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Sustainable Freight: Recent Advances in Intelligent Transportation System Technology

IEEE ITSS Webinar Series

Date	August 17, 2021
Time	12:00 – 13:00 (U.S. Eastern Time)
Location	Online via WebEx

Register Here

<https://ieeemeetings.webex.com/ieeemeetings/onstage/g.php?MTID=e98d53f38e983a4ee340a71901c94e5c7>

Speakers/Panelist:

Matthew Barth and Kanok Boriboonsomsin with Aravind Kailas as discussant

Moderator:

Jim Misener, Qualcomm, Member of IEEE ITSS Board of Governors

Brief Abstract

Goods movement continues to expand around the world, leading to significantly increased truck traffic. Medium- and heavy-duty diesel trucks, the majority of which are used this freight movement, are significant contributors of nitrogen oxides (NOx), particulate matter (PM), and greenhouse gas (GHG) emissions. To address these environmental impacts of freight movement, there is significant effort to develop and deploy cleaner trucks, focusing on electrification (battery and fuel cells) as well as low-carbon fuels (renewable natural gas and hydrogen). In addition, there are several intelligent transportation system strategies that are being developed and tested that improve goods movement efficiency, lower emissions, and reduce the impact of goods movement on the community. This webinar will highlight not only new truck technology, but several ITS strategies that are being developed for the freight sector.

Speaker Bios

Both **Matthew Barth** (Professor and Director) and **Kanok Boriboonsomsin** (Research Faculty) are at the University of California, Riverside's College of Engineering - Center for Environmental Research and Technology (CE-CERT). Over the last 10 years, they have developed a sizable Sustainable Freight Transportation research program that includes both modeling and pilot deployments in Southern California. Both Dr. Barth and Dr. Boriboonsomsin have over 25 years of research and development experience in the areas of sustainable transportation systems, advanced vehicle technologies, vehicle energy and emissions modeling, connected and automated vehicles, intelligent transportation systems, traffic operations, and traffic simulation. Both are active in the IEEE ITS Society, the U.S. Transportation Research Board, and the Society of Automotive Engineers.

Panelist Bio:

Dr. Aravind Kailas is the Advanced Technology Policy Director at Volvo Group, where he oversees policy development, technology outreach, and public engagement strategies to further Volvo's interests in automated driving, electromobility, and connectivity. By promoting key corporate positions and creative assets in various fora, Dr. Kailas has been instrumental in enhancing Volvo's technology thought leadership. Dr. Kailas built and managed an extensive personal network of private and public entities to strengthen organic innovation and public affairs initiatives across Volvo Group. He created a public-private partnership for assessing air quality improvements using smart traffic lights along freight corridors in Southern California. Dr. Kailas also spearheaded local stakeholder development for introducing Volvo's electromobility solutions in North America.