

## **Mechanical reliability in electronics - A lifetime of strange failures and conditions**

**Organized by:** Reliability Society, Algonquin College Student Branch, Educational Activities, and AP/MTT joint chapter

**Speaker:** D. Hugh M. Reekie

**Date & Time:** Tuesday, March 18, 2008, 6:30 PM - 8:00 PM (IEEE Members 6:00-6:30PM light sandwiches and refreshments, plus networking)

**Location:** Woodroffe Campus (room will be confirmed shortly), Algonquin College, Ottawa, Canada

**Parking:** Free in lots 8, 9, 10 only after 6M, otherwise pay parking

**Admission:** FREE -- members however get light food and any presentation notes.

**Registration:** [RaedAbdullah@ieee.org](mailto:RaedAbdullah@ieee.org)

**Contact:** names/e-mail address of the organizer(s)

**Biography:** Hugh has been an electronics engineer all his career - but he nearly switched to mechanical engineering at college so perhaps he is one of the first mechatronics Engineers! After graduation in 1964 he specialized in Solid state microwave, building LNAs, varactor multipliers and "solid state klystrons"- and finally IMPATT oscillators after coming to Canada from the UK in 1969. After a stint building Anik A and C series spacecraft components, (also at Northern Telecom) he settled down with field trips all over Canada, upgrading Earth Stations for Telesat Canada. After building the world's first fully-integrated satellite news-gathering vehicle in the mid 1980s, he moved to the Communications Research Centre as an Applications Engineer on the MSAT program; there he assisted with satellite conference management, including the International IEEE VNIS 93, Ottawa. He started up the MTT and VTS Chapters in Ottawa; presently he chairs the AESS and VTS Chapters, and remains very involved with IET-UK (formerly IEE) local activities.

**Abstract:** In his presentation he describes a number of mechanically-related faults or conditions that affect electrical performance. In addition to standard electronic problems, Hugh will mention a number of specific instances of performance deterioration that can be directly related to the mechanical situation; some of the effects were from very strange mechanisms, requiring a strong knowledge of manufacturing processes to understand and diagnose. In conclusion, Hugh will suggest some "Field Philosophies" for the Project Engineer.