Sai Santosh Nadakuditi

Location: Turin, Italy | P: +393425063568| Email: s218077@studenti.polito.it

Summary

An M.Sc. Automotive Engineering student specializing in Vehicle System Development and looking for entry-level opportunities related to vehicle dynamics modelling, autonomous driving, and ADAS. With more than 2 years of experience in designing and building vehicles, as a flexible team player working across varied vehicle systems, for BAJA SAEINDIA.

Education

Politecnico di Torino, Italy *Turin, Italy*
Master of Science in Automotive Engineering *2014 — Present*
Key Courses: Automatic Control, Chassis Design and Automotive Infosystems-Courses focusing on vehicle dynamics, control systems, and ADAS
Thesis: Vehicle Dynamics and Driver Behaviour classification using AI(Ongoing)

Kumaraguru College of Technology *Coimbatore, India*
Bachelor of Engineering in Mechanical Engineering 8.37/10 (CGPA) *2010 — 14*

Skills

Design/Analysis Tools: PTC Creo, MATLAB, Simulink, Simscape, MSC Adams Car, CarSim, Python.
Languages: English, Telugu, Italian, Tamil, Hindi, Kannada

Projects and Experience

Analysis and Modification of Suspension and Cornering characteristics of a C-Class Hatchback *Turin, Italy*
Post-graduate (Masters)

- Modified the MacPherson Suspension to increase the roll center height and improve the understeer capability of the car.
- Simulated Segel model with Non-linear effects using Pacejka Magic Formula tyre model at speeds of 80 Kmph and 140 Kmph.
- Provided technical expertise and mechanical engineering excellence to a full complement of project operations and objectives.
- Utilized design and analysis tools that included MATLAB, MSc Adams Car, and CarSim.

Steering system for SAE BAJA All-Terrain Vehicle – 1 Year *Coimbatore, India*
Undergraduate (Bachelors)

- Part of an interdisciplinary engineering team (25 members) from the Department of Mechanical Engineering, Kumaraguru college.
- Worked with mechanical engineers to build a robust steering mechanism that withstands all terrains and competed in SAE BAJA.
- Engineered the steering system to achieve a turning radius of 2500mm for a wheelbase of 1360mm for an all-terrain vehicle (ATV).
- Directly involved in product development life cycle from concept development, product design, and detailed engineering drawings.
- Demonstrated comprehensive knowledge of mechanical-related computer software such as MSc Adams Car and PTC Creo.
- Exemplified teamwork through constant communication with engineers and project leaders in executing project assignments.

Steering, Suspension and Braking systems of an All-terrain Vehicle – 1 Year *Coimbatore, India*
Undergraduate (Bachelors)

- Served as the Project Manager leading a team of 25 members in the development of an ATV with in-house designed components.
- Developed a lightweight braking system from OEM products and self-designed/fabricated pieces for performance improvement.
- Designed and fabricated a rack and pinion gearbox, double wishbone suspension, and steering upright at the highest quality.
- The 10-month long project also included setting up of student-run prototype building laboratory with the necessary equipment.

Smart Mobility System *Coimbatore, India*
Undergraduate (Bachelors)

- Worked in a team of 4 that designed a Touchpad-controlled wheelchair for physically challenged and differently abled individuals.
- Designed the system to incorporate eye-control, automatic navigation system and caregiver follower, and computer interfacing.
- Motorized a manual wheelchair with an automotive wiper motor and a coupling gear system to allow it to drive smoothly.
- Spur gear system at 3:1 with clamps and adapters. 12 V battery, a microprocessor (Arduino with Atmel 8-bit AVR microcontroller).
- The Smart Mobility System also incorporated a Relay board with 8 switches and a joystick.

Positions of Responsibility

Member of Society of Automobile Engineers and participated in SAE BAJA 2013.
Captain of college SAE BAJA-2014 team and led the team to Virtual BAJA 2014.
Member of Mechanical Association of KCT, organized **'MECHMERIZE 2012-2014**, 'A National Level Technical Symposium.
Member of 'Namadhu Pangu', a community service club of KCT, involved in weekly milk distribution and a vaccination program.
Founder of 'The Garage', a 24/7 accessible lab in college for various researching activities and prototype and project development.