# **Requisition Letter**

Date: 05/09/2018

From

The HOD

Department Of Mechatronics

Bharath Institute of Higher Education and Research

Selaiyur, Chennai-600073

To

The Dean Engineering

Bharath Institute of Higher Education and Research

Selaiyur, Chennai-600073

Respected Sir,

Subject: Requisition for conducting Value added Course-reg

School of Mechanical Sciences has planned to conduct value added course on "Industrial Automation and Control" on 08-10-2018. In this regard we kindly request you to grant permission for the same.

Thanking you

HOD/Mechatronics

Dr. P. SENGOTTUVEL,
PROFESSOR
PROFESSOR
PROFESSOR

HARATH UNIVERSITY, CHENNAI-600 073. Dean Engineering



Date: 01.10.2018

# **Department of Mechatronics**

## <u>Circular</u>

The Department of Mechatronics, BIHER is glad to conduct a 5 - day Value Added Program on "Industrial Automation and Control" dated from 08.10.2018 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

Mr. Veeramani
Director
Unikerz Technologies PVT.Ltd.
Chennai.
Maximum No. of registration Allowed – 60

\*First come first serve basis.

**Program Coordinator:** 

Mr.J.Dhanasekar

J. Dhaselow

Assistant Professor

Mrs.G.vasumathi

Assistant Professor,

E-Mail: jdhanasekar81@gmail.com @gmail.com

Mobile: 8870136734



#### Department of Mechatronics

#### **Industrial Automation and Control**

#### **OBJECTIVES:**

This course presents an overview of industrial automation and control technology as it is used in factories of all types, including discrete and continuous manufacturing. The course covers a wide range of topics, including automation systems' benefits and architecture, measurement systems, including sensors and signal conditioning, discrete and continuous variable control systems, hydraulic, pneumatics.

#### [DAY: 1]

o MODULE I (6 Hrs)

- o Introduction to Industrial Automation and Control
- o Architecture of Industrial Automation Systems.
- Introduction to sensors and measurement systems
- o Temperature measurement
- Pressure and Force measurements.

### [DAY: 2]

o MODULE II (6 Hrs)

- o Displacement and speed measurement
- o Flow measurement techniques
- o Measurement of level, humidity, pH etc
- Signal Conditioning and Processing
- Estimation of errors and Calibration

### [DAY: 3]

o MODULE III (6 Hrs)

- o Introduction to Process Control.
- o P-- I -- D Control 13. Lecture 5: Controller Tuning.
- Implementation of PID Controllers

Special Control Structures

Feedforward and Ratio Control

#### [DAY: 4]

**o** MODULE IV

(6Hrs)

o Special Control Structures: Predictive Control, Control of Systems with Inverse Response. Special Control Structures: Cascade Control, Overriding Control, Selective Control, Split Range Control

#### [DAY: 5]

MODULE V

(6Hrs)

Introduction to Sequence Control, PLCs and Relay Ladder Logic

Sequence Control: Scan Cycle, RLL Syntax

Sequence Control: Structured Design Approach

Sequence Control: Advanced RLL Programming

Sequence Control: The Hardware environment



## **Department of Mechatronics**

### Value Added Course -Industrial Automation and Control

#### **PARTICIPANTS LIST**

S.No	Reg.No	Nume	Department
	U17MT021	RATALA VENKATA MADHAV	Mechatronics
2.	U17MT022	GULAM GHOUSE B	Mechatronics
3.	U17MT023	PRAVEEN R	Mechatronics
4.	U17MT024	MANIKANDAN V	Mechatronics
5.	U17MT026	MADUGULA BALACHANDRA	Mechatronics
6.	U17MT027	ALEX ANTO	Mechatronics
7.	U17MT028	HEMALATHA G	Mechatronics
8.	U17MT029	PRAKASH RAJ S	Mechatronics
9.	U17MT031	SYED SAMSUDEEN I	Mechatronics
10.	U17MT032	LAKKIREDDY PAVAN KALYAN REDDY	Mechatronics
11.	U17MT033	KARTHIK Y M	Mechatronics
12.	U17MT034	JONNALAGADDA GOPALA KRISHNA MOHAN RAO	Mechatronics
13.	U17MT035	HARIHARAN E	Mechatronics
14.	U17MT036	SUSHIL KUMAR PASAWAN	Mechatronics
15.	U17MT037	DINESH N	Mechatronics

16.	U17MT038	DHARANIDHARAN J	Mechatronics		
17.	U17MT039	SAGADEVAN G	Mechatronics		
18.	U17MT040	NIZAMUDEEN A	Mechatronics		
19.	U17MT021	RATALA VENKATA MADHAV .	Mechatronics		
20.	U17MT022	GULAM GHOUSE B	Mechatronics		
21.	U17AM021	SHAIK REHAMAN	Automobile		
22.	U17AM022	MARTHA CHAITANYA	Automobile		
23.	U17AM023	BIRADAR GANESH	Automobile		
24.	U17AM025	AJITHRAJ S	Automobile		
25.	U17AM026	SANJAI M	Automobile		
26.	U17AM027	RAKESH KUMAR S	Automobile		
27.	U17AM029	GANGIREDDY PAVAN KUMAR REDDY .	Automobile		
28.	U17AM030	GOUTHAM K	Automobile		
29.	U17AM031	SHANKARANATHAN K	Automobile		
30.	U17AM032	BARATH KUMAR R	Automobile		
31.	U17AM033	DEVARAPALLI RAHUL	Automobile		
32.	U17AM034	SARIYAM VIDYASAGAR	Automobile		
33. U17AM035		MOORABOINA NAGA RAJU .	Automobile		
34.	U17AM036	TAMILARASAN S	Automobile		
35.	U17AM037	PRATHWIN R S	Automobile		
36.	U17AM038	TOVISHE ZHIMO	Automobile		
37.	U17AM039	LEO VASANTH H	Automobile		
38.	U17AM040	DHANALAKOTA DAVI PHANINDRA .	Automobile		
39.	U17AM021	SHAIK REHAMAN	Automobile		

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	40. U17AM022	MARTHA CHAITANYA	Automobile
	41. U17ME205	RAVI KUMAR REDDY	Mechanical
	42. U17ME220	MALLIKARJUN	Mechanical
	43. U17ME221	RUDRAPATI	Mechanical
	44. U17ME231	PANDIYAN	Mechanical
4	45. U17ME234	GALLA	Mechanical
4	16. U17ME237	RAMKUMAR	Mechanical
4	17. U17ME243	CHITTURI LOKESH KUMAR	Mechanical
4	8. U17ME245	JILLAKARA DURGA LAXMANRAO	Mechanical
4	9. U17ME246	KUNCHE	Mechanical
5	0. U17ME260	MOLUGURI VIJAY KUMAR	Mechanical
5	1. U17ME264	GOKUL	Mechanical
5:	2. U17ME272	KAVIYARASU	Mechanical
53	3. U17ME276	BASHRUDIN MIYA MANSURI	Mechanical
54	1. U17ME278	DHANUSH	Mechanical
55	. U17ME285	PANDURANGAN	Mechanical
56	. U17ME286	YOGACHENDOORAN	Mechanical
57	· U17ME015	KUNDRAPU	Mechanical
58.	U17ME018	MUKKAMALLA NANDISHWARA REDDY	Mechanical
59.	U17ME024	PALAPARTHI	Mechanical
60.	U17ME028	RANJITHKUMAR	Mechanical



#### 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.

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## FEEDBACK FORM

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#### **MODEL CERTIFICATE**





# **Department of Mechatronics**

Value added course "Industrial Automation and Control"

