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Energy Efficient Cooling and Heating Systems for Improved Passenger Thermal Comfort in Electric Vehicles

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Message from the Guest Editors

In this Special Issue, the challenge of enhancing the EV driving range while maintaining high passenger thermal comfort is to be addressed by capitalizing on either individual or synergetic use of various technologies in the areas of: new concepts of the HVAC system and related subsystems and component technologies (including advanced heat pump concepts, infrared heating, consideration of novel refrigerants, thermal energy storage devices, etc.), user-centric designed HVAC systems with enhanced passenger thermal comfort, optimized vehicle energy management/control, lightweight materials with improved thermal insulation properties, and similar. The optimized vehicle energy and thermal management, implemented in an intelligent vehicle control unit, is aimed at ensuring maximized energy efficiency and enhanced thermal comfort, while accounting for various users' needs specified through a proper human-machine interface in an interactive way.



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Special Issue



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Message from the Editor-in-Chief

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