

# CURRICULUM VITAE

## PERSONAL DETAILS

Name: Vinayak

Father's Name: K.V.S. Raman

Mother's Name: Meena Raman

Date of Birth: 21<sup>st</sup>, September, 1984

Sex: Male

Nationality: Indian

Marital Status: Single

Permanent Address: Vinayak

S/o Mr. K.V.S. Raman

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## EDUCATIONAL QUALIFICATION

Level	Name of School/ College	Board/ University	Aggregate	Division
Matriculation	C.S.K.M. Public School, New-Delhi	C.B.S.E.	89.6%	First
Senior Secondary Education	D.A.V. College, Chandigarh	C.B.S.E.	80.0%	First
B.E. Mechanical Engineering	Punjab Engineering College, Chandigarh	Punjab Engineering College	67.5%	First

## LANGUAGES KNOWN

- **English** – Written and spoken
- **Hindi** – Written and Spoken
- **Tamil** – Spoken

## ACTIVITIES & ACHIEVEMENTS

### *Academic:*

- **Founder Chairperson of ROBOTICS CLUB, PEC.**
- Conducted a three-day “**MATLAB WORKSHOP**” during the annual Technical Week at Punjab Engineering College, Chandigarh in October 2005.
- Organized a core technical event “**KAMPAN**” at ELEMENTS 2005 (PECFEST), Punjab Engineering College, Chandigarh.
- Conducted a two-day “**ROBOTICS WORKSHOP**” organized by IEEE Student Chapter of Punjab Engineering College, Chandigarh in September 2004.
- Presented a talk on “**Legged Robots**” at a seminar organized by SAE Student Chapter of Punjab Engineering College, Chandigarh in August 2004.
- Participated in the National Level Autonomous Robot Design Contest “**BRAINVITA BOTS**” held at TECHKRITI 2004, IIT Kanpur.
- Successfully fabricated a working model of an **eco-friendly car** and presented it in **National Science Exhibition** organized by the Directorate of education New-Delhi in 1999 while in class 10th (Equivalent to Secondary School Education).

### *Non-Academic:*

- Performance in vocal and instrumental music at EUPHONIA 2004, Punjab Engineering College, Chandigarh.

- Participation in national level singing competition at RENDEZVOUS 2003, IIT Delhi.
- Performance in vocal music at the Workshop Function 2003, Punjab Engineering College, Chandigarh.
- One of the junior organizers of the AIDS Awareness rally organized by the NSS unit of the college during December-2002.

## **AWARDS & HONOURS**

### *Academic:*

- April 2006 – Awarded **College Color for outstanding contribution in the filed of Robotics** at Punjab Engineering College, Chandigarh, India.
- April 2005 – Awarded **Second Prize** at the National Paper Presentation Contest “ECLECTICA 2005” at ELEMENTS 2005 (PECFEST), Punjab Engineering College, Chandigarh.
- March 2004 – Awarded **First Prize** in design competition “LIVE PROJECTS” at ISTE TECHFEST 2004, Punjab Engineering College, Chandigarh.

### *Non-academic:*

- March 2004 – Awarded **First Prize** in Non-filmy Singing Competition at CONFLUENCE 2004, National Institute of Technology, Kurukshetra.
- March 2004 – Awarded **Second Prize** in Non-filmy Singing Competition at CONFLUENCE 2004, National Institute of Technology, Kurukshetra.
- December 2002 – Awarded “**Best Volunteer Certificate**” in the ten-day National Service Scheme camp at Punjab Engineering College, Chandigarh.

## **FIELDS OF INTEREST**

### *Academic*

- Kinematics, Mechanisms
- Legged Locomotion
- Modular and Reconfigurable Robots
- Hyper Redundant and Flexible Manipulators
- Application of robotics in Space
- MEMS

### *Non-academic*

- Music (Indian Classical and Light Indian Vocals)
- Sketching
- Poetry

## **PROJECTS COMPLETED**

- Feb. 2004 - **Fabrication of a Wheeled Autonomous Robot programmable for any 2-D Path.**
- May/ June 2004 - **Leg Design and Kinematical Analysis for an under actuated Quadruped.**  
Project Guide: *Dr. Bhaskar Dasgupta*, Center for Robotics and Mechatronics,  
Department of Mechanical Engineering, Indian Institute of Technology, Kanpur,  
India
- Feb. 2005 – **Fabrication of wheeled line following robot**
- Mar. 2005 – **Experimentation for achieving stability of a two-wheeled setup using Gyroscope**
- April 2005 – **Fabrication of a R/C Power Boat**

- May/ June 2005 – **Study of a Single actuator Hexapod Robot for Steering Capabilities using ADAMS**  
Project Guide: *Dr. Dibakar Sen*, Department of Mechanical Engineering, Indian Institute of Science, Bangalore, India
- August 2005 - **Development of a demonstrational working model of a manually controlled hydraulically operated robotic manipulator.**
- November 2005 - **Design, optimization and development of a manually steered single actuator hexapod vehicle with mammal type leg configuration.**  
Project Guide: *Dr. Arun K. Lall*, Dean – Research, Planning & Development, Punjab Engineering College, Chandigarh, India

## PUBLICATIONS

### *Conferences*

- Saumya R Swain, Vinayak, Tai Sik Lee, and Ja Kyung Koo, "**Space Walking Robot for locomotion in Three Dimensional Environment**", 10th A.S.C.E. Aerospace Division International Conference on Engineering, Construction and Operations in Challenging Environments, 2006.
- Vinayak, "**Intuitive design and Gait Analysis for a Closed Loop Leg Mechanism of a Quadruped with single Actuator**", 8th International Conference on Climbing and Walking Robots, London 2005.
- Vinayak, Madan Mohan D., Hari Kumar V., "**Leg Design and Kinematical Analysis for an under-actuated quadruped**", International Conference on Theoretical, Applied, Computational and Engineering Mechanics, IIT Kharagpur, 2004.

### *College Magazines*

- **“Under-actuation in legged robots”**, Techno vision, Technical Magazine, Punjab Engineering College, Chandigarh.
- **“Hyper-Redundancy in Manipulators and their theoretical development with help of Snake Locomotion”**, Genesis, Technical Magazine, IEEE Student Chapter, Punjab Engineering College, Chandigarh.

### **PROFESSIONAL AFFILIATIONS**

- **Founder and General Secretary** – Robotics Club, Punjab Engineering College, Chandigarh
- **Joint Secretary** – Indian Society of Technical Education, Mechanical Engineering Student Chapter for the session 2005-06.
- **Member** – Society for Automotive Engineers from 2003 to 2005

### **SOFTWARE PROFICIENCY**

- C
- Auto-CAD, SOLIDWORKS
- MATLAB
- ADAMS, WORKING MODEL 2D