

Robotic Process Automation-II



MALLAREDDY ENGINEERING COLLEGE

(Autonomous)

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

CIRCULAR

Date: 10/04/2021

All the 1st/II Year/Sem students are hereby informed that the Malla Reddy Engineering College (Autonomous) is planning to organize Value Added Courses like Robotic Process Automation-II, Graphic Designing - II (Corel draw & Indesign), Green Matte Studio - Video Effects/Transitions, BASIC PYTHON in Centre Of Excellence. In this regard Interested students are hereby directed to register for this Courses in online or before 15/04/2021. For further details, please contact Centre of Excellence, MREC(A)


Principal

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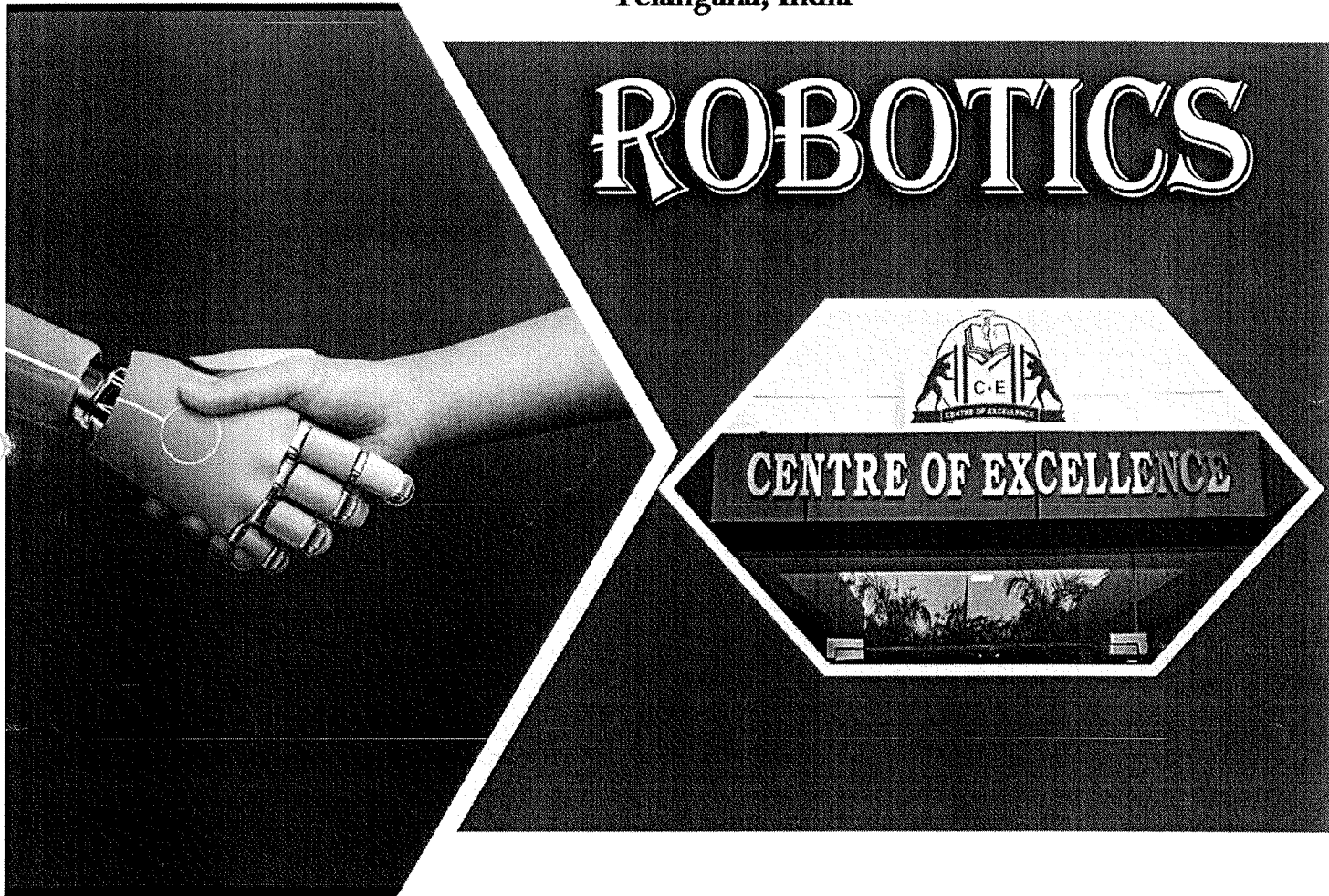
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Maisammaguda, Dhulapally (Post) via Kompally,

Secunderabad-500100 Medchal - Malkajgiri District

Telangana, India



- **Guide To Build Software Robots, Automate Repetitive Tasks.**
- **Learn Arduino, Design Industrial Robots, Motion Control Robots, Autonomous Robots, IOT, Android Robots, Remote Controlled Robotics.**

Course Duration -: 04 Months



MALLA REDDY ENGINEERING COLLEGE
(Autonomous)
CENTRE OF EXCELLENCE

ROBOTICS PROCESS AUTOMATION-II

Course Code: CFER02

Duration: 56 Hours

Course Objective: This course will help you understand how Sensors work and concepts and interfacing concepts of microcontrollers, softwares used in designing robots and programming.

Syllabus

UNIT-I: Sensors and Actuators

10Hours

Switches & Relays - Configuration & Application, Sensors, Actuators & Motors - Types & Applications, Torque, Speed and Power Relationship, Design of an infrared sensor, a light sensor, and a heat sensor, as well as an understanding of a line follower robot prototype

UNIT-II: Introduction to Microcontroller

12Hours

Comparative study of Microcontrollers & Microprocessors Prototype, Architecture of Microcontroller Development - RISC and CISC, Arduino microcontroller - pin diagram, port description & functions, Instruction sets of Arduino

UNIT-III: Memory Organization

10Hours

Memory Organization of Arduino, Number system and conversions, Embedded C Programming - Loading value to registers

UNIT-IV: Installing Arduino IDE

12Hours

Introduction to Arduino IDE, Development of basic program in Arduino IDE, Simulation of assembly programs, Introduction to Proteus 8, Simulation of programs in Proteus 8

UNIT-V: Program Compiling

12Hours

Motor driver L293d interfacing with Arduino, USART, ISP Protocols, Dumping code using Program USB(USART) into Arduino

Course Outcomes:

This course Outcomes include Sensors work and concepts, interfacing concepts of microcontrollers, softwares used in designing robots and programming includes the operation simulation using proteus

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

Course: Robotic
Process
Automation-II
Date: 12/04/2021 to
13/09/2021

Registered Students

SL.No	Roll No	NAME	BRANCH
1.	20J41A0101	ALUR VINITH VITHAL	CE
2.	20J41A0105	AMGOTH HIMAJA	CE
3.	20J41A0106	ANTHANNA GARI KARTHIK	CE
4.	20J41A0201	ALEY SHANMUKHA SAI BABA	EEE
5.	20J41A0206	BANOTH HARILAL	EEE
6.	20J41A0204	B S ASHRITH SRIKAR	EEE
7.	20J41A0301	ANKAMALLA AKASH	ME
8.	20J41A0305	BANOTHU GANESH	ME
9.	20J41A0306	BEGARI SHARATH KUMAR	ME
10.	20J41A0401	ADEPU BHAVANA	ECE
11.	20J41A0402	AITHAM SAI VIGNESH	ECE
12.	20J41A0406	BANGARU AKSHITHA	ECE
13.	20J41A1201	ARADHYULA SHASHANK	IT
14.	20J41A1203	ASOLLA ROHAN	IT
15.	20J41A1204	ATUL KR SINGH	IT
16.	20J41A0501	ABDUL SHOYEAB ASLAM	CSE
17.	20J41A0502	ANAGANDULA PRANAY VARDHAN	CSE
18.	20J41A0503	ANCHETI ROHITH	CSE
19.	20J41A6601	ADDULA SHASHIDHAR REDDY	AIML
20.	20J41A6605	ANANTHANENI MOUNIKA	AIML
21.	20J41A6606	AVUNOORI RAJEEV	AIML
22.	20J41A6201	ALAVALAPATI NAGA SAI SIVA VARUN	CS
23.	20J41A6204	BACHHANNAGARI ANKITHA	CS
24.	20J41A6205	BADANA TARUN KUMAR	CS
25.	20J41A6705	ANANTHULA BHAVANA	DS
26.	20J41A6706	ANUPAM KUMAR GAURAV	DS
27.	20J41A6703	AKSHAY M	DS
28.	20J41A6905	APPALA PRANAY	IOT
29.	20J41A6903	ANANTHU CHARAN TEJA	IOT
30.	20J41A6904	ANUMOLU SAI	IOT
31.	20J41A0139	MANDHA SAITEJA	CE
32.	20J41A0140	MOHAMMED RAFI UDDIN	CE
33.	20J41A0141	MUNNURI SRIKANTH	CE
34.	20J41A0142	NAGINENI KARTHIK	CE
35.	20J41A0143	NANDIWADA SAI VENKAT	CE
36.	20J41A0239	POLICE PRASHANTH KUMAR	EEE
37.	20J41A0246	ASHWITA RUDRARAF	EEE
38.	20J41A0241	UTHKAM PAVAN GOUD	EEE
39.	20J41A0244	A VEERA BASAVIAH	EEE
40.	20J41A0243	VEMPATI SIDDHARTHA	EEE
41.	20J41A0375	MODUGULA SRAVAN KUMAR	ME
42.	20J41A0383	PINREDDY LOKESH REDDY	ME
43.	20J41A0377	MOLUGURI ANURUTH CHANDRA SAI	ME
44.	20J41A0378	NAKAM DHANUNJAI	ME
45.	20J41A0381	PALADUGU THIMOTHY	ME
46.	20J41A0380	NELLI ARUN	ME

47.	20J41A0497	MYGAPU REVANTH	ECE
48.	20J41A0498	NALLAMOTHU POORNA KRISHNA SAIRAM	ECE
49.	20J41A0499	NADAGOUNI AJAY KUMAR REDDY	ECE
50.	20J41A04A4	NITYA ROSHINI P	ECE
51.	20J41A04A1	NAIK JAHNAVI	ECE
52.	20J41A0594	MOHAMMED SADIK	CSE
53.	20J41A0595	MACHUNURU NITHIN REDDY	CSE
54.	20J41A0596	N SAI TEJA	CSE
55.	20J41A05A1	NETHIGUNTLA SHIVA JAYANTH	CSE
56.	20J41A1214	GANGULA SREENITH	IT
57.	20J41A1220	KOPPINENI CHARAN RAHUL	IT
58.	20J41A6627	KATIKEY REVATHI RUCHITHA	AIML
59.	20J41A6915	JEJALA NAGAVAMSHI	CSE-IOT
60.	20J41A6918	K KARTHIKEYA	CSE-IOT

Revised

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The screenshot shows a Google Slides presentation with a dark background. The title 'ROBOTICS' is at the top in large, white, bold letters. Below it, the text 'WHAT IS ROBOTICS...?' is followed by a paragraph: 'Robotics is science of designing or building an application of robots. Simply ,Robotics may be defines as "The Study of Robots". The aim of robotics is to design an efficient robot.' An image of a humanoid robot in a starting crouch is positioned to the right of this text. Below the image, the text 'WHY IS ROBOTICS NEEDED...?' is followed by 'Robotics is needed because:' and a bulleted list: '•Speed', '• Can work in hazardous/dangerous temperature', '• Can do repetitive tasks', and '• Can do work with accuracy'. The Google Slides interface is visible at the top and right.

ROBOTICS

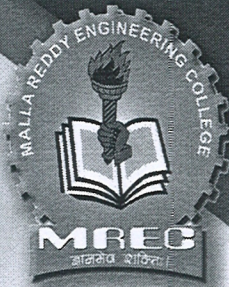
WHAT IS ROBOTICS...?

Robotics is science of designing or building an application of robots. Simply ,Robotics may be defines as "The Study of Robots". The aim of robotics is to design an efficient robot.

WHY IS ROBOTICS NEEDED...?

Robotics is needed because:

- Speed
- Can work in hazardous/dangerous temperature
- Can do repetitive tasks
- Can do work with accuracy



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CERTIFICATE

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This is to Certify that

BANOTH HARILAL

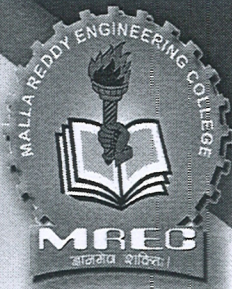
*has Successfully Completed Robotic Process Automation II
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on 12/09/2021 *bearing with*
Roll No. 20J41A0206 *and Branch* EEE.

N. RISHIKANTH
DEAN (COE)

Dr. A. Ravendra
Principal

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ARADHYULA SHASHANK

*has Successfully Completed Robotic Process Automation II
Course offered by Centre of Excellence, MREC(A)*

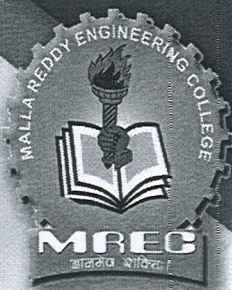
on 12/09/2021 bearing with

Roll No. 20J41A1201 and Branch IT.

**N. RISHIKANTH
DEAN (COE)**

**Dr.A.Ravendra
Principal**

Ravendra
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BACHHANNAGARI ANKITHA

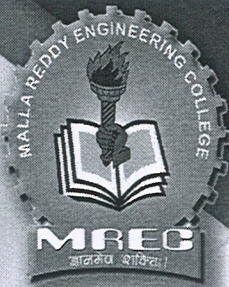
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*on 12/09/2021 bearing with
Roll No. 20J41A6204 and Branch CS.*

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DEAN (COE)**

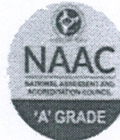
**Dr. A. Ravendra
Principal**

Ravendra
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ANUMOLU SAI

*has Successfully Completed Robotic Process Automation II
Course offered by Centre of Excellence, MREC(A)*

on 12/09/2021 bearing with

Roll No. 20J41A6904 and Branch IOT.

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**Dr. A. Ravendra
Principal**

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K KARTHIKEYA

*has Successfully Completed Robotic Process Automation II
Course offered by Centre of Excellence, MREC(A)*

on 12/09/2021 bearing with

Roll No. 20J41A6918 and Branch CSE-IOT.

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DEAN (COE)**

**Dr. A. Ravendra
Principal**

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