



**MADRAS INSTITUTE OF TECHNOLOGY**



**COMPUTER SOCIETY OF MIT**

**CARTE BLANCHE'17**

**SIXTH SENSE TECHNOLOGY WORKSHOP**

**DATE: 18/02/17 & 19/02/17**

**TIME: 9:30am – 4:30 pm**

**COST-1200/- Per Head**

**MAXIMUM – 4 Per Team**

Ever been fascinated by Robots? Ever been blown away by smart AIs? Ever appreciated the Machines? Ever been blown away by the uber-cool technology of the Terminator, Minority Report or Mr. Tony Stark? If these are a turn on-s for you, then the event "SIXTH SENSE BOTZ" is definitely the right place for you.

**COURSE CONTENT:**

- + Introduction to Sixth Sense Technology
- + Advancements in Robotics & Sixth Sense Technology
- + Introduction to Computer vision
- + Need of computer vision in industries
- + Introduction to basic electronics
- + Getting started with microcontrollers
- + Introduction to Arduino
- + Introduction to Arduino Hardware
- + Introduction to Programming Languages & Arduino IDE
- + Programming in microcontrollers
- + Compilation and debugging
- + Interfacing LEDs & Motors
- + Getting started with computer Vision
- + Introduction to MATLAB
- + Working with MATLAB
- + Variables, Loops & Functions in MATLAB
- + Introduction to Digital Image Processing
- + Introduction to Image Processing Tool box
- + Image acquisition in MATLAB
- + Image manipulation MATLAB
- + Concepts like Luminance, Hue, and Intensity
- + Finding Pixel Value Operations in Pixel Value
- + Video acquisition

- ✦ Sending serial and parallel data using MATLAB
- ✦ Implementing Image Processing on the kit and Robot
- ✦ Serial Port programming & machine control
- ✦ Vision based robotics
- ✦ Development of a line follower robot using
- ✦ Concepts of color based image processing

**TAKE AWAY (KITS/STUDY MATERIALS):**

- ❖ Students with individual Carte Blanche'17 & Tech Trunk Ventures certificate.
- ❖ Participants with take away MATLAB software, Sixth sense Robotics kit and softcopy of study material

The logo for Carte Blanche features a stylized, intertwined 'C' and 'B' in shades of green and grey. Below the logo, the words 'CARTE BLANCHE' are written in a bold, sans-serif font, with 'CARTE' in green and 'BLANCHE' in grey.

**CARTE BLANCHE**