



## Electric Road Systems for Cleaner Transportation

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### Message from the Guest Editor

Through advances in battery and charging technologies, the electrification of road transport continues to advance around the world, serving to mitigate CO<sub>2</sub> emissions and fossil fuel consumption. Among the solutions are Electric Road Systems (ERSs), road-integrated electrical systems that can provide electricity directly to electric vehicles and allow them to extend their range by recharging their batteries while driving. Different ERS technologies exist, including rail, catenary, as well as inductive systems. Specially suited to freight applications, these systems contribute to significantly reducing the amount of battery needed for electric trucks, thus reducing their overall environmental impact. However, many challenges remain to be overcome, such as technical issues related to system design and security and those related to economic balance.

- Different ERS designs and their improvement
- Optimization of the global design
- Reliability and safety of the ERS
- Energy management and optimization
- Adapted electric truck design or retrofitting
- Reporting experiments about ERS
- Environmental issues, materials consumption, life cycle assessment





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## Message from the Editor-in-Chief

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