

# Robotic Process Automation-I



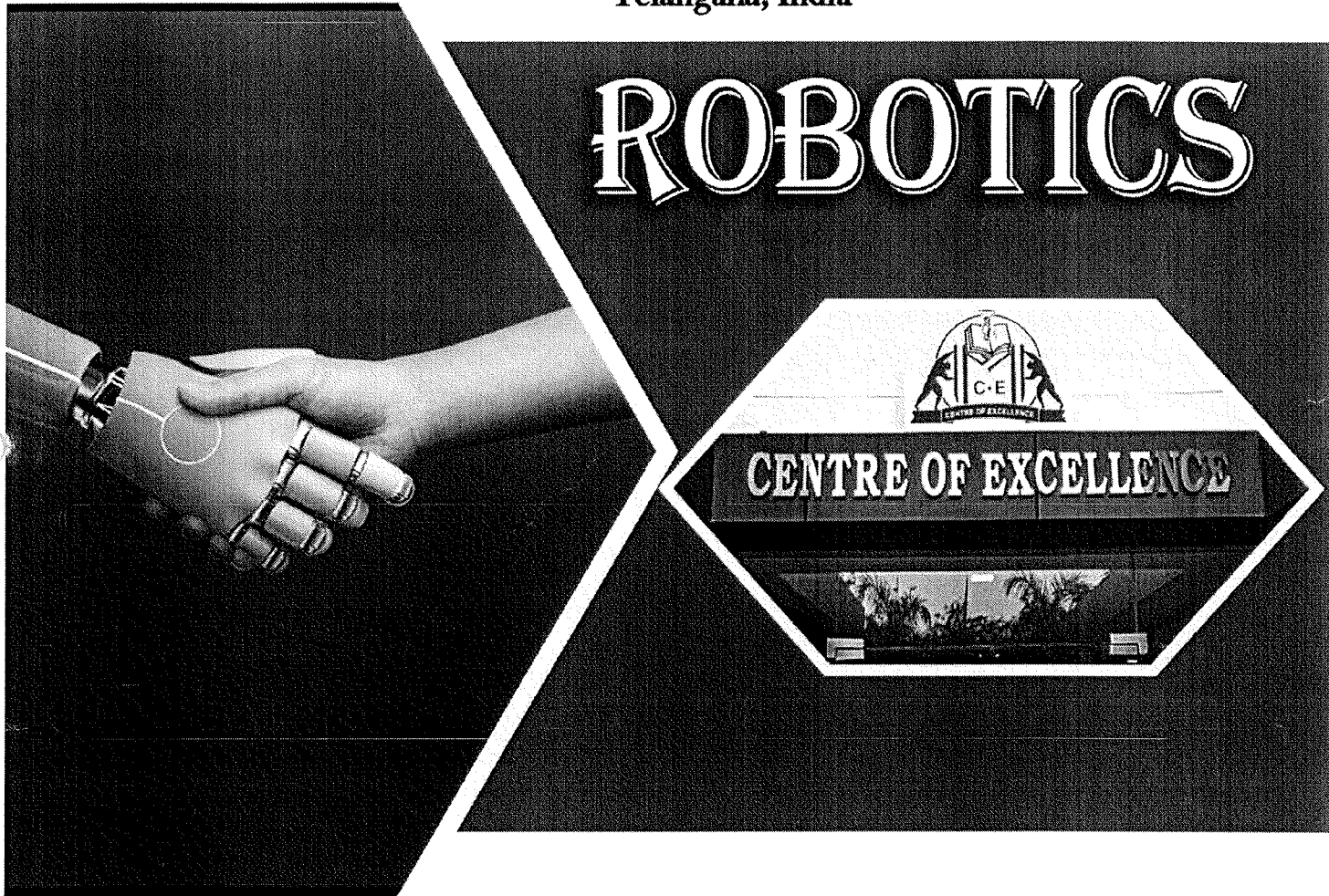
# **MALLA REDDY ENGINEERING COLLEGE**

**MAIN CAMPUS, AUTONOMOUS INSTITUTION**

**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-I**

**Course Code: CFER01**

**Duration: 56 Hours**

**Course Objective:** This course will help you understand the basics of robotics and laws, construction, designing and concepts

**Syllabus**

**UNIT-I: Introduction to Robotics**

**12Hours**

Introduction to robots, history, etymology, new technologies Types of robots, 4-D Conditions & Laws of robots, Mathematics of triangle, circle, angle & delay relationships, Concept of a tricycle robot model, Practical understanding Delay, projection and movement,

**UNIT-II: Robotics Systems**

**12Hours**

Robotics System - Block diagram & description, Hands on session on Robot Chassis Design & Assembly Manual robot, Design with OCU

**UNIT-III: Introduction to basic electronics**

**12Hours**

Introduction to basic electronics (Analogue & Digital), Voltage, Current & Ohm's Law, Multi-meter basics and how to use it, Voltage Divider Rule - Concept, Equation & Application, Hands on session on voltage & Current measurement, Arduino robot development Platform

**UNIT-IV: DPDT Design**

**10Hours**

Action planning table of DPDT control, DPDT-Connection, Hands on session on DPDT based Robot Design, OCU Design

**UNITV: Electronic Components**

**10Hours**

Resistors - Types, Color Coding & Applications, Capacitors Requirement analysis - Types, Identification & Applications, Inductors - Basics & Applications, Diodes - Types, Identification & Applications, Transistors - NPN, PNP, Identification & Applications, DMM

**Course Outcomes:**

The outcome of this to the students can able to understand the basic devices and concepts of robotics and testing the components using Digital multi meter

*R. S. S. S.*  
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**Malla Reddy Engineering College**  
**(Autonomous)**  
**Maisammaguda, Dhulapally,**  
**(Post Via Kompally), Sec'bad-500 100**

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MALLA REDDY ENGINEERING COLLEGE  
(Autonomous)  
Maisammaguda(H), Gundlapochampally Village,  
Medchal Mandal, Medchal-Malkajgiri District,  
Telangana State - 500100

Course: Robotic  
Process Automation-I  
Date: 07/12/2020 to  
31/03/2021

Registered Students

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

|     |            |                                  |         |     |
|-----|------------|----------------------------------|---------|-----|
| 46. | 20J41A0380 | NELLI ARUN                       | ME      | YES |
| 47. | 20J41A0497 | MYGAPU REVANTH                   | ECE     | YES |
| 48. | 20J41A0498 | NALLAMOTHU POORNA KRISHNA SAIRAM | ECE     | YES |
| 49. | 20J41A0499 | NADAGOUNI AJAY KUMAR REDDY       | ECE     | YES |
| 50. | 20J41A04A4 | NITYA ROSHINI P                  | ECE     | YES |
| 51. | 20J41A04A1 | NAIK JAHNAVI                     | ECE     | YES |
| 52. | 20J41A0594 | MOHAMMED SADIK                   | CSE     | YES |
| 53. | 20J41A0595 | MACHUNURU NITHIN REDDY           | CSE     | YES |
| 54. | 20J41A0596 | N SAI TEJA                       | CSE     | YES |
| 55. | 20J41A05A1 | NETHIGUNTLA SHIVA JAYANTH        | CSE     | YES |
| 56. | 20J41A1214 | GANGULA SREENITH                 | IT      | YES |
| 57. | 20J41A1220 | KOPPINENI CHARAN RAHUL           | IT      | YES |
| 58. | 20J41A6627 | KATIKEY REVATHI RUCHITHA         | AIML    | YES |
| 59. | 20J41A6915 | JEJALA NAGAVAMSHI                | CSE-IOT | YES |
| 60. | 20J41A6918 | K KARTHIKEYA                     | CSE-IOT | YES |

*Ravinder*  
**PRINCIPAL**  
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**(Autonomous)**  
**Maisammaguda, Dhulapally,**  
**(Post Via Kompally), Sec'bad-500 100**



# MALLA REDDY ENGINEERING COLLEGE

MAIN CAMPUS AUTONOMOUS INSTITUTION



## CERTIFICATE

OF COURSE COMPLETION

*This is to Certify that*

**BALASANI VAMSHI**

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

*on 31/03/2021 bearing with*

*Roll No. 20J41A6709 and Branch DS*

**N. RISHIKANTH  
DEAN (COE)**

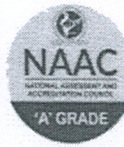
**Dr. A. Ravendra  
Principal**

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Maisammaguda, Dhulapally,  
Medak (Ranga Reddy), Sec'bad-500 100



# MALLA REDDY ENGINEERING COLLEGE

MAIN CAMPUS AUTONOMOUS INSTITUTION



## CERTIFICATE

OF COURSE COMPLETION

*This is to Certify that*

**CHATLAPALLI PAVAN GOUD**

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

*on 31/03/2021 bearing with*

*Roll No. 20J41A0210 and Branch EEE*

**N. RISHIKANTH  
DEAN (COE)**

**Dr. A. Ravendra  
Principal**

  
**PRINCIPAL**  
**Malla Reddy Engineering College**  
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**Maisammaguda, Dhulapally,**  
**(Dist. Via Kompally), Sec'bad-500 100**



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## CERTIFICATE

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*This is to Certify that*

**NALLAPU APURVA**

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

*on 31/03/2021 bearing with*

*Roll No. 20J41A6744 and Branch CSE-DS*

**N. RISHIKANTH  
DEAN (COE)**

**Dr. A. Ravendra  
Principal**

*Ravendra*  
**PRINCIPAL**  
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# MALLA REDDY ENGINEERING COLLEGE

MAIN CAMPUS AUTONOMOUS INSTITUTION



## CERTIFICATE

OF COURSE COMPLETION

*This is to Certify that*

**POLICE LAYASREE**

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

*on 31/03/2021 bearing with*

*Roll No. 20J41A05P1 and Branch CSE.*

**N. RISHIKANTH  
DEAN (COE)**

**Dr. A. Ravendra  
Principal**

*Ravendra*  
**PRINCIPAL**  
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Spatisammaguda, Dhulapally,  
Secbad-500 100



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## CERTIFICATE

OF COURSE COMPLETION

*This is to Certify that*

**PODILA CHETHAN KUMAR**

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

*on 31/03/2021 bearing with*

*Roll No. 20J41A1243 and Branch IT*

**N. RISHIKANTH  
DEAN (COE)**

**Dr. A. Ravendra  
Principal**

*Ravendra*  
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Post: V. K. Nagar, Secbad-500 100