

Vibhor Aggarwal

Master's Student, Automotive Engineering RWTH Aachen

24 February, 1996 (23years)

Bayernalle 7, Aachen, Germany

1

(+49)17659896222

vibhoraggarwal.github.io/

@

vibhor.aggarwal@rwth-aachen.de

Skills*

CAD(Solidworks, Autodesk Inventor)

C++,C

Matlab,Simulink

FEA(Ansys, Abaqus)

Gazebo

ROS, YARP (Similar to ROS)

Languages*

English

Hindi

German

Italian

*Scale 1:Beginner to 6:Proficient

Projects' Photos-videos —



Summary

Automotive engineer with experience in cutting edge research on Human-robot collaboration and vehicle dynamics. Interested to work in the field of Automated driving or Modern vehicle systems, like Electronic stability control.

Education

M.Sc, Automotive Engineering RWTH Aachen, Germany

Sep, 2018-Present

B.Tech, Major: Mechanical Engineering

July 2013-June 2017

Minor: Applied Mathematics

Indian Institute of Technology Kanpur(IIT), India

Achievement and Awards

Best Under-Graduate project in Mechanical Engineering: IIT Kanpur 2017 Ranjan Kumar Memorial Award for best socially relevant project: IIT Kanpur 2017 Ranked 3rd in state and 914 among 1.4 million students: Joint Entrance Exam2013 Gold Medal in National Mathematics Olympiad: AISMTA 2013

Experience

Student research assistant C++ Simulink
Institute of Automatic Control, RWTH Aachen, Germany

May 2019-Present

- Sensor fusion for Navigation and path planning of an Unmanned Aerial Vehicle
- Creating a C++ framework using inter-process-communication via UDP

Research Fellow, DIC lab Simulink YARP Gazebo C++
Guide: Dr. Daniele Pucci

ebo C++ Nov 2017-Aug 2018

Italian Institute of Technology, Genova, Italy Research center for Human-Robot Collaboration

- Implemented low level torque control framework for Humanoid robot, iCub
- · Identified transfer function between Voltage and iCub's joints' torque

Graduate Engineer Trainee MS Excel Hero Motocorp Ltd, Haridwar, India

July 2017-0ct 2017

World's largest two-wheeler company

 Managed Total Productive Maintenance(TPM) for machine quality, in-process inspection and resource planning

Produced machined parts by programming and setting up the CNC machine

Intern, Mechanical Design Engineer CAD FEA
Grey Orange Robotics Pte. Ltd, Gurugram, India

May 2016-July 2016 Warehouse Automation firm

- Designed suspension of a bi- directionally scalable material handling robot
- Optimized the assembly through trailing link in the Suspension system, and using DFMA techniques

Projects

Robotic Exoskeleton Arm CAD Matlab FEA
Guide: Dr. Sumit Basu, IIT Kanpur, India

Aug 2016-April 2017 Best Under graduate project at IIT Kanpur

- Exploited Pneumatic Air Muscles, based on Proportional pressure pneumatics
- Provided improved mobility to people in old age and Cerebral Palsy patients

Off-road vehicles CAD Matlab FEA
Guide: Dr. Avinash Kumar Agarwal, IIT Kanpur

Dec 2013-Jan 2016

vinash Kumar Agarwal, IIT Kanpur For Event similar to FSAE & Baja SAE

Created-optimised mathematical models for upto 5-DOF suspension systems

Other Information

Lead the Motorsports team at IIT Kanpur, with more than 25 members. Eventually being the Best-technical ready team in the competition