Prabhpreet Singh Dua

Career Goal

Pursue research in control systems with application in renewable energy production, transmission, storage, & energy consumption.

Education

2012 –2016 **NIIT University, Neemrana, Rajasthan, India**
(niituniversity.in)
B.Tech(ECE)
9.18/10 CGPA
Awarded full scholarship for academic performance for all 4 yrs

2010-2012 **National Center For Excellence, Bangalore, Karnataka, India**
XIIth (Subjects: Physics, Chemistry, Math, Biology)
89.6% in CBSE All India Senior School Certificate Exam 2012

2008-2010 **Air Academy High School, USAFA, CO, USA**
Xth(D20)
4.0/5.0 CGPA
Principals Merit List (2008, 2009); Gold Lamp award

Work Experience

August 2016 – Present
Deepti Electronics & Electro-Optics Pvt. Ltd.
Embedded Systems Engineer

Implementing Multi Target Tracking on iMx6 (embedded linux) using computer vision algorithms.

Jan 2016 – July 2016
ISRO Satellite Centre, Bangalore
Project Trainee

Implemented Costas Loop for supressed carrier BPSK demodulation on an Actel Microsemi ProASIC3E FPGA.

Jun 2015 – Jul 2015
Deepti Electronics & Electro-Optics Pvt. Ltd.
Embedded Systems Summer Intern

Implemented real time video object tracking (phase correlation algorithm) on Blackfin ADSP-561 DSP using VisualDSP++ C.

Projects

2015 **Cooperative Spectrum Sharing in Cognitive Radio Networks**
Research project under Dr. Sushanta Das, Ex-HOD, ECE. Surveyed literature & found BER & goodput of a spectrum sharing protocol based on cooperative relaying technique using simulation on MATLAB. Involved study of modern wireless technologies.

2014 **Real Time EDF Scheduler on ATMEGA Microcontroller**
Developed a real time Earliest Deadline First scheduler on ATMEGA 2560 microcontroller & ATMEGA 328 (Arduino).

2014 **E-Yantra Robotics Competition '14, IIT Bombay**
Lead team from university & developed a weed picking robot. The robot traversed a black line, distinguished weeds & plants (by height), picked the weeds & dumped them in a designated place. Learned ATMEGA μC architecture, interfacing hardware, embedded C programming nuances

2013 **Automatic Room Temperature Control**
Developed prototype of temperature control system for university hostels. Used Embedded C (CCS Compiler) on PIC uC, PID controller

Technical Skills

Uni. Electives	Advanced DSP, Image Processing, Embedded Systems, Wireless Comms.
Hardware Tools	VHDL, MATLAB/Octave, Simulink, MuPad, NS2, NS3, ORCAD, PSpice
Prog. Lang.	C, C++, Java, Ruby
μ controllers	Microsemi Actel ProASIC3E, ARM, ATMEGA , PIC, Blackfin