

## **Junior Faculty Development in Nuclear Engineering at The University of Texas at Austin**

Texas is the second largest state in the US, and among the five leaders in population growth. Because of its size and climate, it consumes more electricity than any other state. As with the rest of the country, there is renewed interest in nuclear energy in Texas. Applications construction and operating licenses for two new power reactors were recently submitted here, the first in the US in more than thirty years, and plans for upwards of four additional power reactors are under discussion. A new uranium enrichment plant is being built on the Texas-New Mexico border and Texas is the chosen sight for a high temperature inert gas reactor test project. Because of these factors, there is a tremendous need for nuclear energy education in Texas. It is widely recognized that the US produces fewer nuclear scientists and engineers than it needs to fill positions that are being left vacant by retirements at utilities, the Nuclear Regulatory Commission (NRC), the Department of Energy and top universities. The University of Texas at Austin is the states flagship school and the second largest institution of higher education in the US. Because of this, UT Austin is in an ideal position to contribute to the research and educational infrastructure that are needed to underpin the future expansion of domestic nuclear power.

The University of Texas at Austin has a small and growing program in Nuclear and Radiation Engineering (NRE) with more than thirty graduate students pursuing advanced degrees, an undergraduate certificate that was introduced with the help of a NRC Education Grant and a Radiation Physics Option that is offered through the University's Physics Department. The program currently has two tenured faculty and two assistant professors, both of whom were hired in the last two years. This is a critical time for nuclear engineering at UT Austin. The University is in the process of forming an Energy Institute that will, as part of its directive, hire additional faculty in energy related fields that show academic promise. The nuclear engineering program is in discussions with the Energy Institute about forming a Center for Nuclear Energy Systems at UT Austin and it would like to expand its current faculty over the next few years. However, universities have been reluctant to expand nuclear engineering programs because of the lack of consistent federal funding. An award from the Nuclear Regulatory Commission's Faculty Development Grant Program will help in affectively making this case the Federal research dollars exist for supporting Assistant Professors whose research centers on nuclear energy.