

Iowa State University Wins the 2026 Transportation Technology Tournament

July 21, 2026

Detroit, MI – The National Operations Center of Excellence (NOCoe) announced Iowa State University as the winner of the 9th annual Transportation Technology Tournament (TTT). At the ITE Annual Meeting plenary session, on Tuesday, July 21, Nicholas Ramfos, the NOCoe Director, presented the trophy to the winning team, whose solution addresses secondary crashes on rural interstates.

The goal of this tournament is to give students real-world experience by tackling meaningful transportation challenges and coming up with an innovative ITS and TSMO solution to improve transportation safety. This gives students the chance to showcase their technical and teamwork skills and prepare themselves for the workforce. The TTT is led by NOCoe and the United States Department of Transportation ITS Joint Program Office.

This year the tournament drew such strong submissions that the judges expanded the field to four finalist teams, who competed at the TTT Finals on Monday, July 20, at the ITE Annual Meeting. The finalists, from Iowa State University, the University of Texas at Arlington, and two teams from South Carolina State University, each had 10 minutes to present their solutions before facing questions from a panel of judges drawn from the ITS and TSMO industry. The tournament this year focused on TSMO and safe systems approaches which yielded solutions ranging from queue warning systems to pedestrian safety.

The Iowa State University team, drawing on Iowa crash records from 2018 to 2026, designed a connected vehicle–based queue warning system to address the thousands of secondary crashes concentrated on high-speed, rural, non-work-zone segments where drivers are least likely to anticipate a disruption. The solution fuses original-equipment connected vehicle data, aggregated probe data, and roadway sensors to detect queue formation in real time and deliver the queue's location and length to approaching drivers. Warnings reach both connected and non-connected vehicles through multiple channels: in-vehicle dashboards, freight APIs displayed on electronic logging devices, third-party navigation apps, and dynamic message signs, which prompt controlled deceleration, reduced abrupt braking, and the interruption of the chain of events that so often leads to secondary crashes on rural corridors.

The finalists were chosen from among 15 teams that entered the tournament earlier this year. Teams were advised by industry and academic mentors and went through ITS and TSMO trainings put on by NOCoe. More information can be found at: <https://transportationops.org/transportation-technology-tournament>.