

# AMIT DAVID JAYAKARAN

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## OBJECTIVE

Enhance my skills as a designer, implementer and troubleshooter in the area of automation, controls and robotics

## JOB EXPERIENCE

- Mechanical Engineer**, Advanced Mechanical Technologies, Global Research, General Electric (GE) Feb 2004 – Present
- Modeled the pitch control system of the wind turbine
  - Worked on the drive train modeling and analysis of wind turbines in ADAMS.
  - Developed the next generation of dishwashers in an effort to improve wash quality while reducing water consumption and energy consumption by improving technologies and developing better algorithms. Developed a novel wash algorithm which is in the process of a being patented
  - Designed high-speed clothes washers and dryers to reduce energy consumption as well as cycle time.
  - Awarded Rookie of the Year 2005 (achievement by young talent with less than two years from graduation)
  - Awarded Imagination Award for best new idea with strong innovation potential

## EDUCATION

- Master of Science in Mechanical and Aerospace Engineering**, University of Florida, Gainesville, FL May 2004  
(GPA: 4.00/4.00)
- Bachelor of Engineering in Mechanical Engineering**, College of Engineering, Anna University (India) May 2001  
(GPA: 8.20/10)

## OTHER EXPERIENCE

- Graduate Research Assistant**, University of Florida – Designed and implemented various autonomous systems for backing up a vehicle with a trailer without affecting the control system of the vehicle. Aug 2002 – Dec 2003
- Mechatronics Course Grader**, University of Florida Jan 2002 – May 2002
- Technical Support, CITT**, University of Florida – Maintained both hardware and software on computers at the computing facility for the faculty of the University of Florida. Sep 2001 – Aug 2002

## PROJECTS / PAPERS

- Enhanced Trailer Backing and Control**, 16th Florida Conference on the Recent Advances in Robotics, Dania Beach, Florida Apr 2003
- Six-Legged Step Climbing Robot**, University of Florida – Conceptualized and developed a six-legged autonomous robot that walks around avoiding obstacles. The robot on encountering a step climbs it. It was acknowledged as the most successful six-legged robot at the University of Florida. Dec 2002
- Elevator Control System**, University of Florida – Devised a fuzzy logic controller to control the speed of an elevator irrespective of the number of people traveling in it. Dec 2002
- Noise Reduction For a Tribometer**, University of Florida – Analyzed the noise spectrum produced by a pin-on-disk reciprocating tribometer and drew up plans for an enclosure to reduce noise levels to comply with the NC – 35 ratings. Apr 2002
- Noise Cancellation Headphones**, University of Florida – Built an adaptive control system using dSpace to cancel surrounding noise. Mar 2002
- Hybrid Electric Vehicle**, Anna University – Using Advisor, a MatLab based application, modeled a Hybrid Electric Vehicle for Indian driving conditions, sponsored by Maruti Udyog Ltd., a Government of India and Suzuki Motor Corporation, Japan Enterprise. Apr 2001

## COMPUTER SKILLS

- Tools:** AutoCAD, Matlab/Simulink, dSpace, SigLab, Maple, MS Access, ADAMS, ANSYS.
- Operating Systems:** Windows, DOS, Linux, Unix.
- Languages:** C, Visual Basic, FORTRAN, HTML, ASP, VBScript, Motif, Inventor.
- Others:** MS Office, Macromedia Dreamweaver Ultradev, Adobe Photoshop, AVR Studio for Atmel microprocessors.

## AFFILIATIONS

- Chairman**, SAE Collegiate Club of Anna University 1999 – 2001
- Organized and conducted seminars and industrial visits.
  - Produced a publicity CD-ROM for SAE (Nov '00 - Dec '00) for which I was felicitated by Ms. Rodica Baranescu, SAE International President when she came to Chennai in Jan 2001.
- Six Sigma Certified** – Obtained a Green Belt in Six Sigma, a highly disciplined process that helps focus on developing and delivering near-perfect products and services from GE. April 2005

## HONORS

- Invited by the Tau Beta Pi Association to be a member because of an outstanding academic performance.
- Received an academic certificate of achievement for getting a 4.0 by the University of Florida International Center (UFIC).