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## ABOUT THE INSTITUE & DEPARTMENT

ESTABLISHED IN THE YEAR 1994, BY THE MUSLIM EDUCATIONAL SOCIETY, THE COLLEGE IS SITUATED IN THE SCENIC BEAUTY ON THE BANK OF BHARATHAPUZHA. WIDELY ACKNOWLEDGED AS ONE OF THE PREMIER INSTITUTIONS IMPARTING TECHNICAL EDUCATION IN THE STATE, THE COLLEGE OFFERS ADMISSION TO ALL CATEGORIES OF STUDENTS WITH SPECIAL CONSIDERATION TO EDUCATIONALLY BACKWARD COMMUNITIES. AT PRESENT COLLEGE OFFERS EIGHT UNDER GRADUATE PROGRAMMES INCLUDING B.TECH, B.ARCH AND THE POST GRADUATE COURSES IN M.TECH, MCA, MBA AND M ARCH. NEARLY 3000 STUDENTS STUDY HERE UNDER THE GUIDANCE OF OVER 240 QUALIFIED FACULTY MEMBERS AND RESEARCH GUIDES.

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING WAS STARTED IN 1994. CURRENTLY DEPT OFFERS BTECH (CONSISTING OF 2 BATCHES) AND A POSTGRADUATE COURSE IN COMPUTER SCIENCE AND ENGINEERING. THE DEPARTMENT IS EQUIPPED WITH FOUR COMPUTER LABS, A LIBRARY AND A SEMINAR HALL. THE DEPARTMENT HAS BEEN CONDUCTING SERIES OF SHORT-TERM TRAINING PROGRAMMES FOR THE FACULTY AND STUDENTS. THE DEPARTMENT MAINTAINS A SUPERIOR PLACEMENT RECORD. BOTH THE B.TECH AND M.TECH DEGREE OFFERED BY THE DEPARTMENT FOLLOWS THE CURRICULUM AND SYLLABI AS WELL AS THE RULES AND REGULATIONS OF THE UNIVERSITY OF CALICUT AND APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY.

## HOW TO REACH MESCE?

KUTTIPPURAM IS SITUATED ON THE SHORANUR- CALICUT SECTION OF THE SOUTHERN RAILWAY. MES COLLEGE OF ENGINEERING IS JUST 3 KM AWAY FROM KUTTIPPURAM RAILWAY STATION



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**ORGANIZED BY**  
DEPARTMENT OF COMPUTER SCIENCE  
AND ENGINEERING

TWO DAYS HANDS-ON WORKSHOP ON

# ROBOTICS USING ARDUINO

📅 19-20 JANURY 2018

📍 MES COLLEGE OF ENGINEERING, KUTTIPPURAM



MES COLLEGE OF ENGINEERING, KUTTIPPURAM  
An ISO:9001-2008 Certified Institute

## INTRODUCTION

A WORLD WHERE THE REAL, DIGITAL AND THE VIRTUAL ARE CONVERGING TO CREATE SMART ENVIRONMENTS THAT MAKE ENERGY, TRANSPORT, CITIES AND MANY OTHER AREAS MORE INTELLIGENT. THIS WORKSHOP INCLUDES CONTROLLING OF DEVICES BY SENSORS & RELAYS WHICH MAKES HUMAN LIFE EASIER AND COMFORTABLE. THE STUDENTS WILL WORK ON ESP8266 WI-FI MODULE AND SENSORS ALONG WITH ARDUINO MICROCONTROLLER.

## OBJECTIVES

THIS WORKSHOP IS DESIGNED EXCLUSIVELY FOR STUDENTS AS WELL AS PROFESSIONALS WHO ARE KEEN ON GETTING HANDS ON WITH ROBOTICS USING ARDUINO MICRO CONTROLLER. AT THE END OF THE WORKSHOP, PARTICIPANTS WOULD BE ABLE TO RECEIVE AN UNPARALLELED EDUCATION ON THE ART OF BUILDING ROBOTS & APPLICATIONS USING ARDUINO AND GAIN PROFOUND KNOWLEDGE OF IOT APPLICATIONS AND RELATED STATE-OF-THE-ART.

## PREREQUISITES

BASIC ELECTRONICS, SIMPLE PROGRAMMING

## CONTENTS

### - SESSION 1

INTRODUCTION TO ROBOTICS  
APPLICATIONS OF ROBOTICS TECHNOLOGY  
BASIC CONSTITUENTS OF ROBOT  
MICROCONTROLLER  
ACTUATORS  
CHASIS  
SENSORS  
INTRODUCTION TO INTERNET OF THINGS  
APPLICATIONS OF INTERNET OF THINGS  
KIT DISTRIBUTION & INTRODUCTION TO KIT CONTENTS

### - SESSION 2

ROBOT ASSEMBLY  
INSTALLATION OF ARDUINO IDE AND DRIVER SOFTWARE  
BASIC PROGRAMMING OF ARDUINO  
INTERFACING OF MOTOR DRIVER BOARD  
WORKING OF MOTOR DRIVER WITH MICRO CONTROLLER  
INTERFACING OF WIFI MODULE WITH ARDUINO  
CONTROLLING LED, BUZZER AND MOTOR USING WEBPAGE  
CONTROLLING OF LED USING HTML WEBPAGE

### - SESSION 3

INTERFACING OF LM35 TEMPERATURE SENSOR  
READING OF SENSOR ON SERIAL MONITOR  
ACCOUNT CREATION FOR CLOUD SERVER APPLICATION  
UPLOADING VALUE OF LM35 SENSOR ON CLOUD SERVER

### - SESSION 4

INTERFACING OF LDR AND OTHER SENSORS  
CREATING MULTIPLE TABLES AND GRAPHS ON CLOUD  
UPLOADING VALUES OF SENSOR ON CLOUD  
SENSOR MONITORING USING MOBILE PHONE  
CONTROLLING OF LIVE ELECTRICAL APPLIANCES USING MOBILE

## ABOUT ROBOKART

### ROBOKART IN ASSOCIATION WITH I-CELL IIT BOMBAY

ROBOKART IS A COMPANY STARTED IN NOVEMBER 2014 WITH VERY SMALL TEAM AND PRODUCT RANGE OF ABOUT 250 ON THE PORTAL WITH VERY UNIQUE PRODUCTS WHICH CAN HELP LEARNERS TO DESIGN & DEVELOP REFINE PRODUCTS. AFTER RECEIVING RESPONSE FROM LEADERS PAN INDIA, THEY STARTED TO TAKE SUPPLEMENTARY TRAINING IN VARIOUS SCHOOL & COLLEGE TO TEACH ROBOTICS, AUGMENTED REALITY, 3D PRINTER ETC WHICH HELPED STUDENTS TO LEARN BY PRACTICING THE SUBJECT.

## TARGET GROUP

STUDENTS FROM AICTE APPROVED TECHNICAL INSTITUTIONS AND AL STUDENTS SEEKING CAREER IN ROBOTICS AND EMBEDDED SYSTEM RELATED INDUSTRY CAN PARTICIPATE IN THIS WORKSHOP.

## LAST DATE

THE NUMBER OF PARTICIPANTS OF THIS WORKSHOP IS LIMITED TO 50 AND REGISTRATION IS BASED ON FIRST COME FIRST SERVED BASIS. THE LAST DATE FOR RECEIVING THE APPLICATIONS IS 17<sup>TH</sup> JANUARY, 2018.

## COURSE FEE

A COURSE FEE OF RS. 800/- IS CHARGEABLE FROM STUDENTS. THE COURSE FEE INCLUDES COURSE MATERIALS (IF ANY) AND PARTICIPATION FEE. SEATS WILL BE CONFIRMED ONCE PAYMENT HAS BEEN SUCCESSFULLY DONE. LIMITED ACCOMMODATION IS AVAILABLE ON PAYMENT BASIS. OUTSTATION PARTICIPANTS HAVE TO MAKE THEIR OWN ARRANGEMENTS IF ACCOMMODATION IS NOT AVAILABLE IN THE INSTITUTION.

## PAYMENT METHOD

**TEZ : 7907108377**

NB: PLEASE MENTION THE NAME, COLLEGE AND PLACE AS NOTES ON TRANSFER OF PAYMENT. FOR PAYMENT RELATED QUERIES CONTACT:

**MR. SAIF SHEREEF**

9048389880

