



# Bharath

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

## Department of Mechatronics

### Circular

Date: 5.11.2018

The Department of Mechatronics, BIHER is glad to conduct a 5 - day Value Added Program on “**COURSE ON ADVANCED ROBOTICS FOR ENGINEERING**” dated from 26.11.2018 for a period of 30 hours. Those who are interested to participate do register your name with the program coordinator mentioned below.

#### **Resource persons:**

**Dr.P. Sengottuvel,**  
Professor,  
BIHER

Dr.T.Sekar,  
Associate Professor,  
Government College of Engineering,  
Dharmapuri

Maximum No. of registration Allowed – 60

**\*First come first serve basis.**

#### **Program Coordinator:**

Mrs.VASUMATHI

Assistant Professor

Mr.J.DHANASEKAR

Assistant Professor,

**E-Mail: dhanasekar81@gmail.com**

**Mobile: 9841259514**





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## Department of Mechatronics

### **COURSE ON ADVANCED ROBOTICS FOR ENGINEERING**

#### **OBJECTIVES:**

This course introduces you to the amazing world of sixth sense technology and its fascinating applications. Using an Arduino board and other electronic components, you will develop a robot that can be controlled through digital information. The digital information is processed using the image processing technique which takes the input data from the user who can give commands using hand gestures.

#### **[DAY: 1]**

- **MODULE I Introduction to Sixth sense Technology (6 Hrs)**

Sixth Sense' is a wearable gesture interface that augments the physical world around us with digital information and lets us use natural hand gestures to interact with that information. This technology will definitely give the user a new way of seeing the world with information at their fingertips it has been classified under the category 'wearable computing'.

#### **[DAY: 2]**

- **MODULE II Introduction to Image Processing and application (6 Hrs)**

Image processing is a method to perform some operations on an image, in order to get an enhanced image or to extract some useful information from it. It is a type of signal processing in which input is an image and output may be image or characteristics/features associated with that image.

#### **[DAY: 3]**

- **MODULE III Open CV and Python programming (6 Hrs)**

**OpenCV** is a huge open-source library for computer vision, machine learning, and image processing. OpenCV supports a wide variety of programming languages like Python, C++, Java, etc.

[DAY: 4]

- **MODULE IV** Edge detection and image enhancement (6 Hrs)

Edge detection includes a variety of mathematical methods that aim at identifying points in a digital image at which the image brightness changes sharply or, more formally, has discontinuities. The points at which image brightness changes sharply are typically organized into a set of curved line segments termed edges

[DAY: 5]

- **MODULE V:** Programming the Robot using Python Open CV and Arduino (6 Hrs)

You can use OpenCV, Python, and Arduino to detect and track faces. Face tracking can be used in a variety of robotics projects and applications.

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## FEEDBACK FORM

- ❖ As part of a continuing improvement process, our college appreciates suggestions and inputs regarding the institution. We request you to sincerely answer these questions under assurance of complete confidentiality. Your interest in making our institution better is greatly appreciated.

Name of Department : ..... Mechatronics Engg .....

Date : ..... 30.11.2018 .....

Event / Speaker Name : ..... Advanced Robotics for Engineers .....

- Please rate the session on the scale indicated. Your comments are most appreciated.

S.NO	Parameters	Below Average	Average	Good	Excellent	Outstanding
1.	<b>The Topic</b>					✓
	The choice of topic was relevant to me					✓
2.	<b>The Lecturer / Speaker</b>				✓	
	Self-confidence				✓	
	Communication skills					✓
	Doubts/ queries were answered satisfactorily					✓
3.	<b>The Content (Topic)</b>					✓
	Refers to latest developments in the field				✓	
	Career oriented					✓
	Innovative learning, if any				✓	✓

- Overall, how would you rate this Guest Lecture / Workshop / Seminar / Event/Value added course?

1. Below Average	2. Average	3. Good	4. Excellent	5. Outstanding
				✓

- Comments (If any):

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- Overall, how would you rate this Guest Lecture / Workshop / Seminar / Event/Value added course?

1. Below Average	2. Average	3. Good	4. Excellent	5. Outstanding
		✓		

- Comments (If any):

Good

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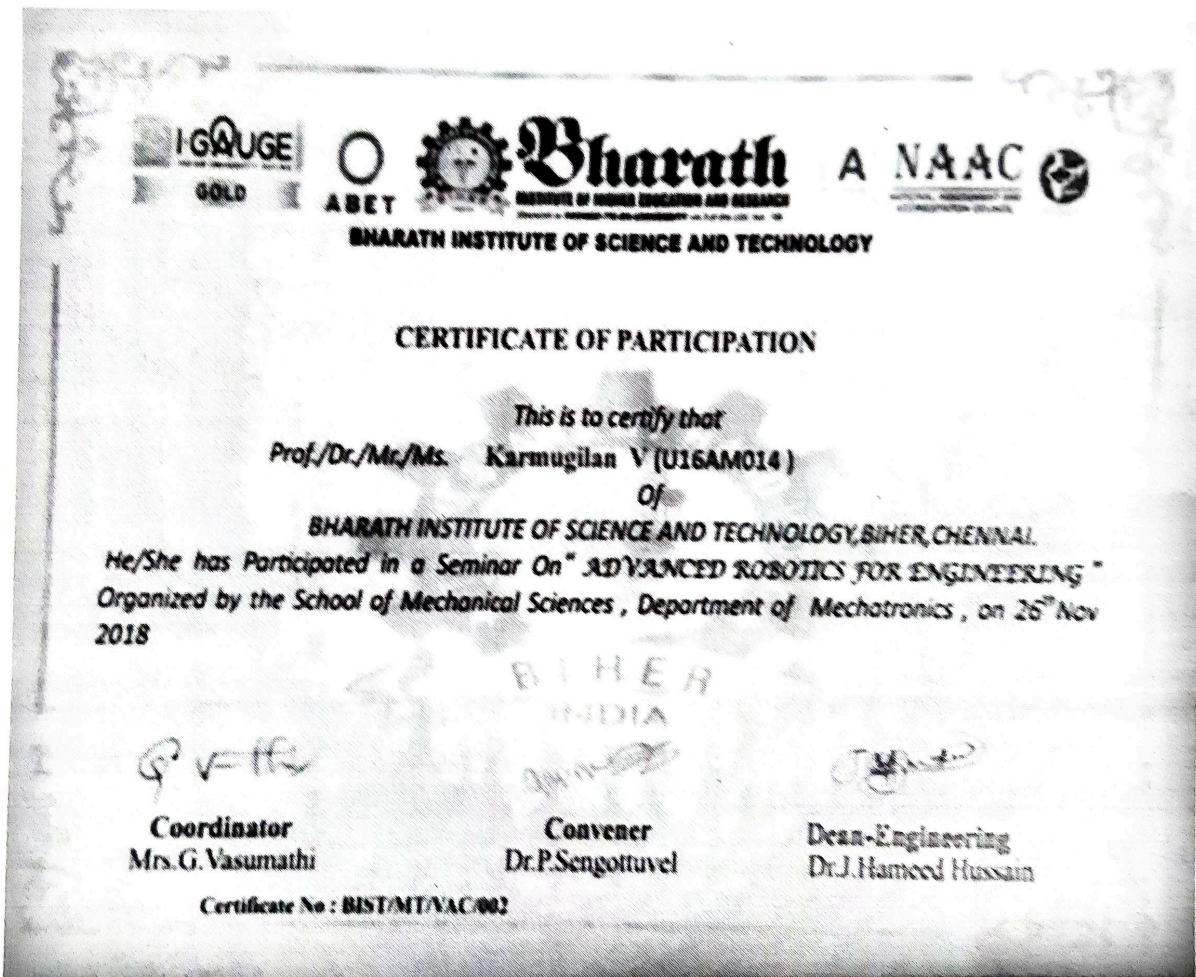


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## Model Certificate



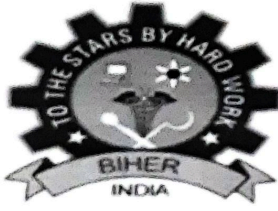
*[Signature]*  
Coordinator  
Mrs. G. Vasumathi

*[Signature]*  
Convener  
Dr. P. Sengottuvel

*[Signature]*  
Dean-Engineering  
Dr. J. Hameed Hussain

Certificate No : BIST/MT/VAC/002





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## Department of Mechatronics

Value added COURSE ON ADVANCED ROBOTICS FOR ENGINEERING







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## Department of Mechatronics

### Value Added Course - COURSE ON ADVANCED ROBOTICS FOR ENGINEERING

#### PARTICIPANTS LIST

S.No	Reg.No	Name	Department
1.	U16MT001	PRADEEPAN S	Mechatronics
2.	U16MT002	RAAHUL GANESH R	Mechatronics
3.	U16MT003	DINESH J	Mechatronics
4.	U16MT004	SRINATH B	Mechatronics
5.	U16MT005	DHANASEKAR R	Mechatronics
6.	U16MT006	GOUTHAM M	Mechatronics
7.	U16MT007	SATHIYASEELAN S	Mechatronics
8.	U16MT008	RAKESH P	Mechatronics
9.	U16MT009	ABDUL FAHEEM S	Mechatronics
10.	U16MT010	SAKTHI R	Mechatronics
11.	U16MT011	MELVINE ROHAN R	Mechatronics
12.	U16MT014	SARATHKUMAR D	Mechatronics
13.	U16MT015	SOMENDRAN A	Mechatronics
14.	U16MT017	Y MOHAMMED SHAHID SHARIFF	Mechatronics
15.	U16MT018	RATHISH KRISHNAN R	Mechatronics
16.	U16MT501	MUGILAN M	Mechatronics
17.	U16MT502	VIGNESHWAR C B	Mechatronics
18.	U16MT503	KARUPHIN KAWIN J	Mechatronics
19.	U16MT701	CHANDRASEKAR D G	Mechatronics

20.	U16MT702	CHIRANJEEVI A	Mechatronics
21.	U16MT703	VIGNESH.A	Mechatronics
22.	U16MT704	AJITH.H	Mechatronics
23.	U16AM001	Ramachandran M	Automobile
24.	U16AM002	Libin Bobby	Automobile
25.	U16AM004	Nanda Kumar K	Automobile
26.	U16AM005	Vasanthkumar R	Automobile
27.	U16AM006	Karanprakash R	Automobile
28.	U16AM007	Sundareswaran B	Automobile
29.	U16AM008	PalapandalaPrudhvi	Automobile
30.	U16AM009	Thamim Ansari K	Automobile
31.	U16AM010	Jai Kumar Verma	Automobile
32.	U16AM012	Mohamed Imthiyaz M	Automobile
33.	U16AM014	Karmugilan V	Automobile
34.	U16AM015	ParimiSai Surya Vamsi	Automobile
35.	U16AM017	Amal Philip George	Automobile
36.	U16AM018	RoshanRomario Francis	Automobile
37.	U16AM019	AnthamJeeva Reddy	Automobile
38.	U16AM020	Merugu Shiva Sagar	Automobile
39.	U16AM021	AnjeriBalu	Automobile
40.	U16AM022	Jonathan Levi Williams S	Automobile
41.	U17ME001	MADHAVAN	Mechanical
42.	U17ME006	STEPHEN CHITARANJAN	Mechanical
43.	U17ME019	EDLA	Mechanical
44.	U17ME035	DAMARLA SAI SANTHOSH	Mechanical
45.	U17ME036	FEROZ AKHTAR	Mechanical

46.	U17ME038	HARIRAM	Mechanical
47.	U17ME047	THIRUGNANA SAMMANDAM	Mechanical
48.	U17ME056	KAMPARAJU RAM SRINIVAS RAJU	Mechanical
49.	U17ME059	BALAJI	Mechanical
50.	U17ME062	PAKAM SARATH KUMAR	Mechanical
51.	U17ME068	CHALLA GIRREESH	Mechanical
52.	U17ME069	VEMPULURU	Mechanical
53.	U17ME070	MARRIPATI	Mechanical
54.	U17ME073	VARDA SAI SREEKANTH REDDY	Mechanical
55.	U17ME083	MOPURI RAMESH REDDY	Mechanical
56.	U17ME089	KALLOL	Mechanical
57.	U17ME093	ANIPEDDI	Mechanical
58.	U17ME096	somasekharkavati	Mechanical
59.	U17ME099	DANGETI	Mechanical
60.	U17ME100	MARTHALA KARTHIK KUMAR REDDY	Mechanical







# Bharath Institute of Higher Education and Research

[Declared Under Section 3 of UGC Act, 1956]

Chennai - 600 073

## INTERNAL QUALITY ASSURANCE CELL (IQAC) DOCUMENTS SUBMISSION FORM

Date of Submission	15/10/2018
Type of Documents	VALUE ADDED COURSE PROGRAMME REPORTS
Description	INDUSTRIAL AUTOMATION AND CONTROL
Enclosures	a) REQUISITION LETTER
	b) CIRCULAR
	c) CURRICULUM
	d) ATTENDANCE SHEET
	e) FEEDBACK FORM
	f) CERTIFICATE
	g) IMAGE
	h)
No. of Pages	11
Submitted By	Name : JAI RAJESH P
	Designation : ASST. PROFESSOR
	Department : MECHATRONICS
	Signature :

### For Office Use Only

Verified By:		Sign:	Date:
Uploaded By:		Sign:	Date:
File Name:			

IQAC - BIHER