

Pavan R Vasishta

Curriculum Vitae

5 Rue Nestor Cornier, 38100 Grenoble

+33 7 68 27 75 84

✉ pavan.vasishta@inria.fr

in [Pavan Vasishta](#)

✉ vasishta.pavanr@gmail.com

May 27th, 1991

Education

- Feb 2016–Present **PhD in Mathematics and Informatics**, Inria - Universite Grenoble Alpes, Grenoble, France, (*Expected 2019*).
- Sept 2013 – **Master of Science in Control Engineering, Robotics and Applied Informatics**
Sept 2015 - **Advanced Robotics**, Ecole Centrale de Nantes, Nantes, France, (*2 Years*).
- Jul 2012 – **Proficiency Course in Intelligent Agents**, *part-time*, Indian Institute of Science,
Dec 2012 Bangalore, India, (*6 Months*).
- Sept 2008 – **Bachelor of Engineering in Electrical and Electronics Engineering**, The Na-
Jun 2012 tional Institute of Engineering, Mysore, India, (*4 Years*).

Skills

- Programming Python, C++, PyCUDA, C, Matlab, Git/SVN, Latex
- Packages Scikit, Pandas, OpenCV, ROS, Gazebo, Keras
- Strengths Image Analysis, Probabilistic Prediction, Machine Learning, Self Organising Networks, Pedestrian Behaviour, Deep Learning
- Languages English (Native), Kannada (Maternal), Hindi (Fluent), French (Intermediate)
- Reviewer **ITSC'18**, **IV'18**, **PPNIV- IROS'17**
- Tools PSpice, AUTOCAD 2008, Solid Edge, CATIA Workbench, DELMIA, mikroC Pro, MPLAB
- Experience AUTOSAR development, AUTOSAR tools, scripting diagnostic tests.
with: Embedded systems such as Intel 8051, AVR, PIC16, PIC32, Raspberry Pi, Infineon TriCore 27xx series, Freescale MPC 5675K, Renesas NEC V850.

Professional Experience

- February 2015–August 2015 **Student Intern**, *Institute de Recherche Technologique (IRT Jules Verne)*, Nantes, France.
- 2015 Implementation of a control strategy using multiple sensors for the UR10 Robot for safer operation around human workers in an industrial setting.
- June 2012–July 2013 **Associate Software Engineer**, *Robert Bosch Engineering and Business Solutions Pvt. Ltd.*, Bangalore, India.
- 2013 Worked on Automotive Embedded Programming based on AUTOSAR standard and working experience in Automotive protocols like CAN and Flexray.
Experience in AUTOSAR Diagnostic Modules
- June 2011–August 2011 **Student Intern**, *iRobot India (Pvt.) Ltd.*, Mysore, India.
- Module design, fabrication, Programming a USB hub and microcontrollers for creating a gaming controller interface for the 210Negotiator robot.

Awards and Academic Affiliations

- Award **Best Student Paper** at The 15th International Conference on Control, Automation, Robotics and Vision (ICARCV), 2018

- Award **Funding** from the Dept. of Science and Technology, Govt. of India through the Innovation and Entrepreneurship Development Cell for the project Semi-Automated Wheelchair
- Affiliation Member, IEEE Intelligent Transportation Society
- Affiliation Vice Chairman of the National Institute of Engineering IEEE Student Branch
- Affiliation Campus Ambassador for IBM University Relations, India
- Affiliation Member of ONYX, the institutional branch of the National Entrepreneurship Network, India
- Affiliation Core Committee member of the National Institute of Engineering Literary Club

PhD Thesis

- Feb 2016 - **Situational Awareness of Autonomous Vehicles in Urban Areas.**
- Present PhD being carried out under Dr. Anne Spalanzani and Dr. Dominique Vaufreydaz at Inria Grenoble in the CHROMA team. The thesis deals with understanding and predicting pedestrian behaviour in urban areas for safer navigation of autonomous vehicles. The thesis focuses on using sociological ideas like *Natural Vision* as a basis for using probabilistic methods to predict pedestrian behaviour in urban areas. The thesis has been financed by an ANR (*French National Research Agency*) grant for a collaborative project involving the research labs Inria Grenoble, Inria Paris, LS2N and the industrial partner AKKA. *Keywords: Markov Models, Potential Fields, Situational Awareness, Pedestrian Behaviour Prediction*

Selected Publications

- Oct 2017 **Natural Vision Based Method for Predicting Pedestrian Behaviour in Urban Environments**, *IEEE 20th International Conference on Intelligent Transportation Systems (ITSC)*, Yokohama.
- Sept 2017 **Urban Pedestrian Behaviour Modelling using Natural Vision and Potential Fields**, *9th Workshop on Planning, Perception and Navigation for Intelligent Vehicles at the IEEE International Conference on Intelligent Robots and Systems*, Vancouver.
- Nov 2018 **Building Prior Knowledge: A Markov Based Pedestrian Prediction Model Using Urban Environment Data**, *The 15th International Conference on Control, Automation, Robotics and Vision (ICARCV)*, Singapore.