharath

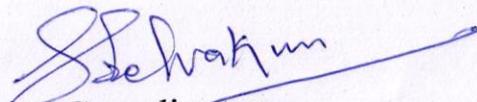
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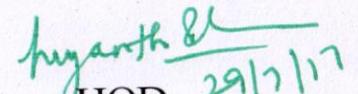


SCHOOL OF BIO-ENGINEERING  
VALUE ADDED COURSE ON

*Certificate of Participation*

This is to certify that Mr /Ms BARNALI SARKAR (U14BT007) has attended three weeks value added course on “**Instant Foods**” conducted by Department of Industrial Biotechnology at Bharath Institute of Higher Education and Research, Chennai (TN), India from 07-07-2017 to 28-07-2017

  
Coordinator

  
HOD 29/7/17



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**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

**Date: 29-12-2017**

**SCHOOL OF BIOENGINEERING**

## **CIRCULAR**

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

The Department of Genetic Engineering, School of Bioengineering, is scheduled to offer a Value added Course on Human Genetics from 01/02/2018 for a period of 3 weeks. Interested students can approach Dr. T. Jayalakshmi, Associate Professor and Course Coordinator, Department of Genetic Engineering for registration and for further details on or before 20<sup>th</sup> January 2018.

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

*Jya 29/12/2017*  
Course Coordinator

*P. S. Ravi*  
29/12/17  
HOD

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**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

**SCHOOL OF BIO-ENGINEERING**

**DEPARTMENT OF GENETIC ENGINEERING**

**VALUE ADDED COURSE ON HUMAN GENETICS**

**2017-2018**

**COURSE CO-ORDINATOR DETAILS**

**Faculty Name:** Dr. T.Jayalakshmi, Associate Professor, Department of Genetic Engineering.

**Email ID:** [jayalakshmi.bi@bharathuniv.ac.in](mailto:jayalakshmi.bi@bharathuniv.ac.in)

**Mobile number:** 99400 96229.

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**  
**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF GENETIC ENGINEERING**  
**VALUE ADDED COURSE SYLLABUS**  
**2017-2018**

**COURSE ON HUMAN GENETICS**

**OBJECTIVES**

1. To understand genome organization and inheritance.
2. To know about developmental genetics.
3. To identify diseased genes and common diseases.

**MODULE I: GENOME INHERITANCE**

Genome Organization, Types of Inheritance- Sex-Linked Inheritance- Mitochondrial Inheritance. Genetic mapping- Types of mapping, Developmental genetics- Genetic Mediators of Development, the Molecular Toolbox- Pattern Formation.

**MODULE II: PHARMACOGENETICS**

Cancer genetics- Cancer Genes- Ontogenesis, Activation of proto-ontogenesis, Tumor suppressor genes, Molecular Basis of Cancer, Control of the cell cycle, Defects of Metabolic Processes.

**MODULE III: GENE THERAPY**

Gene Therapy, Molecular Tools for Screening and Diagnosis, Prenatal Diagnosis of Genetic Disorders and Congenital Defects, Pedigree analysis and Genetic Counseling.

**Total Contact Hours: 30**

**TEXT BOOKS**

1. Human Molecular Genetics – Tom Strachan and Andrew P. Read
2. Medical Genetics 3rd Edition- Jorde, Carey, Bamshad& White.

**REFERENCE BOOKS**

1. Human Genetics and Genomics, Third Edition - Bruce R. Korf
2. Human Genetics: Principles and Approaches - Friedrich Vogel and Arno G. Motulsky.
3. Watson, J.D., Gilman, M., Witowski J. and Zoller, M. Recombinant DNA, 2<sup>nd</sup> ed., Scientific American Books, 1983.

**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF GENETIC ENGINEERING**  
**VALUE ADDED COURSE**  
**COURSE ON HUMAN GENETICS (2017-2018)**

Session	Topic	Date	Duration (Hr)	Resource person
Session I	Genome Organization	02-02-18	3	Dr.T.Jayalakshmi
Session II	Genetic mapping	02-02-18	3	Mr.A.Manikandan
Session III	Pattern Formation	02-03-18	4	Dr.T.Jayalakshmi
Session IV	Cancer genetics	02-03-18	3	Dr.P.B.Ramesh babu
Session V	Defects of metabolic process	02-09-18	3	Mr.A.Manikandan
Session VI	Gene Therapy	02-10-18	4	Dr.P.Rajasulochana
Session VII	Prenatal diagnosis of genetic disorders	02-10-18	3	Dr.P.B.Ramesh babu
Session VIII	Pedigree analysis	16/2/2018	3	Mr.A.Manikandan
Session IX	Genetic Counseling	17/2/2018	4	Mrs.K.Vijayalakshmi

**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF GENETIC ENGINEERING**  
**VALUE ADDED COURSE**  
**COURSE ON HUMAN GENETICS (2017-2018)**

ChapName	Name	ScNo
Topic	Sub Topic	Duration
UNIT I: GENOME INHERITANCE	Genome Organization	1 hour
UNIT I: GENOME INHERITANCE	Complicate Inheritance Patterns	1 hour
UNIT I: GENOME INHERITANCE	X inactivation	1 hour
UNIT I: GENOME INHERITANCE	Sex-Linked Inheritance	1 hour
UNIT I: GENOME INHERITANCE	Sex-Influenced Traits	1 hour
UNIT I: GENOME INHERITANCE	Mitochondrial Inheritance	1 hour
UNIT II: DEVELOPMENTAL GENETICS	Types of Physical Mapping	1 hour
UNIT II: DEVELOPMENTAL GENETICS	Genetic mapping	1 hour
UNIT II: DEVELOPMENTAL GENETICS	Two-point mapping	1 hour
UNIT II: DEVELOPMENTAL GENETICS	Multipoint mapping	1 hour
UNIT II: DEVELOPMENTAL GENETICS	Mediators of Development	1 hour
UNIT II: DEVELOPMENTAL GENETICS	Pattern Formation	1 hour
UNIT III: PHARMACOGENETICS	Abnormalities of Chromosome Structure	1 hour
UNIT III: PHARMACOGENETICS	Pregnancy Loss	1 hour
UNIT III: PHARMACOGENETICS	Cancer genetics	1 hour
UNIT III: PHARMACOGENETICS	Molecular Basis of Cancer	1 hour
UNIT III: PHARMACOGENETICS	Control of the cell cycle	1 hour
UNIT III: PHARMACOGENETICS	Defects of Metabolic Processes	1 hour
UNIT IV: GENE THERAPY	strategies for identifying disease genes	1 hour
UNIT IV: GENE THERAPY	Positional cloning	1 hour
UNIT IV: GENE THERAPY	Map position and expression	1 hour
UNIT IV: GENE THERAPY	confirming a candidate gene.	1 hour
UNIT IV: GENE THERAPY	Gene expression	1 hour
UNIT IV: GENE THERAPY	Secondary structure prediction of proteins	1 hour
UNIT V:GENETIC COUNSELING	Genetic Screening	1 hour
UNIT V:GENETIC COUNSELING	Genetic Diagnosis	1 hour
UNIT V:GENETIC COUNSELING	Gene Therapy	1 hour
UNIT V:GENETIC COUNSELING	Fetal Treatment	1 hour
UNIT V:GENETIC COUNSELING	Pedigree analysis	1 hour
UNIT V:GENETIC COUNSELING	Genetic Counseling	1 hour

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**  
**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF GENETIC ENGINEERING**  
**VALUE ADDED COURSE**  
**COURSE ON HUMAN GENETICS (2017-2018)**

**Students Name List**

S.No	Reg No	Name
1	U15BM001	ABHIJITH T UNNIKRISHNAN
2	U15BM002	ABINAYA K
3	U15BM004	ANAGHA B
4	U15BM006	ARAVINDHAN A
5	U15BM007	BALASUBRAMANIAN S
6	U15BM009	BHASKAR RAY
7	U15BM010	DANDIGUNTA SRI VAISHAVI
8	U15BM012	DIVYA BHARATHI R
9	U15BM014	FATHIMA FARSANA M
10	U15BM016	GAYATHRI E.K
11	U15BM018	JAGARLAMUDI MOHAN SAI DURGA PRASAD
12	U15BM020	JAYASRI B
13	U15BM023	KARTHIKA R
14	U15BM025	KOSHIK S
15	U15BM027	MAHALAKSHMI S
16	U15BM029	MOGAPARTHI NIHARIKA
17	U15BM031	MOHAMED SUHAIL Z
18	U15BM033	MUCHAKAYALA HARSHA VARDHAN
19	U15BM035	N NIVETHA
20	U15BM037	NANDYLA SRIGIRI AMANI
21	U15BM038	NEELAGIRI KIRANMAI
22	U15BM040	PRABHARAJAKUMARI P
23	U15BM042	RAJKUMAR P
24	U15BM044	RIYA KUMARI KERKETTA
25	U15BM048	SHAIK RIYAZ
26	U15BT001	ARUMAI RATCHAGAN S R
27	U15BT002	DEVA V
28	U15BT004	KANIKA P G
29	U15BT007	JEEVITHA L
30	U15BT009	PRITAM SASMAL
31	U15BT011	SELVA JANANI S
32	U15BT014	VIJAYA LAKSHMI N
33	U15BT016	PUNITHAVATHY R
34	U15BT019	SATHISH KUMAR. R
35	U15BT020	VIMALANBAN S
36	U15BR002	ARUTHRA B
37	U15BR003	CHANDRAKUMAR S
38	U15BR004	GANGA NAGARATHINAM
39	U15BR006	SUNETHA ILANGO

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**DEPARTMENT OF GENETIC ENGINEERING**  
**VALUE ADDED COURSE**  
**COURSE ON HUMAN GENETICS (2017-2018)**

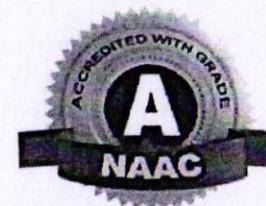
**Students Name List**

<b>S.No</b>	<b>Reg No</b>	<b>Name</b>
40	U15BR008	VINITHA M N
41	U15BR009	MANASA M S
42	U15BR010	NIVEDITHA SELVAKUMAR .
43	U15BR012	PALADI DHEERAJ
44	U15BR013	PRIYANKA P
45	U15BR014	RUSHMITHA ANBARASU
46	U15BR015	SARAH BEGUM A
47	U15BR016	SHARMILEE M
48	U15BR017	TAWFEEQ HAARIS BUHARI .
49	U15BR018	TEJASVINI M
50	U15BR019	VISHALI R C
51	U15BR020	BHUKYA PAVAN KALYAN .
52	U15BR021	VIDHYA SHREE E
53	U15BR022	PRIYANKA B
54	U15BR023	AKILA R



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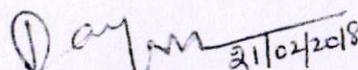


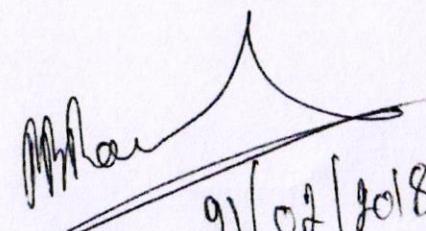
SCHOOL OF BIO-ENGINEERING

VALUE ADDED COURSE ON HUMAN GENETICS

*Certificate of Participation*

This is to certify that Mr /Ms S.Chandrakumar (U15BR003) has attended three weeks value added course on Human Genetics conducted by Department of Genetic Engineering at Bharath Institute of Higher Education and Research, Chennai (TN), India during 1<sup>st</sup> - 17<sup>th</sup> February, 2018.

  
Coordinator  
21/02/2018

  
HOD  
21/02/2018





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INSTITUTE OF HIGHER EDUCATION AND RESEARCH  
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**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

**Date: 15-09-2017**

**SCHOOL OF BIOENGINEERING**

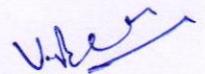
**CIRCULAR**

**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 25/09/2017 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 23<sup>rd</sup> September 2017.

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

  
Course Coordinator

  
HOD

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**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**  
**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF BIO MEDICAL ENGINEERING**  
**VALUE ADDED COURSE ON INTRODUCTION TO BIO INFORMATICS**  
**2017-2018**  
**COURSE CO-ORDINATOR DETAILS**

**Faculty Name: S.GEETHA,**

Assistant Professor,

Department of Bio Medical Engineering.

**Email ID: [geethag24@gmail.com](mailto:geethag24@gmail.com)**

**Mobile number: 9841600771.**

**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF BIO MEDICAL ENGINEERING**  
**VALUE ADDED COURSE**

**COURSE ON INTRODUCTION TO BIO INFORMATICS (2017-2018)**

<b>Session</b>	<b>Topic</b>	<b>Date</b>	<b>Duration (Hr)</b>	<b>Resource person</b>
Session I	INTRODUCTION TO BIOINFORMA	29.09.2017	3	Dr.F.Emerson Solomon
Session II	INTRODUCTION TO BIOINFORMA	29.09.2017	3	Dr.R.Vasukidevi
Session III	SEQUENCE ALIGNMENT	30.09.2017	4	Ms.S.Geetha
Session IV	SEQUENCE ALIGNMENT	30.09.2017	3	Mr.S.Prasath
Session V	DATA STORAGE AND RETRIEVAL	06.10.2017	3	Dr.F.Emerson Solomon
Session VI	DATA STORAGE AND RETRIEVAL	07.10.2017	4	Dr.R.Vasukidevi
Session VII	GENES AND DISEASES	07.10.2017	3	Ms.S.Geetha
Session VIII	GENES AND DISEASES	13.10.2017	3	Mr.S.Prasath
Session IX	THE FUTURE OF BIOINFORMATIC	14.10.2017	4	Ms.S.Geetha

**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 (2017-2018)**

**Students Name List**

S.NO	REG.NO	NAME	SEM/ YEAR	DEPART MENT
1.	U14BM005	ARAVIND BHARATHWAJ .V.S.	V/III	BME
2.	U14BM007	ATHINA DAS	V/III	BME
3.	U14BM010	DAMINI SARKAR	V/III	BME
4.	U14BM014	GAGANDEEP KOUR	V/III	BME
5.	U14BM022	MAHFOOZ AAMIL D.S	V/III	BME
6.	U14BM023	MALGARI SHANTHI SWAROOP	V/III	BME
7.	U14BM026	MANIVANNAN	V/III	BME
8.	U14BM035	PREETHI KUMARI .B	V/III	BME
9.	U14BM036	RAJESWARI.M	V/III	BME
10.	U14BM042	SANGEETA CHATTERJEE	V/III	BME
11.	U14BM046	SUMAN MISHRA	V/III	BME
12.	U14BM047	SUSOVAN PAL	V/III	BME
13.	U14BM052	VANDHANA.M	V/III	BME
14.	U14BM056	SRUTHI .H	V/III	BME
15.	U14BM058	PUJARI DHANYA SREE	V/III	BME
16.	U14BT003	Al Afzal.S.Khan	V/III	IBT
17.	U14BT005	Mathika Anjani Nikhil Kumar	V/III	IBT
18.	U14BT006	Balasubramaniam.M	V/III	IBT
19.	U14BT011	Harinee.C	V/III	IBT

20.	U14BT013	Inaganti Aditya	V/III	IBT
21.	U14BT016	Karpuram Prasad	V/III	IBT
22.	U14BT017	Kaushik Baishya	V/III	IBT
23.	U14BT022	Rahila Parveen.S	V/III	IBT
24.	U14BT023	Renuka.M	V/III	IBT
25.	U14BT032	Jupaka Sindhuja	V/III	IBT
26.	U14BR001	ARUNA.T	V/III	BI
27.	U14BR002	BANDI MEGHANA	V/III	BI
28.	U14BR007	HANISHA YASMEEN.K	V/III	BI
29.	U14BR008	MAMINDLA HARISH	V/III	BI
30.	U14BR014	NUZIHA THASNEEM	V/III	BI
31.	U14BR015	POOJA SRI .S	V/III	BI
32.	U14BR022	SAVALIYA UMESH HIMMATBHAI	V/III	BI
33.	U14BR025	SUGITHA .E	V/III	BI
34.	U14BR028	VASUNDRA H.P	V/III	BI
35.	U14BR030	SYED MOHAMED KHALEEL	V/III	BI

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**  
**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF BIO MEDICAL ENGINEERING**  
**VALUE ADDED COURSE SYLLABUS**  
**2017-2018**

		<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
Value added	<b>COURSE ON INTRODUCTION TO BIO INFORMATICS</b>				
course code	<b>Total Contact Hours - 30</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
	<b>Prerequisite – Cell Biology, Principles of Genetics, MicroBiology</b>				

**OBJECTIVES**

- 1 To understand Basic Bioinformatics
- 2 To know about Structural databases of Proteins.
- 3 To Apply Computer aided tools for data retrieval.

**UNIT I: INTRODUCTION TO BIOINFORMATICS**

**6**

Biology is an information science, History of Bioinformatics, Types of data, Application areas: Introduction to upcoming segments, NCBI & EBI resources for the molecular domain of bioinformatics, Focus on GenBank, UniProt, Entrez and Gene Ontology.

**UNIT II: SEQUENCE ALIGNMENT**

**6**

DNA and Protein Database Searching , DNA and Protein Database Searching, Protein structure comparisons, PSI-BLAST, Structural genomics.

**UNIT III : DATA STORAGE AND RETRIEVAL AND INTEROPERABILITY**

**6**

Flat files, relational, object oriented databases and controlled vocabularies. File Format (Genbank, DDBJ, FASTA, PDB, SwissProt). Introduction to Metadata and search; Indices, Boolean, Fuzzy, Neighboringsearch. The challenges of data exchange and integration. Ontologies, interchange languages and standardization efforts.

**MODULE IV : GENES AND DISEASES****6**

Human examples, 23&Me, PatientsLikeMe, SNP arrays and beyond, Genomics and human health, The promise and potential of shifting medicine from a reactive practice of treating symptoms and diseases, to one where disease risk is diagnosed early or even managed prior to onset.

**MODULE V : THE FUTURE OF BIOINFORMATICS****6**

Applications of bioinformatics to translational medicine and the social impacts and ethical implications of how genomic sequence information is used in society

**Total Contact Hours: 30****TEXT BOOKS**

1. Introduction to BioInformatics – Arthur.M.Lesk
2. Bio Informatics – A Practical Guide to Analysis of Genes and Proteins 3<sup>rd</sup> Edition –Andreas D Baxevanis, B.Francis Quellette

**REFERENCE BOOKS**

1. Bio Informatics Principles and Applications – Zhumur Ghosh
2. Bio Informatics Computing – Bryanbergeron.M.D

**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 (2017-2018)**

**Students Name List**

S.NO	REG.NO	NAME	RATING
1.	U14BM005	ARAVIND BHARATHWAJ .V.S.	4.5
2.	U14BM007	ATHINA DAS	4.6
3.	U14BM010	DAMINI SARKAR	4.8
4.	U14BM014	GAGANDEEP KOUR	4.3
5.	U14BM022	MAHFOOZ AAMIL D.S	4
6.	U14BM023	MALGARI SHANTHI SWAROOP	4.4
7.	U14BM026	MANIVANNAN	4.2
8.	U14BM035	PREETHI KUMARI .B	4.6
9.	U14BM036	RAJESWARI.M	4.8
10.	U14BM042	SANGEETA CHATTERJEE	4.9
11.	U14BM046	SUMAN MISHRA	4.3
12.	U14BM047	SUSOVAN PAL	4.5
13.	U14BM052	VANDHANA.M	4.9
14.	U14BM056	SRUTHI .H	4.5
15.	U14BM058	PUJARI DHANYA SREE	4.3
16.	U14BT003	Al Afzal.S.Khan	4.5
17.	U14BT005	Mathika Anjani Nikhil Kumar	4.6
18.	U14BT006	Balasubramaniam.M	4.8
19.	U14BT011	Harinee.C	4.3

20.	U14BT013	Inaganti Aditya	4
21.	U14BT016	Karpuram Prasad	4.4
22.	U14BT017	Kaushik Baishya	4.2
23.	U14BT022	Rahila Parveen.S	3.8
24.	U14BT023	Renuka.M	3.6
25.	U14BT032	Jupaka Sindhuja	4.4
26.	U14BR001	ARUNA.T	3.9
27.	U14BR002	BANDI MEGHANA	4.3
28.	U14BR007	HANISHA YASMEEN.K	4.5
29.	U14BR008	MAMINDLA HARISH	4.6
30.	U14BR014	NUZIHA THASNEEM	4.8
31.	U14BR015	POOJA SRI .S	4.3
32.	U14BR022	SAVALIYA UMESH HIMMATBHAI	4
33.	U14BR025	SUGITHA .E	4.4
34.	U14BR028	VASUNDRA H.P	3.9
35.	U14BR030	SYED MOHAMED KHALEEL	4.3

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

**SCHOOL OF BIO-ENGINEERING**

**DEPARTMENT OF BIO MEDICAL ENGINEERING**

**VALUE ADDED COURSE TIMETABLE**

**2017-2018**

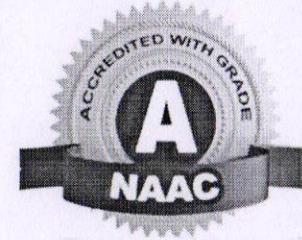
Days / Period	I 9.00 – 9.50	II 9.50 – 10.40	III 10.50 – 11.40	IV 11.40 – 12.30	12.30 – 1.30	V 1.30 – 2.10	VI 2.10 – 2.50	VII 2.50 – 3.30
MON					<b>LUNCH BREAK</b>			
TUE								
WED								
THU								
FRI							IBI	
SAT		IBI					IBI	

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



# 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 /Ms Athira Das has attended three weeks value added course on INTRODUCTION TO BIO INFORMATICS conducted by Department of Biomedical Engineering at Bharath Institute of Higher Education and Research, Chennai (TN), India during 29<sup>th</sup> September- 14<sup>th</sup> October, 2017.

  
Dean

  
HOD

## Course Feedback Form

Course Title: Introduction of Bio-Informatics

Dates: 8-12-2017

Venue: BME Dept

Please fill the short questionnaire to make the course better.

Your background: *Teaching in Engg/Arch/Diploma*  *Research Organisation*  *Industry*

Your Highest Qualifications: *Diploma/ Degree/ ME/ MTech/ PhD*

Please respond below with 1, 2, 3, 4 or 5, where 1 and 5 are explained.

### THE DESIGN OF THE COURSE

- |  |  |  |
|--|--|--|
| A. Were objectives of the course clear to you?           | Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> |  |
| B. The course contents met with your expectations        | 1. Strongly disagree   | 5. Strongly agree <span style="float: right; border: 1px solid black; padding: 2px 5px;">2</span>    |
| C. The lecture sequence was well planned                 | 1. Strongly disagree   | 5. Strongly agree <span style="float: right; border: 1px solid black; padding: 2px 5px;">2</span>    |
| D. The contents were illustrated with                    | 1. Too few examples  | 5. Adequate examples <span style="float: right; border: 1px solid black; padding: 2px 5px;">2</span> |
| E. The level of the course was                           | 1. Too low   | 5. Too high <span style="float: right; border: 1px solid black; padding: 2px 5px;">2</span>          |
| F. The course contents compared with your expectations   | 1. Too theoretical   | 5. Too empirical <span style="float: right; border: 1px solid black; padding: 2px 5px;">2</span>     |
| G. The course exposed you to new knowledge and practices | 1. Strongly disagree   | 5. Strongly agree <span style="float: right; border: 1px solid black; padding: 2px 5px;">2</span>    |
| H. Will you recommend this course to your colleagues?    | 1. Not at all  | 5. Very strongly <span style="float: right; border: 1px solid black; padding: 2px 5px;">2</span>     |

### THE CONDUCT OF THE COURSE

- |  |  |   |
|--|--|---|
| A. The lectures were clear and easy to understand          | 1. Strongly disagree   | 5. Strongly agree <span style="float: right; border: 1px solid black; padding: 2px 5px;">2</span> |
| B. The teaching aids were effectively used                 | 1. Strongly disagree   | 5. Strongly agree <span style="float: right; border: 1px solid black; padding: 2px 5px;">2</span> |
| C. The course material handed out was adequate             | 1. Strongly disagree   | 5. Strongly agree <span style="float: right; border: 1px solid black; padding: 2px 5px;">2</span> |
| D. The instructors encouraged interaction and were helpful | 1. Strongly disagree   | 5. Strongly agree <span style="float: right; border: 1px solid black; padding: 2px 5px;">2</span> |
| E. Were objectives of the course realized?                 | Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> |   |



## Course Feedback Form

Course Title: Introduction of Bio-Informatics

Dates: 8-12-2017

Venue: BME Dept

Please fill the short questionnaire to make the course better.

Your background: Teaching in Engg/Arch/Diploma  Research Organisation  Industry

Your Highest Qualifications: Diploma/ Degree/ ME/ MTech/ PhD

Please respond below with 1, 2, 3, 4 or 5, where 1 and 5 are explained.

### THE DESIGN OF THE COURSE

- A. Were objectives of the course clear to you? Y  / N
- B. The course contents met with your expectations 1  
*1. Strongly disagree* *5. Strongly agree*
- C. The lecture sequence was well planned 2  
*1. Strongly disagree* *5. Strongly agree*
- D. The contents were illustrated with 2  
*1. Too few examples* *5. Adequate examples*
- E. The level of the course was 2  
*1. Too low* *5. Too high*
- F. The course contents compared with your expectations 2  
*1. Too theoretical* *5. Too empirical*
- G. The course exposed you to new knowledge and practices 2  
*1. Strongly disagree* *5. Strongly agree*
- H. Will you recommend this course to your colleagues? 2  
*1. Not at all* *5. Very strongly*

### THE CONDUCT OF THE COURSE

- A. The lectures were clear and easy to understand 2  
*1. Strongly disagree* *5. Strongly agree*
- B. The teaching aids were effectively used 2  
*1. Strongly disagree* *5. Strongly agree*
- C. The course material handed out was adequate 2  
*1. Strongly disagree* *5. Strongly agree*
- D. The instructors encouraged interaction and were helpful 2  
*1. Strongly disagree* *5. Strongly agree*
- E. Were objectives of the course realized? Y  / N



# Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH  
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**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

Date: 27-11-2017

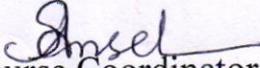
**SCHOOL OF BIOENGINEERING**

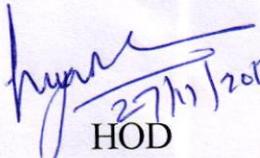
**CIRCULAR**

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

The Department of Industrial Biotechnology, School of Bioengineering, is scheduled to offer a Value added Course on Drug Delivery: Principles and Engineering from 10/01/2018 for a period of 3 weeks. Interested students can approach Dr. S. Anbuselvi, Associate Professor and Course Coordinator, Department of Industrial Biotechnology for registration and for further details on or before 25<sup>th</sup> December 2017.

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

  
Course Coordinator

  
27/11/2017  
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 INDUSTRIAL BIOTECHNOLOGY**

**DRUG DELIVERY:PRINCIPLES AND ENGINEERING**

**2017-2018**

**COURSE CO-ORDINATOR DETAILS**

**Faculty Name: Dr.S.Anbuselvi,Associate Professor, Department of Industrial  
Biotechnology**

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

**Mobile number: 9094568273**

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH  
SCHOOL OF BIO-ENGINEERING  
DEPARTMENT OF INDUSTRIAL BIOTECHNOLOGY  
VALUE ADDED COURSE SYLLABUS  
2017-2018**

**DRUG DELIVERY PRINCIPLES AND ENGINEERING**

**Module 1**

Biomedical polymers-Biodegradable polymers- Polymer drug conjugates-Polymer drug conjugates. Diffusion controlled systems and Sustained drug delivery,Controlled Release-reservoir system.

**Module 2**

Sustained Drug Delivery-Reservoir systems- Erodible systems-Non erodible systems-Hydrogel – Nano and micro particles. Tissue Engineering, Protein Adsorption

**Module 3**

Route specific Delivery- Oral, Subcutaneous Route-Intramuscular, Transdermal,Inhalation. Buccal and Rectal route. Intravenous-Approved nano carriers and immune system

**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF INDUSTRIAL BIOTECHNOLOGY**  
**VALUE ADDED COURSE**

**Drug Delivery: Principles And Engineering**

<b>Session</b>	<b>Topic</b>	<b>Date</b>	<b>Duration (Hr)</b>	<b>Resource person</b>
Session I	Biomedical polymers	1/10/2018	3	Dr.Merina Paul Das
Session II	Biodegradable polymers	3/10/2018	3	Dr.S.Anbuselvi
Session III	Polymer drug conjugates.	3/10/2018	4	Dr.Merina Paul Das
Session IV	Sustained drug delivery	9/10/2018	3	Dr.Kanimozhi
Session V	Reservoir systems	10/10/2018	3	Dr.Ram krishna rao
Session VI	Hydrogel	10/10/2018	4	Dr.Kanimozhi
Session VII	Nano and micro particles	16/10/2018	3	Dr.S.Selva kumar
Session VIII	Tissue Engineering	17/10/2018	3	Dr.S.Anbuselvi
Session IX	Route specific Delivery	17/10/2018	4	Dr.L.Jeyanthi Rebecca

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**  
**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF INDUSTRIAL BIOTECHNOLOGY**  
**VALUE ADDED COURSE**  
**DRUG DELIVERY PRINCIPLES AND ENGINEERING (2017-2018)**  
**Students Name List**

S.NO	REG.NO	NAME OF THE STUDENT
1	U14BT006	BALASUBRAMANIAM.M
2	U14BT007	BARNALI SARKAR
3	U14BT008	DARPAN BARIK
4	U14BT014	KAJAL KUMARI
5	U14BT012	HIMANGSHU DAS
6	U15BT004	KANIKA PG
7	U15BT007	L. JEEVITHA
8	U15BT015	NEHA SINGH
9	U15BT019	SATHISH KUMAR.R
10	U16BT020	GUNJI VISHNU TEJA
11	U16BT021	DEEPIKA
12	U16BT022	DARA VIJAY CHANDRA GANGADHAR GUPTHA
13	U16BR010	REHANA BANU R
14	U16BR011	MONIT KUMAR CHANDAN
15	U16BR012	VISWAGITHE S L
16	U16BR013	GAYATHRI DEVI A
17	U16BR018	B REDDY RAGHAVA DEEPAK
18	U16BR022	UPAL JOSHI
19	U15BR001	AJIT KARTHIKEYAN T
20	U15BR002	ARUTHRA B
21	U15BR009	MANASA M S
22	U14BR021	SATHIK SHAJAHAN I
23	U14BR025	SUGITHA E
24	U14BR028	VASUNDRA H P
25	U14BR030	SYED MOHAMED KHALEEL
26	U14BM052	VANDHANA.M
27	U14BM059	NINU.P.S.
28	U14BM060	SIVA
29	U14BM701	KATHIRESAN
30	U15BM040	PRABHARAJAKUMARI P
31	U15BM041	PRADEEP KUMAR P
32	U15BM047	SATHISHKUMAR N
33	U15BM048	SHAIK RIYAZ
34	U16BM053	SHAIK FARHANA
35	U16BM054	RAKHI DASH



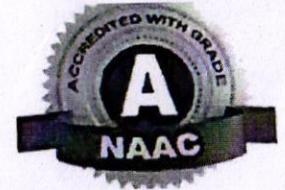
**VALUE ADDED COURSE**  
**DRUG DELIVERY: PRINCIPLES AND ENGINEERING**





# Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH  
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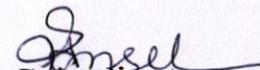


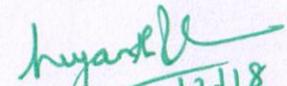
SCHOOL OF BIO-ENGINEERING

VALUE ADDED COURSE ON

*Certificate of Participation*

This is to certify that Mr /Ms Balasubramaniam M (U14BT006) has attended three weeks value added course on **“Drug Delivery Principles and Engineering”** conducted by Department of Industrial Biotechnology at Bharath Institute of Higher Education and Research, Chennai (TN), India from 10-01-2018 to 02-02-2018

  
Coordinator

  
HOD 2/2/18

From

The Head of the Department

Department of Biomedical Engineering

BIHER

Chennai

01-09-2017

To

The Dean

BIHER

Respected Sir

Sub: Approval to conduct a value added course on "PYTHON PROGRAMMING"  
-reg

It has been planned by the Department of Biomedical Engineering to start a Value Added Course on "Python Programming" for the benefit of B.Tech Biomedical Engineering, B.Tech Industrial Biotechnology and B-Tech Genetic Engineering students from 18<sup>th</sup> September, 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  
(Declared as Deemed - to - be - University under section 3 of UGC Act 1956)

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

Date: 6-09-2017

## 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 **"Python Programming"** from 18/09/2017 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 16<sup>th</sup> September 2017.

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

Course Coordinator

HOD

#### Copy to:

Vice Chancellor

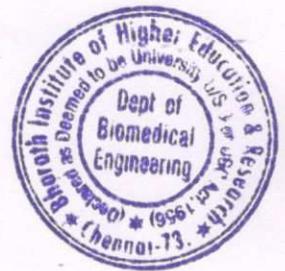
Pro Vice Chancellor

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 PYTHON PROGRAMMING**

**2017-2018**

**COURSE CO-ORDINATOR DETAILS**

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

Assistant Professor,

Department of Bio Medical Engineering.

**Email ID: [geethag24@gmail.com](mailto:geethag24@gmail.com)**

**Mobile number: 9841600771**

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**  
**SCHOOL OF BIO-ENGINEERING**

**DEPARTMENT OF BIO MEDICAL ENGINEERING**

**2017-2018**

**VALUE ADDED COURSE SYLLABUS**

**PYTHON PROGRAMMING**

**MODULE 1**

Python Basics, Introduction to Python, Sequences and File Operations, Deep Dive – Functions, OOPs, Modules, Errors and Exceptions, Data Handling Introduction to NumPy, Pandas and Matplotlib, Data Manipulation.

**MODULE 2**

Introduction to Machine Learning with Python, Supervised Learning , Dimensionality Reduction, Supervised Learning – II, Unsupervised Learning, Association Rules Mining and Recommendation Systems Reinforcement Learning, Time Series Analysis, Model Selection and Boosting.

**Module 3**

Database Connectivity, An introduction to relational databases, SQL statements for data manipulation, Using Python to work with a database

Total Contact Hour: 30

**SCHOOL OF BIO-ENGINEERING  
DEPARTMENT OF BIO MEDICAL ENGINEERING**

**VALUE ADDED COURSE**

**PYTHON PROGRAMMING**

Session	Topic	Date	Duration (Hr)	Resource person
Session I	Python Basics, Introduction to Python, Sequences and File Op	18.09.2017	4	Dr.R.Vasukidevi
Session II	Deep Dive – Functions, OOPs, Modules, Errors and Exception	19.09.2017	4	Dr.R.Vasukidevi
Session III	Data Handling Introduction to NumPy, Pandas and Matplotlib	20.09.2017	3	Ms.S.Geetha
Session IV	Introduction to Machine Learning with Python, Supervised Lea	25.09.2017	4	Dr.Emerson Solomon
Session V	Association Rules Mining and Recommendation Systems Rei	26.09.2017	3	Dr.Emerson Solomon
Session VI	Time Series Analysis, Model Selection and Boosting	27.09.2017	3	Ms.S.Geetha
Session VII	Database Connectivity, An introduction to relational databases	02.10.2017	3	S.Prasath
Session VIII	SQL statements for data manipulation	03.10.2017	3	S.Prasath
Session IX	Using Python to work with a database	04.10.2017	3	N.Subhalakshmi

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

S.NO	REG.NO	NAME
1.	U16BM001	Subabalan M
2.	U16BM002	Sanjanaah Shree S
3.	U16BM003	Evangeline Elakiya Benedict E D
4.	U16BM004	Vinothraj K
5.	U16BM005	Paul Harrison J
6.	U16BM006	Siva Harish S
7.	U16BM008	Monisha R
8.	U16BM009	Devasneha D P K
9.	U16BM010	Subburam K M
10.	U16BM011	Pavithra V
11.	U16BM012	Ashini I S
12.	U16BM020	Abisha G
13.	U16BM021	Chrysolyte Precious Rani S
14.	U16BM022	Sasikumar J
15.	U16BM023	Nawaz Shariff A
16.	U16BM024	Karanam Adarash Rao
17.	U16BM025	Kudugunta Achyutha Reddy
18.	U16BM052	Revathi N
19.	U16BM053	Shaik Farhana
20.	U16BM054	Rakhi Dash
21.	U16BM056	Nakrani Leeshna
22.	U16BM057	Upputholla Rohith
23.	U16BM058	Arideep Siddhanta
24.	U16BM059	Naga Jagadesh Reddy
25.	U16BM060	Divi Divya Sree
26.	U16BM062	Divya Kerketta
27.	U16BM063	Nadella Monica
28.	U16BM064	Yedla Nissi Shalisha
29.	U16BM065	Bellamkonda Sai Harshith
30.	U16BM067	Ajitha .K
31	U15BR004	GANGA N
32	U15BR005	GOPINATHKUMAR S
33	U15BR006	I. SUNETHA
34	U15BR007	JEMI JOAN SILVIYA K
35	U15BR008	M N VINITHA
36	U15BR009	MANASA M S
37	U15BR010	NIVEDITHA SELVAKUMAR
38	U15BR011	NIVETHA B

39	U15BR012	PALADI DHEERAJ
40	U15BR013	PRIYANKA P
41	U16BR001	HARISH T S
42	U16BR002	RANJANI K
43	U16BR004	MONALISHA B A
44	U16BR005	PREETHA K
45	U16BR006	ARJUN K
46	U16BR007	ASWIN S
47	U16BR008	KAVERI JACOB
48	U16BR009	HARISH CHANDRASEKAR
49	U15BT002	DEVA V
50	U15BT003	KALAISELVAN A
51	U15BT004	KANIKA P G
52	U15BT007	L. JEEVITHA
53	U15BT008	MURALIRAM T
54	U15BT009	PRITAM SASMAL
55	U15BT011	SELVA JANANI S
56	U15BT013	VAIRAMOORTHY M
57	U15BT014	VIJAYA LAKSHMI N
58	U15BT015	NEHA SINGH
59	U15BT016	PUNITHAVATHY R
60	U15BT017	SUGANYA RAJESHWARI E

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**  
**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF BIO MEDICAL ENGINEERING**  
**VALUE ADDED COURSE**  
**Python Programming**  
**Students Result**

S.NO	REG.NO	NAME	RESULT
1.	U16BM001	Subabalan M	S
2.	U16BM002	Sanjanaah Shree S	S
3.	U16BM003	Evangeline Elakiya Benedict E D	S
4.	U16BM004	Vinothraj K	A
5.	U16BM005	Paul Harrison J	S
6.	U16BM006	Siva Harish S	S
7.	U16BM008	Monisha R	S
8.	U16BM009	Devasneha D P K	S
9.	U16BM010	Subburam K M	A
10.	U16BM011	Pavithra V	S
11.	U16BM012	Ashini I S	A
12.	U16BM020	Abisha G	S
13.	U16BM021	Chrysolyte Precious Rani S	S
14.	U16BM022	Sasikumar J	S
15.	U16BM023	Nawaz Shariff A	S
16.	U16BM024	Karanam Adarash Rao	S
17.	U16BM025	Kudugunta Achyutha Reddy	A
18.	U16BM052	Revathi N	S
19.	U16BM053	Shaik Farhana	S
20.	U16BM054	Rakhi Dash	A
21.	U16BM056	Nakrani Leeshna	S
22.	U16BM057	Upputholla Rohith	A
23.	U16BM058	Arideep Siddhanta	S
24.	U16BM059	Naga Jagadesh Reddy	S
25.	U16BM060	Divi Divya Sree	A
26.	U16BM062	Divya Kerketta	S
27.	U16BM063	Nadella Monica	A
28.	U16BM064	Yedla Nissi Shalisha	S
29.	U16BM065	Bellamkonda Sai Harshith	S
30.	U16BM067	Ajitha .K	S
31.	U15BR004	GANGA N	S
32.	U15BR005	GOPINATHKUMAR S	S
33.	U15BR006	I. SUNETHA	S
34.	U15BR007	JEMI JOAN SILVIYA K	S
35.	U15BR008	M N VINITHA	S
36.	U15BR009	MANASA M S	S
37.	U15BR010	NIVEDITHA SELVAKUMAR	S
38.	U15BR011	NIVETHA B	S
39.	U15BR012	PALADI DHEERAJ	S

40	U15BR013	PRIYANKA P	S
41	U16BR001	HARISH T S	S
42	U16BR002	RANJANI K	S
43	U16BR004	MONALISHA B A	S
44	U16BR005	PREETHA K	S
45	U16BR006	ARJUN K	S
46	U16BR007	ASWIN S	S
47	U16BR008	KAVERI JACOB	S
48	U16BR009	HARISH CHANDRASEKAR	S
49	U15BT002	DEVA V	S
50	U15BT003	KALAISELVAN A	S
51	U15BT004	KANIKA P G	S
52	U15BT007	L. JEEVITHA	S
53	U15BT008	MURALIRAM T	S
54	U15BT009	PRITAM SASMAL	S
55	U15BT011	SELVA JANANI S	S
56	U15BT013	VAIRAMOORTHY M	S
57	U15BT014	VIJAYA LAKSHMI N	S
58	U15BT015	NEHA SINGH	S
59	U15BT016	PUNITHAVATHY R	S
60	U15BT017	SUGANYA RAJESHWARI E	S

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

**SCHOOL OF BIOENGINEERING**

**DEPARTMENT OF BIOMEDICAL ENGINEERING**

Name : *Ravathi . N*

Register Number : *U16BM052*

Academic year: *2017-2018*

Name of the course offered : *Python Programming*

**Student Feedback**

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

*Ravathi*

Signature of the Course co-ordinator

*Ravathi*

Signature of the Student

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH

SCHOOL OF BIOENGINEERING

DEPARTMENT OF BIOMEDICAL ENGINEERING

Name : NIVEETHA - B

Register Number : V15BR611

Academic year: 2017-2018

Name of the course offered : PYTHON 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	✓				

*[Handwritten Signature]*

Signature of the Course co-ordinator.

*[Handwritten Signature]*

Signature of the Student



# Bharath

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

**SCHOOL OF BIO-ENGINEERING**



## Certificate

### VALUE ADDED COURSE ON PYTHON PROGRAMMING

This is to certify that Mr /Ms Ashini I S has attended three weeks value added course on "PYTHON PROGRAMMING" conducted by Department of Biomedical Engineering at Bharath Institute of Higher Education and Research, Chennai (TN), India during 18<sup>th</sup> September – 4<sup>th</sup> October, 2017.

Dean

HOD

Chennai

22-01-2018

From

The Head of the Department

Department of Biomedical Engineering

BIHER

To

The Dean

BIHER

Respected Sir,

Sub: Approval to conduct a value added course on "**Sensors and its Medical Applications**" -reg

It has been planned by the Department of Biomedical Engineering to start a Value Added Course on "**Sensors and its Medical Applications**" for the benefit of B.Tech Biomedical Engineering, B.Tech Industrial Biotechnology and B-Tech Genetic Engineering students from 05<sup>th</sup> February, 2018. 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 SCHOOL OF BIOENGINEERING

Date: 25-01-2018

### 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 “**Sensors and its Medical Applications**” from 05/02/2018 for a period of 3 weeks. Interested students can approach Mr.S.Prasath, Assistant Professor and Course Coordinator, Department of Bio Medical Engineering for registration and for further details on or before 02<sup>nd</sup> February 2018.

**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 SENSORS AND ITS MEDICAL APPLICATIONS**  
**2017-2018**  
**COURSE CO-ORDINATOR DETAILS**

**Faculty Name: Mr.S.PRASATH,**

Assistant Professor,

Department of Bio Medical Engineering.

**Email ID: [mail.surendhar@gmail.com](mailto:mail.surendhar@gmail.com)**

**Mobile number: 8754581937**

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**  
**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF BIO MEDICAL ENGINEERING**  
**VALUE ADDED COURSE SYLLABUS - 2017-2018**

**SENSORS AND ITS MEDICAL APPLICATIONS**

**UNIT 1: BASICS OF SENSING MECHANISMS IN HUMAN BODY**

Study of biological sensors in human body and their basic mechanism of action - organization of nervous system- Study of various corpuscles like Pacinian - Chemoreceptors, hot and cold receptors, baroreceptors.

**UNIT II: BASICS OF TRANSDUCER AND MEASUREMENT SYSTEM**

Transducers- sensors: Basics, Classification, Characteristics and Choice, Primary sensing elements. Temperature transducers – thermos-resistive transducers, Radiation sensors- introduction, basic characteristics, Biomedical applications: body temperature measurement, respiration rate meter, pulse oximeter

**UNIT III : CHEMICAL & BIO SENSORS**

Ion exchange membrane electrodes- oxygen electrodes- CO<sub>2</sub> electrodes enzyme electrode - construction - ISFET for glucose, urea etc. Electrolytic sensors - optical sensor - fiber optic sensors. Microbial sensor, Enzyme immobilization of chemical analyses - Introduction to nanotechnology, Future requirements and opportunities of nanotechnology in sensing, CNT based sensors, Nano electronics and nano photonics.

**Total Contact Hours: 30**

**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF BIO MEDICAL ENGINEERING**  
**VALUE ADDED COURSE**

**SENSORS AND ITS MEDICAL APPLICATIONS**

Session	Topic	Date	Duration (Hr)	Resource person
Session I	Study of biological sensors in human body and their basic mechanism of action - organization of nervous system-	05.02.2018	3	Dr.R. Vasukidevi
Session II	Study of various corpuscles like Pacinian - Chemoreceptors, hot and cold receptors, baroreceptors	06.02.2018	3	Ms. M. Maresha Mani
Session III	Transducers- sensors: Basics, Classification, Characteristics and Choice, Primary sensing elements.	07.02.2018	3	S.Prasath
Session IV	Temperature transducers – thermos-resistive transducers, Radiation sensors- introduction, basic characteristics	12.02.2018	4	Mr. M. Sundar raj
Session V	Biomedical applications: body temperature measurement, respiration rate meter, pulse oximeter	13.02.2018	3	Mr. M. Sundar raj
Session VI	Ion exchange membrane electrodes- oxygen electrodes- CO2 electrodes enzyme electrode - construction	14.02.2018	4	N.Subhalakshmi
Session VII	ISFET for glucose, urea etc. Electrolytic sensors - optical sensor	19.02.2018	3	S.Prasath
Session VIII	fiber optic sensors. Microbial sensor, Enzyme immobilization of chemical analyses	20.02.2018	3	N.Subhalakshmi
Session IX	Introduction to nanotechnology, Future requirements and opportunities of nanotechnology in sensing, CNT based sensors, Nano electronics and nano photonics.	21.02.2018	4	S.Prasath

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**  
**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF BIO MEDICAL ENGINEERING**  
**VALUE ADDED COURSE**  
**SENSORS AND ITS MEDICAL APPLICATIONS**  
**STUDENTS NAME LIST 2017- 2018**

S.NO	REG.NO	NAME
1.	U15BR020	BHUKYA PAVAN KALYAN
2.	U15BR021	VIDHYA SHREE E
3.	U15BR022	B. PRIYANKA
4.	U15BR023	AKILA R
5.	U15BT009	PRITAM SASMAL
6.	U15BT011	SELVA JANANI S
7.	U15BT013	VAIRAMOORTHY M
8.	U15BT014	VIJAYA LAKSHMI N
9.	U15BT015	NEHA SINGH
10.	U15BT016	PUNITHAVATHY R
11.	U15BT017	SUGANYA RAJESHWARI E
12.	U15BT019	SATHISH KUMAR.R
13.	U15BT020	VIMALANBAN S
14.	U15BT021	KALAIVANI R
15.	U15BT501	ROSHINI ESTHER A
16.	U15BT502	MARKAPURAM BHAVYA
17.	U15BM011	Denallenni E
18.	U15BM012	Divya Bharathi R
19.	U15BM013	Faizal Ahmed S
20.	U15BM014	Fathima Farsana M
21.	U15BM015	Gangapalli Sruthi
22.	U15BM016	Gayathri E.K
23.	U15BM017	Gilead Lilly R
24.	U15BM018	Jagarlamudi Mohan Sai Durga Prasad
25.	U15BM019	Javvadi Sai Rishita
26.	U16BM001	Subabalan M
27.	U16BM002	Sanjanaah Shree S
28.	U16BM003	Evangeline Elakiya Benedict E D
29.	U16BM004	Vinothraj K
30.	U16BM005	Paul Harrison J
31.	U16BM006	Siva Harish S
32.	U16BM008	Monisha R
33.	U16BM009	Devasneha D P K
34.	U16BM010	Subburam K M
35.	U16BM011	Pavithra V
36.	U16BM012	Ashini I S
37.	U16BM020	Abisha G

38	U16BM021	Chrysolite Precious Rani S
39	U16BM022	Sasikumar J
40	U16BM023	Nawaz Shariff A
41	U16BM024	Karanam Adarash Rao
42	U16BM025	Kudugunta Achyutha Reddy
43	U16BM052	Revathi N
44	U16BM065	Bellamkonda Sai Harshith
45	U16BM067	Ajitha .K
46	U15BR011	NIVETHA B
47	U15BR012	PALADI DHEERAJ
48	U15BR013	PRIYANKA P
49	U15BR014	RUSHMITHA ANBARASU
50	U15BR015	SARAH BEGUM A
51	U15BR016	SHARMILEE M
52	U15BR017	TAWFEEQ HAARIS BUHARI
53	U15BR018	TEJASVINI M
54	U15BR019	VISHALI R C
55	U16BM053	Shaik Farhana
56	U16BM054	Rakhi Dash
57	U16BM056	Nakrani Leeshna
58	U16BM057	Upputholla Rohith
59	U16BM058	Arideep Siddhanta
60	U16BM059	Naga Jagadesh Reddy
61	U16BM060	Divi Divya Sree
62	U16BM062	Divya Kerketta
63	U16BM063	Nadella Monica
64	U16BM064	Yedla Nissi Shalisha

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**  
**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF BIO MEDICAL ENGINEERING**  
**VALUE ADDED COURSE**  
**SENSORS AND ITS MEDICAL APPLICATIONS (2017-2018)**

**Students Result**

S.NO	REG.NO	NAME	RESULT
1.	U15BR020	BHUKYA PAVAN KALYAN	A
2.	U15BR021	VIDHYA SHREE E	S
3.	U15BR022	B. PRIYANKA	S
4.	U15BR023	AKILA R	A
5.	U15BT009	PRITAM SASMAL	S
6.	U15BT011	SELVA JANANI S	S
7.	U15BT013	VAIRAMOORTHY M	A
8.	U15BT014	VIJAYA LAKSHMI N	S
9.	U15BT015	NEHA SINGH	S
10.	U15BT016	PUNITHAVATHY R	S
11.	U15BT017	SUGANYA RAJESHWARI E	S
12.	U15BT019	SATHISH KUMAR.R	A
13.	U15BT020	VIMALANBAN S	A
14.	U15BT021	KALAIVANI R	A
15.	U15BT501	ROSHINI ESTHER A	A
16.	U15BT502	MARKAPURAM BHAVYA	B
17.	U15BM011	Denallenni E	S
18.	U15BM012	Divya Bharathi R	S
19.	U15BM013	Faizal Ahmed S	S
20.	U15BM014	Fathima Farsana M	S
21.	U15BM015	Gangapalli Sruthi	A
22.	U15BM016	Gayathri E.K	S
23.	U15BM017	Gilead Lilly R	A
24.	U15BM018	Jagarlamudi Mohan Sai Durga Prasad	S
25.	U15BM019	Javvadi Sai Rishita	A
26.	U16BM001	Subabalan M	S
27.	U16BM002	Sanjanaah Shree S	A
28.	U16BM003	Evangeline Elakiya Benedict E D	S
29.	U16BM004	Vinothraj K	S
30.	U16BM005	Paul Harrison J	S
31.	U16BM006	Siva Harish S	S
32.	U16BM008	Monisha R	S
33.	U16BM009	Devasneha D P K	S
34.	U16BM010	Subburam K M	A
35.	U16BM011	Pavithra V	S
36.	U16BM012	Ashini I S	A
37.	U16BM020	Abisha G	S
38.	U16BM021	Chrysolyte Precious Rani S	A
39.	U16BM022	Sasikumar J	A

40	U16BM023	Nawaz Shariff A	A
41	U16BM024	Karanam Adarash Rao	A
42	U16BM025	Kudugunta Achyutha Reddy	B
43	U16BM052	Revathi N	A
44	U16BM065	Bellamkonda Sai Harshith	B
45	U16BM067	Ajitha .K	A
46	U15BR011	NIVETHA B	B
47	U15BR012	PALADI DHEERAJ	A
48	U15BR013	PRIYANKA P	B
49	U15BR014	RUSHMITHA ANBARASU	B
50	U15BR015	SARAH BEGUM A	S
51	U15BR016	SHARMILEE M	A
52	U15BR017	TAWFEEQ HAARIS BUHARI	S
53	U15BR018	TEJASVINI M	B
54	U15BR019	VISHALI R C	S
55	U16BM053	Shaik Farhana	A
56	U16BM054	Rakhi Dash	S
57	U16BM056	Nakrani Leeshna	A
58	U16BM057	Upputholla Rohith	A
59	U16BM058	Arideep Siddhanta	S
60	U16BM059	Naga Jagadesh Reddy	A
61	U16BM060	Divi Divya Sree	A
62	U16BM062	Divya Kerketta	S
63	U16BM063	Nadella Monica	A
64	U16BM064	Yedla Nissi Shalisha	S

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

**SCHOOL OF BIOENGINEERING**

**DEPARTMENT OF BIOMEDICAL ENGINEERING**

Name : VIDHYA SHREE E

Register Number : VISBR201

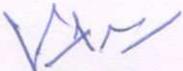
Academic year: 2017-2018

Name of the course offered : sensors & its 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	Resource 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 : *Ajitha K*

Register Number : *V16BM064*

Academic year: *2017-2018*

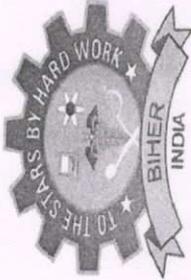
Name of the course offered : *sensors & its medical Applications*

**Student Feedback**

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

*[Signature]*  
Signature of the Course co-ordinator

*[Signature]*  
Signature of the Student



# 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 BHUKYA PAVAN KALYAN has completed the value added course on "Sensors and its Medical Applications" organized by the Department of Biomedical Engineering, Bharath Institute of Higher Education and Research, Chennai (TN), India during 05<sup>th</sup> February to 21<sup>st</sup> February, 2018.*

Dean

HOD

Chennai

14-03-2018

From

The Head of the Department

Department of Biomedical Engineering

BIHER

To

The Dean

BIHER

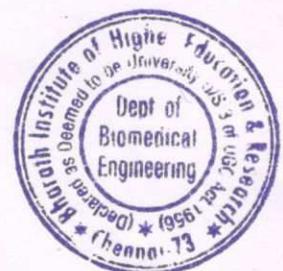
**Respected Sir,**

Sub: Approval to conduct a value added course on "**Calibration and Testing of Biomedical Equipments**" -reg

It has been planned by the Department of Biomedical Engineering to start a Value Added Course on "**Calibration and Testing of Biomedical Equipments**" for the benefit of B.Tech Biomedical Engineering, B.Tech Industrial Biotechnology and B-Tech Genetic Engineering students from 26<sup>th</sup> March, 2018. 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**  
**SCHOOL OF BIOENGINEERING**

Date: 16-03-2018

**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 **“Calibration and Testing of Biomedical Equipments”** from 26/03/2018 for a period of 3 weeks. Interested students can approach Ms.Subbulakshmi, Assistant Professor and Course Coordinator, Department of Bio Medical Engineering for registration and for further details on or before 23<sup>rd</sup> March 2018.

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

*Subbulakshmi*  
Course Coordinator

*[Signature]*  
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 CALIBRATION AND TESTING OF BIOMEDICAL**  
**EQUIPMENTS**  
**2017-2018**  
**COURSE CO-ORDINATOR DETAILS**

**Faculty Name: N.Subbulakshmi,**

Assistant Professor,

Department of Bio Medical Engineering.

**Email ID: [nsubhalakshmi@gmail.com](mailto:nsubhalakshmi@gmail.com)**

**Mobile number: 9940446298**

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**  
**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF BIO MEDICAL ENGINEERING**  
**VALUE ADDED COURSE SYLLABUS**  
**2017-2018**

**Calibration and Testing of Biomedical Equipments**

**UNIT 1: INTRODUCTION TO THE MEDICAL EQUIPMENT TECHNOLOGY**

Introduction to healthcare and hospitals , Introduction to the Medical Equipment Technology Assistant program , Computers and information technology, Basics of emergency care and life support skills

**UNIT II: UNDERSTANDING THE WORKING OF BASIC EQUIPMENTS**

Electronic circuit- I, Introduction to medical equipment technology, Electronic component and application, Biomedical instrumentation and measurement, Familiarization and working with Ultrasound machine, ECG and x-ray equipments

**UNIT III : CALIBRATION AND MAINTENANCE OF BASIC EQUIPMENTS**

Electronic circuit - II, Safety procedural guidelines, Installation, Maintenance and Servicing of Medical Equipment, Maintenance of records

**Total Contact Hours: 30**

**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF BIO MEDICAL ENGINEERING**  
**VALUE ADDED COURSE**

**CALIBRATION AND TESTING OF BIOMEDICAL EQUIPMENTS**

Session	Topic	Date	Duration (Hr)	Resource person
Session I	Introduction to healthcare and hospitals , Introduction to the Medical Equipment Technology Assistant program	26.03.2018	4	N.Subhalakshmi
Session II	Computers and information technology, Basics of emergency care and life support skills	27.03.2018	4	Dr.R.Vasukidevi
Session III	Electronic circuit- I	28.03.2018	3	N.Subhalakshmi
Session IV	Introduction to medical equipment technology	02.04.2018	4	Dr.Emerson Solomon
Session V	Electronic component and application, Biomedical instrumentation and measurement	03.04.2018	3	Dr.Emerson Solomon
Session VI	Familiarization and working with Ultrasound machine	04.04.2018	3	Ms.S.Geetha
Session VII	ECG and x-ray equipments	09.04.2018	3	S.Prasath
Session VIII	Electronic circuit - II, Safety procedural guidelines	10.04.2018	3	N.Subhalakshmi
Session IX	Installation, Maintenance and Servicing of Medical Equipment, Maintenance of records	11.04.2018	3	Ms.S.Geetha

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**  
**SCHOOL OF BIO-ENGINEERING**  
**DEPARTMENT OF BIO MEDICAL ENGINEERING**  
**VALUE ADDED COURSE**  
**CALIBRATION AND TESTING OF BIOMEDICAL EQUIPMENTS**  
**STUDENTS NAME LIST 2017- 2018**

S.NO	REG.NO	NAME
1.	U16BM001	Subabalan M
2.	U16BM002	Sanjanaah Shree S
3.	U16BM003	Evangeline Elakiya Benedict E D
4.	U16BM004	Vinothraj K
5.	U16BM005	Paul Harrison J
6.	U16BM006	Siva Harish S
7.	U16BM008	Monisha R
8.	U16BM009	Devasneha D P K
9.	U16BM010	Subburam K M
10.	U16BM011	Pavithra V
11.	U16BM012	Ashini I S
12.	U16BM020	Abisha G
13.	U16BM021	Chrysolyte Precious Rani S
14.	U16BM022	Sasikumar J
15.	U16BM023	Nawaz Shariff A
16.	U16BM024	Karanam Adarash Rao
17.	U16BM025	Kudugunta Achyutha Reddy
18.	U16BM052	Revathi N
19.	U16BM053	Shaik Farhana
20.	U16BM054	Rakhi Dash
21.	U16BM056	Nakrani Leeshna
22.	U16BM057	Upputholla Rohith
23.	U16BM058	Arideep Siddhanta
24.	U16BM059	Naga Jagadesh Reddy
25.	U16BM060	Divi Divya Sree
26.	U16BM062	Divya Kerketta
27.	U16BM063	Nadella Monica
28.	U16BM064	Yedla Nissi Shalisha
29.	U16BM065	Bellamkonda Sai Harshith
30.	U16BM067	Ajitha .K
31.	U15BR011	NIVETHA B
32.	U15BR012	PALADI DHEERAJ
33.	U15BR013	PRIYANKA P
34.	U15BR014	RUSHMITHA ANBARASU
35.	U15BR015	SARAH BEGUM A
36.	U15BR016	SHARMILEE M
37.	U15BR017	TAWFEEQ HAARIS BUHARI

38	U15BR018	TEJASVINI M
39	U15BR019	VISHALI R C
40	U15BR020	BHUKYA PAVAN KALYAN
41	U15BR021	VIDHYA SHREE E
42	U15BR022	B. PRIYANKA
43	U15BR023	AKILA R
44	U15BT009	PRITAM SASMAL
45	U15BT011	SELVA JANANI S
46	U15BT013	VAIRAMOORTHY M
47	U15BT014	VIJAYA LAKSHMI N
48	U15BT015	NEHA SINGH
49	U15BT016	PUNITHAVATHY R
50	U15BT017	SUGANYA RAJESHWARI E
51	U15BT019	SATHISH KUMAR.R
52	U15BT020	VIMALANBAN S
53	U15BT021	KALAIVANI R
54	U15BT501	ROSHINI ESTHER A
55	U15BT502	MARKAPURAM BHAVYA
56	U15BM011	Denallenni E
57	U15BM012	Divya Bharathi R
58	U15BM013	Faizal Ahmed S
59	U15BM014	Fathima Farsana M
60	U15BM015	Gangapalli Sruthi
61	U15BM016	Gayathri E.K
62	U15BM017	Gilead Lilly R
63	U15BM018	Jagarlamudi Mohan Sai Durga Prasad
64	U15BM019	Javvadi Sai Rishita

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH  
SCHOOL OF BIO-ENGINEERING  
DEPARTMENT OF BIO MEDICAL ENGINEERING  
VALUE ADDED COURSE**

**Calibration and Testing of Biomedical Equipments (2017-2018)**

**Students Result**

S.NO	REG.NO	NAME	RESULT
1.	U16BM001	Subabalan M	A
2.	U16BM002	Sanjanaah Shree S	S
3.	U16BM003	Evangeline Elakiya Benedict E D	S
4.	U16BM004	Vinothraj K	A
5.	U16BM005	Paul Harrison J	S
6.	U16BM006	Siva Harish S	S
7.	U16BM008	Monisha R	A
8.	U16BM009	Devasneha D P K	S
9.	U16BM010	Subburam K M	S
10.	U16BM011	Pavithra V	S
11.	U16BM012	Ashini I S	S
12.	U16BM020	Abisha G	A
13.	U16BM021	Chrysolyte Precious Rani S	A
14.	U16BM022	Sasikumar J	A
15.	U16BM023	Nawaz Shariff A	A
16.	U16BM024	Karanam Adarash Rao	B
17.	U16BM025	Kudugunta Achyutha Reddy	S
18.	U16BM052	Revathi N	S
19.	U16BM053	Shaik Farhana	S
20.	U16BM054	Rakhi Dash	S
21.	U16BM056	Nakrani Leeshna	A
22.	U16BM057	Upputholla Rohith	S
23.	U16BM058	Arideep Siddhanta	A
24.	U16BM059	Naga Jagadesh Reddy	S
25.	U16BM060	Divi Divya Sree	A
26.	U16BM062	Divya Kerketta	S
27.	U16BM063	Nadella Monica	A
28.	U16BM064	Yedla Nissi Shalisha	S
29.	U16BM065	Bellamkonda Sai Harshith	S
30.	U16BM067	Ajitha .K	S
31.	U15BR011	NIVETHA B	S
32.	U15BR012	PALADI DHEERAJ	S
33.	U15BR013	PRIYANKA P	S
34.	U15BR014	RUSHMITHA ANBARASU	A
35.	U15BR015	SARAH BEGUM A	S
36.	U15BR016	SHARMILEE M	A
37.	U15BR017	TAWFEEQ HAARIS BUHARI	S
38.	U15BR018	TEJASVINI M	A
39.	U15BR019	VISHALI R C	A

40	U15BR020	BHUKYA PAVAN KALYAN	A
41	U15BR021	VIDHYA SHREE E	A
42	U15BR022	B. PRIYANKA	B
43	U15BR023	AKILA R	A
44	U15BT009	PRITAM SASMAL	B
45	U15BT011	SELVA JANANI S	A
46	U15BT013	VAIRAMOORTHY M	B
47	U15BT014	VIJAYA LAKSHMI N	A
48	U15BT015	NEHA SINGH	B
49	U15BT016	PUNITHAVATHY R	B
50	U15BT017	SUGANYA RAJESHWARI E	S
51	U15BT019	SATHISH KUMAR.R	A
52	U15BT020	VIMALANBAN S	S
53	U15BT021	KALAIVANI R	B
54	U15BT501	ROSHINI ESTHER A	S
55	U15BT502	MARKAPURAM BHAVYA	A
56	U15BM011	Denallenni E	S
57	U15BM012	Divya Bharathi R	A
58	U15BM013	Faizal Ahmed S	A
59	U15BM014	Fathima Farsana M	S
60	U15BM015	Gangapalli Sruthi	A
61	U15BM016	Gayathri E.K	A
62	U15BM017	Gilead Lilly R	S
63	U15BM018	Jagarlamudi Mohan Sai Durga Prasad	A
64	U15BM019	Javvadi Sai Rishita	S

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

**SCHOOL OF BIOENGINEERING**

**DEPARTMENT OF BIOMEDICAL ENGINEERING**

Name : RAKHI DAS

Register Number : V16 BN 054

Academic year: 2017-2018

Name of the course offered : CALIBRATION AND TESTING OF  
BIOMEDICAL EQUIPMENTS

**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	Resource person interaction with students	✓				
7	Outcome	✓				
8	Individual Attention	✓				

*Subbulakshmi*  
Signature of the Course co-ordinator

*Rakhi Das*  
Signature of the Student

**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

**SCHOOL OF BIOENGINEERING**

**DEPARTMENT OF BIOMEDICAL ENGINEERING**

Name : *Ushali R. L*

Register Number : *V15 BR 019*

Academic year: *2017-2018*

Name of the course offered : *Calibration & Testing of Biomedical Equipments*

**Student Feedback**

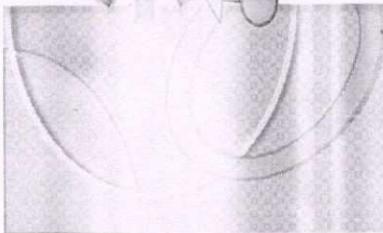
S.No	Criteria	Rating				
		Excellent	Very Good	Good	Fair	Satisfactory
1	Course content		✓			
2	Skill development	✓				
3	Motivation		✓			
4	Regularity of the faculty	✓				
5	Coverage of the syllabus	✓				
6	Resourse person interaction with students	✓				
7	Outcome	✓				
8	Individual Attention	✓				

*Subulakshmi*

Signature of the Course co-ordinator

*Ushali*

Signature of the Student



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



**SCHOOL OF BIO ENGINEERING  
CERTIFICATE OF PARTICIPATION**

*This is to certify that Mr/Ms VIJAYA LAKSHMI N has completed the value added course on “Calibration and Testing of Biomedical Equipments” organized by the Department of Biomedical Engineering, Bharath Institute of Higher Education and Research, Chennai (TN), India during 26<sup>th</sup> March to 11<sup>th</sup> April, 2018.*

  
**Dean**

  
**HOD**