C. K. Pithawala College of Engineering & Technology, Surat



Electronics and Communication Engineering Department



Report on 3 days Workshop

Robotics and 3D designing using TINKERCAD

Date: 3rd -5th March 2022 **Time:** 2:00 PM to 5:00 PM

Platform: Robotics: Offline

3D designing using TINKERCAD: GoogleMeet

Coordinators: Dr. Amisha J. Shah, Head and Assistant Professor, ECED, CKPCET, Surat Mrs. Bhumika Patel, Adhoc Assistant Professor, ECED, CKPECT, Surat.

A workshop on "Robotics and 3D designing using TINKERCAD" was organised by Electronics and Communication department, CKPCET, Surat on 3rd -5th March 2022. The aim of the workshop was to motivate the students in design, estimation, fabrication and testing their own ideas of basic controlled robots and TINKERCAD.

The renowned speaker of the workshop was **Mr. Parth K Shah,** Franchise Owner at Robokart.com Surat, Gujarat, India.

Mr. Parth had started the session of day1 with brief introduction to Robotics. He had discussed about various applications and basic constitutes of robots. With the knowledge of Arduino programming, participants had enjoyed hands-on on building a remote controlled car along with obstacle detection. On day 2, Mr. Parth had started with types of sensors and their interfacing with the robot. The participants also learned about home automation on second day. 3D designing using TINKERCAD was taught on 3rd day in online mode. Tinkercad is an online collection of software tools from Autodesk that enable complete beginners to create 3D models. This CAD software is based on constructive solid geometry (CSG). The participants learned to create complex models by combining simpler objects together.

All the participants had appreciated the 3 days hands-on workshop. Glimpses of the workshop and the participants feedback are shown below:





Navyug Vidyabhavan Trust C K Pithawala college of Engg. & Tech, Surat Electronics and Communication Department



3 DAYS WORKSHOP ON ROBOTICS AND 3D DESIGNING USING TINKERCAD

DAY 1

INTRODUCTION TO ROBOTICS

- APPLICATIONS OF ROBOTICS
- BASIC CONSTITUTES OF A ROBOT
- LEARNING ABOUT ARDUINO
- LEARNING ABOUT MOTOR DRIVER
- -LEARNING ABOUT CHASIS
- LEARNING ABOUT POWER SUPPLY
- BUILDING REMOTE CONTROLLED CAR
- BUILDING OBSTACLE AVOIDANCE CAR

DAY 2

- INTRODUCTION TO SENSORS
- TYPES OF SENSORS
- WORKING WITH SENSORS
- WORKING WITH ULTRASONIC SENSOR
- HOME AUTOMATION TOUCHLESS DOORBELL

DAY 3

ONLINE WORKSHOP ON 3D PRINTING AND DESIGNING USING TINKERCAD

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