VIT University
Control and Automation
Vellore, Tamil Nadu 632014
India

VARUNJITH V

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CAREER OBJECTIVE

To become part of a highly motivated group to improve the real world life standards through innovation and persistence. I should be able to utilize my skills and improve my knowledge through continued success

EMPLOYMENT

Control Systems Intern **Danfoss Industries Pvt.Ltd** **Jul 2016**
- Implimented PID control algorithm for Variable Speed Compressors
- Worked on STM 8 and 32 bit microcontrollers
- Worked on Wifi and GSM modules for refrigeration controllers
- USB Algorithm implementation and code generation using MATLAB
- Interfacing of Refrigeration and Air-conditioning controllers to the sensors and other peripherals(USB)
- Communication Protocols used: USB,UART, I2C,SPI, CAN
- Compilers/Editors : Matlab, Atollic True Studio, COSMIC8, ST Visual Develod / ST Visual Programmer
- Programming Languages : Matlab, Embedded C,Assembly programming

COO, Co-Founder **Cloud Orange** **Oct 2012- Jan 2014**
- Founded the company Cloud Orange Business Solutions Pvt.Ltd which involves in providing services in Control System, Cloud Computing, Live Streaming, Web Development,Online promotion.
- Lead a team for developing Control System projects for final year engineering students
- Efficiently managed day to day activities covering functional areas including development and client relationship
- Established www.todayisbest.com to motivate people. Now it is having 17 thousand followers around the world.

EDUCATION

Vellore, India **VIT University** **Fall 2015-May2017**
- M.Tech in Control and Automation, CGPA: 8.7
- Post Graduate Coursework: System Theory; Process Dynamics and Control; Machine Learning; Industrial Robotics; Discrete Control; Optimal Control ; Control of Electric Drives; Industrial Automation; System Identification and Adaptive Control; Machine Vision ; Random Process in Controls and Estimation; Real Time Embedded Systems.
- Software Tools : Matlab/Simulink , Arduino IDE, Python IDLE, LabVIEW
- Programming Languages : Matlab, C, Python, PLC Programming

Kerala,India **Saintgits College of Engineering** **2008-2012**
- B.Tech in Electrical and Electronics Engineering from M.G University, Kerala – Percentage : 67.24
- Academic seminar on "Adaptive Cruise Control Systems in modern cars "
- Programming Languages : C++, Matlab

Kerala,India **M.D.S.H.S.School** **2006-2008**
- Higher Secondary Education in Computer Science from M.D.S.H.S.School, Kottayam – Percentage : 85

Kerala,India **D.V.V.H.S.School** **2006**
- SSLC from D.V.V.H.S.School, Kottayam – Percentage: 80.66

PROJECTS

- **PID Based Control Logic For Variable Speed Refrigeration controllers(Danfoss)(2016)** - Matlab
  Desigbed PID controller for controlling the Speed of Variable Speed Compressors used in the bottle coolers and supermarket refrigerators.
- **Liquid Level Control In Two Tank Interacting System Using Reinforcement Learning (2015)** - Matlab
  It is a challenging problem to control the liquid level in the two interacting tanks because of its nonlinearity and its change of cross section with respect to the height. The optimal control is difficult using the classical control schemes. In this paper Reinforcement Learning (RL) control strategy was applied for the control of conical two tank interacting system. Matlab
- **Control of Quadcopter(UAV) Using Reinforcement Learning(Ongoing project)** - Matlab, Librepilot
  In this project the Model Based Development (MBD) method using Matlab is used to develop the control algorithm. The flight controller used is Openpilot CC3D. The PID controller is already implemented and fine tuning had been done. The work is going on in the development of control using Machine Learning algorithm.
- **USB Bit Banging for 8/32 bit Controllers without USB peripheral(Danfoss)(2016)**-Embedded C,Assembly Matlab
  In this project, the communication between the controller and USB peripherals is implemented by manipulating the GPIO pins of the controller. The design of circuits to obtain the USB communications standards is done. - Matlab, Embedded C, Assembly Language
- **Healthcare Based IoT using Raspberry Pi (2016)**- Python, Linux
  A system is designed to continuously monitor the pulse and other vital parameters. This data can be displayed in the cloud that can be accessed only by authorized personnel. It also warns when patient comes near alcohol. Python, C, Raspberry Pi, Linux (Debian).

PROGRAMMING LANGUAGES

- Matlab Programming, Embedded C, Python, PLC Programming , LaTeX
- Matlab/ Simulink, Python IDLE, TeXstudio(LaTeX), Atollic TrueStudio, LabVIEW

CERTIFICATIONS

- Robotics: Aerial Robotics by University of Pennsylvania on Coursera
- An Introduction to Programming the Internet of Things (IOT), a 6-course specialization by University of California, Irvine on Coursera. Specialization Certificate earned on March 16, 2016
- The Raspberry Pi Platform and Python Programming for the Raspberry Pi by University of California, Irvine on Coursera
- The Arduino Platform and C Programming by University of California, Irvine on Coursera
- Getting Started with Python by University of Michigan on Coursera
- Learning How to Learn: Powerful mental tools to help you master tough subjects by University of California, San Diego on Coursera
- Inclusive Leadership Training: Becoming a Successful Leader by Catalyst Inc. on edX

WORKSHOPS

- Two day national workshop on "Advanced Computing for Control and Optimization"
- Two day national workshop on "Emerging Trends in Control Engineering"

ADDITIONAL INFORMATION

- Languages known : English, Malayalam, Tamil, German basics | Date of Birth : 17/05/1990