

Touch & Augmented Reality Course Content

Overview : It is one of the latest technologies on which Microsoft, Apple and Intel all are working. In it rather than interacting with computer with help of any interface like mouse or keypad we interact directly with computer which is also known as Natural User Interfacing. At the end of this WORKSHOP students will be able to make their own multi touch pad. So lets the computing begin in a completely new way and step forward into a completely new era of Motion Sensing & Gesture Computing.

Session 1 : Basic of surface computing

- What is Surface Computing?
- Earlier prototypes of Surface Computing
- Future of Surface Computing

Session 2 : Techniques used in Surface Computing

- Different techniques used in Surface Computing
- Frustrated Total Internal Reflection (FTIR)
- Diffused Illumination (DI)
- Front Diffused Illumination
- Rear Diffused Illumination
- Laser Light Plane (LLP)
- Diffused Surface Illumination (DSI)
- LED Light Plane (LED-LP)

Session 3 : Tracking your touch

- Software used for tracking your touch
- How does it track your touch?

Session 4 : Final self made prototype

- Making a small touch pad
- Working of touch pad

Session 5 : What is Kinect?

- How it works
- Other Hardware Devices

Session 6 : Images & Pixels

- What are Images?
- Formations of Images and Pixels
- Frame Rates

Session 7 : What is Open NI?

- Natural User Interface Software set up
- How Does Open NI works

Session 8 : Installation of Open NI

Session 9 : What is processing?

- Installation of libraries

Session 10 : Building your first sketch (Program)

Session 11 : Working with Depth Images

Session 12 : Motion Sensing Applications

- Tracking nearest Object
- Making a wireless measuring tape
- Controlling your Digital World