To the Israeli Smart Transportation Research Center (ISTRC)

Subject: Participation Report in the 2023 American Control Conference

I am writing to provide a report on my experience and impressions of the 2023 American Control Conference (ACC 2023), which I attended with the support of the conference grant awarded by the Israeli Smart Transportation Research Center (ISTRC). The event was held in San Diego, California, USA, from May 30th to June 2nd and covered an array of varied topics related to control theory, systems, optimization, reinforcement learning, AI integrations in control systems, and digital twin applications.

The ACC 2023 proved to be an exceptionally enriching and intellectually excellent experience. The diverse range of presentations and discussions offered valuable insights into the latest advancements and challenges in the field of control and automation. Throughout the conference, I had the opportunity to attend tutorial sessions, technical sessions, rapid interactive sessions, regular sessions, and plenary sessions. These interactions with prominent researchers, practitioners, and industry experts fostered an environment of knowledge exchange and collaboration.

At the conference, I was honored to present my research on Aircraft Departures Management for Low Altitude Air City Transport based on Macroscopic Fundamental Diagram alongside the co-authors Prof. Nikolas Geroliminis and Prof. Jack Haddad. Additionally, I was chosen to chair the session about Traffic Control. This contribution is beneficial for both control and transportation communities, along with being a great representative for Technion, EPFL, and ISTRC.

The ACC 2023 conference offered valuable insights and methods that directly support our research aligned with the ISTRC vision of achieving zero transportation externalities. The conference provided breakthrough knowledge in control applications, enabling us to design advanced traffic control strategies for aviation operations. Our work aims to create a resilient transportation system by integrating cutting-edge technologies and novel theories. Additionally, the conference discussions led to new directions in the development of our modular software for the Low Altitude Air City Transport system, considering system, safety, social, and operational factors in a multidisciplinary approach. This research aims to provide another step toward realizing the vision of zero transportation externalities.

I highly recommend that other scholars contribute and present their research in the control community and attend the ACC conference, as knowledge of control theory and optimization methods is a fundamental step toward enhancing the mobility ecosystem.

In conclusion, I am immensely grateful to ISTRC for granting me the opportunity to participate in the ACC 2023 conference. The insights gained from this event will undoubtedly contribute to my academic and research growth. I would like to express my appreciation to ISTRC and the conference organizers and speakers who made this conference an enlightening experience.

Please feel free to contact me if you require any further information or clarifications.

Sincerely,



Yazan Safadi

| PhD candidate | T-SMART, Technion |

| Member | AV095 Committee, TRB |

safadiyazan@gmail.com | Website | LinkedIn |