



# PRESS RELEASE

9 July 2020

## Free webinar: holistic thermal management and advanced control in electric/hybrid cars

**In a free one-hour webinar to be hosted at 12.00 BST (07.00 EST / 13.00 CET) on Thursday 16<sup>th</sup> July, Ricardo will present a holistic approach to the thermal optimization and control of electrified vehicle powertrains, which can extend zero emission (electric-only) range by up to 20 percent**

Thermal management and advanced control systems can play a significant role in the improving the energy efficiency of new battery electric and plug-in hybrid powertrain cars (xEVs). This is illustrated by the fact that the electrical energy absorbed by the electric ancillaries – such as those required to heat or cool the traction battery pack and maintain cabin air comfort – may be comparable with that required to move the vehicle.

The architecture of xEV thermal systems is becoming increasingly complex. For example, in order to avoid the requirement for conventional resistive electric heaters for use in cold ambient conditions, many manufacturers are exploring innovations such as waste heat recovery from electric machines and power electronics, and the use of direct or indirect heat pumps. Ricardo believes that innovations such as these can improve zero emission (electric-only) range by up to 15 percent, or by up to 20 percent if combined with advanced thermal control.

In addition to the performance benefits gained by the adoption of model-based development and model predictive control, xEV powertrain development costs can be

reduced by 20 percent and development time by 30 percent through reduction in the number of design iterations and calibration activities required.



In this free 60-minute webinar, Ricardo's Dr Cedric Rouaud, global technical expert on thermal systems, and Dr Peter Fussey, technical leader of control and calibration, will present these novel approaches to the optimization of xEV energy consumption. In doing so they will share their experiences drawn from a range of collaborative R&D projects as well as the results of Ricardo's own targeted research in this area.

To register for this free webinar visit: <https://ricardo.com/campaign/upcoming-webinars/xev-holistic-thermal-management-and-advanced-control>

Ends



## NOTES TO EDITORS:

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