

Ansys are collaborating with Edge Case Research to engineer the next generation of autonomous vehicles with unmatched state-of-the-art hazard detection capabilities. Through a new agreement, Edge Case Research put their powerful AV artificial intelligence perception stress testing and risk analysis system, Hologram, within Ansys' comprehensive AV simulation solution to devise ways to maximise the safety of AVs.



Today's AVs rely on AI perception algorithms trained to make safety-critical driving decisions. Though highly advanced, an AV may fail to detect hazardous driving scenarios known as "edge cases", because its algorithmic training has not prepared it for the many unusual road situations it will encounter in the real world.

To ensure the highest safety of an AV, developers need tools to automatically identify these challenging edge cases in a way that is far more scalable than manual data labeling. Through this collaboration, Edge Case Research—who specialise in autonomy safety assessment software—will integrate Hologram with Ansys' highly sophisticated AV open simulation system. The resulting end-to-end capability analyses AV algorithms, detecting edge cases to advance development and help validate perception algorithms in the most advanced AV systems.

Edge Case Research CEO Mike Wagner says his company "chose to partner with Ansys because of their deep expertise in safety (...) Ansys and Edge Case Research will deliver an unprecedented comprehensive capability for safeguarding the next generation of autonomous driving systems."

And Ansys VP and General Manager Eric Bantegnie says his company "delivers a powerful data testing and analytics platform that unlocks the value of petabytes of AVs' recorded road data to find edge cases, significantly accelerating the development of safer, AI-driven perception software".