Plenary Session

Date: November 6, 2024
Time: 15:30 - 18:00 hrs. (Tentative)
Place: Palladium Hall A

Theme

What Is the Optimal Energy Source for Small Mobility?

At SETC2024, we are focusing on the significant role that small mobility can play as a major step towards a carbon-neutral society. Our plenary session is dedicated to the pursuit of the most appropriate energy sources for small mobility, with the goal of finding the optimal balance between sustainability and performance.
Previous SETC events have seen a diverse array of energy sources come under discussion. This year, we are casting a spotlight on three key energy sources: "e-Fuels (CO2 capture and manufacturing technology)", "biofuels", and "batteries". We intend to thoroughly assess the potential of these energy sources, taking into account regional characteristics to provide a comprehensive evaluation of their prospects.
We anticipate that this session will foster a collaborative environment where participants can identify and address the challenges these energy sources face, and collectively explore potential solutions. The knowledge acquired here is expected to be instrumental in guiding the future research themes of our attendees, thereby contributing to a clearer roadmap for a carbon-neutral society.

Moderator

Hideyuki Ogawa
Emeritus Professor,
Hokkaido University,
Japan

Career

He took Ph.D. in engineering and appointed a full-time lecturer at Hokkaido University, Japan in 1986. He was promoted to a professor at Hokkaido University in 2004 and retired in 2024. He is now an emeritus professor in Hokkaido University. His research interest is combustion in internal combustion engines. He was awarded Horning Memorial Award from SAE in 2001 and elected to SAE Fellow in 2016. He held a co-editor of International Journal of Engine Research from 2018 to 2023.

Awards and Recognitions

1990: Research Encouragement Award, Japan Institution of Marine Engineering
2001: SAE 2001 Horning Memorial Award
2003: Paper Award, Japan Institution of Marine Engineering
2007: Fellow, Society of Automotive Engineers of Japan
2008: Research Achievement Award, Japan Society of Mechanical Engineers, Engine Systems Division
2009: Paper Award, Society of Automotive Engineers of Japan
2010: Fellow, Japan Society of Mechanical Engineers
2012: SETC Special Recognition Award
2016: SAE Fellow

Plenary Session

Kotaro Tanaka
Professor,
Mechanical System Engineering, Graduate School of Faculty of Applied Science and Engineering,
Ibaraki University,
Japan

Subject is to be announced
(about CO2 Capture Technology, Direct Air Capture)

Career

2007 Ph.D., Mechanical engineering, The University of Tokyo
2007 - 2009 Postdoc, National Traffic Safety and Environment Laboratory
2009 Postdoc, CNRS France, Universitė de Lorraine
2010 - 2012 Postdoc, The University of Tokyo
2012 - 2014 Lecturer, Mechanical Engineering, Ibaraki University
2014 - 2018 Associate professor, Mechanical Engineering, Ibaraki University
2018 - Professor, Mechanical Engineering, Ibaraki University

Research Fields

Combustion chemistry of carbon recycling fuels, laser diagnostics, emission measurements and reduction of emission using aftertreatment system, CO2 capture (DAC using moisture swing adsorption technique)

Tobias Block
Ph.D.,
Chief of Strategy,
eFuel Alliance e.V.,
EU

Subject is to be announced
(about eFuels)

Career

Dr. Tobias Block is working for the eFuel Alliance as Chief of Strategy. In his leadership position he coordinates the political communication of more than 180 alliance members worldwide towards the European Union, in an effort to include eFuels in all major political regulations concerning renewable energy.

Education

Ph.D. in Management

Work experience

2013 joined Audi AG
2013 - 2016 Ph.D. Scholar, Economic optimization of the first, industrial scaled power-to-gas plant, Audi AG
2016 - 2018 Executive Management Assistant, Audi AG
2018 - 2021 Coordinator Renewable Fuels, Verband der Automobilindustrie (VDA) e.V. (German Automobile Association)
2021 - Present Chief of Strategy, eFuel Alliance e.V.
2021 - Present Senior Consultant Public Affairs, Strategy and Communication, von Beust & Coll Consulting

Plenary Session

Shun Egusa
Guest Professor,
Research Organization for Nano & Life Innovation,
Waseda University,
Japan

Subject is to be announced (about Batteries)

Career

1985 Completion of doctor's degree, polymer science, Kyoto University
Joined R&D Center of Toshiba Co.
1997-2001 Deputy MD of Toshiba Cambridge Research Centre Co.
2007 Head of Saku/Kashiwazaki factory, Battery business division, Toshiba Co.
2014 VP of battery business division
2020 Director & VP of battery business division
2022 Retired from Toshiba Co.
Guest Professor of Waseda University
Outside director of Suzuki Motor Co.

Research Fields

Specializes in lithium-ion battery industry and related technologies, and energy application fields of storage batteries.

Nuwong Chollacoop
Ph.D.,
Director of Low Carbon Energy Research Group,
National Energy Technology Center (ENTEC), Thailand

Subject is to be announced (about Biofuels)

Career

Since graduation from Massachusetts Institute of Technology in 2004, Dr. Chollacoop has worked at National Science and Technology Development Agency (NSTDA) on transport biofuel until 2009, where he was awarded Green Talents 2009 by Federal Ministry of Education and Research (BMBF), Germany. In 2018, his research on sustainable mobility with Office of Transport and Traffic Policy and Planning has contributed to GHG emission reduction target in transport sector of Thailand National Determined Contribution (NDC) for COP21 submission. In addition, he was a founding member of Electric Vehicle Association of Thailand in 2015 and has served as a committee till now.

Research Fields

Sustainable mobility, Sustainable biofuel, Energy demand modelling, Energy resilience