XML JSON

中文

College Features Publish Date：2024-06-11

Driving Autonomous Vehicle Development! NYCU Vulpes Racing Shines at COMPUTEX 2024 with Latest Formula E Car

NYCU Vulpes Racing showcased their latest generation Formula E race car at COMPUTEX 2024.

Translated by Hsuchuan

Edited by Chance Lai

invited by memory brand Kingston to showcase their latest generation Formula E race car at COMPUTEX 2024. The display attracted significant attention from visitors, and NYCU Vulpes Racing also revealed the progress of their autonomous race car development.

NYCU Vulpes Racing: From Challenges to Triumphs and Innovations

NYCU Vulpes Racing, established in 2008, faced a temporary halt due to funding shortages but was reignited in 2020 by a group of passionate students. In 2021, they launched a fuel-powered race car and won first place in the Taiwan Student Formula Racing League that year. Following their success, the team began exploring electric race cars.

The latest generation Formula E race car, showcased at COMPUTEX 2024, took nearly two years to develop. Compared to previous models, it features multiple new sensors, paving the way for future autonomous vehicle research. Additionally, aerodynamic kits were improved for better flow performance in both design and system.

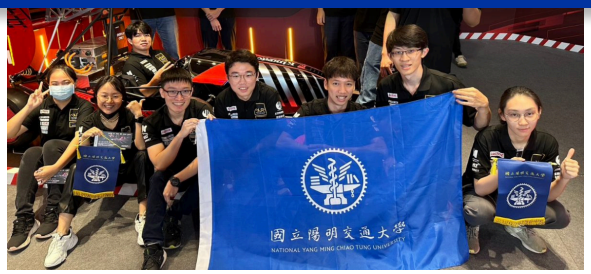
object detection, path planning, and vehicle control in a simulated environment.

Using LiDAR technology, their autonomous vehicle can navigate the track at a speed of 5 meters per second in the simulation. In the next phase, the team plans to increase the vehicle speed to 10 meters per second and incorporate camera and visual recognition technology to enhance the vehicle's perception and reaction capabilities, further accelerating its speed.

At COMPUTEX 2024, in addition to showcasing the latest racing car achievements, NYCU Vulpes Racing highlighted their ongoing autonomous race car project. The team also invited Dr. Chieh-Chih Wang, the Chief Digital Officer of Mechanical and Mechatronics Systems Research Labs (MMSRL) of the Industrial Technology Research Institute (ITRI), to provide technical guidance.

NYCU Vulpes Racing aims to develop a highly efficient autonomous electric race car, demonstrating the university's robust capabilities and bringing honor to the nation.

Student Formula Racing League this August and aims to participate in the prestigious Formula SAE (FSAE) in Australia, known as the Olympics of student engineering competitions, by the end of the year.



The NYCU Vulpes Racing team members bring together experts from fields such as electrical engineering and computer science.

Diverse Expertise Drives Innovation in NYCU Vulpes Racing

The current members of NYCU Vulpes Racing come from various disciplines, including electrical engineering, computer science, and business management. This diversity in knowledge, skills, and perspectives brings a wealth of creativity to the team, showcasing the immense potential of interdisciplinary collaboration.

Funding remains one of the team's greatest challenges, as it relies entirely on students seeking support from the university, sponsorships, and donations. Despite these hurdles, the team has overcome numerous obstacles and, this year, invited seven professors from the electrical and mechanical engineering departments to join as technical advisors, significantly boosting their technical prowess.

NYCU Vulpes Racing showcased their latest generation Formula E race car at COMPUTEX 2024.

Back

Open/Close

Contact Us

Yangming Campus

Address：No. 155, Sec. 2, Linong St. Beitou Dist., Taipei City 112304, Taiwan

Phone：+886-2-2826-7000

Chiaotung Campus

Address：No. 1001, Daxue Rd. East Dist., Hsinchu City 300093, Taiwan

Phone：+886-3-5712121