**Konduri Vamshi Krishna**

6329 Douglas Street

Pittsburgh, PA, 15217

Indian Citizen

**Educational Details**

Master of Science - Robotic Systems Development (December 2014)

**Robotics Institute, Carnegie Mellon University**, Pittsburgh, PA

GPA: 3.63/4.0

Bachelor of Technology in Mechanical Engineering (2009-2013)

**Indian Institute of Technology**, Guwahati, India

GPA: 8.08/10

**Internships/Work Experience**

* **Internee at International Institute of Information Technology: Hyderabad,India Summer, 2013**

Worked on the mapping and exploration with camera onboard a “Parrot” drone.

Worked on Feature detection, Optical Flow, Plane detection using Ransac Method, Image segmentation.

* **Internee at Automation, Robotics and System control Lab: Modena, Italy Summer, 2012**

Localization of the robot by fusion of data from Inertia Measurement unit and GPS using kalman filters.

System was to be used in automated agricultural vehicles in Italy, RTK – GPS was ground truth.

* **Industrial Training at** BAUD Industries : Les Verriers, Switzerland Summer, 2011

Familiarized with various departments of this Swiss micro component manufacturing industry, such as the production, quality control, and logistics departments. This company specializes in production of micro- components for watches, medical and aviation industries with a precision as low as 5 microns.

* **Industrial Training at** MTAR Industries: Hyderabad, India Summer, 2011

Worked with various manufacturing processes and quality control methods at both micro and macro sizes of production. The company specialized in conventional and Non – conventional processes for manufacturing, with products ranging from satellite components for ISRO to nuclear plant products.

**Projects**

* **Development of a combined UAV/UGV system May 2013 - Present**Unmanned aerial and ground vehicle collaboration system to identify and transport a particular object from the environment.
* **Technology Development Plan for “Motion Controller device” May 2013 - Present**Analyze competition and market opportunity, determining the development path and required resources, developing cost and pricing models and developing a market and sales plan for a motion controller device aimed at the video game market.
* **A\* algorithm and LPA\* incremental search May 2013 – Dec 2013**The advantages of the LPA\* algorithm, to include the dynamic environment scenario, over the A\* algorithm was analyzed.
* **Localization of a Robot using Vision and Sensory Input May 2012-May 2013**

Guide: Dr. S. K. Dwivedy, Professor, Department of Mechanical Engineering, IIT Guwahati

Implementation of Fuzzy logic in an autonomous robot, on Arduino platform with input from a distance measuring sensor and the output was the speed of the wheels controlled with Pulse Width Modulation.

* **Fuzzy logic using Mamdani methods in wall following robots Dec–2012**

Implementation of Fuzzy logic in an autonomous robot, on Arduino platform with input from a distance measuring sensor and the output was the speed of the wheels controlled with Pulse Width Modulation.

* **Optimization in a Non Linear Problem Jan 2013 - May 2013**

Using Genetic Algorithms and deterministic methods to find out the optimum solution for a non- linear problem statement with nonlinear and bounded constraint using Matlab.

* **Simulation of punching mechanism on ADAMS Platform June 2011 – Dec 2011**

Simulation and analysis project of the mechanism in the ADAMS software. Visualization and the forward kinematics were made easier in this software.

**Coursework**

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| Manipulation mobility and control | Computer Vision |
| Fundamental Mathematics for Robotics | Robot Autonomy |
| Mechatronics | Systems Engineering |
| Managerial and Engineering Economics | Game theory and Economics |
| International Economics | Business seminar I & II |

**Online Courses (Coursera)**

* **Control Of Mobile Robotics** - Distinction grade - Georgia Institute of Technology
* **Social Psychology**  - Completed with Statement - Weslayen University

**Software Skills**

C++, Python, Matlab, ROS, Solidworks, Adams, Arduino, OpenCV

**Other Information**

* Good English Proficiency. TOEFL score of 117 on 120 (Test for English as a Foreign Language)
* Participated in 5k “pretty good race” at CMU and Trekking expeditions organized by the Mountaineering club of IIT- Guwahati.
* Basic proficiency in French.

Small edit, just to see the change