

# Praveen Ramanujam

Curriculum Vitae

"Satisfaction lies in the effort, not in the attainment, full effort is full victory." - Mahatma Gandhi

## Education

2011–2014 Masters of Computer Science, Bonn-Rhein-Sieg University of Applied Sciences,

Bonn, Germany, GPA - 1.6.

German Grading System

2003–2007 Bachelors of Engineering, Tamilnadu College of Engineering, Tamilnadu, India,

GPA - 8.1.

Specialized in Electronics

## Masters Thesis

Title Robust Navigation in Unstructured Environments

Supervisors Professor Paul G.Ploeger & Professor Erwin A.Prassler

Description The thesis proposed a coherent framework to combine compliance in navigation to the existing navigation algorithms, thereby, allowing robots to deal with real as well as virtual forces of the environment. In order to realise the framework, kinetic analysis on a four wheeled omni-directional robot was performed. As a result, the robot can be torque controlled given a certain path to be followed. This provides an estimate of the force exerted by the robot for its motion. A disturbance

observer based on robot's momentum was implemented in order to detect undesirable

collisions

## Experience

#### Vocational

Oct2014- Lead Robotics Engineer, MUJIN INC, Tokyo, Japan.

Present Laser-worker Project

- Real world implementation of AI algorithms.
- GCode(Industrial Language) parsing in python.
- Understanding Robotics Industrial Standard.
- Feb2014- **Research Intern**, LOCOMOTEC *GmbH*, Bonn, Germany.
- Sep2014 Android applications and software interfaces to embedded devices
- Sept2013- Research Intern, DLR, Munich, Germany.
  - Jan2014 Integration of Bullet physics engine to simulation software
- Sept2011- Teaching Assistant, Bonn-Rhein-Sieg University of Applied Sciences,
  - Feb2014 Bonn, Germany.
    - Robot Manipulation.
    - o Introduction to Robotics.
    - Statistical Analysis.
- June2007- Automotive Software Engineer, ROBERT BOSCH, Coimbatore, India.
  - Feb2011 Communication Interfaces such as CAN.
    - Accurate sensor model development for cost reduction.
    - Understanding of automotive development.
    - First support for Japanese customers in passenger market.

## Extras

- 2014 Master Thesis Grant from Locomotec GmbH
- 2014 DAAD commitment award for Bonn region
- 2013 Participated in K.U.Leuven PhD school of Robotics
- 2012 Participated in Neuroinformatics course, UFA, Russia
- 2012 Lead for Navigation Group for BRICS Research Camp, Spain
- 2012 Navigation Responsible for Robocup competitions in IROS, Portugal
- 2012 Pariticipated in Robocup Mexico

## Computer skills

Intermediate JAVA, Lisp, R

Advanced Python & C++

Advanced Wrting grammars and parsers for new languages

## Past Research

Preliminary A Software Framework for Simulation of Mobile Robot Models.

Advanced Motion Planning of Mobile Manipulators in Unstructured Environments under a set of Constraints.

## Personal Details

DOB 4th Feb, 1986

Nationality Indian

Current Tokyo, Japan

Location

Passport G4767640

number