

VENGATESAN G

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Block E1, # 02/01, No 1. Engineering Drive 2,
Dynamics Lab, Mechanical Engineering Dept, NUS,
SINGAPORE - 117 576.

EDUCATION *PhD Candidate*, Mechanical Engineering (2013 - 2017)
National University of Singapore CGPA: 4.67 / 5

Bachelor of Technology, Mechanical Engineering (2007 - 2011)
National Institute of Technology - Trichy CGPA: 8.97 / 10

Class XII (CBSE) 2007 R.S.K. Hr. Sec. School, Trichy-14 95.4%
Class X (CBSE) 2005 R.S.K. Hr. Sec. School, Trichy-14 91.8%

EXPERIENCE *Aviation Officer*, Chatrapati Shivaaji International Airport, Mumbai Aviation Fuel Station, Indian Oil Corporation Ltd. *In-charge of electrical maintenance of PLC, pumping equipments and Aircraft Refuelling Operations.* (Sept 2011 - Nov 2012)

Teaching Assistant, for modules EG1109 - Statics and Mechanics of Materials and ME3112 - Mechanics of machines. (Spring 2014, Fall 2015 resp.)
Lab Demonstrator for Vibration Measurement experiment for ME3112 - Mechanics of machines.

PUBLICATIONS Conferences

1. Vengatesan G, Gerard Leng, Zhang Qian, *Visibility-based UAV path planning for surveillance in cluttered environments* , 12th IEEE International Symposium on Safety, Security, and Rescue Robotics, Toyako - Japan (Oct - 2014)
2. Vengatesan G, Gerard Leng, Zhang Qian, *Visibility Maximization for Multi-UAV Surveillance over Urban Regions*, Singapore Airforce Technology Exhibition and Conference, Singapore (April - 2014)

Journals

1. Vengatesan G, Gerard Leng, Zhang Qian, *Multi-UAV Surveillance over Forested Regions* , Photogrammetric Engineering and Remote Sensing, Number 12, pp. 1129-1137(9) (Dec - 2014)

ACADEMIC ACHIEVEMENTS *Image Processing Robotics:*

- Won the **Second Prize** in **IIT-Bombay TechFest - 09** in the GOAL Event for building an autonomous Image Processing Soccer playing robot.
- Won the Second prize in an obstacles avoiding IP robot competition in **IIT Madras Shaastra - 09**. Won prizes for similar events in PSG College of Technology, Coimbatore and SRM University, Chennai.

BAJA - SAE All Asia: Participated in SAE Baja All Asia 2010 All terrain vehicle design and fabrication competition held at NATRIP facility, Pithampur, Indore and achieved 17th position out of 80 teams.

Academics: Among the **Top Ten** students in the department. **School Second** in CBSE Class XII Examination. Awarded First in Mathematics and Computer science aggregate in Class XII Examination.

PROJECT WORKS

Projects:

- Successfully completed the Final Year Project on **Design and Control of Stewart Gough Platform** using MATLAB, SimMechanics and SimHydraulics under the guidance of Prof. Dr. M. Udayakumar, at **NIT Trichy**, (Jan - May 2011).
- Successfully completed a project on **Stereo Camera Calibration and 3D coordinate measurement using Stereovision** at Engineering Design Dept, **IIT Madras** under the guidance of Dr. Sankara J. Subramanian and Dr. G. Saravana Kumar for the **Summer Fellowship Programme (SFP - IITM) - 2010** (May 17th - July 17th 2010).
- Successfully completed a project on **Optimization of Magnetic Abrasive Finishing Process using Breeding Swarm Optimization** at Mechanical Engg Dept, **IIT Kanpur** under the guidance of Dr. J. Ramkumar, for the **Summer Undergraduate Research Grant for Excellence (SURGE - IITK) - 2009** (May 5th - July 5th, 2009).

TRAINING

- Attended an In Plant Training in BHEL Trichy for a period of one week.
- Attended a workshop on Digital Radiography during Non Destructive Evaluation Seminar (NDE-2009).
- Attended a foundation course on Heat Treatment Processes conducted by the IIM Trichy.
- Attended a foundation course on Welding Technology for Fresh Engineers conducted by the IWS Trichy.
- *Memberships:* Member of Robotics and Machine Intelligence Club (RMI - NITT), Member of Indian Institute of Metals (IIM - Trichy), Indian Welding Society (IWS - Trichy), Society of Automobile Engineers (SAE) - India.

COMPUTER SKILLS

- *Operating Systems :* Windows, Linux
- *Languages :* C, C++, Java, \LaTeX
- *Packages :* Robot Operating System (ROS), Gazebo, MS Office, MATLAB, Simulink, AutoCAD, Origin, PRO/E, Solidworks

EXTRA-CURRICULAR ACTIVITIES

Positions of Responsibility :

- Manager of a hands-on workshop for building an autonomous 'Sumo-Robot's which had around 250 participants.
- Event Manager of an Image Processing Robotics event 'Snakes and Ladders' in Pragyan 2009.
- Organized a science exhibition for students from rural schools and exhibited an Image Processing Robot to motivate the students to continue their studies.
- Member of the SPIRIT-Ed club, which works for the IT - education for the poor.

Sports / Cultural Activities:

- 'A', 'B', 'C' Certificate holder in National Cadets Corps (NCC).
- Awarded the 'Best Firer' in the rifle firing competition, and Second Best Cadet at the NCC - Combined Annual Training Camp held at Karur.
- Parade Commander at the inter-college NCC drill competition. Participated in football matches in the intra-college level.
- Won prizes in Interschool Cultural Competitions (Campofez, OSCAR, Mahotsav) for Variety entertainment, skit.

**PERSONAL
DETAILS**

- *Date of Birth* : 10th April 1989
- *Languages known* : English, Tamil, Hindi

