

Enhancement of the Radiation Detection and Measurement Laboratory in Support of the Nuclear Engineering Curriculum at Virginia Commonwealth University

Executive Summary

The objective of this proposal is to enhance the existing undergraduate nuclear engineering curriculum at Virginia Commonwealth University (VCU) by increasing the teaching capabilities of VCU's Radiation Detection and Measurement Laboratory. Since its creation in the fall of 2009, VCU's undergraduate nuclear engineering program has developed a strong curriculum of core courses emphasizing the power production option and in a predominantly theoretical format. In more recent times, however, VCU's department of Mechanical and Nuclear Engineering has made a large effort to furnish appropriate laboratory facilities to provide the students with adequate exposure to the radiation detection and measurement instrumentation routinely used by qualified nuclear engineers in the nuclear industry.

This proposal seeks to enhance the capabilities of the existing Radiation Detection and Measurement Laboratory at VCU, by expanding the number and the variety of instruments currently available to VCU students. The requested laboratory equipment will allow the VCU nuclear engineering faculty to provide the students with more diverse and individualized hands-on instruction opportunities. The availability of the expanded radiation detection and measurement laboratory will permit VCU's nuclear engineering faculty to redesign the three courses in the curriculum that make use of such facilities.

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