



Towards Low Carbon industrial and Social Economy of Energy-Transportation Nexus

Theme: Transportation sector accounts for almost one third of the global energy demand, and contributes more than 20% carbon footprint. Facing the carbon-neutral target for global temperature control, transportation electrification has become an irreversible trend in all the attached sectors, including electric vehicles, electric railways, electric ships and airplanes, and so on, which has drawn more and more attentions in both industrial and academic ways. The trend of electrification will undoubtedly drive the mergence of energy and transportation systems as “Energy-Transportation Nexus”. To facilitate the development of this “Energy-Transportation Nexus” towards low carbon future, it becomes more and more critical to coordinate the operation and planning of energy and transportation systems to fully explore their respective flexible potentials to enhance the industrial and social economy and reduce the carbon emission as an integrated system, which provide a vast platform for the utilization of different advanced methodologies and equipment. This special section focuses on the energy-transportation nexus towards low-carbon industrial and social economy. The objective of this special session is to identify, address and disseminate state-of-the-art research works that optimize the operation and planning of “Energy-Transportation Nexus” and improve social welfare towards low carbon future.

Potential topics of interest include, but are not limited to:

- Mergence between electrified transportation systems and integrated energy systems;
- System structure of "Energy-Transportation Nexus";
- Advanced informatics for "Energy-Transportation Nexus";
- Modelling of "Energy-Transportation Nexus";
- Business models and interfaces for "Energy-Transportation Nexus";
- Infrastructure planning for "Energy-Transportation Nexus";
- System operation for "Energy-Transportation Nexus";
- Energy storage technologies for "Energy-Transportation Nexus".
- Safety and reliability of "Energy-Transportation Nexus".
- Life-cycle cost analysis of "Energy-Transportation Nexus"

Manuscript Preparation and Submission

Follow the guidelines in “Information for Authors” in the IEEE Transaction on Industrial Informatics <http://www.ieee-ies.org/pubs/transactions-on-industrial-informatics> . Please submit your manuscript in electronic form through Manuscript Central web site: <https://mc.manuscriptcentral.com/tii> . On the submitting page #1 in popup menu of manuscript type, select: SS on **Towards Low Carbon industrial and Social Economy of Energy-Transportation Nexus**

Submissions to this Special Section must represent original material that has been neither submitted to, nor published in, any other journal. Regular manuscript length is 8 pages.

Note: The recommended papers for the section are subject to final approval by the Editor-in-Chief. Some papers may be published outside the special section, at the EIC discretion.

Timetable:	Deadline for manuscript submissions	November 30, 2021
	Expected publication date (tentative)	July 2022

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