Synopsys Announces Synopsys.ai Copilot, Breakthrough GenAI Capability to Accelerate Chip Design

Strategic Collaboration Integrating Microsoft Azure OpenAI Service to Bring the Power of GenAI to Semiconductor Engineering

SUNNYVALE, Calif., Nov. 15, 2023 /PRNewswire/ – Synopsys, Inc. (Nasdaq: SNPS) today announced a breakthrough generative artificial intelligence (GenAI) capability for accelerating chip design, Synopsys.ai Copilot. The new capability is the result of a strategic collaboration with Microsoft to integrate Azure OpenAI Service that brings the power of GenAI into one of the most complex engineering challenges - the design process for semiconductors.

Synopsys is the leader in semiconductor electronic design automation (EDA) and pioneered Synopsys.ai™, the industry's first AI-driven EDA suite. Azure OpenAI Service gives customers access to OpenAI's large language models (LLMs) with the enterprise-ready capabilities of Microsoft Azure. Together, the companies collaborated to support Synopsys' development of Synopsys.ai Copilot, bringing together Azure OpenAI Service generative AI capabilities with Synopsys' industry-leading chip design tools and IP to help engineering teams accelerate time to market and address systemic complexity through the power of conversational intelligence.

"The semiconductor industry is racing to develop faster, more efficient, and optimized computing, which is also driving complexity. At the same time, we're facing a projected 15% to 30% workforce gap for chip design engineers by 2030," said Shankar Krishnamoorthy, general manager of the Synopsys EDA Group. "AI-driven design can help address these challenges. Synopsys pioneered AI-driven design with our Synopsys.ai EDA suite. Now, working collaboratively with Microsoft, we're taking AI-driven design to the next level with generative capability such as conversational intelligence delivered in this first Synopsys.ai Copilot."

Today's announcement builds on a vision of innovation between the two companies. In 2022, Synopsys introduced the industry's first SaaS EDA solution powered by Microsoft Azure.

"Our history with Synopsys is built on a shared vision for accelerating semiconductor innovation through Cloud and AI," said Corey Sanders, corporate vice president, Microsoft. "Microsoft's engineering teams worked closely with Synopsys to bring the transformational power of Generative AI to EDA, which will empower semiconductor design engineers using the Synopsys.ai Copilot with the best AI infrastructure, models, and toolchain built on Microsoft Azure."

This collaboration is designed to deliver:

- **New AI-powered experiences:** Synopsys.ai Copilot works alongside designers in the Synopsys tools they use every day, enabling conversational intelligence, in natural language, across the design team. Synopsys.ai Copilot, the first in a planned line of generative AI capability from Synopsys, is designed to learn new skills and grow with teams' needs, making it easier for chipmakers to boost productivity and achieve design targets across all stages of chip design, from system architecture exploration to design and manufacturing.
- **AI infrastructure at scale:** Deployable in any on-prem or on-cloud environment, Synopsys.ai Copilot integrates Microsoft Azure on-demand high-performance computing infrastructure with the availability, affordability, and capacity to handle AI workloads for advanced chip design and verification applications.
- **Safe and responsible design:** Underpinning the collaboration is a mutual focus on building responsible AI systems that are safe and trustworthy. The intention of this framework is to promote the safe deployment of AI technologies in the creation of new silicon-based applications.

The combination of AI-powered design capabilities available at scale on high-performance infrastructure can deliver a step-function improvement in helping engineering teams innovate faster and more efficiently. Synopsys.ai Copilot is available now for early-access customers. For more information: www.synopsys.ai.

About Synopsys
Synopsys, Inc. (Nasdaq: SNPS) is the Silicon to Software™ partner for innovative companies developing the electronic products and software applications we rely on every day. As an S&P 500 company, Synopsys has a long history of being a global leader in electronic design automation (EDA) and semiconductor IP and offers the industry's broadest portfolio of application security testing tools and services. Whether you're a system-on-chip (SoC) designer creating advanced semiconductors, or a software developer writing more secure, high-quality code, Synopsys has the solutions needed to deliver innovative products. Learn more at www.synopsys.com.

Editorial Contact:
Cara Walker

Synopsys, Inc.
650-584-5000
corp-pr@synopsys.com

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