



## PALESTRA - **Prof. JOACHIM HOLTZ** (Wuppertal Univ.)

### ***Predictive Control – When to use and when not?***

Due to switching losses operation at extremely low switching frequency is mandatory. Low harmonic current distortion can be nevertheless achieved when predictive current control is applied. The predictive algorithm directly generates the firing pulses of the inverter, thus eliminating a pulsewidth modulator. A preset magnitude of the current error is maintained, defined as the difference between the current reference and the actual current space vector. The inverter gate pulses are generated while maximizing the time differences between any two switching instants. This minimizes the switching frequency, and thus the switching losses.

**Terça-feira, 27 de fevereiro de 2018, 14h00 no Auditório do CE (Centro de Educação) da UFPB**



Joachim Holtz graduated in 1967 and received the Ph.D. degree in 1969 from the Technical University Braunschweig, Germany. From 1969 to 1971 he was Associate Professor in, Full Professor and Head of the Control Engineering Laboratory, Indian Inst. of Tech. in Madras, India. He joined the Siemens Research Laboratories, Germany in 1972. From 1976 to 1998, he was Professor and Head of the Electrical Machines and Drives Laboratory, Wuppertal University, Germany. Presently Professor Emeritus and a Consultant, his publications include 2 invited papers in the Proc. of IEEE, 17 invited papers in IEEE Journals, and 27 single-authored IEEE Journal papers. He is the recipient of 17 Prize Paper Awards, a coauthor of seven books and holds 33 patents. Dr. Holtz is the recipient of the IEEE IES Dr. Eugene Mittelmann Achievement Award, the IEEE IAS Outstanding Achievement Award, the IEEE PELS William E. Newell Field Award, the IEEE Third Millennium Medal, the Anthony J. Hornfeck Service Award, and the IEEE Lamme Gold Medal. He is a Life Fellow of the IEEE. Dr. Holtz is Past Editor-in-Chief of the IEEE Transactions on IE, Distinguished Lecturer of the IEEE IES and IEEE IAS.

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