



PRESS RELEASE

20 June 2019

Ricardo shares perspectives on ultra-high efficiency engines for hybrid applications

In a free webinar to be hosted by *Automotive World* at June 27, 2019 – 10am EST / 4pm CET / 7.30pm IST – Ricardo's Richard Osborne and Roscoe Sellers will discuss how ultra-high efficiency engines can be developed for hybrid applications

The one-hour webinar, *How to achieve the next steps in engine efficiency for hybrid vehicles*, will focus in particular upon the development of Ricardo's Magma xEV engine concept which promises to deliver a significant improvement in efficiency. This concept delivers 45 percent brake thermal efficiency, combining ultra-lean, high compression ratio combustion, turbocharging and Miller cycle operation, with options for high energy ignition. Magma xEV has a Ricardo-developed and proven combustion system particularly suited to series HEV, PHEV and range extender applications. Engine-out NOx emissions are controlled by operating up to and beyond lambda 2, and through a tightly controlled engine operating region thanks to the high-power electric motor in the hybrid powertrain system.

The webinar will explore how a new range of technology building blocks have become available for this form of powertrain hybridization; these can be effectively combined by 1-D and 3-D simulation to maximize their contribution. To this end, the webinar will cover the potential benefits of the selected engine architectures, combined with technology packages such as lean homogeneous combustion, corona discharge ignition and water injection.

To register for this free webinar visit:

<https://www.automotiveworld.com/webinars/how-to-achieve-the-next-steps-in-engine-efficiency-for-hybrid-vehicles/>

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NOTES TO EDITORS:

Ricardo plc is a global, world-class, multi-industry consultancy for engineering, technology, project innovation and strategy. Our people are committed to providing outstanding value through quality engineering solutions focused on high efficiency, low emission, class-leading product innovation and robust strategic implementation. With a century of delivering excellence and value through technology, our client list includes the world's major transportation original equipment manufacturers, supply chain organizations, energy companies, financial institutions and governments. Guided by our corporate values of respect, integrity, creativity & innovation and passion, we enable our customers to achieve sustainable growth and commercial success. Ricardo is listed in the FTSE4Good Index, which identifies global companies that demonstrate strong environmental, social and governance (ESG) practices. For more information, visit www.ricardo.com.

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