VIRTUAL PANEL SERIES ON SUSTAINABLE TRANSPORTATION DECARBONIZATION PATHWAYS FOR TRANSPORTATION

Decarbonization Pathways for Transportation – Fuels, Vehicles, Their Use, and Infrastructure Required to Support Them

TUESDAY, SEPTEMBER 21, 2021 | 1:00 PM – 2:30 PM ET

A Roadmap for Transport in a Net-Zero Emissions by 2050 World

Jacob Teter, Ph.D.
Energy Analyst, International Energy Agency

Dr. Jacob Teter joined the International Energy Agency (IEA) as a transport energy modeller and policy analyst in Spring 2015, and now leads IEA's team of transport analysts in the Energy Technology and Policy Division. In this role, he aims to contribute to the global dialogue on policies to promote the development and adoption of technologies and operations that provide transport services that improve quality of life while minimising pollutant and greenhouse emissions and other environmental and natural resource impacts. Jacob is among the lead authors of the IEA's "Future of Trucks" and "Future of Rail" reports, and has contributed to the IEA's "Net Zero by 2050" report, to the annual Global Electric Vehicle Outlook (GEVO) series, as well as to recent Energy Technology Perspectives (ETP) and World Energy Outlook (WEO) reports, including the special report on Energy and Air Pollution, the special report on Energy and Digitalization, and the Future of Hydrogen. He completed his PhD in Transportation Technology and Policy from the University of California, Davis in 2015.

Eco-Transportation Solutions to Transit's First-and-Last Mile Problems with Emerging Technologies

Heng Wei, Ph.D., P.E., F.ASCE
Professor and Director, *ART-EngineS* Transportation Research Laboratory
College of Engineering & Applied Science
Department Civil & Architectural Engr. & Construction Management
University of Cincinnati

Dr. Heng Wei is a Professor of Transportation Engineering, Director of Civil Engineering Program and the founding Director of the *ART-EngineS* Transportation Research Laboratory at The University of Cincinnati. Besides teaching multiple courses in transportation engineering and planning, Dr. Wei has extensive research expertise and industrial experience in intelligent transportation systems (ITS), Connected and Automated Vehicle (CAV) impacts, infrastructure-CAV nexus in traffic signal system design, and artificial intelligent (AI)-based Informatics and geographic information system

(GIS) in sustainable travel demand forecast and environmental impact analytics. He has secured a great number of research grants/projects from Ohio DOT, Federal Highway Administration, National Science Foundation, US Environmental Protection Agency, USDOT University Transportation Centers, and industrial sector. His research has resulted in over 207 peer-reviewed and referred papers, and 12 book/chapters. On behalf of the ASCE T&DI CAV Impacts Committee, he is the lead editor for a guidance book to be published by ASCE, "Smart Emerging Transportation Technologies Primer." Dr. Wei has been awarded with more than 30 professional prizes and honors for his outstanding research and education achievements at various levels.

Developing Affordable Electric Vehicle Shared Mobility Program In New Jersey

Mohammad Jalayer, Ph.D.
Associate Professor, Department of Civil and Environmental Engineering
Rowan University

Dr. Mohammad Jalayer is an Associate Professor in the Department of Civil and Environmental Engineering at Rowan University and an affiliated researcher at the Center for Research and Education in Advanced Transportation Engineering Systems (CREATEs). His primary research interests include traffic operations and evaluation, highway safety and crash modeling, big data analytics, and Intelligent Transportation System. Dr. Jalayer's research has been supported by USDOT, NCHRP, NSF, NJBPU, IDOT, ALDOT, NJDOT, and ATSSA. Dr. Jalayer has authored or coauthored more than 90 scholarly articles and papers that have been published in scientific journals and conference proceedings. He received his Ph.D. degree in Transportation Engineering from Auburn University in 2016.

An Overview of Technologies and Policies for Decarbonizing the On-Road Transportation Sector

Rachel Muncrief
Deputy Director, International Council on Clean Transportation (ICCT)

As Deputy Director of the ICCT, Rachel serves as a close partner to the Executive Director in the development and implementation of program strategies to eliminate the climate and health impacts of the transportation sector. She also works to enhance the efficiency and effectiveness of the organization's operations. Rachel was previously the Program Director overseeing ICCT's Heavy Duty Vehicle and Compliance and Enforcement programs. Rachel came to the ICCT from the University of Houston, where her research focused on NOx and PM emissions reduction for diesel applications as well as full-scale vehicle and engine testing of heavy-duty vehicle technologies and fuels. Rachel holds a PhD in Chemical Engineering with a focus in catalysis and reactor engineering from Tulane University, an MBA from The University of Houston, and a BS in Chemistry from the University of Miami.

Moderator

Aupal Mondal
PhD Candidate,
University of Texas,
Austin

Aupal Mondal is a senior Ph.D. student working with Dr. Chandra Bhat at the University of Texas at Austin, USA. His broad research interests are in the areas of choice theory, econometrics and demand modeling. His recent works include novel methods for incorporating more than one constraint in multiple discrete-continuous consumer choice scenarios, allowing spatial dependency in ranking models and developing relatively flexible techniques in the context of multivariate mixed data models. He has also worked in the field of emerging mobility services and technologies which include understanding users' preferences for private/shared ride-hailing services, investigating autonomous vehicle's (AV) likely adoption rates and trip-making behavior changes as well as focusing on people's perception toward recent micro-mobility options like e-scooters and bike-sharing. His other recent collaborations include investigating changes in mode preferences, work locations and daily time-use patterns due to the COVID-19 pandemic. Aupal also has a keen interest in Indian classical music and plays the sitar and a bit of guitar, when away from his research.