

Monday May 9, 2022, 9 am (PDT)

Via Zoom

A New Traffic Paradigm in the CAV Era



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In this webinar, we share a novel paradigm for vehicular traffic in the era of connected and automated vehicles (CAVs), based on two combined principles.

The first principle is *lane-free traffic*, which renders the driving task for CAVs smoother and safer, as risky lane-changing maneuvers become obsolete; increases the capacity of the roadway due to increased road occupancy; and mitigates congestion-triggering vehicle maneuvers.

The second principle is *vehicle nudging*, whereby vehicles may be "pushing" other vehicles in front of them. This allows for traffic flow to be freed from the anisotropy restriction, which stems from the fact that human driving is influenced only by downstream vehicles.

We conclude with a presentation of a conventional lane-free case study referring to the Place Charles de Gaulle roundabout in Paris.

Register shorturl.at/pqHLY

Markos Papageorgiou received the Diplom-Ingenieur and Doktor-Ingenieur degrees in Electrical Engineering from the Technical University of Munich, Germany. He was a Free Associate with Dorsch Consult, Munich (1982-1988), and with Institute National de Recherche sur les Transports et leur Sécurité, Paris, France (1986-1997). From 1988 to 1994 he was a (tenured) Professor of Automation at the Technical University of Munich. Since 1994 he has been a Professor (Emeritus since 2021) at the Technical University of Crete, Chania, Greece. Since 2021 he has been a Professor at Ningbo University, China.