

Amit Kumar

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Objective Seeking a challenging position in a creative and developing environment to take advantage of my skills and ability to learn new technology.

Skills

Languages: C, C++, JAVA, MATLAB, Assembly Language, Perl
Database: SQL server, MySQL, Oracle, MS Access
Networking: TCP/IP, UDP, OSI
Hardware: 8085, 8086, 8051, Renesas MC16P62C, TI MSP430, AVR Butterfly, AVR AT Mega169, Cypress CY3210 PSoC, ARM Processor
Software: HTML, PHP, Visual Studio .NET, C# .NET, MS Office Suite
Operating Systems: MS Windows, Linux, UNIX, MS DOS, μ C OS
Other: MathCAD, OPNET, PSPICE, ActiveHDL, Multisim, Xilinx, Embedded Linux, VHDL, PADS

Projects / Experience

University of North Carolina at Charlotte, NC (Aug '07 – Present)

Working as a Lab Assistant:

- Currently working as a Lab Technical Assistant for Office of Information Technology in College of Education, UNCC.
- Assisting students to make their e-portfolios.
- Ghosting of entire server and student systems present in the building.

Developing a Restaurant Paging System using Renesas microcontroller:

- Design a new type of paging system for restaurants using Renesas MC16P62C microcontroller and an Active Matrix OLED uOLED-32024-P1T.
- Used wireless communication link of TRF-2.4G; designed the interface using 4DGL Programming language.
- System developed will enable the user to place an order at a restaurant, apart from having several interactive features.

Designing and Implementing a Database System for a construction company:

- Developed an interactive interface for a virtual construction company to handle various tasks associated with its working such as work allocation, bidding, inspections, clients and contractor details and referrals.
- Front-end lets the user register and perform tasks based upon user roles.
- System lets the administrator to handle various user accounts.
- Technologies used: Front end – HTML; Back end – PHP/MySQL.

Designing of WLAN in the Campus:

- Proposed a detailed model for deploying wireless local area network (WLAN) in the Woodward Hall of UNCC.
- Considered parameters such as number of users, path loss ratio, interference, signal strength to decide the number of nodes.
- Applied theoretical skill to place the nodes based upon need and requirement.

Data dissemination in Mobile Adhoc Networks:

- Completed a detailed survey for the data dissemination in highly, moderately and lightly mobile Adhoc networks.
- Suggested a possible solution by using a combination of Mobile-centric approach and Multi-hop data delivery.

Defence Research and Development Organization, India (Jun '06 – May '07)

Radio Altitude Switch:

- Designed a prototype of a digital Radio Altitude using ACTEL's APA600 PQ208 FPGA, which would accurately measure the height of the object from the ground.
- Built a customized PCB board to embed the entire switch in a very small size.
- FPGA programming was done using ActiveHDL

Simulation of a GPS Transmitter:

- Successfully designed a GPS Transmitter using BPSK modulation of PRN code at a frequency of 1.023MHz using spread spectrum technology.
- Simulated the results by using MATLAB by considering various other functional requirements.

Education Master of Science in Engineering, The University of North Carolina, Charlotte (2007-09)
Bachelor of Technology in Engineering, J. N. T. U., Hyderabad, India.

Others Willing to relocate.
References upon request.