

## **Abu Dhabi University's Faculty Member Granted US Patent in the Field of Quantum Technology**

Reflecting its continuous excellence in research and innovation, [Abu Dhabi University's \(ADU\)](#) Professor Montasir Qasymeh, Associate Provost for Research and Academic Development and Professor of Electrical Engineering, received a patent in the field of quantum technology from the United States Patent and Trademark Office (USPTO).

The patent titled 'System for Coherent Microwave Transmission Using a Non-Refrigerated Waveguide' is designed to redefine the landscape of quantum communication. With the potential to enhance the efficiency and reliability of quantum computing, this invention promises to revolutionize practical applications across diverse industries. It will pave the way towards the realization of sought-after modular superconducting quantum computers capable of containing thousands or millions of qubits. In addition, the patent will offer ADU's students the opportunity to advance their knowledge within the high-tech sector and equip them with the needed skillset to excel in research and innovation in their careers. Prof. Qasymeh's research contributes to the efficient scaling of quantum computation by connecting separate quantum nodes through coherent signaling. The research presented significant discoveries emphasizing the importance of reducing noise levels, employing cryogenic preamplification, exploring modular quantum computing, achieving quantum supremacy and scalability, and enhancing cost-efficiency.

This breakthrough in quantum microwave transmission aligns with the strategic goals of ADU to lead innovation and position the UAE as a global player in advanced technology. Such scientific achievement contributes to building a knowledge-based economy, fostering economic diversification, and developing a skilled workforce.

[Professor Montasir Qasymeh, Associate Provost for Research and Academic Development and Professor of Electrical Engineering at ADU](#), said: "With the continues empowerment provided by Abu Dhabi University, I am honored to receive the US patent in quantum technology. This achievement was made possible thanks to the University's leadership and their continuous support, providing faculty members access to world-class resources and facilities dedicated towards impactful research that positively affect both the community and students. This accomplishment emphasizes the University's commitment to overcoming challenges and shaping the future of quantum technology for the coming generations. ADU's success serves as a testament to its commitment to academic excellence, fostering a culture of innovation, and producing graduates who are well-equipped to tackle the challenges of the future."

Recently, ADU announced the achievement of its faculty members in publishing 3,000 research publications in the international Scopus Index, with 80% of the University's publications issued in the Q1 and Q2 categories, the research represents a hallmark for top-tier universities around the world. The publications covered multidisciplinary themes, including engineering and technology, health science, business, finance, and economics.