Jayadevan (Jay) Radhakrishnan

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OBJECTIVE: To establish a Full-Time career utilizing current design and development applications in Electrical Engineering.

EDUCATION: Rochester Institute of Technology, Rochester, NY
BS/MS in Electrical Engineering, May 2009
GPA: 3.5/4.0

AWARDS: Dean's List Award, RIT Merit Scholarship Recipient, Lean Six Sigma Yellow Belt

COMPUTER SKILLS:
Operating Systems: Windows (NT, 2000, XP, Vista), UNIX, MAC OS, Linux
Languages: C, C++, Assembly, STL, Visual Basic, VHDL, Python
Networking / Communication Protocols: IP Version 4, MODBUS, OPC
Applications / Tools: Matlab, Labview, Simulink, ModelSim, Quartus 5.0, Cadstar, Cadence, Tricon 1131, Allen-Bradley RS Logix 500, GE Speedtronic Mark VI Toolbox, GE Fanuc Cimplicity, Emerson DeltaV, MS Office, Altera Max II Plus, Visio, Orcad, PSpice, Adobe Acrobat, Adobe Photoshop, PCB123 Schematic, PCB123 Layout, Oracle, VMWare

COURSEWORK: Digital Signal Processing, State Space Control, Digital Image Processing, Adaptive Signal Processing, Robust Control, Pattern Recognition, Fuzzy Logic and Applications, Mechatronics, Design of Digital Systems, Matrix Methods in EE, Random Signals and Noises, Mixed Signal IC Design, Linear Systems I & II, Electromagnetic Fields I &II, Communication Systems

PROJECTS:

Control Systems Design: Modeling the Permanent Magnet DC Motor, Performance Analysis of Open-Loop and Closed-Loop Systems, Transient Response and Design Parameters, Effect of Additional Pole and/or Zero, Effect of Adding a Pole and/or Zero within the Loop, Velocity of the DC Motor Using Compensators

Robust Control: Robust Control Design of a Magnetic Levitation System

Digital Image Processing: Circular Symmetric Watermark Embedding, Image Enhancement Filters, Image Restoration Filter Design, Histogram Processing, 2D and 3D Object Manipulation, 2D Filtering in DFT Domain

Pattern Recognition: Classification using Gaussian distribution, Multiple Class Classification, K Means & Fuzzy K-Means Clustering, and Eigenfaces for Recognition, KL Expansion for an Invariant Feature Space, Texture Analysis and Classification using Tree-Structured Wavelet Transform, Image Segmentation using DWF

Senior Design Project: Wireless Assistive Control System – Control System Design, Prototype/New Product Design

Digital Electronics: Design, Simulation /Testing of NMOS Inverters, CMOS Inverter and CMOS Combinational Logic, CMOS Sequential Logic, Propagation Delay through CMOS Logic, Dynamic CMOS Logic, MOS-based Memory

Digital Systems: Ripple Counters (Altera Max), Versatility of Hardware Devices, NAND Logic Design, Multiplexers, Basic Latches and Flip Flops

Microcomputers: Keypad Scanning Using Input/Output Ports, Peripheral Control, Controlling the Seven- Segment Display

Computer Architecture: ALU Design, Registers, Counters and RAM, Processor Datapath, Control Unit, Complete Processor Simulation and Emulation

Electronics I (BJTs): Diode characteristics and Circuits, BJT characteristics, Biasing and Amplifiers, Power Supply Design, Transistor Modeling of BJTs, BJT Common Emitter Amplifier Design

Electronics II (MOSFETs): MOSFET Characterization, MOSFET Current source MOSFET Differential Pair with Resistive Load, MOSFET Differential Pair with Active Load, Feedback Amplifier & Stability

WORK EXPERIENCE:

Xerox Corporation, XIG/XRCW/DWSL/CICS, Webster, NY (07/2008-11/2008)
Electrical Engineering Coop
Assisted XSIS with Architecture Designs, System Integration, Embedded Programming & Application Development for the Perle ACQ project

MKS Instruments, Software and Controls Dept., Rochester, NY (11/2006-05/2007)
Coop-Intern
Assisted software engineering with the following jobs: Generate/Revise/Update Schematics, Bills of Material, Test Fixtures, Reliability Stress Sheets, Printed Circuit Layout, Software Design/Development, Digital Circuit Design, Board Designs, Embedded Programming

Yokogawa Middle East, Engineering Dept., Bahrain (10/2006-11/2006)
Engineering Assistant
Participated in the Factory Acceptance Test (FAT) of control system upgrade for Saudi Aramco's Uthmaniyah GOSP-7 Project

Summit Technologies, Instrumentation and Process Control Dept., Al-Khobar (03/2005-08/2005)
Engineering Assistant
Worked on configuring the following systems: Tricon Version 9.0 TMR, Allen-Bradley SLC500, GE Speedtronic Mark VI gas turbine controls, GE Fanuc Cimplicity HMI, Yokogawa CENTUM CS3000 (Vnet/IP), Foundation Fieldbus (DeltaV and CS3000 implementations)

ACTIVITIES: Institute of Electrical and Electronics Engineers (IEEE), Instrumentation Systems and Automation (ISA), RIT Fencing Club, RIT Orientation Program, Golf, DSS Labs (Lab Assistant), BLL (Research Assistant)