

Mazda deploys Secondmind ML technology

Mazda Motor Corporation in Japan has signed a multi-year agreement to license Secondmind Active Learning for Powertrain to increase engine calibration efficiency and help manage the increasing complexity of powertrain design and development.

Cambridge-based Secondmind and Mazda are also extending a two-year research and development collaboration to focus on advanced hybrid and electric powertrain control systems, and strategic CASE applications.

Mazda is initially using Secondmind to calibrate ECUs that control the company's next-generation SKYACTIV engine technology.

It expects Secondmind advanced machine learning to more than double the efficiency of its conventional engine calibration process. Mazda has been at the forefront of model-based design (MBD) innovation for decades and has chosen Secondmind as its machine learning partner to help manage the mounting complexity resulting from tighter emissions regulations, increasing consumer demands and underlying pressure to achieve greater development process and environmental sustainability.

Backed by more than six years of practical machine learning research and development, Secondmind Active Learning for Powertrain offers state-of-the-art machine learning models based on noisy, high-dimensional data, and enables rapid, automated, and intelligent experimentation.

Early indications are that the Cambridge technology can help carmakers cut engine calibration time by up to 50 per cent, reduce data acquisition and processing costs and prototype materials use by up to 80 per cent and 40% per cent, respectively. The potential impact to environmental and

development sustainability is substantial as a result.

Gary Brotman, CEO of Secondmind, said: “Mazda is a leader in model-based design and a pioneer in the adoption and successful implementation of advanced machine learning. We’re excited that Mazda has chosen us as a partner to help take their innovations in powertrain design and development to the next level.”

Eiji Nakai, Executive Officer in charge of Powertrain Development and Integrated Control System Development from Mazda, added: “Secondmind’s unique active learning technology will enable us to automate the engine calibration process and we expect to more than double efficiency in this area.

“In the future, we expect to extend the same innovation to more areas, such as controls of advanced CASE technologies. We will utilise Secondmind machine learning technologies to help us evolve MBD and develop more efficiently. We are convinced that Secondmind technology will effectively solve the most complex optimisation problems faced by many companies.”

Founded in 2016, Secondmind is backed by leading venture funds including Amadeus Capital, Atlantic Bridge, and Cambridge Innovation Capital, among others.