## October 28, 2019 UCF Chemistry Department Seminar

The Florida Solar Energy Center,
Photovoltaics, Energy Efficient Buildings, Electric Vehicles and Storage
Fuel Cell Research

Dr. James Fenton Florida Solar Energy Center University of Central Florida

The presentation will cover the Florida Solar Energy Center's: U.S. Departments of Energy Programs, Industrial Partnerships, Intellectual Property, Principal Research Areas, State Standards, Training and Jobs, STEM Education and Opportunities to continue UCF's leadership role in Energy Research and Education. Florida's current fossil fuel energy use and a future where Florida integrates, on both sides of the meter, solar energy, energy storage, energy efficient buildings and electric transportation, and a brief discussion of the Fenton group Fuel Cell Research will also be discussed.

James M. Fenton is the Director of the University of Central Florida's Florida Solar Energy Center (FSEC), (Professor MSE and member of REACT Cluster) where he leads a staff of 50 in the research and development of energy technologies that enhance Florida's and the nation's economy and environment through educating the public, the students and the practitioners on the results of the research. FSEC's mission is to research and develop energy technologies that enhance Florida's and the United States' economy and environment. The Center has gained national and international recognition for its wide range of basic and applied research, and for its education, training and certification programs. The Center created by the Florida Legislature in 1974 also functions as Florida's statewide energy research institute and has a 45 year history of basic and applied research excellence, which has grown in scope to include all aspects of renewable energy, alternative fuels, fuel cells, energy storage, electric vehicles, and energy efficiency technologies.

FSEC leads national programs funded by the U.S. Departments' of Energy and Transportation in: "Building America" energy efficient homes, Photovoltaic Manufacturing, Hot-Humid PV testing of large-scale PV to show bankability, Solar-Ready Vets and train-the-trainers education for solar installations, programs to decease the soft-costs of PV installation, Electric Vehicle Transportation (U.S. DOT's only EV Transportation Center) and "Clean Cities" (alternative fuel transportation). He received his PhD in Chemical Engineering from the University of Illinois in 1984 and his BS from UCLA in 1979. He was a Professor of Chemical Engineering at the University of Connecticut from 1984-2004. He is serving as Secretary of The Electrochemical Society, an Electrochemical Society Fellow and received the Research Award of the Electrochemical Society's Energy Technology Division in May 2014 for his work on Automobile Proton Exchange Membrane Fuel Cells. He is the author of over 200 publications.