

IMPORTANT DATES

- Manuscript Submission by
8 July 2022
- First Round Reviews
19 October 2022
- Second Round Submissions
16 December 2022
- Second Round Reviews /
Editorial Decisions
21 February 2023
- Final Submissions by
1 March 2023
- Publication
June 2023

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Recent Advances in E-Mobility

The electrification of mobility systems has been gaining momentum in recent years, and e-mobility is the most disruptive transformation in the 100-year history of the transport applications. This is essentially linked to the pressing need to meet the environmental demands but also thanks to recent technological and scientific advances in this field. However, to make e-mobility competitive versus traditional mobility, research communities still need to address several challenges.

In embedded systems, there is an evolution towards hybridization of multiple sources of various natures. This hybrid solution is particularly interesting, since it enables various complementary combinations in terms of energy and power of the various sources implemented, which leads to certain advantages in terms of performances, reliability, efficiency and lifetime.

E-Mobility is not restricted to power generation. It also includes the integration of information communication technology (ICT) and connected infrastructures to enable the electric propulsion of vehicles. The interactions of these technologies with the environment are challenging and worthwhile exploring. This special issue is proposed to share the latest research results.

This Special Issue encourages researchers working in this field to share their latest developments on communication, electronic devices, network, model, control, integration, diagnosis and prognosis tools that are relevant to transportation applications. Topics of interest include, but are not limited to:

- Green energy sources for e-mobility (modeling, sizing, optimization)
- Energy management of hybrid energy storage system for electric vehicles and hybrid electric vehicles
- Battery SOC and SOH / fuel cell diagnosis and prognosis
- Fuel cell system integration for EV
- Charging infrastructure for EV
- Diagnosis and prognosis for EV
- Standard procedures for accelerated stress testing (including cold starts)
- ICT for e-mobility
- Automated driving and intelligent transportation technologies for e-mobility
- V2X and X2V communications
- Integration and testing for e-mobility
- Socio-economics issues of e-mobility

All manuscripts should contain state-of-the-art material presented in a tutorial or survey style, and must adhere to IEEE VTM guidelines:

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