

# BIPIN KADEL

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## EDUCATION

**Texas A&M University, College Station, TX**

Graduated: August 2013

Bachelor of Science in Electrical Engineering; Overall GPA: 3.02/4.0

F.E/ E.I.T Candidate

## EXPERIENCE

**Wavelet Innovation Laboratory, Texas A&M University**

July - August 2012

- Developed and investigated PID control loop for the navigation of quad-copter using video feedback
- Conceptualized Extensible Markup Language (XML), Android software development kit(SDK) and Subversion repositories from the Eclipse workbench (SVN) as a part of project

## ACADEMIC PROJECTS

**DSP based closed-loop speed control of a DC motor**

- Designed and developed the speed control system for BLDC motor using Texas Instrument's C2000 32-bit Piccolo DSP

**Power Electronics, DC-AC PWM inverter**

- Validated operating characteristics of the full bridge DC-AC pulse width modulated (PWM) inverter
- Analyzed and simulated effect of amplitude modulation, switching frequency on THD of 3-phase inverter

**Aggie ARMAR, Automated Rescue Multi Agent Robots, Capstone Senior Design**

- Developed flight control system using JAVA & C++ on Linux based embedded platform of AR. Drone
- Implemented Java socket class to send system commands over UDP port to control AR. Drone
- Constructed proto boards to integrate sensors over microcontroller for the data collecting robots

**Analog circuits and design**

- Designed and tested three stage amplifier using MOSFET transistors
- Designed PMOS and NMOS current mirror

**Power system fault analysis and protection**

- Analyzed symmetrical components of 3-phase transmission line
- Evaluated sequence network and line faults current using PSS/E version 33

## RELATED COURSEWORK

Power Electronics (Lab)

DSP-Based Motion Control (Lab)

Power System-Fault Analysis & Protection (Lab)

Electronic Circuits (Lab)

Mobile Wireless Com-Networks

Power System-Operation & Control (Lab)

Linear Control System

Computer Architecture & Design (Lab)

## PROFESSIONAL SKILLS

- **Programming Language:** C, C++, Java, Verilog
- **Devices/Equipments:** Oscilloscope, Function Generator, Multimeter, Circuit Board Tools
- **Operating System:** Linux, Microsoft Windows, MacOS
- **Software:** MATLAB/Simulink, LabView, PSPICE, Power World, PET, PSS/E, ETAP, Microsoft Suite, PCB Altium, Designer, Code Composer Studio, PSim, Maple

## LEADERSHIP & ACTIVITIES

**Corps of Cadets, Texas A&M University (ROTC based student military organization)**

August 2010 - December 2012

- *Company V-1 Operation & Intelligence Officer*, August 2012 - December 2012
  - Provided procedure guideline for activities and operational orders to develop institutional memory.
- *Company V-1 Recruiting and Training Sergeant*, August 2011- May 2012
  - Proposed ideas and prepared recruiting items to facilitated recruiting process.
  - Introduced prospective students and their parents to Texas A&M University's rich traditions like Corps of Cadets and also offered a positive insight to applicants about student life as a Cadet.
- *Company V-1 Cadre*, December 2010 - August 2011
  - Trained and motivated 10 freshmen cadets.
  - Conducted weekly inspections of freshmen's room and uniform to meet standard.

**IEEE:** Student Member

January 2011 - Present

**Big Event:** Clean up backyard for elderly couple

March 2011, 2012

**March to the Brazos:** 20 mile march for Corps of Cadets Fundraiser to support March of Dimes.

April 2011, 2012

**Aggie Externship:** Participated in externship trip to Williams, and Toshiba International Co at Houston, TX to acquire a better intuition of Electrical Engineering professional work environment