



## MALLA REDDY ENGINEERING COLLEGE

(Autonomous)

Maisammaguda(H), Gundlapochampally Village, Medchal  
Mandal, Medchal-Malkajgiri District, Telangana State – 500100

### CIRCULAR

Date: 27/11/2019

All the 2<sup>nd</sup>/II Sem Year students are hereby informed that the Malla Reddy Engineering College (Autonomous) is planning to organize Value Added Courses like Industrial Robotics, Multimedia - 2D & 3D Basic Concepts, Green Matte Studio - Video Effects/Transitions, Different Technologies of Additive Manufacturing, Python with DJANGO, Foundations of Blockchain, Labview in Centre Of Excellence. In this regard Interested students are hereby directed to register for this Courses on or before 02/12/2019. For further details, please contact Centre of Excellence, MREC(A)

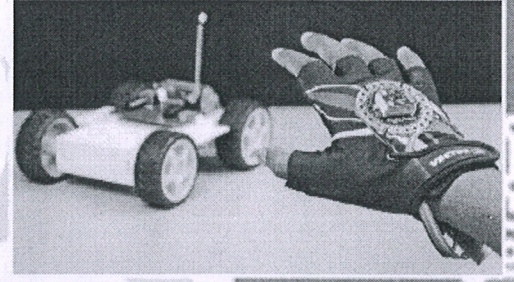
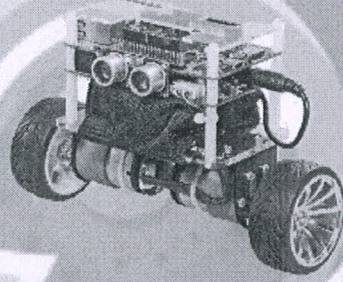
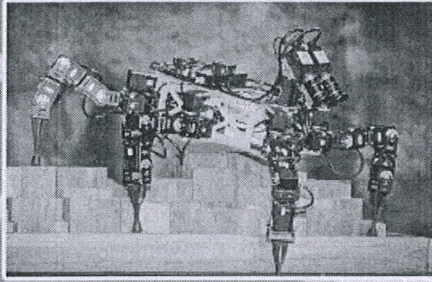
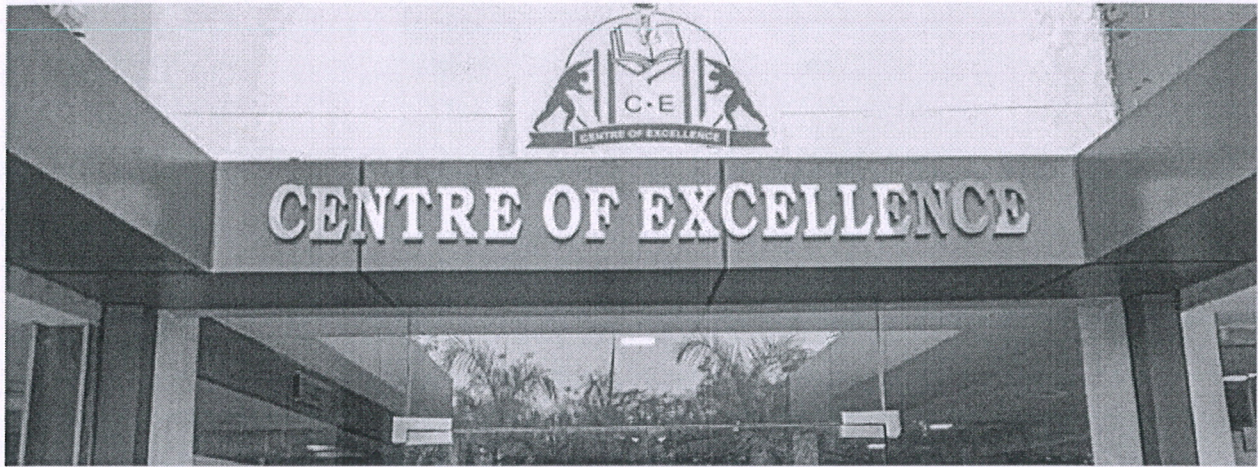
  
Principal  
Malla Reddy Engineering College  
Maisammaguda, Dhulapally,  
(Post Via Kompally), Sec'bad-500100

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**MALLA REDDY ENGINEERING COLLEGE**  
**MAIN CAMPUS, AUTONOMOUS INSTITUTION**  
Maisammaguda, Dhulapally (Post) via Kompally,  
Secunderabad-500100 Medchal - Malkajgiri District Telangana, India



## ROBOTIC'S TRAINING

**Guide To Build Software Robots,  
Automate Repetitive Tasks.**

**Learn Arduino, Design Industrial  
Robots, Motion Control Robots,  
Autonomous Robots, IOT,  
Android Robots.**

**Course Duration -: 4 Months**

**Hands-on experience is the best way to learn  
about all the interdisciplinary aspects of Robotics.**

*Raveesh*  
Principal,  
Malla Reddy Engineering College,  
Maisammaguda, Dhulapally,  
via Kompally, Secbad-500100



	<b>MALLA REDDY ENGINEERING COLLEGE (Autonomous) CENTRE OF EXCELLENCE</b>	
<b>INDUSTRIAL ROBOTICS</b>		

#### **MODULE-I:DC Motors**

Concepts of DC Motors, Working Principles, Operation, PWM speed control of DC Motor ,  
Programming speed control of dc motor using PWM Concept

#### **MODULE-II: Servo motor**

Introduction to Servo motor, Construction concept of using encoder, Closed loop concept of servo motor and its operation, Programming of servo motor to use in different angles

#### **MODULE-III: Stepper motor**

Introduction to Servo motor, Construction concept of stepper motor and its operation, Step Pulse Concept, Programming of Stepper motor, PWM speed control of stepper motor, Programming speed control of stepper motor using PWM Concept

#### **MODULE-IV: Robo-ARM**

Assembling Robo-ARM, Explanation of Arm robot and its uses in industrial applications, Programming ARM Robot and its algorithm, Controlling it using RF Communication

#### **MODULE-V: Robo-ARM Development**

Understanding a Color Sensing ARM robot, Sensors Structure, Algorithm, Line Diagram, Schematics Prototype Development , Color Sensing ARM Robot using Arduino, Research and Development and Bluetooth Controlled Robo-ARM

*Raveendh*  
Principal

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Medchal Mandal, Medchal-Malkajgiri District,  
Telangana State - 500100

Course: Industrial  
Robotics

Date:02/12/2019  
to 28/03/2020

Registered Students

SL.No	Roll No	NAME	BRANCH
1.	18J41A0196	ANAGANDULA RAGHU	CE
2.	18J41A0114	B.Chandu yadav	CE
3.	18J41A1201	ALAPATI SIDDHARTHA	IT
4.	18J41A1203	APPIREDDY SAI RAM REDDY	IT
5.	18J41A1210	CHINNOLLA SATHVIK REDDY	IT
6.	18J41A1222	GURRALA SUCHARITHA	IT
7.	18J41A1231	MANNEPALLI VAMSHI	IT
8.	18J41A0207	Burugadda Revati Swapnika	EEE
9.	18J41A0227	Karnati Karthik Reddy	EEE
10.	18J41A0228	Karukla Uday Kiran	EEE
11.	18J41A0304	BODHANAM VARSHITH REDDY	ME
12.	18J41A0323	KASARLA AJAY	ME
13.	18J41A0325	KUMMARI THIRUMALA	ME
14.	18J41A0308	CHALLA YESHWANTH	ME
15.	18J41A0310	DANAM SAISANATH	ME
16.	18J41A0403	A.Nikitha	ECE
17.	18J41A0405	B.sravanthi	ECE
18.	18J41A0413	Dontula Gopala Krishna	ECE
19.	18J41A0423	K Nithin Mohan	ECE
20.	18J41A0425	K. Pravallika	ECE
21.	18J41A0431	Mirza Ibrahim baig	ECE
22.	18J41A0401	Arigela Srinivas	ECE
23.	18J41A0403	A.Nikitha	ECE
24.	18J45A2507	CHEVULA PAVAN	MINING
25.	18J41A2505	BHEEMA NAVEEN	MINING
26.	18J41A0506	BHUKYA BALARAJU	CSE
27.	18J41A0509	BOYA NITHISHA	CSE
28.	18J41A05G2	MUTHOJU VASANTH	CSE
29.	18J41A0556	TRISHA VUDEPU	CSE
30.	18J41A05C7	BASHETTI SAITEJA	CSE

*Raveendh*

Principal  
Malla Reddy Engineering College  
Maisammaguda, Dhulapally,  
(Post Via Kompally), Sec'bad-500100

## SUMMARY

### INDUSTRIAL ROBOTICS

An industrial robot is a production-oriented robot system. Industrial robots are fully automated, programmable, and can move on three or more axes. Welding, painting, assembly, disassembly, selecting and putting of printed circuit boards, packaging and labelling, palletizing, product inspection, and testing are all typical uses for robots. They may be useful in material handling.

The structures are created by connecting a series of rotational and/or linear movements or joints. Each joint offers mobility that, when combined, allows the robot framework, or robot arm, to be positioned in a particular position. Six joints, or six degrees of freedom, often referred to as six axes, are required to position a tool placed on the end of the robot at any location and at any angle.

The course focuses on various robotic work cell designs and manufacturing process analyses, which often includes a number of design and development problems as well as theoretical ideas. Course outcome assessment is critical for finding advantages, detecting flaws, and enhancing course material. The author should be able to evaluate students' comments in class using the evaluation. Each assessment technique has benefits and drawbacks and provides only a partial picture of student learning and teaching efficacy. A mix of direct and indirect outcome measurements, on the other hand, may offer important information that can be utilized to address student issues and improve instructional materials and delivery.

*Raveedh*  
Principal

Malla Reddy Engineering College  
Maisammaguda, Dhulapally,  
(Post Via Kompally), Sec'bad-500100



**MALLA REDDY ENGINEERING COLLEGE**  
MAIN CAMPUS, AUTONOMOUS INSTITUTION



**Certificate**  
**Of the Course Completion**

*This is to Certify that*

**BHEEMA NAVEEN**

*has Successfully Completed Iundustrail Robotics Course Offered by  
Centre of Excellence, MREC(A) on 28/03/2020 bearing with  
Roll No. 18J41A2505 and Branch MINING.*

**Dr.N.Rishikanth**  
COE Dean

**Principal**  
**Malla Reddy Engineering College**  
**Maisamaguda, Dhulapally,**  
**(Post Via Kompally), Sec'bad-500100**

**Dr.S.Sudhakara Reddy**  
Conference Chair &Principal



# MALLA REDDY ENGINEERING COLLEGE

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## Certificate Of the Course Completion

*This is to Certify that*

**KUMMARI THIRUMALA**

*has Successfully Completed Industrial Robotics Course Offered by  
Centre of Excellence, MRECA on 28/03/2020 bearing with  
Roll No. 18J41A0325 and Branch ME.*

Dr.N.Rishikanth  
COE Dean

*Raveendh*  
Principal  
Malla Reddy Engineering College  
Maisammaguda, Dhulapally,  
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Dr.S.Sudhakar Reddy  
Conference Chair &Principal



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**Certificate**  
**Of the Course Completion**

*This is to Certify that*

**MUTHOJU VASANTH**

*has Successfully Completed Industrial Robotics Course Offered by  
Centre of Excellence, MREC(A) on 28/03/2020 bearing with  
Roll No. 18J41A05G2 and Branch CSE.*

Dr.N.Rishikanth  
COE Dean

Principal  
Malla Reddy Engineering College  
Matsammaguda, Dhulapally,  
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Dr.S.Sudhakar Reddy  
Conference Chair &Principal





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**Certificate**  
**Of the Course Completion**

*This is to Certify that*

**ALAPATI SIDDHARTHA**

*has Successfully Completed Industrial Robotics Course Offered by  
Centre of Excellence, MREC(A) on 28/03/2020 bearing with  
Roll No. 18J41A1201 and Branch IT.*

**Dr.N.Rishikanth**  
COE Dean

*Raveendh*  
Principal  
Malla Reddy Engineering College  
Maisammaguda, Dhulapally,  
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**Dr.S.Sudhakara Reddy**  
Conference Chair &Principal



# MALLA REDDY ENGINEERING COLLEGE

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## Certificate Of the Course Completion

*This is to Certify that*

B.sravanthi

*has Successfully Completed Iundustrail Robotics Course Offered by  
Centre of Excellence, MREC(A) on 28/03/2020 bearing with  
Roll No. 18J41A0405 and Branch ECE.*

Dr.N.Rishikanth  
COE Dean

Principal  
Malla Reddy Engineering College  
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Dr.S.Sudhakar Reddy  
Conference Chair &Principal