

*Holcombe Department of Electrical and Computer Engineering
Seminar Series*

DC Distribution and Protection

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Abstract

The benefits offered by the DC energy distribution in different applications raised the interests towards new power architectures and apparatus. The availability of the related LV and MV apparatus and protection schemes is in fact crucial to fully exploit the opportunities opened in the energy management for the smart grid. DC distribution has different applications. Circuit breakers employing solid-state technologies can be effectively implemented for DC distribution protection. A complete solid state based DC distribution protection includes the solid state devices and the applicable protection coordination methods. New semiconductor devices facilitates the development of different types of solid state circuit breakers. The possibilities opened by local measurement and communication support the operation of solid state circuit breakers for DC distribution protection.

Biography of Speaker

Lisa Qi received her Bachelor degree from Xi'an Jiaotong University, Master degree from Zhejiang University, and Ph.D. degree from Texas A&M University in 2004. She previously was with Florida State University as a research faculty and an adjunct assistant professor. Dr. Qi joined ABB in 2009 and is now a Lead principal Scientist at ABB Corporate Research Center, Raleigh, North Carolina. Her research interests are DC distribution systems, DC protection and control, power system modeling and simulations, power system stability and control.