



A two days' workshops on Sixth Sense
enriched with
Image Processing using MATLAB

Workshop designed & conceptualized by



Respected Faculty,

Sub: To organize Sixth Sense workshop in your college.

This is to bring to your kind notice that Smart Logic is an Indian entity exploring itself in varied training sectors like Educational Robotics, Embedded Systems, Arduino, Sixth Sense, Image Processing, Motion Mouse, Kernal designing & Modification, Tablet designing etc. Sixth Sense workshop gives you detailed knowledge of Image Processing Techniques and chance to implement a project on controlling computer applications using gestures. The idea behind the workshop is to develop an interest among the upcoming engineers by giving them knowledge of various types of robotics systems with their basic building along with their integration with fifth generation of computers, we say as Artificial Intelligence. It also introduces them to the needs of the current mechatronics sector. In this workshop the participants will be told about all the latest technologies that are coming up in the Automation industry. Apart from all these the team will share the experiences of various projects which they had done in past and some of their current projects. This workshop will also provide a platform where young engineers can mount their imagination into reality and feel the excitement first hand. With this end in view, we extend our support and technical expertise to the young Engineers of your College in the form of this workshop. We seek your cooperation and look forward towards a successful execution of this workshop in your College.

Regards,

Smart Logic

Smart Logic is a young team of professionals from Electromnics & Communication engineering. We are industry specializing in training budding engineers in the field of Robotics & Embedded Systems. We organize training & workshops with the sole aim to transform theory-oriented students into industry ready Engineers.

Conveying Workshop

1. Course Overview:

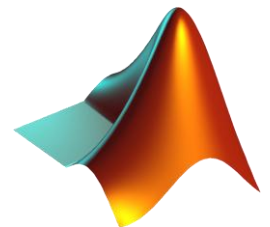
- Workshop consists of overview of digital world and different Image Processing Techniques using MATLAB followed by implementation of few image processing projects.

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| <p>Day 1</p> <p>Session 1: Introduction of MATLAB</p> <ol style="list-style-type: none"> 1. Introduction to Digital world 2. Introduction to Robotics 3. Introduction to MATLAB <p>Session 2: Interfacing Of Camera</p> <ol style="list-style-type: none"> 1. Camera interface in MATLAB 2. Color reorganization in MATLAB | <p>Session 3: Gesture Control Operation With VLC</p> <ol style="list-style-type: none"> 1. VLC media player hacking in MATLAB 2. VLC control using image processing <p>Session 4: Gesture Control Operation of Mouse Pointer and Snapshot</p> <ol style="list-style-type: none"> 1. Virtual mouse pointer using MATLAB 2. Virtual snapshot using MATLAB 3. Discussion of SIXTH-SENSE |
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2. Tools Used:

MATLAB 2008

MATLAB (matrix laboratory) is a numerical computing environment and fourth-generation programming language. MATLAB provides a comprehensive set of Reference-standard algorithms and graphical tools for image processing.



3. Duration:

This is a one day workshop (6 hours).

4. Pre-requisites:

- A Seminar hall/ Auditorium having an enough capacity to accommodate all participants comfortably.
- A Projector setup with stereo jack cord and audio public address system with sufficient number of screens in order to maintain good visibility in seminar hall.
- Students will have to bring their own laptop having inbuilt Webcam. In case laptop does not have inbuilt webcam, external webcam would be fine.
- Laptop should have MATLAB 2008 installed on their machine.

5. Innovative Projects that participants will work on:

- Controlling VLC Media Player using Gestures
- Controlling mouse pointer using Gestures
- Taking Snapshots using Gesture

6. How workshop will help participants:

- The unique part of this workshop is that every student will have the opportunity to experiment with the different image processing techniques.
- The projects completed during the course will not only be a rich experience but carry substantial weightage on their CV
- On successful completion of this course, students will be motivated to learn advanced training modules which are not available in other programs.

7. Deliverables to our students after the conduction of workshop:

- 1. Software toolkit to each participant.
- 2. CD having contents of codes of all Image processing application that are discussed in workshop Training Material (eBooks) for each participant.
- 3. Home takes away kit for a group in case of robotics workshop*.
- 4. Authorized Certification from Smart Logic Services.

8. Contact Us:

www.smartlogic.in

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