

SIDDHARTH AHUJA

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Objective:

Intend to begin my career as an intern or a full time employee with a company of stature and repute in the field of Embedded Computing or Embedded Control.

Education:

Master of Science in Electrical Engineering – Expected May 2009

The University of North Carolina at Charlotte, Charlotte, NC. Current GPA: 3.83 / 4.00

Bachelor of Engineering in Instrumentation Engineering – Completed August 2005

Rajiv Gandhi Institute of Technology, University of Mumbai, India. First Class

Skills:

- Software Languages: C, C++, Assembly Language
- Microcontrollers: Renesas M16/62C, TI MSP 430, Cypress CY3210 PSoC, Technologic TS-7800
- Operating Systems: Linux x32, x64, μ C OS

Work Experience:

Honeywell Building Solutions - Project Engineer

(January 2006 to July 2007)

- Designed life safety control systems such as a fire alarm system for a 300 room five star hotel using the Honeywell XLS140 fire alarm notification and response system
- Successfully executed a project involving commissioning an access control system for department of economic development, government of UAE, using biometric hand geometry scanners.
- Led a cross functional team of engineers and technicians for the fire and safety operations.

Professional Training:

Honeywell Automation India Ltd. (HAIL)

(September – October 2005)

- Successfully completed a four-week long training program on various process control systems from various manufacturers such as Honeywell, Siemens, Yokogawa, and Allen-Bradley

Thesis:

Control Algorithms and Hardware Design for a Low-Cost Autonomous All Terrain Vehicle (ATV)

University of North Carolina at Charlotte (Dept. of Electrical and Computer Engineering) – January 2008 to present

- Vehicle to tow a trailer carrying a Ground-Penetrating Radar, and autonomously sweep a given field.
- Autonomous navigation to be achieved by using LIDARs, low cost IMUs and a low cost DGPS system.
- Working on a low cost DGPS solution to achieve a real time accuracy of $<0.5\text{m}$ without post-processing.
- Aim to achieve a maximum tolerance of $\pm 0.02\text{m}$ using the same system and post-processing recorded data.

Completed Graduate Projects:

- **Hacking the iRobot Roomba** - Main objective was to control the Roomba from an external MCU while using the robot's existing sensors and actuators. Original functionality of the Roomba is still preserved.
- **Programmable Built in Self-Test (BIST) of DRAMS** – Implementing an algorithm for detecting neighborhood pattern sensitive faults in DRAMS.

Undergraduate Project:

- **Linux based Data Network Traffic Control** with Comsat Max (Now a part of AirTel India).

Graduate Courses:

Control Systems Theory – I & II; Embedded Systems; Advanced Embedded Systems; Computer Architecture; Digital Systems Testing; Electric Machines.