



Power Systems Engineering Research Center

Use of Composite Materials for High Temperature, Low Sag Conductors

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**Research Tele-seminar
September 4, 2007**

2:00-3:00 p.m. Eastern Time (11:00-12:00 Pacific)

Seminar Description

High performance composite materials based on continuous carbon fibers in an epoxy matrix and alumina (Al_2O_3) in an aluminum matrix are being introduced for overhead conductors as a means to increase current carrying capacity without violating sag criteria. The electrical and mechanical properties of these composite materials are largely controlled by formulation and processing details. Users need to be assured that critical properties are not affected by changes in formulation and processing. Both of these aspects that are under the control of the suppliers and known to constantly change in an effort to improve quality and reduce cost. There are no standards for the product and this technology is new. This seminar will highlight technical issues and work done under the PSERC project.

Biography

Dr. Ravi Gorur is a professor of Electrical Engineering at Arizona State University. He has authored a textbook and more than 150 papers in IEEE journals and conferences on the subject of outdoor insulators. He directs various projects dealing with porcelain, glass and composite insulators and high temperature conductors sponsored by industries, utilities and government agencies. He has presented short courses and training seminars to many companies worldwide on a regular basis on the topic of insulators for lines and apparatus. He was elected as IEEE Fellow in 1998 for contributions to aging of polymers used in composite insulators. He is the U.S. Representative for CIGRE study committee D1 (Materials and Advanced Technologies), chaired the IEEE Committee that developed the standard for RTV Silicone Rubber Insulator coatings, the working groups on Insulator Contamination and Aging, and Weathering of Polymeric Cable Terminations.

Participation: Live audio will be provided via teleconference phone bridge. The presentation slides can be downloaded from the [PSERC website](#) on September 4. The audio-slide production of the tele-seminar will be available by web streaming a day after the tele-seminar.

Registration: To indicate that your organization would like to have an access line, send an email to pserc@asu.edu with the subject “Gorur Seminar”. To use our limited phone bridge capacity efficiently, we ask that people in an organization meet together to participate rather than calling in separately, if at all possible. Connection information will be sent before the seminar. There is no charge for participating!

Professional Development Hour Certification: PDH certification is available for PSERC members. Send an email requesting PDH certification to pserc@asu.edu with the subject “PDH” after the seminar. *Include the name and title of each participant.*

Seminar Logistics and Assistance

Connection information will be emailed to you after you submit your request. If you have any questions, please contact Theresa Herr, PSERC’s administrative assistant, at 480-965-1643 or pserc@asu.edu. You can also contact Dennis Ray, PSERC Executive Director, at 608-265-3808 or djray@engr.wisc.edu.

Speaker Contact Information

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PSERC’s Seminar Coordinator

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Shmuel welcomes feedback on the tele-seminars and suggestions for future ones.