GSI Technology Selected for U.S. Army SBIR Contract to Advance Edge AI Computing

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Innovative Compute-in-Memory Technology Promises Breakthrough in Military AI Capabilities

SUNNYVALE, Calif., Jan. 17, 2025 (GLOBE NEWSWIRE) -- GSI Technology, Inc. (Nasdaq: GSIT), the inventor of the Associative Processing Unit (APU), a paradigm shift in artificial intelligence (AI) and high-performance compute (HPC) processing providing true compute-in-memory technology, today announced it has been selected by the U.S. Army for a potential contract award of up to $250,000 under the DoD Small Business Innovation Research (SBIR) program. The contract represents a significant opportunity for GSI to develop advanced, Army-specific edge computing AI solutions using its groundbreaking Gemini-II technology.

The project will focus on two critical objectives that showcase the potential of GSI's innovative architecture. First, GSI will determine the feasibility of integrating Gemini-II with AI models specifically tailored for the Army's edge computing needs. This will involve a comprehensive assessment of operational challenges, optimization with the Gemini-II architecture, and establishing key performance metrics through detailed customer discovery and technical specifications for edge AI development.

The second objective centers on identifying and validating the most suitable AI algorithms for the Gemini-II platform. GSI will conduct in-depth research to select efficient edge AI models, develop a detailed integration plan, and evaluate performance metrics for low-latency and high-throughput applications of value in military environments.

"This contract with the U.S. Army represents a significant opportunity for GSI Technology to demonstrate the transformative potential of our compute-in-memory architecture for military applications," said Lee-Lean Shu, CEO of GSI Technology. "Our Gemini-II platform offers substantial processing capabilities that can dramatically enhance the Army's operational efficiency and situational awareness."

The Gemini-II is second generation APU technology based on the GSI compute-in-memory architecture that processes data directly in memory structures, addressing critical challenges in advanced computing. By performing data processing directly in memory, the technology significantly reduces power consumption and bottleneck transfer latency while increasing overall processing capacity. The platform features two million-bit processors per chip, enabling parallel processing and real-time data handling in demanding operational scenarios.

Particularly noteworthy is the project's focus on developing 1-bit Large Language Models (LLMs) for the U.S. Army that maintain high accuracy while providing exceptionally low power consumption and minimal latency. This innovation not only promises to benefit warfighters but also presents compelling application opportunities across multiple dual-use markets, including complex computer vision recognition, autonomous vehicle navigation and mobile data computation.

"The SBIR contract underscores GSI Technology's commitment to pushing the boundaries of edge computing and AI technologies," added Shu. "Addressing the U.S. Army's need for robust AI capabilities that enhance situational awareness and decision making, GSI is positioning itself at the forefront of technological innovation in the defense and commercial computing sectors."

ABOUT GSI TECHNOLOGY
Founded in 1995, GSI Technology, Inc. is a provider of semiconductor memory solutions. GSI's resources are focused on bringing new products to market that leverage existing core strengths, including radiation-hardened memory products for extreme environments and Gemini-I, the associative processing unit designed to deliver performance advantages for diverse artificial intelligence applications. GSI Technology is headquartered in Sunnyvale, California, and has sales offices in the Americas, Europe, and Asia. For more information, please visit www.gsitechnology.com.

Forward-Looking Statements

The statements contained in this press release that are not purely historical are forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, including statements regarding GSI Technology's expectations, beliefs, intentions, or strategies regarding the future. All forward-looking statements included in this press release are based upon information available to GSI Technology as of the date hereof, and GSI Technology assumes no obligation to update any such forward-looking statements. Forward-looking statements involve a variety of risks and uncertainties, which could cause actual results to differ materially from those projected. Examples of risks that could affect our current expectations include: those associated with the rapidly evolving markets for GSI Technology's products and uncertainty regarding the development of these markets; intensive competition; delays or unanticipated costs that may be encountered in the development of Gemini-II platform and other new products based on our in-place associative computing technology; and the establishment of new markets and customer and partner relationships for the sale of our new in-place associative computing products. Further information regarding these and other risks relating to GSI Technology's business is contained in the Company's filings with the Securities and Exchange Commission, including those factors discussed under the caption "Risk Factors" in such filings.

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