# 10.WORKSHOPS

Faculty in Charge: Solwin Johnson (9645728520)

Student in Charge: Ajay T (8547884280)

### 1. ROBOTICS

Time is the testimony of change, of transformation, of progress. With the advent of technical prowess, the man himself is being mechanised. The reliability of common man on technology is everlasting and satisfactorily so. This reliability comes from understanding the technology behind it. Workshop on 'ROBOTICS' is being held with that intent.

Syllabus of the workshop

- Introduction to robotics
- · Introduction to Embedded Programming
- Hands-on experience
  - Interfacing Arduino with LED, Switch, IR SENSOR, DC motor driver
  - · Line follower robot
  - Obstacle avoidance robot

Date: 04/02/2020

Registration fee: RS 250/-

Conducted by -SIDHARTH MOHAN NAIR,

I-era technical solutions LLP (founder and CEO)

### 2. 3D PRINTING

Since the advent of mass production started, the approach towards production was subtractive manufacturing. With this came mass material waste. Such an approach is detrimental to the nature.

3D printing is analogous to nature. It incorporates the manufacturing from nothing to the final product. This workshop entails the concept of 3D printing and evolution of rapid prototyping to additive manufacturing.

Date: 05/02/2020

Registration fee: Rs 150/-Conducted by – Joel T George

## 3. IoT

The Internet of Things, or IoT, refers to the billions of physical devices around the world that are now connected to the internet, collecting and sharing data. Thanks to cheap processors and wireless networks, it is possible to turn anything, from a pill to an aeroplane to a self-driving car into part of the IoT. This adds a level of digital intelligence to devices that would be otherwise dumb, enabling them to communicate real-time data without a human being involved, effectively merging the digital and physical worlds.

- Home Automation with IoT:
  - Introduction to IoT
  - Introduction to Embedded Programming

- Hands-on experience
  - Interfacing NodeMCU with LED, Switch, PIR sensor, relay module.
  - Occupancy Detection Light Control
  - Light Intensity control with android app
  - Control bulb with android app

Date: 05/02/2020

Registration fee: RS 250/-

Conducted by -SIDHARTH MOHAN NAIR,

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#### 4. MACHINE LEARNING

Machine learning is a method of data analysis that uses algorithms to learn from your data. With machine learning, computers identify patterns within your big data so that it can make predictions and intelligent suggestion. Netflix is a good example of using machine learning to monetize from your data by feeding you relevant suggestions.

- 1. Python ML Libraries
  - a. Numpy
  - b. Pantas
  - c. Matplotlib
  - d. Seaborn
- 2. Python data visualization
  - a. Plot
  - b. Piechart
  - c. Color
  - d. 3D

Date: 04/02/2020 Time: 10:30 am

Registration fees: 250/-

## 5. PROJECT MANAGEMENT

Date: 05/02/2020

Registration fee: Rs 150/head.

## Project management using MS Project.

- Building information modelling and its importance in the current construction
- industries
- · Software's involved in the BIM
- Features of BIM (2D,3D,4D,5D,6D,7D)
- Introduction to Project Management
- · Critical path method
- Critical path method using MS Project

### **GUIDELINES:**

- 1. Registration fee is Rs 150/ head.
- 2. Participants are to bring their college ID card compulsorily.
- 3. The workshop will commence for 3hrs.

4. Participation certificate will be provided.

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