

# **DL Talk at the University of Texas at Arlington**

Presented by:

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## **1. From IEEE SMC DL Talk to Academic Exchange**

The Distinguished Lecturer (DL) talk was given on February 17, 2026, the first day of the Chinese Lunar New Year of the Horse. I really appreciate the warm invitation by Dr. Yan Wan (VP for Finance, IEEE SMCS), Professor of the Department of Electrical Engineering, Prof. Jianzhong Su, Co-Director, Smart Agriculture Research Center at The University of Texas at Arlington, IEEE SMC Chapter of the Lone Star Section, and the to-be-organized Student Chapter of UT at Arlington. The weather on that date was quite good compared to the heavy snow a week ago. The on-site audience included more than 30 professors, including Prof. Wei-Jen Lee, the Department Chair of Electrical Engineering, as well as master and doctoral students. In addition, there were great discussions and interactions with participating scholars after the presentation. Seven participants asked questions, and I answered them in detail one by one. In this report, the author will detail the experience of being invited to give a speech and discuss the collaboration between SMCS and schools, as well as his personal experience of participation and related suggestions.

## **2. Topic of DL Talk**

The speech was scheduled to start at 16:00p.m. on February 17, 2026 in Pickard Hall 311. Since there were audience from the newly established Smart Agriculture Research Center at The University of Texas at Arlington, I decided to cover some materials in my talk about AI applications in agriculture. The announced topic to the public about my talk was “AI and LLM in Industry/Agriculture/Aquaculture Applications”. The abstract of my talk was given below.

The integration of artificial intelligence (AI) and the internet of things (IoT), known as artificial intelligence of things (AIoT), is driving significant advancements in the industry/aquaculture, offering solutions to longstanding challenges related to operational efficiency, sustainability, and productivity. With the advent of powerful GPU, AI-related research or AI-based applications have sprouted in every corner of the world. Originating from pure network connectivity, the Internet of Things (IoT) has become a structure that can collect every piece of data from physical devices, daily activities, images, or videos into a data reservoir. As a result, tons of data are automatically generated into an enterprise database in a single day. This creates research opportunities on integrating AI, IoT, big data, and LLMs to improve the quality of industrial production, agriculture or net-cage aquaculture.

IoT sensors deployed across industry/agriculture/aquaculture systems continuously track critical parameters such as temperature, humidity, and workers' behavior. AI algorithms process these data streams to provide predictive insights into working environment management, operations detection, etc. This talk will address the latest research studies in AIoT and LLMs within the industry/aquaculture, focusing on real-time environmental monitoring, data-driven decision-making, and automation. This talk will also highlight future directions for AIoT in industry/agriculture/aquaculture, emphasizing the potential for hybrid AI models, improved scalability for large-scale operations, and sustainable resource management.

## **3. Laboratory and Campus Tour**

Thanks to Prof. Wan's pre-arranged schedule, before the speech I visited her laboratory in

the Department of Electrical Engineering. Her doctoral students and research fellow shared with me about their research areas, what they have done, what they have achieved now, what future work to be done, etc. Through their presentation, I can realize the excellent performance of Prof. Wan's team. In this short seminar, I also gave suggestions to the students about how to improve the quality of research. Furthermore, I told the students the benefits in joining the IEEE. They told me they have been the IEEE student members for a couple of years.

After the seminar, students led me to visit the beautiful campus. During the visit, I found that the mascot of UT Arlington is Mavericks, what a coincidence to the Chinese Lunar New Year of the Horse. Then, we stopped by the campus Starbucks for a cup of coffee. While having coffee with students, I also took the opportunity to learn about their views on technological development and the future job market, and the students were very willing to share their insights. Their biggest worry is that they might not be able to find a good job in the United States after graduation. Furthermore, there are concerns about whether the US government's increased tariffs on many countries will trigger trade wars and price increases.

After the DL talk, Prof. Lee, Chairman of the Department of Electrical Engineering, Prof. Su, Co-Director of the Smart Agriculture Research Center, and other faculty and students chatted a little bit about future cooperation, especially focusing on the future development on the newly established Smart Agriculture Research Center.

I really appreciated the hospitality and arrangement of Prof. Wan and her student chapter for inviting me to deliver this DL talk in her institution. The atmosphere was harmonious, and we discussed how to strengthen cooperation between the IEEE SMC Society, universities and industry to create an impact where 1+1 is greater than 2.

#### 4. Suggestions

At the invitation of Prof. Yan Wan from the Department of Electrical Engineering at the University of Texas at Arlington, the IEEE SMC Chapter of the Lone Star Section, and the to-be-formed Student Chapter of UT at Arlington, I had a good chance to give a talk at the Department of Electrical Engineering and the Smart Agriculture Research Center. After my talk, I can interact with the Chairman of the Department of Electrical Engineering, Co-Director of the Smart Agriculture Research Center, and other faculty and students to discuss possible future research topics for the IEEE SMC Society and the universities. It was a rare and precious experience. There has been a growing interest in future research topics such as deep learning models, image and speech processing, robotic systems, and drone industry/agriculture applications. IEEE SMCS and the UT at Arlington can share many successful practical application examples from each side.

#### 5. Photos

The relevant photos taken during this speech and exchange are shown in Figure 1 to Figure 6.



Fig. 1. The author gave a speech on February 17, 2026 in the University of Texas at Arlington.



Fig. 2. A corner during the speech on February 17, 2026.

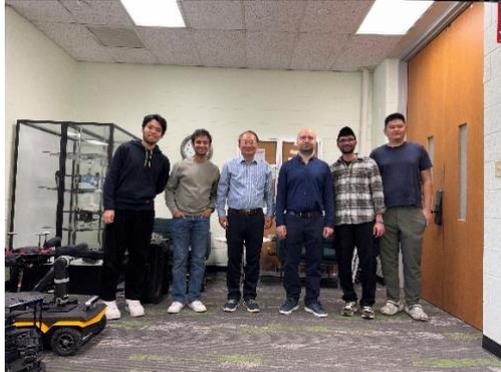


Fig. 3. A seminar with students.



Fig. 4. Campus tour with students.

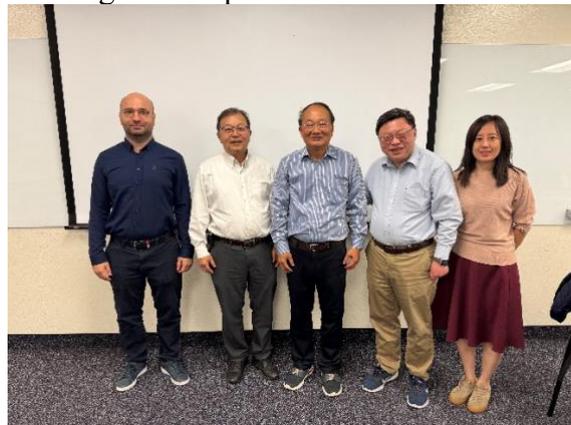


Fig. 5. Group photo after the DL talk on February 17, 2026.

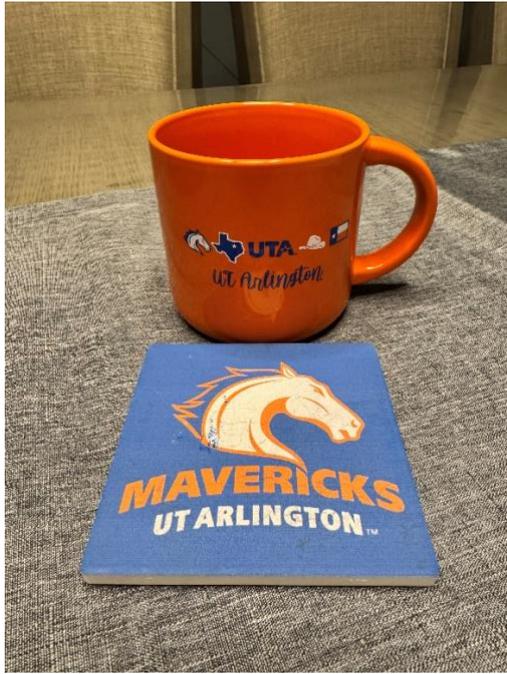


Fig. 6. A special gift from Prof. Yan Wan.