

# Rajeev Lochana C.G.

## Permanent Address

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## CAREER OBJECTIVE

To use my ability and knowledge in Engineering, Mathematics and Pure Object Oriented Programming to develop simulation software and/or create products or systems for education and industry.

## AREAS OF EXPERTISE

Very Good in Object Oriented Programming, Visual C#, Addin development for Autodesk Inventor, Addin development for SpaceClaim, OpenGL, 3D CAD Modeling in Autodesk Inventor and SpaceClaim.  
Good in Robotics, Multibody dynamics, Mechanism design and analysis.

## PERSONAL

Birth: 1984	Health: Excellent
Married: 2009	Permanent Resident: India since birth
Children: No	

## LANGUAGES

English: Good spoken and written	Kannada: Good spoken and written
Hindi: Good spoken and written	Telugu: Fair spoken

## EDUCATION

2009 to present	M.S(Research) in Mechanical Engineering, <a href="#">Indian Institute of Technology, Delhi, India</a>
2002 to 2006	B.Tech in Mechanical Engineering, GPA 8.34/10, <a href="#">National Institute of Technology, Allahabad, India</a>

## PROFESSIONAL EXPERIENCE

2010 to present	<b>Senior Research Fellow</b> in Mechanical Engineering, <a href="#">Indian Institute of Technology, Delhi, India</a> Working on “Adaptive Force Control of Industrial Robot”
2009 to 2010	<b>Project Scientist</b> in Mechanical Engineering, <a href="#">Indian Institute of Technology, Delhi, India</a> Worked on “Omni-directional Advanced Simulator for Speed Walking (Concept Model)”

2007 to present

**Developer, AR-CAD.com**

**1. Co-Developer of SC-Motion**

SC-Motion is a Motion and Dynamic Simulation addin for SpaceClaim. It gets listed as a ribbon tab and upon selecting, it seamlessly let the user perform Motion and Dynamic Analysis of the SpaceClaim assemblies, without actually going out of the application. Main features of SC-Motion, till date are:

- Automatically converts all SpaceClaim assembly conditions to corresponding Motion Constraints/Joints
- Define Rotation and Translation to joints
- Define Force and Torque to joints
- Define Spring and Damper
- Perform Motion and Dynamic Simulation
- Record the Simulation as an .AVI file
- View Graph plots and export the plot data as .CSV

**2. Co-Developer of IN-Motion**

IN-Motion is a Motion and Dynamics Simulation addin/plugin for Autodesk<sup>R</sup> Inventor<sup>TM</sup>. It gets listed as an internal addin and upon selecting, it seamlessly let the user perform Motion and Dynamic Analysis of the Inventor<sup>TM</sup> assemblies, without actually going out of the application. Main features of IN-Motion, till date are:

- Automatically converts all Inventor<sup>TM</sup> Constraints to corresponding Motion Constraints/Joints
- Define Rotation and Translation to joints
- Define Force and Torque to joints
- Define Spring and Damper
- Perform Motion and Dynamic Simulation
- Record the Simulation as an .AVI file
- View Graph plots and export the plot data as .CSV
- Trace parts during Simulation

**3. Developer of Caartz.com**

Caartz is an online solution for storing Shopping Lists and managing them in a very user friendly way. It was implemented using Smalltalk and Seaside while learning Object Oriented Programming

2006 to 2007

**Graduate Engineer Trainee** at Hero Honda R&D Division, Gurgaon, India

## PROJECTS

- 2005-2006 "Design of an Alternative Air Conditioning System for CAD Laboratory", B.Tech Final Year Project done at [NIT, Allahabad, India](#)
- 2005 "Study of a Novel Constant Velocity Coupling Mechanism and its Potential Applications in Deployable Space Antennas", Summer Internship Project done at [Indian Institute of Science, Bangalore, India](#) under the guidance of Dr. Dibakar Sen
- 2004 "Kinematic Analysis of a Mechanism Used to Transmit Power in Shafts Inclined to Each Other", Summer Internship Project done at [Indian Institute of Science, Bangalore, India](#) under the guidance of Dr. Dibakar Sen

## PUBLICATIONS

- 2011 Rajeevlochana, C.G., and Saha, S.K., "RoboAnalyzer: 3D Model Based Robotic Learning Software," International Conference on Multi Body Dynamics(ICMBD), Vijayawada, India, Feb. 2011, pp. 3-13
- 2010 Chauhan, M., Rajeevlochana, C. G., Saha, S.K. and Singh, S.P., "Control of an Omnidirectional Walking Simulator," 12<sup>th</sup> International Symposium on Experimental Robotics(ISER), New Delhi, India, Dec. 2010
- 2009 Rajeevlochana, C.G. , "Spatial R-C-C-R Mechanism for a Single DOF Gripper," 14<sup>th</sup> National Conference on Machines and Mechanisms (NaCoMM), Durgapur, India, Nov. 2009
- 2006 Rajeevlochana, C.G. and Mishra, H., "Modified Layout Design of Passenger Coaches of Indian Railways", All India Seminar on Advances in Product Development, Allahabad, India, Feb. 2006
- 2005 Rajeevlochana, C.G. and Sen, D., "Studies on a Novel Constant Velocity Mechanism and Exploring its Use in Deployable Structures," Aerospace Related Mechanism Seminar (ARMS), Bangalore, India, Nov. 2005  
Paper was awarded "**Best Paper**" in the proceedings.