

# **Chinmay Nandan Samant**

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## **OBJECTIVE:**

Contribute towards research to help humanity, mankind and nature.

## **EDUCATION:**

Course Name	University	Location	Duration
Masters in Computer Vision	Universite de Bourgogne	Le Creusot, France	Sept 2013 - Present
<b>Courses:</b> Software engineering, Digital Signal Processing, Applied Mathematics, Image Processing, Sensors and Digitization, Visual Perception, Scene Segmentation and Interpretation, Medical Image Analysis, Autonomous Robotics and Probabilistic Robotics.			
Masters in Electronic Science	University of Pune	Pune, India	Aug 2010 - Apr 2012
Bachelors in Electronic Science	University of Pune	Pune, India	Aug 2007 - Apr 2010

## **PROFESSIONAL EXPERIENCE:**

**Research Assistant**, Centre for Sensor Studies (CSS), University of Pune, India (July 2012- June 2013)

### **1. Coal Presence Detection.**

- Ultrasonic sensor system was implemented to detect coal jams in conduits of thermal power plant.

### **2. Run time mass fluid (Coal + Air) flow measurement using ultrasonic technology**

- Ultrasonic transit time technique was used to accomplish this task.

### **3. Demineralised Water Flow Meter**

- Ultrasonic transit time technique was implemented using submerged ultrasonic sensors of MHz frequency range.

## **ACADEMIC PROJECTS:**

### **1. Computer Vision Toolbox** (Feb 2014 - Mar 2014)

*Universite de Bourgogne, Le Creusot, France*

- Implemented using OpenCV (in Qt) as well as in Matlab to use different image processing/computer vision tools.

### **2. PCA based Face Recognition** (Dec 2013 -Jan 2014)

*Universite de Bourgogne, Le Creusot, France*

- Face recognition software was implemented in MATLAB to detect faces of my classmates.
- PCA technique was used in computation, for this task.

**3. Map creation of Le Creusot (Oct 2013 -Jan 2014)**

*Universite de Bourgogne, Le Creusot, France*

- The objective was creating a map of Le Creusot similar like google maps.
- Data was used from Open street maps and interfaced with the software using a MySQL server.
- Interactive map software was created using OpenCV and MATLAB.

**4. Non contact level measuring instrument for liquids using ultrasonic sensors ( Jan 2012 - April 2012)**

*University of Pune, India*

- A compact, non-contact liquid level measurement device was developed using ultrasonic technology.
- Displayed measurements were dynamic and real time with 1mm accuracy.

**5. PIR sensor based motion detector ( Jan 2010- April 2010)**

*University of Pune, India*

- A device was developed to detect human motion using PIR sensor.
- The output was integrated into an electronic security system.

**OTHER RESEARCH PROJECTS:**

1. Empirical analysis of transit time of ultrasonic waves in liquids of different densities. This research was published in Raman Memorial conference, 2013.
2. Ultrasonic air transducer (piezo disk element) development project.

**AREAS OF INTEREST:**

Visual Perception, Image Processing and analysis, 3D Vision, Medical Imaging, Robotics and Artificial intelligence, Sensor and actuator Interface

**TECHNICAL SKILLS:**

- Computer Languages: C/C++ , MATLAB , Assembly Languages
- Electronics: Microcontroller programming, Hardware designing
- Operating Systems: Windows, Linux
- Tools: Qt, Codeblocks, OpenCV, Orcad, PSPICE, ExpressPCB

**MISCELLANEOUS:**

1. Languages Known: English, Marathi, Hindi
2. Participation in technological festival in IIT Bombay. Made a remote operated Hovercraft.
3. I was Part of Team Fergusson for Firodia Karandak competition as a Musician. We won 1<sup>st</sup> prize for music, 2<sup>nd</sup> for best drama and 14 prizes in total.
4. Various stage performances at college level with my own musical band.