

## Outdoor Insulation Workshop

CEIDP 2009, Virginia Beach, VA (October 18, 2009)

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Sponsored by Dielectrics and Electrical Insulation Society and Oak Ridge National Laboratory

There has always been both academic and industrial interest in outdoor electrical insulation materials and systems. Materials utilized in outdoor applications are required to perform under environmental stress and weather conditions without the loss or decrease of dielectric and surface properties. Recently novel techniques for fabricating hydrophobic and superhydrophobic materials and coatings have been developed in areas outside of high voltage engineering as well as in the high voltage community. These techniques could be applied to insulation materials development and on phase conductors to improve their environmental and weather performance. Some of the environmental/weather conditions experienced in cold and coastal regions lead to undesired and expensive to recover events in the transmission and distribution system. Therefore materials with weather resistant and superhydrophobic properties might help to reduce ice build-up on both conductors and insulators and reduce flashover due to dryband arcing. This would increase power system reliability which would correspond to less maintenance for utilities. Thus, improvements in outdoor insulation materials have direct impact on economy and life standard.

*The workshop* is intended to bring together researchers from academia and industry to form a stimulus for research, to discuss actual problems and to create a platform for networking in the field. The workshop speakers and topics are listed below. Refreshments and lunch will be provided during the workshop.

<b>Time</b>	<b>Speaker</b>	<b>Title</b>
08:30-09:30	Dr. Ravi Gorur	Overview of Outdoor Insulation Research: Current Issues and Challenges
09:30-10:30	Dr. Stanislaw Gubanski	Modern ceramic insulators and their application
10:30-10:45	Coffee	
10:45-11:45	Dr. Andrej Krivda and Lars Schmidt	Development and testing of outdoor insulating materials
11:45-13:00	Lunch	
13:00-14:00	Dr. Simon Rowland	Lessons for HV insulation from all-dielectric cable installations on overhead lines
14:00-15:00	Dr. Ed Cherney	Surface Property Improvements and Hydrophobicity of Silicone Rubber
15:00-15:15	Coffee break	
15:15-16:15	Dr. Guan Zhicheng	The Efforts and Experience on the Outdoor Insulation in China