## DUAL DEGREE PROJECT
**Implementation of cognitive radio on the USRP kit — June 2013 - till date**
*Guide: Prof S N Merchant, Dept. of Electrical Engineering, IIT Bombay*
- Carried out energy detection spectrum sensing to find the lowest energy frequency band.
- Working on a cognitive OpenBTS system.

## PROGRAMMING SKILLS
**Languages**: C, Matlab, Python, bash scripting, Assembly for the Intel 8080 microprocessor, Octave, Verilog, Ruby, SQL, XML.
**Operating systems**: Unix, Linux and Mac OS X.

## COURSE PROJECTS
**Scalable video coding using wavelets — Feb-Apr 2013**
*Guide: Prof V M Gadre, Dept. of Electrical Engineering, IIT Bombay*
- Compressed three different spatial resolutions of a video together into a single bitstream
- At the receiving end, uncompressed the best resolution for the bit rate available.
**Principal Component Analysis in face recognition — Oct-Nov 2012**
*Guide: Prof V Rajbabu, Dept. of Electrical Engineering, IIT Bombay*
- Implemented an iterative algorithm of using PCA in face recognition.
**Design and test an algorithm for restoring a brain image — Sep-Nov 2012**
*Guide: Prof Arjun Arunachalam, Dept. of Electrical Engineering, IIT Bombay*
- Implemented an algorithm to remove noise artifacts from a brain image.
**Mini UID for IIT Bombay Campus — Oct-Nov 2009**
*Guide: Prof Deepak Phatak, Dept. of Computer Science and Engineering, IIT Bombay*
- Automated fingerprint matching for the purposes of registration, verification and attendance.

## SEMINARS
**Measurement of interference temperature — Jan-Apr 2013**
*Guide: Prof S N Merchant, Dept. of Electrical Engineering, IIT Bombay*
- Surveyed various ways of measuring interference temperature efficiently.
**LEDs for high speed applications (over 100 Mbps) — Mar-Apr 2013**
*Guide: Prof Joseph John, Dept. of Electrical Engineering, IIT Bombay*
- Presented a seminar on how LEDs could be used for high speed fiber optic communications.
- LEDs are cheaper, rugged and safer to handle compared to laser diodes

## EXTRA CURRICULAR
- Won a silver medal in the All India Computer Knowledge Competition 2006.
- '9/10' in the course EE 717: Advanced Computing for Electrical Engineers.
- **Organizer, Infrastructure Team**,Techfest 2010.
- **Social Service**: surveyed water and electrical resources of remote villages in Maharashtra.
- **Interests**: Computer programming for technical problems, communications, problem solving, functional programming.