



**Ottawa
Section**



IEEE Distinguished Lecture by Joint IEEE Ottawa-Montreal Section DEIS Chapter and EPM of MSS/NRC

The IEEE Ottawa Section is inviting all interested IEEE members and other engineers, technologists, and students to a seminar on dielectrics and electrical insulation.

Dielectric properties of POSS-based polymeric nanocomposites

by

Prof. Eric David

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DATE: May 25th, 2016.

TIME: 10:00 a.m.; Registration and Networking: 9:30 a.m. – 9:50 a.m.

PLACE: National Research Council, 1200 Montreal Road, Ottawa, Building M-36, Kelvin Room.

PARKING: No fee at the visitor's parking. Please respect restricted areas.

Abstract Amorphous or semi-crystalline organic materials such as polyethylene or epoxy resin feature good dielectric strength, reasonably low dielectric losses at power frequency but a rather low resistance to erosion due to corona discharges and a low thermal conductivity, which is a limiting factor for applications in high voltage apparatus used in power generation and power transmission. For the last decade, there has been a considerable interest in the incorporation of inorganic particles to reinforce polymeric matrix in order to obtain composites more resilient to electro-thermal stresses and with improved properties such as higher thermal conductivity, breakdown strength and resistance to erosion from corona discharges. This seminar will present some results obtained from the incorporation of Oligomeric Silsesquioxanes (POSS) within epoxy and polyethylene matrixes.

Eric David was born in Montreal in 1965. He received an M.Sc.A and a Ph.D. in Engineering Physics from the École Polytechnique de Montréal in 1989 and 1996, respectively. He joined the Hydro-Québec Research Institute (IREQ) in 1998, and from 2001 to 2002, where he was active in the field of dielectric materials used for underground cables and rotating machines. He is now a Professor at the Department of Mechanical Engineering in the École de technologie supérieure in Montreal. His research interests include dielectric and nanodielectric materials, rotating machinery and underground cable insulation.

Admission: Free. Registration required for security reasons,

To ensure a seat, please register by e-mail contacting Dr. Refat Ghunem at: Refat.Ghunem@nrc-cnrc.gc.ca