What is your area of expertise? What research or special projects are you currently working on?

I am a Professor in the Nuclear and Radiation Engineering technical area in the Walker Department of Mechanical Engineering. I have served on the faculty of the Cockrell School of Engineering since 1997. I am mainly involved in nuclear analytical measurements and their applications in nuclear forensics, natural radioactivity, environmental monitoring of trace and heavy metals, and characterization of archaeological pottery for its provenance.

Current projects include radioactivity in the oil and gas exploration, nuclear forensics using gamma ray spectroscopy, air pollution in the Arctic, trace elements in archaeological pottery from biblical Israel, distance learning education, and radiation detectors on robots.

What career achievements or recognition are you most proud of?

I received the Arthur Holly Compton award from the American Nuclear Society and the American Society for Engineering Education Nuclear and Radiological Division Glen Murphy Award for outstanding achievements in education in nuclear science and engineering for designing and implementing one of the most advanced distance learning programs in the nation for nuclear scientists and engineers. I have graduated more than 55 MS and 30 PhD students and I have published more than 245 papers and 185 conference proceedings and 2 books on the Measurement and Detection of Radiation (3rd and 4th editions with the 5th one in preparation)

What motivates you to lead this study abroad program?

The main motivation is involvement in the experience that the students have in studying in a foreign country and enjoying seeing their happiness in being in a different educational and social environments.

What makes your study abroad program unique?

It incorporates doing laboratories at international universities and laboratories, having exciting field trips to nuclear centers and meeting students, professionals and faculty members from other international institutions.

What will students gain from participating in your study abroad program?

The study abroad program is set in a research environment to entice students to consider graduate school after obtaining their BS degrees in science or engineering. This program attracts students from other engineering disciplines as well as physics and chemistry so there is a real cross-cutting educational experience the students get taking classes, performing experiments, presenting lectures, and visiting
nuclear centers. It is a great stepping stone to performing more research with a professor back at UT or in my group. I also do a lot of professional mentoring.

**What does a typical day or week on campus look like for you?**

I spend my time meeting with undergraduate and graduate students who are performing research and writing papers to be submitted to international journals, teaching in the classroom, writing proposals for funding, maintaining the Nuclear and Radiation Engineering Program with administrative duties, traveling to national laboratories and going to international conferences to present research work done by my students and myself.

**If you had a day off, how would you spend it?**

Working out at the gym, walking my dog in the greenbelt, playing blues on my piano.