Call for Book Chapter proposals (and Workshop Participation) for the 4th volume of the Book series, **Intelligent Vehicles and Transportation**, to take place at the 9th biennial Workshop on Digital Signal Processing for In-Vehicle Applications

The Challenge to Society for MOBILITY, SAFETY, and MOVING Intelligence

August 22-24, 2024 at Université Libre de Bruxelles (ULB), Brussels, Belgium

WORKSHOP BACKGROUND

The mobility of our society is under the once-in-a-century transit based on the technologies of connected, autonomous, service, and electrified vehicles. This trend naturally brings transformation of human-vehicle relations. Starting with in-vehicle speech communication, in this series of workshops, we have consistently discussed the technologies for human/vehicle interactions, from the viewpoint of "digital signal processing", which is currently almost a synopsis of machine learning or even AI. DSP for in-vehicle systems, engagement with infrastructure (V2V, V2I), and modeling human drivers & autonomous driving for overall transportation safety represent the core goals of this Workshop Series.

Therefore, this workshop welcomes contributions which explore discussions concerning how AI will impact future mobility, among experts in computer science, electrical engineering, transportation, and robotics.

INVITATION FOR BOOK CHAPTER

As in the previous workshops, selected presentations in the workshop will be invited for a book chapter in the 4th volume of the Book series, Intelligent Vehicles and Transportation, to be published by Walter de Gruyter publishers.

WORKSHOP HISTORY & FORMAT

The organizing committee is pleased to announce the resumption of the Biennial Workshop after more than three years of waiting due to COVID, which take place in Université Libre de Bruxelles (ULB), Brussels, Belgium.

DSP for In-Vehicle systems workshop was established in 2003 in Nagoya Japan, and since then, 7 organized meetings have taken place in Europe (Istanbul, Sesimbra, Kiel), USA (Dallas, Berkeley), and Asia (Nagoya, Seoul).

The workshop combines keynote talks, oral and poster presentations, and panel discussions, which facilitate collaborative research and educational opportunities for researchers, engineers, and students, but also provides international venues for policymakers to actively participate, engage, and share best practices for policy and safety in the discussions. Networking has always been promoted through technical and social events during the meetings.

Workshop Topics:
- Speech/Acoustics for in-vehicle communications,
- Sensing/Perception for the intelligent vehicles,
- AI/Machine Learning for vehicle intelligence,
- Entertainment/well-being of the mobility,
- 3-D image/video processing, communication (Vehicle/transportation)
- 3-D visualization and intelligent interface
- Harmonization/Collaboration among humans, agents, infrastructure,
- New applications and challenges.

Sponsors:
- IEEE ITS Society, Université Libre de Bruxelles, Nagoya University

Organizing committee:
- **J.H.L. Hansen** (UTD, Dallas, USA)
- H. Abut (SDSU, USA; Boğaziçi Univ., Istanbul, Türkiye)
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INITIAL INTENT TO CONTRIBUTE:

JUNE 14TH, 2024: (Title, Authors, and Affiliation), or (a PDF file containing the title, author, affiliation, and a 500-word abstract).

SUBMISSION:

The intention to contribute should be sent by email to takeda@i.nagoya-u.ac.jp.