

From

Head of the Department

Department of Biomedical Engineering

BIHER

Chennai

01-07-2019

To

The Dean

BIHER

Respected Sir

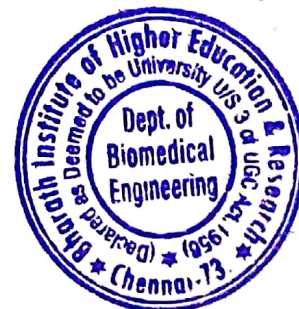
Sub: Approval to conduct a certificate program on "MEDICAL IMAGE PROCESSING" -reg

It has been planned by the Department of Biomedical Engineering to Conduct a certificate program on "MEDICAL IMAGE PROCESSING" for the benefit of B.Tech Biomedical Engineering, B.Tech Industrial Biotechnology and B-Tech Genetic Engineering students from 15th July, 2019. 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: 05-07-2019

**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 certificate program on “**Medical Image Processing**” from 15/07/2019 for a period of 3 weeks. Interested students can approach Mr. R. Kishore Kanna, Assistant Professor and Course Coordinator, Department of Bio Medical Engineering, for registration and further details on or before 14th July 2019.

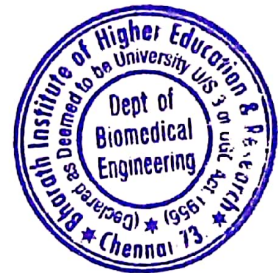
Eligibility-II, III and IV B-Tech IBT, GE and BME


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
CERTIFICATE PROGRAM ON MEDICAL IMAGE PROCESSING
2019-2020
COURSE CO-ORDINATOR DETAILS

Faculty Name: Mr. R. Kishore Kanna,

Assistant Professor,

Department of Bio Medical Engineering.

Email ID: kishorekanna007@gmail.com

Mobile number: 9003049998

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH

SCHOOL OF BIO-ENGINEERING

DEPARTMENT OF BIO MEDICAL ENGINEERING

2019-2020

SYLLABUS

CERTIFICATE PROGRAM ON MEDICAL IMAGE PROCESSING

MODULE 1

Objectives of biomedical image analysis – Computer aided diagnosis – Nature of medical images: X-ray imaging – Tomography – Nuclear medicine imaging – SPECT imaging – Positron imaging tomography – Ultrasonography – Magnetic resonance imaging. Removal of artifacts – Space domain filters – Frequency domain filters – Optimal filtering – Adaptive filters.

MODULE 2

Image enhancement – Gray level transforms – Histogram transformation – Convolution mask operators – Contrast enhancement. Detection of regions of interest – Thresholding and binarization – Detection of isolated lines and points – Edge detection – Region growing.

MODULE 3

Analysis of shape and texture – Representation of shapes and contours – Shape factors – Models for generation of texture – Statistical analysis of texture – Fractal analysis – Fourier domain analysis of texture – Segmentation and structural analysis of texture. Pattern classification and diagnostic decision – Measures of diagnostic accuracy – Applications: Contrast enhancement of mammograms – Detection of calcifications by region growing – Shape and texture analysis of tumors.

Total Contact Hour: 30

SCHOOL OF BIO-ENGINEERING
DEPARTMENT OF BIO MEDICAL ENGINEERING
CERTIFICATE PROGRAM ON MEDICAL IMAGE PROCESSING
LESSON PLAN

Session	Topic	Date	Duration (Hr)	Resource person
Session I	Objectives of biomedical image analysis – Computer aided diagnosis – Nature of medical images: X-ray imaging – Tomography – Nuclear medicine imaging – SPECT imaging – Positron imaging tomography	15.07.2019	4	R. Kishore Kanna
Session II	Ultrasonography – Magnetic resonance imaging. Removal of artifacts – Space domain filters – Frequency domain filters – Optimal filtering – Adaptive filters.	16.07.2019	4	S. Prasath
Session III	Image enhancement – Gray level transforms – Histogram transformation – Convolution mask operators – Contrast enhancement.	17.07.2019	3	R. Kishore Kanna
Session IV	Detection of regions of interest – Thresholding and binarization – Detection of isolated lines and points – Edge detection – Region growing.	22.07.2019	4	S. Prasath
Session V	Analysis of shape and texture – Representation of shapes and c	23.07.2019	3	T. Manoj Prasath
Session VI	Statistical analysis of texture – Fractal analysis – Fourier doma	24.07.2019	4	T. Manoj Prasath
Session VII	Pattern classification and diagnostic decision – Measures of di	29.07.2019	4	Dr. F. Emerson Solomon
Session VIII	Applications: Contrast enhancement of mammograms – Detection of calcifications by region growing – Shape and texture analysis of	30.07.2019	4	Dr. F. Emerson Solomon

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SCHOOL OF BIO-ENGINEERING
DEPARTMENT OF BIO MEDICAL ENGINEERING
VALUE ADDED COURSE
Certificate Program on Medical Image Processing (2019-2020)
STUDENTS NAME LIST

S.NO	REG.NO	NAME
1	U16BM011	Pavithra V
2	U16BM012	Ashini TS
3	U16BM013	P V Jhansi Kiran
4	U16BM014	Jayapreetha M
5	U16BM015	Jeya Barathi S
6	U16BM016	Ajmeera Aruna
7	U16BM017	Bysani Anjani Umesh
8	U16BM018	Ajith Kumar P
9	U16BM019	Ajeesh SP
10	U16BM020	Abisha G
11	U16BM021	Chrysolyte Precious Rani S
12	U16BM022	Sasikumar J
13	U16BM023	Nawaz Sharifa
14	U16BM024	Karanam Adarash Rao
15	U16BM025	Kudugunta Achyutha Reddy
16	U16BM026	Mohammad Abraar Ahmad
17	U16BM027	Komatiguntha Brahmendra
18	U16BM028	Hari Ritu Sheshasat Niharika
19	U16BM029	Mulagada Nikshipltha
20	U16BM030	Shweta Singh
21	U16BM031	Tumma Sathvik Phani Ravi Teja
22	U16BM032	Kakani Karthik
23	U16BM033	Bollu Gowri
24	U16BM034	Neha Kumari
25	U16BM035	Vijay Kumar P
26	U16BM036	Tulabandula Geetha Madhuri
27	U16BM038	Mitragiri Afreen Banu
28	U16BM039	Rimmalapudi Guna Shankar
29	U16BM040	E Pravallika
30	U16BM041	Vignesh K
31	U16BM042	Kalleapadam Akshay Das
32	U16BM043	V Mownika
33	U16BM044	Janana Priyan S
34	U16BM045	I Neeraja
35	U16BM046	Jayashree A
36	U17AC079	RAHUL K
37	U17AC080	SHAIK MOHAMMAD FAYAZ .
38	U17AC081	MATETI MANEESHA
39	U17AC083	VASANTHKUMAR S
40	U17AC085	SOMA HARI PRIYA .
41	U17AC087	SIVASHANMUGA VELAN P
42	U17AC088	SWETHA P
43	U17AC089	YASHMA A
44	U17AC090	ARUL A
45	U17AC091	AKASH B N
46	U17BR012	EVANGELINE SELES JL
47	U17BR013	SAHANA SHREE S
48	U17BR014	JEEVANANTHAM N
49	U17BR015	THAMARAI ARASI R
50	U17BR016	NAVEEN KUMAR K
51	U17BR017	PENDYALA SANDHYA RANI
52	U17BR018	KARTHIK RAJA G
53	U17BR019	SURAPAREDDY TEJA
54	U17BR020	MADDILATE SAI RAGA MAI
55	U17BR021	SONIYA SHANAVAS

BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH
SCHOOL OF BIO-ENGINEERING
DEPARTMENT OF BIO MEDICAL ENGINEERING
VALUE ADDED COURSE
Certificate Program on Medical Image Processing (2019-2020)
Students Result

S.NO	REG.NO	NAME	RESULT
			S
			S
1	U16BM011	Pavithra V	A
2	U16BM012	Ashini TS	S
3	U16BM013	P V Jhansi Kiran	S
4	U16BM014	Jayapreetha M	S
5	U16BM015	Jeya Barathi S	S
6	U16BM016	Ajmeera Aruna	S
7	U16BM017	Bysani Anjani Umesh	S
8	U16BM018	Ajith Kumar P	S
9	U16BM019	Ajeesh SP	S
10	U16BM020	Abisha G	S
11	U16BM021	Chrysolyte Precious Rani S	S
12	U16BM022	Sasikumar J	S
13	U16BM023	Nawaz Shariif A	S
14	U16BM024	Karanam Adarash Rao	S
15	U16BM025	Kudugunta Achyutha Reddy	S
16	U16BM026	Mohammad Abraar Ahmad	S
17	U16BM027	Komatiguntla Brahmendra	S
18	U16BM028	Hari Ritu Sheshasai Niharika	S
19	U16BM029	Mulagada Nikshiptha	S
20	U16BM030	Shweta Singh	S
21	U16BM031	Tumma Sathvik Phani Kavi Teja	A
22	U16BM032	Kakani Karthik	S
23	U16BM033	Bollu Gowri	S
24	U16BM034	Neha Kumari	S
25	U16BM035	Vijay Kumar P	S
26	U16BM036	Tulabandula Geetha Madhuri	A
27	U16BM038	Mitaigiri Afreen Banu	S
28	U16BM039	Kimmalapudi Guna Shankar	S
29	U16BM040	E Pravallika	S
30	U16BM041	Vignesh K	S
31	U16BM042	Kalleapadam Akshay Das	S
32	U16BM043	V Mownika	S
33	U16BM044	Janana Priyan S	S
34	U16BM045	I Neeraja	S
35	U16BM046	Jayashree A	S
36	U17AC079	RAHUL K	S
37	U17AC080	SHAIK MOHAMMAD FAYAZ .	A
38	U17AC081	MATE IT MANEESHA	S
39	U17AC083	VASANTH KUMAR S	S
40	U17AC085	SOMA HARI PRIYA .	S
41	U17AC087	SIVASHANMUGA VELAN P	S
42	U17AC088	SWETHA P	S
43	U17AC089	YASHMA A	S
44	U17AC090	AKUL A	S
45	U17AC091	AKASH B N	S
46	U17BR012	EVANGELINE SELES JL	S
47	U17BR013	SAHANA SHREE S	S
48	U17BR014	JEEVANANTHAM N	S
49	U17BR015	THAMARAI ARASI R	A
50	U17BR016	NAVEEN KUMAR K	S
51	U17BR017	PENDYALA SANDHYA RANI	S
52	U17BR018	KARTHIK RAJA G	S
53	U17BR019	SURAPAREDDY TEJA	S
54	U17BR020	MADDILATE SAI KAGA MAI	S
55	U17BR021	SONIYA SHANAVAS	S

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SCHOOL OF BIOENGINEERING
DEPARTMENT OF BIOMEDICAL ENGINEERING

Name: ARUL.A

Register Number: 17AC090

Academic year: 2019-2020

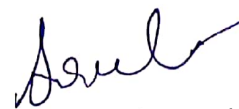
Name of the course offered: CERTIFICATE PROGRAM ON MEDICAL
 IMAGE PROCESSING

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 : ABISHA.G

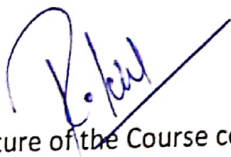
Register Number : U16AM020

Academic year: 2019-2020

Name of the course offered : MEDICAL IMAGE PROCESSING

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



SCHOOL OF BIOENGINEERING

Certificate Program on Medical Image Processing

CERTIFICATE

This is to certify that Ms. Pavithra V has attended three weeks Certificate Program on Medical Image Processing conducted by the Department of Biomedical Engineering at Bharath Institute of Higher Education and Research, Chennai, India during 15th July to 30th July 2019

Dean

HOD