## DEFENSE ENERGY SEMINAR

## Transforming Energy in the 21<sup>st</sup> Century

05 June 2013 – ME Auditorium 1200

## With Guest Lecturer Prof. Franklin M. Orr

Keleen & Carlton Beal Professor in Petroleum Engineering, Department of Energy Resources Engineering, and Director, Precourt Institute for Energy Stanford University

Energy use is fundamental to modern societies and a primary way we humans interact with climate, ocean pH, and many other natural systems that provide essential services. An important first step is to make our energy use much more efficient than it is currently. But efficiency alone is not enough. We will also need to change the way we convert primary energy resources into energy services, and there is a real need for energy innovation. The challenge is to convert it at costs that are within reason, with sources of supply that are secure, and with impacts that protect essential natural systems. Options for doing that, and the research required to make it possible, are considered in this presentation.



## **Abridged Biography:**

Lynn Orr is the Keleen and Carlton Beal Professor in Petroleum Engineering in the Department of Energy Resources Engineering and Director of the Precourt Institute for Energy at Stanford University. He served as Dean of the School of Earth Sciences from 1994 to 2002 and as Director of the Global Climate and Energy Project from 2002 to 2008. He joined Stanford in 1985. Previously, he was employed by the US Environmental Protection Agency in Washington, DC, Shell Development Company in Houston, and the New Mexico Institute of Mining and Technology in Socorro. He holds a Ph.D. from the University of Minnesota and a B.S. from Stanford University, both in Chemical Engineering.

