

## **Development of an On-line Radiation Detection and Measurements Laboratory Course**

### **Executive Summary**

The overarching goal of this project is to develop an on-line radiation detection and measurement laboratory course. The objective of this on-line laboratory course is for the students to experience working with the instruments as if they were in the laboratory. The online laboratory exercises will be unique in that students will be able control laboratory measurements in real-time through a broadband internet connection. The course will improve the nuclear education infrastructure in the nation by being available to universities that want to offer a radiation detection laboratory experience to their students but do not have the instrumentation, the radioactive materials license, or the personnel to teach the course. Furthermore, the on-line radiation detection course will offer an alternative to traditional on-line laboratory courses where students must travel to campus several weekends per semester for the detection laboratory experience. With the first year of funding we will focus our efforts on the development of the robotic instrumentation necessary for source/shield manipulation in experimental set-ups for the on-line laboratory course.

**Principle Investigator:** Timothy DeVol, [devol@clemson.edu](mailto:devol@clemson.edu)