



Power & Energy Society\*



School of Electrical, Computer and Enterprise Engineering



Energy Systems Research Laboratory



**IEEE Miami Section Seminar Announcement** 

## "Motors for Cars and Robots"

Monday, May 29, 2024 | 11:00 AM to 12:00 PM EST

Location: EC 3930, 10555 W Flagler St, Miami, FL 33174 Zoom - Meeting ID: 854 4020 2232 | Passcode: 8U2RHD



Dr. James L. Kirtley, Professor, post tenure, MIT IEEE Fellow, US NAE

<u>Summary</u>: Motors for Cars and Robots. These two applications have a lot in common: variable speed, variable torque, and torque and speed that do not in all cases vary together. They are also weight and efficiency sensitive. We discuss design paradigms that might be suitable for these classes of machines, including both induction and permanent magnet AC machines and tell a few 'war stories' about experiences in both classes of machine application.

<u>Speaker Bio</u>: James L. Kirtley Jr. is of Professor of Electrical Engineering, post tenure, at the Massachusetts Institute of Technology. He was with General Electric, Large Steam Turbine Generator Department, as an Electrical Engineer, for Satcon Technology Corporation as Vice President and General Manager of the Tech Center and as Chief Scientist and as Director Dr Kirtley was Gastdozent at the Swiss Federal Institute of Technology, Zürich (ETH).

Dr. Kirtley attended MIT as an undergraduate and received the degree of Ph.D. from MIT in 1971. Dr. Kirtley is a specialist in electric machinery and electric power systems. He was a major participant in MIT's program to develop synchronous machines with superconducting field windings. He served as Editor in Chief of the IEEE Transactions on Energy Conversion from 1998 to 2006. Dr. Kirtley was made a Fellow of IEEE in 1990. He was awarded the IEEE Third Millennium Medal in 2000 and the Nikola Tesla Prize in 2002. Dr. Kirtley was elected to the United States National Academy of Engineering in 2007. He is a Registered Professional Engineer in Massachusetts. He converted to post-tenure status in June 2020.