

## **IEEE-EDS GUEST SPEAKER**

## "Ferroelectric Devices and Their Applications" By Dr. Tian-Ling Ren

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**Prof. Tian-Ling Ren** (M'00–SM'05) received the Ph.D. degree from the Department of Modern Applied Physics, Tsinghua University, Beijing, China, in 1997.

He is currently a professor of the Institute of Microelectronics, Tsinghua University, Beijing, China. He is also serving as the chair of IEEE EDS Beijing Chapter, member of IEEE EDS Administrative Committee, IEEE Distinguished Lecture (DL) and council member of Chinese Society of Micro-Nano Technology. His research area is focused on novel micro/nano devices and systems, such as MEMS, nonvolatile memories, ferroelectric devices, and magnetic devices. He has published 200 papers in academic journals and conferences.



## "Ferroelectric Devices and Their Applications"

Microelectronics is honored as one of the greatest invention of the 20<sup>th</sup> century. And the world is changed greatly by the application of microelectronics, like integrated circuits (IC). For decades, IC has developed greatly according to Moore's Law. However, more and more changes come out with the scaling down of devices. Moore's Law is meeting a limit. To obtain systems with new function and higher value, novel materials are employed combining with traditional IC technology, which is known as more than Moore. Ferroelectric material, which has already been widely used, is one of the novel materials. This talk will give a brief introduction to ferroelectric devices, including properties of ferroelectric material and related devices, basic physics, and applications.





