



# ABHISHEK MALHOTRA

Phone

Website

Email

Driving License

+31 687573175

[Portfolio](#)

abhishekmalhotraa12@gmail.com

Category B

## Education

**Masters- Automotive systems(Smart Mobility)** HAN University of Applied Sciences Arnhem

**Bachelor of Technology- Automobile** S.R.M Institute of Science and Technology, Chennai

## Certificates & Achievements

[PLC Programming in Siemens TIA Portal](#)

[Python for Data Science, AI & Development](#)



[Lean Six sigma Green belt](#)

Participant in Formula Bharat

## Projects

### Modelling of Throttle Valve

Worked on simulating and modeling of throttle valve, main aim was to control the angle of throttle valve using controller board- Olimexino. Worked and implemented the whole model using MATLAB/SIMULINK involving applied control strategies

### Modelling and simulation of Air Suspension

As a part of System modelling project worked on modelling of air bellow and quarter car model using MATLAB. Made a model considering 2 degrees of freedom and modelled an air bellow and validated it with data from an IVECO fleet vehicle .

### Intelligent Speed Assistance

An effective system in the vehicle able to sense the speed limits of that local road and send a warning and also notice the supplementary signs ,Giving a safe and comfortable environment for the driver .using open CV and optical character recognition (OCR). Worked on the system using MATLAB and python incorporating the hardware-jetson tx2 and olimexino.

### Intelligent Parking Communication

A system that is a form of infrastructure application capable of communicating location and routing data to the user, to help the driver informed about available parking spaces ensuring smooth entrances and exits of parking buildings, Taking inputs from user regarding the search area and locating the parking area using vehicle identification techniques and telling the availability of parking spot by communicating the route to user .Ensuring a safe, fast and comfortable flow at parking places of airports, business parks and cities

## Experience

### Application Engineer

KONI Shock absorbers ,Netherlands

Working as a product design engineer expirience with working on 2D and 3D. Responsible for CAD design , working with bill of materials and FEA of shock absorbers.

**Skills: Innovation Management • Teamwork • Solidworks • Proactive • Autocad • Fluid Dynamics • Personal Responsibility**

### Brakes Associate

Camber Racing - S.R.M Insttute of Science and Technology, Chennai

Responsible for designing, tuning and simulating various brakes performance methods and testing them in real world environment. Worked on designing a pedal assembly in solidworks for formula student car

**Skills: Innovation Management • Teamwork • Solidworks • Proactive • Autocad • Fluid Dynamics • Personal Responsibility**

## Internship

### Mechanical Design Engineer

Decibles Lab, Bangalore, India

Worked on Mechanical modeling from very basic to advance level and working on Vehicle Resistive forces control systems ,Spring Mass Damping Systems ,Battery Modeling and Thermal modelling of house

**Skills: Strategy • Scilab • Spontaneity • Independent Thinking • Analytical Skills • Strong Communicator • Problem-solving**

## Research Paper

### Adaptive Vehicle Safety and Collision Warning System Using DSRC for Heavy-Duty Vehicle

Smart Innovation, Systems and Technologies - Springer

An adaptive system is used to avoid collisions at Blind Spots by giving them warning with vehicle-to-vehicle communication. Global positioning system is used to get the required information about the location and velocity of the vehicle

## Master's thesis

TU Dortmund, Dortmund

### Multi-Vehicle & Infrastructure Systems in Safety-Critical Sectors with robot dog

A system designed for safety-critical scenarios involving vehicle to infrastructure communication and vehicle-to-vehicle communication

**Skills: SLAM• ROS • ROS2 • MQTT • conducting research • IOT(Internet of things) • Personal leadership. • Reporting/Report writing • literature review • Embedded System• Team Player • LIDAR • SSH • Rasberry Pie • Ardiuno • Docker • Electronics • PCB Design • C• C++ • Software Configuration • System Integration • Linux • Problem Solving • Semi Conductor Design • Robotics • Mechanical Engineering • Electrical Engineering • QEMU • 3D Printing**

## Skills

**Skills: MATLAB/SIMULINK• OCR• Pandalas• PyTorch• Automotive Design• Tesnsorflow • Model Based Design • Problem solving • Applied Physics • System Modelling • Control System • leadership • Autocad • Microsoft office • Catia • Adobe Illustrator • Adobe After Effects • Heat Transfer • Fluid Mechanics**