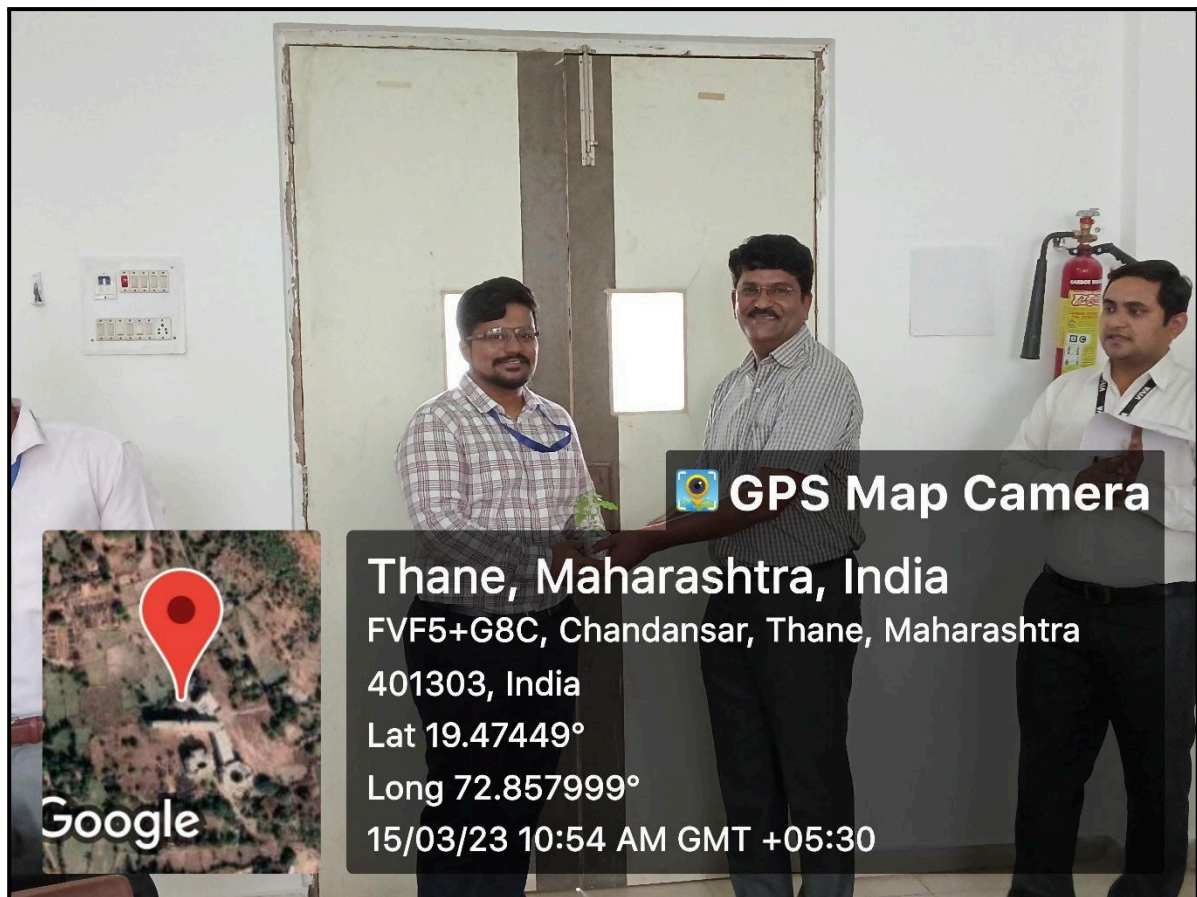Vishnu Waman Thakur Charitable Trust's

VIVA Institute of Technology

Shirgaon, Virar(E), Taluka-Vasai, District-Palghar, Maharashtra

Department of Electrical Engineering

Report on Arduino Workshop

15th and 16th March 2023

A Two-day workshop on Arduino was organized on 15th and 16th March 2023 under the banner of EESA by Department of Electrical Engineering, VIVA Institute of Technology in collaboration with a Tech cryptors company. The workshop was conducted by Mr.Yadnesh Zhagade, CEO & Founder of Tech Cryptors. The workshop aimed to provide hands-on experience on Arduino programming and projects to the participants. The workshop was attended by 32 participants from third year electrical Engineering.

Prof. Anojkumar Yadav welcomed the guest and gave their brief introduction. Then he requested Dr.Deepak Sajnekar to welcome Mr.Yadnesh Zhagade by giving him holy basil.

Day 1:

The first day of the workshop started with an introduction to Arduino and its applications. The trainers provided a brief history of Arduino, its components, and how to set up the Arduino development environment. After that, the participants were divided into groups of 5-6 and given a starter kit that included an Arduino board, sensors, LEDs, and other components.

The trainers then demonstrated how to write a simple program to control an LED using Arduino. The participants were asked to replicate the program and make modifications to

control the LED's brightness and color. The trainers also taught the participants how to use sensors such as temperature and humidity sensors and how to read data from them.

In the second half of the day, the participants were given a Tricolor RGB LED to work on. The participants were asked to glow all three LEDs at a time and then trainers also explained participants how to simultaneously work with RGB led and infrared sensors, buzzer at a time. The participants were given time to work, and the trainers provided assistance when required.

Day 2:
The second day of the workshop focused on advanced topics such as communication protocols, motor control. The trainers demonstrated how to use Serial communication to

exchange data between Arduino and a computer. They also showed how to control motors using an H-bridge circuit and how to build a simple robot using Arduino.

Then trainers asked students to drive a motor with help of motor driver and simultaneously glow led and buzzer. The trainers very well guided students that how to use motor driver and what precautions we should take while using motor driver with Arduino. Trainers also explained participants how to use motors with Infrared sensor.

Conclusion:

The two-day workshop on Arduino provided an excellent opportunity for the participants to learn and practice Arduino programming and build projects. The hands-on approach helped the participants understand the concepts and applications of Arduino better. The workshop was a success, and the participants appreciated the efforts of the organizers and the trainers. We look forward to organizing more such workshops in the future.