

Webinar Talk on Modernization + Mobility: How Transportation is Transforming

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Organised by:
Highway and Transportation Engineering Technical Division (HTETD)

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Registration Fee
Student Member: Free
IEM Member: RM15.00
Non-Member: RM70.00

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Synopsis

A mobility evolution is underway that will change the way we move around in the world – it is expected to improve transportation options and user experience, reduce negative environmental impacts, and significantly enhance road and traffic safety. As we replace petroleum fuel with digital fuel, it is necessary to redefine mobility and leverage emerging technologies to enable our communities and grow our local economy with accessible, affordable, abundant, and sustainable transportation options.

With the increase in Vehicle Miles Traveled (VMT), there is no doubt that we are faced with an escalating congestion and mobility problem that will continue to present unique challenges over the next decades, and around the world. New advanced transportation technologies are showing great promise in addressing or mitigating some of the causes of congestion, but we are not expecting to realize the full benefits for some time. Addressing these compounding challenges requires the foresight to plan and implement innovative transportation solutions - like Intelligent Transportation Systems, Traffic Signal Systems and Transit Signal Priority Systems (TSP); Integrated Corridor Management (ICM), Incident Management Plans, design of Electronic Toll Collection systems, Connected Autonomous Vehicles (CAV), and Smart Cities, etc.

Joy Bhattacharya, PE, PTOE will discuss how to plan, fund, and deliver initiatives to manage traffic flow by connecting and synchronizing traffic, create mode shift to alternative mobility options, increase transit accessibility, and increase person throughput. Additionally, he will share how ICM, CAV, and Smart City technologies have the potential to improve safety for all modes; reduce carbon emissions; provide alternative mobility options for elderly, disadvantaged and transit-dependent communities; and increase the productivity and efficiency of road and transit infrastructure.

Speaker's Biodata

Joy Bhattacharya, who is based in California, USA, leads the Innovative Transportation Solutions' team for Advanced Mobility Group (AMG) whose main goal is to bridge the gap between the past engineering practices and being prepared for the future. Joy has in-depth experience in the development, design and implementation of various engineering strategies in major metropolitan areas, including Adaptive/Responsive Traffic Signal Systems and TSP Systems; ICM, Incident Management Plans, design of automated Electronic Toll Collection systems, CAVs, Smart Cities, and preparation of PS&E for field implementation of DSRC/CV2X, CCTV, Changeable Message Signs, Adaptive Ramp Metering and ATMS systems. Joy is the Director of the vehicle-to-everything (V2X) Signal lab at GoMentum Station, the largest test bed in the US, setting up a vehicle-to-infrastructure (V2I) environment for system interoperability testing and developing safety applications working collaboratively with Original Equipment Manufacturers (OEMs), Roadside Unit vendors, Universities, and V2I equipment providers. Joy's indepth involvement as a member of Bay Area Institute of Transportation Engineers, keeps him abreast of traffic issues facing jurisdictions in the San Francisco Bay Area and the latest, developing technologies/ methodologies being utilized in the field of transportation engineering. Joy is a registered Civil Engineer and a Professional Traffic Operations Engineer in the State of California, with advanced degrees from the University of Tokyo, Japan, and the University of Delaware. He has worked with numerous Bay Area agencies on a variety of traffic engineering assignments. He is very familiar with government protocol relating to transportation studies and projects and has experience with a variety of agencies as well as the public. Projects to his credit include the Mountain House ATMS, City of Hayward ATMS and Adaptive Signal Systems, Webster Street SMART Corridor System, I-80 ICM, SR 4 ICM, GoMentum Station, and the Santa Clara VTA Capitol Corridor Transportation Study. In addition, he is an instructor for the UC-Berkeley Technology Transfer Program, teaching signal timing and operations, and California traffic engineering license review.