

Staque and D-Wave Announce New Hybrid-Quantum Application for Optimization of Autonomous Vehicle Movements

The application has been successfully commercialized for agricultural robotics, setting the stage for broader advancements in autonomous robotic applications.

DUBAI, UNITED ARAB EMIRATES, February 20, 2025 /EINPresswire.com/ -- [Staque](#), a pioneering technology firm specializing in AI, blockchain, and quantum computing, and [D-Wave](#) Quantum Inc. (NYSE: QBTS) (“D-Wave”), a global leader in quantum computing systems, software, and services,

announced the development of a commercial hybrid-quantum application designed to optimize and simulate the movements of autonomous vehicles at scale. Initially commercialized for agricultural robotics, the application sets the foundation for broader autonomous robotic solutions across industries, including the coordination of multiple swarms of robots, enabling unprecedented efficiency in large-scale autonomous operations.

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*Dr. Muhammad Khan, Staque
Founder & CEO*

The new application is the world’s first customer-facing quantum-powered application available to end users today, marking a significant milestone in real-world quantum adoption. It comes at a time when OEMs, research institutions, policymakers, agricultural departments, environmental agencies, and farm managers are actively seeking novel solutions to enhance operational efficiency in agriculture. Robot routing in complex environments is an inherently difficult problem that

classical computers struggle to solve efficiently. By leveraging D-Wave's hybrid quantum technologies, the application has demonstrated significant performance improvements over



classical approaches. Specific results are being showcased at World FIRA 2025, the leading global event for agricultural robotics, and Qubits 2025, D-Wave's annual user conference.

"Traditional computation methods typically require days or weeks to compute solutions, which is too long for decision-makers in industries relying on real-time autonomy," said Krishna Ganesh, COO of Staque. "We believe in the power of quantum technology to transform and innovate, and this strategic partnership with D-Wave allows us to deliver annealing quantum computing solutions with the speed and accuracy essential for autonomous systems."

"This application is paving the way toward general autonomy, where quantum-optimized solutions can enable real-time decision-making for complex, large-scale robotic operations," said Dr. Muhammad Khan, CEO of Staque. "By integrating quantum computing with autonomous robotics, we are accelerating the evolution of fully autonomous systems that can adapt, self-optimize, and operate efficiently across multiple sectors, including Unmanned Aerial Vehicles (UAVs), Unmanned Ground Vehicles (UGVs), disaster recovery, defense, and last-mile deliveries. These industries require highly efficient, dynamic, and scalable solutions, and quantum-powered optimization is key to unlocking their full potential."

"We believe that nearly every industry can benefit from the computational power of quantum optimization, and we're excited to see one of the first hybrid-quantum applications related to agriculture," said Dr. Alan Baratz, CEO of D-Wave. "As farmers increasingly adopt autonomous agriculture machines to scale and increase the output of their fields, we believe quantum computing can provide the analysis, speed, and accuracy necessary to maximize production and minimize costs."

About Staque

Staque bridges the gap between cutting-edge computer science and real-world business needs. With expertise spanning AI, blockchain, quantum computing, and software engineering, Staque empowers organizations to thrive in an era of rapid technological advancement. Founded in Calgary, Canada, Staque has grown into a global organization with presence in North America, the GCC, and Asia. Our ability to combine local insights with global expertise has enabled us to establish strong relationships with leading clients, including multinational corporations, startups, and public sector entities. www.staque.io

About D-Wave Quantum Inc.

D-Wave is a leader in the development and delivery of quantum computing systems, software, and services. We are the world's first commercial supplier of quantum computers, and the only company building both annealing and gate-model quantum computers on premise and on cloud. Our mission is to help customers realize the value of quantum, today. Our 5,000+ Advantage™ quantum computer is the world's largest, supported by 99.9% availability and uptime. More than 100 organizations trust D-Wave with their toughest computational challenges. With over 200 million problems submitted to our Advantage and Advantage2™ systems to date, our customers apply our technology to address use cases spanning

optimization, artificial intelligence, research and more. Learn more about realizing the value of quantum computing today and how we're shaping the quantum-driven industrial and societal advancements of tomorrow: www.dwavequantum.com.

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