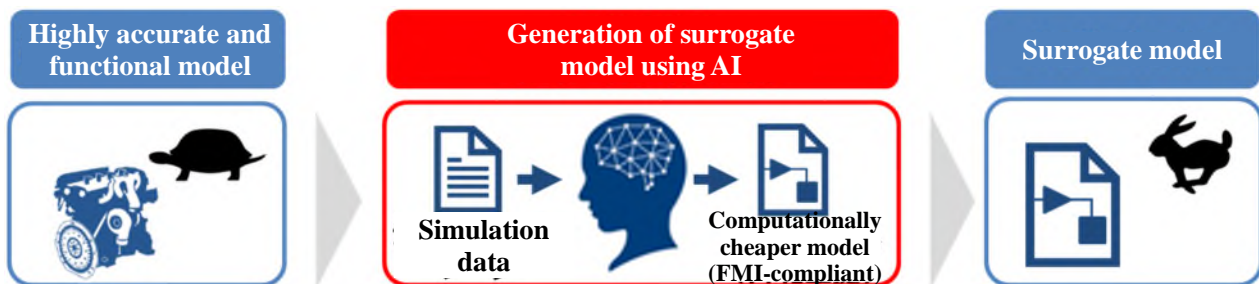


TTDC Launches “Simulation Model Surrogater,” an AI Tool for Reducing the Computational Load of Simulation Models

Toyota Technical Development Corporation (TTDC, Head Office: Toyota, Aichi, President: Yoshiyuki Kagawa) is pleased to announce the launch of a new artificial intelligence (AI)-based tool called “Simulation Model Surrogater (SiMS).” The purpose of this tool is to reduce the computational load of 1D-3D simulation models in the automotive and machinery fields.

As the market for electrified vehicles grows and the competition to develop compelling products becomes increasingly fierce, simulations are playing a greater role in model-based development. Despite the importance of shortening development lead times, the increasing accuracy and functionality of simulation models is lengthening the time required for computation. SiMS addresses this issue through the adoption of an AI-based model simplification technology to generate surrogate models. It uses neural network AI technology to carry out learning with simulation data and enables the efficient creation of models that are computationally cheaper to operate. As a result, computation times can be substantially reduced, which helps to increase development efficiency.

In addition, models created using SiMS are compliant with the international Functional Mock-up Interface (FMI) standard. SiMS also allows the interoperation of models generated by a variety of simulation tools.



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Overview of Toyota Technical Development Corporation (TTDC)

Established: April 2006

Location: 1-9 Imae, Hanamoto-cho, Toyota, Aichi, 470-0334, Japan

Representative: Yoshiyuki Kagawa, President

Details of business: **IP Business Field**

Searches, technical trend analysis, global filing and rights acquisition (patents, designs, and trademarks), translation, and interpretation.

Keisoku Business Field

Development and manufacturing of measurement instrumentation and equipment, proposals for the planning and design of equipment and facilities, presentation and offering of model-based development solutions, calibration, inspection, and repair of measuring instruments, and support for the development of next-generation businesses.

Capital ratio: 100% investment by Toyota Motor Corporation

URL: <https://www.toyota-td.jp/en/>

