

Welcoming Remarks for QTML 2019

(October 22, 2019 @ Lotte City Hotel Daejeon)

Distinguished guests, colleagues, and ladies and gentlemen.

On behalf of KAIST, I would like to welcome you all from the bottom of my heart to Quantum Techniques in Machine Learning 2019.

We have a very distinguished group of more than 100 physicists and computer scientists from globally renowned academics and industries.

Special thanks go to the chair of this conference, Professor June-Koo Rhee and his staff members for making this conference successful. I would like to thank all the keynote speakers and the steering committee members for joining us. Without their leadership and hard work, this would not have been possible. Thank you all once again.

I also heard about the tragic accident that happened to Professor Peter Wittek from the University of Toronto, who is one of the steering committee members. Unfortunately, he has been missing for two weeks following an avalanche in the Himalayas. I sincerely hope Professor Wittek will safely return to his family and colleagues soon. My prayers are with him and his family.

Ladies and gentlemen,

This conference will explore the ultimate future of our new world. Quantum computing will be a game changer for our future, especially in the Fourth Industrial Revolution.

A great physicist and Nobel Laureate Richard Feynman was envisioning quantum computing over 30 years ago. But, he said that nobody understands quantum computing. As a physicist myself, I feel so proud to see many of my colleagues who are all into this field of “Nobody Understands.”

I am quite sure that the quantum computing is at a tipping point now. It still needs more time to be used for groundbreaking industrial applications. But it clearly has gone faster than most anyone expected. It’s just another reason many countries and global IT leaders are now all racing to build quantum systems. Universities are no exception.

Last year, I launched Vision 2031, a blueprint for KAIST’s strategic plan and designated quantum technology as one of flagship research areas we should focus on.

Professor Rhee opened the nation’s first AI and QC Information Technology Research Center last year at KAIST in partnership with three leading Korean universities and four corporations including KT and Miraetech to develop quantum computing technology. The research center will also foster talents in related industries by introducing industry-academic educational programs.

Please let me take this opportunity to briefly introduce KAIST. One of the many things that set KAIST apart from other universities in Korea is our history and research culture.

When established in 1971 with a six-million dollar USAID loan to the Korean government, KAIST was missioned to foster talents who have both in-depth knowledge of theory and the ability to apply that knowledge in the real world.

Those talents were urgently needed for the rapid industrialization in Korea. We have fostered 64,000 graduates including 13,000 Ph.D.

They have played pivotal roles in Korea's miraculous economic growth. For an instance, 25% of the Ph.D. workforce in the Korean semiconductor industry, which is dominating the global market, are KAIST graduates. 25% of the Ph.D. researchers in national research institutes and 20% of science and engineering faculty members at universities in Korea are also KAIST graduates.

KAIST has been the gateway to the innovations and advances in Korean science and technology. We have stayed ahead of education and research to identify the most challenging and emerging fields.

This semester, we opened the School of Transdisciplinary Studies and the Graduate School of AI. These two schools reflect our effort to focus on education and research in the fields of convergence and AI.

Ladies and gentlemen,

Quantum computing started solving complex problems with the speed of light. However, it will eventually help us understand everything very precisely. Sooner or later, we can understand human minds very well thanks to advances in quantum computing and AI applications.

This will lead to the creation of a new human species following the 'Phono Sapiens' of the mobile revolution. This is why we gather here with big IT leaders and renowned fellows.

I look forward to QTML becoming a major vehicle to lead both academia and industry for making real breakthroughs for humanity. I also look forward to the new world you will transform.

I heard that you will have an excursion to Sokri Mountain tomorrow. You will see the beautiful countryside full of autumn foliage. Please enjoy the most beautiful season in Korea.

I wish QTML great success and hope you will enjoy the conference at our beautiful campus.

Thank you very much.

October 22, 2019

A handwritten signature in black ink, appearing to read 'S. Shin', written in a cursive style.

Sung-Chul Shin
President, KAIST