Feng Gao's CV:

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Feng Gao is a Chair Professor at the Shanghai Jiao Tong University. He **earned** his Ph.D. in mechanical engineering at Beijing University of Aeronautics and Astronautics in 1991, and his Master in Mechanical Engineering at Northeast Heavy Machinery Institute in 1982. From 1995 to 1997, he was a postdoctoral research associate in the School of Engineering Science at Simon Fraser University. He was a full professor at Yanshan University from 1995 to 1999. He served first as Vice President and then as President of Hebei University of Technology from 2000 to 2004. He served as the director of the State Key Laboratory of Mechanical Systems and Vibration at Shanghai Jiao Tong University from 2008 to 2013. Since 2004, he has been a full professor at Shanghai Jiao Tong University.

He has been serving as an Associate Editor of Mechanism and Machine Theory since 2008 and the ASME Journal of Mechanical Design since 2012, and the General Member of the ASME Mechanisms and Robotics Committee since 2012. He gave the Keynote Speeches on the conferences of the ASME 2012 and IFToMM 2015, respectively. He won the 2013 China National Natural Science Award because of his contributions in parallel mechanism design and the 8 items of awards from the provincial science and technology invention prizes in China. 2014. And he won 2014 ASME Leonardo Da Vinci Award for his invention of parallel manipulators in USA. He has been granted 120 patents and has published 3 research books on mechanisms and robotics, as well as 120 papers in international journals.

The abstract of my lecture:

Design and Control of 6-Legged Parallel-Parallel Robots for Applications

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Abstract
Research on the walking robots has been one of key topics in robotics for a long time. In recent years, many legged robots were developed in the world, which of them achieved great progress and received much attention from the robotic field. The most important challenging issues are the design and human robot Interaction control of the legged robots. This speech will introduce our research on both mechanism design and real time control of the 6-legged parallel-parallel robots for applications, which include the following issues: design process of type synthesis for legged robotic mechanisms；design of the unit composed of motor, reducer, encoder and torque sensor for legged robots; real-time operating system for legged robots, walking based on force sensing, obstacle avoidance with both vision and F/T sensor, walking upstairs by vision, human-robot interactive assembly based on F/T sensor, manufacturing based on F/T sensor, locked door opening based on F/T sensor for legged robots, fire-fighting and so on.

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