



Silvaco Licenses HiSIM_IGBT Power Device Model Developed by HiSIM Consortium and Provides Support in SmartSpice Circuit Simulator

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Yokohama, Japan – April 7th, 2020 – Silvaco announced today that it has licensed the latest HiSIM_IGBT model from the HiSIM Consortium and is providing support for HiSIM models in the latest release of its SmartSpice circuit simulator to enable the design of more efficient and robust power electronics by the industry.

The HiSIM Consortium was established in 2012 by the Hiroshima University HiSIM Research Center, with partner companies, to develop and promote HiSIM models for SPICE circuit simulation of power devices. Silvaco has been a partner in the HiSIM Consortium since its inception and has implemented these models in Silvaco's SmartSpice circuit simulator.

As a result of this cooperation, Silvaco's SmartSpice supports the following SPICE models:

- HiSIM_IGBT: HiSIM Insulated-Gate Bipolar Transistor model
- HiSIM_FWD: HiSIM Free Wheeling Diode model
- HiSIM_UMOS: HiSIM Trench-Gate MOSFET model
- HiSIM_SJMOS: HiSIM Super Junction MOSFET model

HiSIM models have been developed with emphasis on dynamic characteristics that are essential for power devices. The use of these models is expected to significantly improve simulation accuracy in the design of power device circuits through the partner companies' practical approaches.

"The HiSIM Consortium has been working with partner companies to develop models for power devices since 2012," said Dondee Navarro, Associate Professor at HiSIM Research Center. "The series of developments has been successful, and these models will be widely available in the future. I'm glad we can continue to improve and contribute to the development of the industry."

"Silvaco and the HiSIM Research Center have been working closely together for over a decade to develop a family of surface potential-based HiSIM models," said Takeshi Kuwagaki, Silvaco's Engineering Manager. "This release is a major achievement for the electronics industry, which seeks to save energy and increase efficiency. We look forward to bringing this new technology to many customers through Silvaco's SmartSpice simulator."

HiSIM_IGBT and other HiSIM-related SPICE models are owned by the HiSIM Consortium, and Silvaco will provide licenses in SmartSpice on behalf of the HiSIM Consortium.

About Silvaco, Inc.

Silvaco is a leading EDA tools and semiconductor IP provider used for process and device development for advanced semiconductors, power IC, display, and memory design. For over 30 years, Silvaco has enabled its customers to develop next generation semiconductor products in the shortest time with reduced cost. Silvaco is a technology company outpacing the EDA industry by delivering innovative smart silicon solutions to meet the world's ever-growing demand for mobile intelligent computing. The company is headquartered in Santa Clara, California and has a global presence with offices located in North America, Europe, Japan, and Asia

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