The challenge of low power sensing
and
Smart sensors for the industrial environment

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Abstract:
Seminar 1) The challenge of low power sensing: A discussion on needs and our own experience with very low power sensing strategies in sensors operated by batteries or from scavenged energy with examples from the automotive and energy industries.

Seminar 2) Smart sensors for the industrial environment: Current work on smart sensors for monitoring of power grids, air conditioning systems oil leak detection and others, with emphasis on integration of sensors and sensor networks for monitoring of conditions and intervention for safety, efficiency and environmental responsibility.

Short biography: Nathan Ida is currently Distinguished Professor of electrical engineering at The University of Akron, Akron, Ohio, USA. His current research interests are in the areas of numerical modeling of electromagnetic fields,
electromagnetic wave propagation, nondestructive testing of materials at low and microwave frequencies and in sensors and actuation with particular emphasis on interfacing and integration. Dr. Ida received his B.Sc. in 1977 and M.S.E.E. in 1979 from the Ben-Gurion University in Israel and his Ph.D. from Colorado State University in 1983.

Dr. Ida has published extensively on electromagnetic field computation, parallel and vector algorithms and computation, on nondestructive testing of materials and on sensing. He has written 6 books, two on computation of electromagnetic fields a third on nondestructive testing with microwaves a textbook on electromagnetics and one on sensing and actuation as well as a monograph on surface impedance boundary conditions. Dr. Ida is a fellow of the IEEE, the IET, as well as of ACES and ASNT.