

From

Chennai

The Head

15-11-2019

Dept. of Biomedical Engineering

BIHER

To

The Dean

BIHER

Respected Sir

Sub: approval to start a value added course on “**CERTIFICATE PROGRAM IN BINOCULAR VISION AND VISION THERAPY**” -reg

It has been planned by the Dept. of Biomedical Engineering to start a Value Added Course on “**CERTIFICATE PROGRAM IN BINOCULAR VISION AND VISION THERAPY**” for the B-Tech Biomedical Engineering, Industrial Biotechnology and Genetic Engineering students from 06<sup>th</sup> December, 2019. The duration of the course is 30 hrs comprising of theory. I request you to kindly approve of the same.

Thanking you

Yours sincerely

A handwritten signature in blue ink, appearing to read 'D. S. Srinivasan', is written over a light blue circular stamp.



**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH**

**Date: 16-11-2019**

**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 Value added Course on **CERTIFICATE PROGRAM IN BINOCULAR VISION AND VISION THERAPY** from 06/12/2019 for a period of 3 weeks. Interested students can approach Dr. Vasukidevi R, Associate Professor and Course Coordinator, Department of Bio Medical Engineering for registration and for further details on or before 03<sup>rd</sup> December 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 ON RESIDENCY PROGRAM IN BINOCULAR VISION AND**  
**VISION THERAPY**  
**2019-2020**  
**COURSE CO-ORDINATOR DETAILS**

**Faculty Name: Dr.Vasukidevi R,**

Associate Professor,

Department of Bio Medical Engineering.

**Email ID: [vasukidevir.bme@bharathuniv.ac.in](mailto:vasukidevir.bme@bharathuniv.ac.in)**

**Mobile number: 95660 75312.**

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**DEPARTMENT OF BIO MEDICAL ENGINEERING**  
**VALUE ADDED COURSE SYLLABUS**  
**2019-2020**

Value added course code	<b>Certificate Program In Binocular Vision And Vision Therapy</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
	<b>Total Contact Hours – 30</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>3</b>
	<b>Prerequisite – Human Anatomy and Physiology</b>				

**OBJECTIVES**

- Ability to diagnose and manage and co-manage binocular vision anomalies
- Ability to co-manage visual perceptual anomalies
- Ability to manage diplopia, suppression and ARC

MODULE 1. Refractive Development:

Early Refractive Development- Visually Guided control of Refractive State: Animal Studies-  
 Infant Accommodation and Convergence

MODULE 2. Oculomotor Function:

Conjugate Eye Movements of Infants-Development of the Vestibuloocular and Optokinetic  
 reflexes

MODULE 3. Spatial and Chromatic Vision:

Front-end Limitations to Infant Spatial vision: Examination of two analyses-Development of the  
 Human Visual Field- Development of Scotopic Retinal Sensitivity-Infant Color vision-  
 Orientation and Motion selective Mechanisms in Infants-Intrinsic Noise and Infant performance

MODULE 4. Binocular Vision:

Development of interocular vision in Infants- Stereopsis in Infants and its developmental relation  
 to visual acuity-Sensorimotor Adaptation and Development of the Horopter-Two stages in the  
 development of Binocular Vision and Eye Alignment

MODULE 5. Retinal and cortical Development

TEXT/ REFERENCE BOOKS:

1. Clinical management of binocular vision Mitchell Scheiman and Bruce Wick
2. Applied concepts in vision therapy: Leonard Press
3. Pediatric optometry: Jerome K Rosner

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

**COURSE ON CERTIFICATE PROGRAM IN BINOCULAR VISION  
AND VISION THERAPY (2019-2020)**

Session	Topic	Date	Duration (Hr)	Resource person
Session I	Refractive Development	06.12.2019	3	Dr.R.Vasukidevi
Session II	Oculomotor Function	07.12.2019	4	Dr.R.Vasukidevi
Session III	Oculomotor Function	07.12.2019	3	Ms.S.Geetha
Session IV	Spatial and Chromatic Vision	13.12.2019	3	Dr.Emerson Solomon
Session V	Spatial and Chromatic Vision	14.12.2019	4	Dr.R.Vasukidevi
Session VI	Binocular Vision	14.12.2019	3	Dr.R.Vasukidevi
Session VII	Binocular Vision	20.12.2019	3	Dr.Emerson Solomon
Session VIII	Retinal and cortical Development	21.12.2019	4	Dr.Emerson Solomon
Session IX	Retinal and cortical Development	21.12.2019	3	Ms.S.Geetha



**BHARATH INSTITUTE OF HIGHER EDUCATION AND RESEARCH****SCHOOL OF BIO-ENGINEERING****DEPARTMENT OF BIO MEDICAL ENGINEERING****VALUE ADDED COURSE TIMETABLE****2019-2020**

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					LUNCH			
TUE								
WED								
THU								
FRI						CBVT		
SAT	CBVT					CBVT		

<b>SUBJECT CODE</b>	<b>SUBJECT NAME</b>	<b>STAFF</b>
<b>Theory</b>		
Value added course	Certificate Program In Binocular Vision And Vision Therapy (CBVT)	Dr.Vasukidevi R
	<b>Room No</b>	<b>SK504</b>



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

**COURSE ON CERTIFICATE PROGRAM IN BINOCULAR VISION AND  
VISION THERAPY (2019-2020)**

**Students Name List**

<b>S.NO</b>	<b>REG.NO</b>	<b>NAME</b>	<b>SEM/ YEAR</b>	<b>DEPART MENT</b>
1.	U17BM026	Bharkavi M S	V/III	BME
2.	U17BM028	Sheeba Alexia B	V/III	BME
3.	U17BM029	Jeeva G	V/III	BME
4.	U17BM030	Swedha S	V/III	BME
5.	U17BM031	Loka Ranjani E	V/III	BME
6.	U17BM032	Pooja B	V/III	BME
7.	U17BM033	Varsha M	V/III	BME
8.	U17BM034	Avula Arun Kumar	V/III	BME
9.	U17BM036	Lokesh M	V/III	BME
10.	U17BM037	Medivemulla Chenna Reddy	V/III	BME
11.	U17BM106	RAMANAN R	V/III	BME
12.	U17BM107	TAPALSHAIK FHAZUL RAHMA	V/III	BME
13.	U17BM109	CHEEKATIPALLI LEENA	V/III	BME
14.	U17BM110	BUCHAGARI KAVYA	V/III	BME
15.	U17BM113	G VEENA	V/III	IBT
16.	U17BT022	SOLENKA MANOJ KUMAR	V/III	IBT
17.	U17BT023	KANCHA SIDHARTHA KUMAR	V/III	IBT
18.	U17BT024	GATTUPALLI VENKATA CHAI	V/III	IBT

19.	U17BT026	MADHAN KUMAR S	V/III	IBT
20.	U17BT027	KATA VEERA SUDARSAN	V/III	IBT
21.	U17BT029	A S MOHAN KRISHNA	V/III	IBT
22.	U17BT030	MALLIGA V	V/III	IBT
23.	U17BR009	HEMAMBUJAM D	V/III	BR
24.	U17BR010	MOHANED SHAIBI K M	V/III	BR
25.	U17BR011	VIJAYASRI T	V/III	BR
26.	U17BR012	EVANGELINE SELES J L	V/III	BR
27.	U17BR013	SAHANA SHREE S	V/III	BR
28.	U17BR014	JEEVANANTHAM N	V/III	BR
29.	U17BR015	THAMARAI ARASI R	V/III	BR
30.	U17BR016	NAVEEN KUMAR K	V/III	BR

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**COURSE ON CERTIFICATE PROGRAM IN BINOCULAR VISION AND  
VISION THERAPY (2019-2020)**

**Students Name List**

S.NO	REG.NO	NAME	RESULT ANALYSIS
1.	U17BM026	Bharkavi M S	A
2.	U17BM028	Sheeba Alexia B	A
3.	U17BM029	Jeeva G	S
4.	U17BM030	Swedha S	A
5.	U17BM031	Loka Ranjani E	S
6.	U17BM032	Pooja B	S
7.	U17BM033	Varsha M	A
8.	U17BM034	Avula Arun Kumar	S
9.	U17BM036	Lokesh M	S
10.	U17BM037	Medivemulla Chenna Reddy	S
11.	U17BM106	RAMANAN R	S
12.	U17BM107	TAPALSHAIK FHAZUL RAHMA	S
13.	U17BM109	CHEEKATIPALLI LEENA	A
14.	U17BM110	BUCHAGARI KAVYA	S
15.	U17BM113	G VEENA	A
16.	U17BT022	SOLENKA MANOJ KUMAR	A
17.	U17BT023	KANCHI SIDHARTHA KUMAR	S
18.	U17BT024	GATTUPALLI VENKATA CHAI	A

19.	U17BT026	MADHAN KUMAR S	S
20.	U17BT027	KATA VEERA SUDARSAN	S
21.	U17BT029	A S MOHAN KRISHNA	A
22.	U17BT030	MALLIGA V	S
23.	U17BR009	HEMAMBUJAM D	A
24.	U17BR010	MOHANED SHAIBI K M	S
25.	U17BR011	VIJAYASRI T	A
26.	U17BR012	EVANGELINE SELES J L	S
27.	U17BR013	SAHANA SHREE S	A
28.	U17BR014	JEEVANANTHAM N	S
29.	U17BR015	THAMARAI ARASI R	S
30.	U17BR016	NAVEEN KUMAR K	S

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**COURSE ON CERTIFICATE PROGRAM IN BINOCULAR VISION AND  
VISION THERAPY (2019-2020)**

**Students Name List**

S.NO	REG.NO	NAME	RESULT ANALYSIS
1.	U17BM026	Bharkavi M S	4.5
2.	U17BM028	Sheeba Alexia B	4.8
3.	U17BM029	Jeeva G	4.3
4.	U17BM030	Swedha S	4
5.	U17BM031	Loka Ranjani E	4.2
6.	U17BM032	Pooja B	4.5
7.	U17BM033	Varsha M	4.6
8.	U17BM034	Avula Arun Kumar	4.8
9.	U17BM036	Lokesh M	4.9
10.	U17BM037	Medivemulla Chenna Reddy	4.3
11.	U17BM106	RAMANAN R	4.2
12.	U17BM107	TAPALSHAIK FHAZUL RAHMA	4.5
13.	U17BM109	CHEEKATIPALLI LEENA	4.1
14.	U17BM110	BUCHAGARI KAVYA	4.9
15.	U17BM113	G VEENA	4.8
16.	U17BT022	SOLENKA MANOJ KUMAR	4.7
17.	U17BT023	KANCHA SIDHARTHA KUMAR	4.6
18.	U17BT024	GATTUPALLI VENKATA CHAI	4.5

19.	U17BT026	MADHAN KUMAR S	4.6
20.	U17BT027	KATA VEERA SUDARSAN	4.5
21.	U17BT029	A S MOHAN KRISHNA	4
22.	U17BT030	MALLIGA V	4.1
23.	U17BR009	HEMAMBUJAM D	4.2
24.	U17BR010	MOHANED SHAIBI K M	4.3
25.	U17BR011	VIJAYASRI T	4
26.	U17BR012	EVANGELINE SELES J L	4.1
27.	U17BR013	SAHANA SHREE S	4.3
28.	U17BR014	JEEVANANTHAM N	4.2
29.	U17BR015	THAMARAI ARASI R	4.1
30.	U17BR016	NAVEEN KUMAR K	4.8

**CERTIFICATE PROGRAM IN BINOCULAR VISION AND VISION THERAPY- 07.12.2019**









# Bharath

INSTITUTE OF HIGHER EDUCATION AND RESEARCH  
(Declared as DEEMED-TO-BE-UNIVERSITY u/s 3 of the UGC Act, 1956)



ABET

**SCHOOL OF BIOENGINEERING**  
**VALUE ADDED COURSE ON CERTIFICATE PROGRAM IN BINOCULAR**  
**VISION AND VISION THERAPY**

**Certificate**

This is to certify that Mr /Ms **Ramanan R** has attended three weeks value added course on **CERTIFICATE PROGRAM IN BINOCULAR VISION AND VISION THERAPY** conducted by Department of Biomedical Engineering at Bharath Institute of Higher Education and Research, Chennai (TN), India during 06<sup>th</sup> -21<sup>st</sup> Dec 2019.

*Ramanan R*  
HOD

*Ramanan R*  
DEAN