



VIT[®]
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)



SPONSORSHIP PROPOSAL



@team_autoz



Team Autoz VIT



www.teamautoz.com

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ABOUT VIT

Vellore Institute of Technology, established in 1984, is India's top private university according to the MHRD. It encourages students to excel in all fields of technology and provides a conducive environment for achieving excellence. VIT offers quality research training and collaborates with industry and international research networks to maintain its relevance to world-class research. The institute has secured sponsorship for R&D projects from organizations such as DRDO and ISRO and has partnered with Schwing Stetter to help in the growth of the workforce. VIT provides a platform for student teams to work in a collaborative space for extracurricular activities and gives them the opportunity to implement theoretical components of the engineering curriculum in real-world applications.



OUR TEAM

AutoZ is a team of undergraduate students at VIT who are working on developing autonomous vehicles and systems. Our team comprises a diverse group of motivated individuals with prior experience in industrial projects. We thrive on interdisciplinary collaboration, believing that diverse skills drive groundbreaking solutions. Our mission is to design and develop products that solve real-world problems and collaborate with companies eager to bring automation into the market.



OUR PROJECTS

PRATHAM



Pratham symbolizes an autonomous ground robot designed for autonomous navigation. Key features include lane detection, obstacle avoidance, SLAM, four-wheel drive, and GPS waypoint navigation. It has a variety of applications, including mine detection and delivery-based services.

AUTONOMOUS DRONE



Our team is developing an autonomous drone designed for surveillance purposes. The drone is a hexacopter equipped with cameras and the necessary control hardware to achieve full automation. We assembled a ZD850 drone frame and prepared it for its first manual flight.

QUBI



Our bot leverages LiDAR, a depth camera, and an IMU to create an accurate 3D perception of its surroundings, enabling precise localization and obstacle avoidance. Combined with its advanced electric powertrain, it ensures smooth, efficient, and reliable navigation across diverse environments.

LANDMINE DETECTION

Team AutoZ's DRDO project aims to develop an unmanned ground vehicle capable of maneuvering through rough terrains and providing critical information. We are in the process of developing a ground-penetrating radar system that can detect subsurface landmines and hazardous objects through the propagation of radio waves. This system consists of a Software Defined Radio (SDR) mounted on the robot, which is responsible for transmitting and receiving the radio waves. The first iteration of this project, a Doppler radar, was successfully demonstrated at IIT Kancheepuram.



PAST PROJECT – L3

To scale up our objectives, we are automating a Maruti Suzuki Versa by converting a manually operated electric vehicle into a Level 3 (L3) autonomous vehicle. The L3 system utilizes a Velodyne Lidar to create a 3D representation of the environment, an Intel RealSense camera to capture accurate point cloud data, and an Xsens IMU to measure triaxial acceleration and angular velocity. Additionally, the system employs the Nvidia Drive, an embedded supercomputing platform for data processing, and Continental radar for enhanced environmental sensing. We have collaborated with VIT's prestigious Automotive Research Centre (ARC) and are working jointly on automating the electric vehicle.



IGVC(INTELLIGENT GROUND VEHICLE COMPETITION)

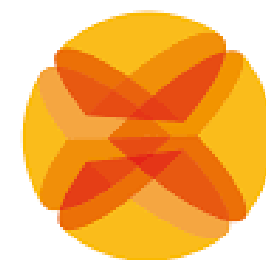
IGVC brings together teams from across the world to design autonomous ground vehicles capable of navigating complex obstacle courses, offering exposure to cutting-edge technology, industrial collaboration, and sponsorship opportunities. The competition features four major events: Self-Drive Challenge, Auto-Nav Challenge, Design Presentation, and Cyber Challenge.

Team AutoZ proudly represented our university at the Intelligent Ground Vehicle Competition (IGVC), held at Oakland University, Michigan, USA. We were the first team from our institution to participate in IGVC 2023, where we competed in the Auto-Nav and Design categories, securing 4th place in the Design Presentation and qualifying among the top 15 teams worldwide for the Auto-Nav heats. Building on this success, we returned to IGVC in May 2025, achieving an outstanding 7th place internationally and ranking 2nd among Indian teams - a milestone that showcases our growth and innovation on the global stage.



OUR

SPONSORS



xsens

HOW YOU CAN SUPPORT US

Software Support

Our robot relies on cutting-edge software solutions, which can be costly to maintain and upgrade. By sponsoring our software needs, you will enable us to access advanced tools that enhance the efficiency of our autonomous vehicle and help us achieve breakthrough results.

Components Contribution

Your support in providing critical hardware components will contribute directly to the success of our project. Utilizing your products in practical applications serves as a powerful endorsement, and we welcome contributions that drive our research and development forward.

Technical Insights and Expertise

We value your technical expertise, and your guidance could play a crucial role in overcoming the challenges we face during development. Technological innovation thrives on knowledge and experience, and your support will be instrumental in advancing our project.

HOW YOU CAN SUPPORT US

Travel Aid

Our participation in competitions requires the presence of multiple team members. Your assistance with travel funding will allow our team to be on-site, ensuring we can perform at our best and optimize our robot's capabilities during competitions.

Logistics Support

Ensuring the safety of our robots is critical as we transport it to competitions. By supporting our logistics needs, you can help guarantee that our bots can arrive safely and are ready to compete at their full potential.

Collaboration Opportunities

We invite you to collaborate with us. Through partnership, we can share our skills and resources to drive mutual growth and development. This collaboration will benefit both our team and your organization, as we work together to achieve technological excellence.



WHY SPONSOR US

As a student-funded team, we often face challenges in meeting the financial requirements necessary to complete our project. However, we are deeply committed to executing our plans and applying the skills we have acquired in a practical, real-world context.

Sponsorships serve as a meaningful bridge between businesses and a pool of future talent. By sponsoring our team, your company can create a platform to develop the next generation of workers while increasing its marketing presence.

By training the future workforce on your company's products, you can enhance their chances of employment and contribute to your company's growth and development.

In addition to fostering employment opportunities, sponsoring our team is also a powerful form of advertisement. Your brand will be showcased among automation technology enthusiasts and leaders in the field of automation research, ensuring broad exposure and recognition.

TEAM GALLERY



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