

Report on Attendance at the 19th IEEE International Conference on Control & Automation (IEEE ICCA 2025)

Omri Sternberg, M.Sc. Candidate, Ben-Gurion University of the Negev

I am a master's student in the Department of Mechanical Engineering at Ben-Gurion University of the Negev, currently completing my thesis and preparing for graduation. My thesis, "*Control Design for Driver Transition from Autonomous Platooning to Manual Driving*," focuses on assisting drivers during platoon departure maneuvers. As part of this research, I developed a novel Shared Control framework addressing lateral control (steering, presented in the conference paper) and longitudinal control (throttle, to be included in a future publication). The framework has been evaluated through a human-in-the-loop experimental setup and detailed simulations.

In July 2025, I had the opportunity to present my paper "*Shared Steering Using Interpolating Control*" at the 19th IEEE International Conference on Control & Automation (ICCA). This work focused specifically on the steering aspect of shared control. While it does not yet include the full platoon maneuver, it represents an essential step toward achieving the final goals of my thesis. The proposed method blends driver steering input with automated control actions inspired by the interpolating control method, enabling smooth and safe shared steering during handover scenarios.

Due to the unfortunate military operation "*Rising Lion*" in the Israel–Iran war, I was unable to attend the conference physically. However, the organizers made it possible for me to present my paper virtually and participate in the sessions through Zoom. Although the networking aspect was inevitably reduced compared to in-person attendance, I was still able to attend a wide range of presentations in the fields of control, robotics, and autonomous systems. This provided me with valuable insights and exposure to cutting-edge research in areas closely related to my own.

Overall, participating in ICCA 2025 was a highly meaningful experience. Presenting my work to an international audience and gaining exposure to leading research has been a significant step in my academic journey. I am grateful to the Israeli Smart Transportation Research Center (ISTRC) for their generous support, which enabled my participation in this important event.

Thank you,
Omri Sternberg