Hands-On Nuclear Engineering Education – A New Integrated Course

Executive Summary

A new modular course for local and distance learning which includes “hands-on” modules will be developed. This is an innovative modality for delivering reactor physics- and health physics-related course material. Distance learning through the Internet is not new, but delivery of reactor laboratory sessions with interactive participation is a new way to engage students in nuclear engineering. The course package includes several laboratory sessions that will be interactively delivered from the Rensselaer Polytechnic Institute (RPI) reactor facility and the RPI Linear accelerator. A course can be packaged by combining several modules that include theoretical components and laboratory components. The hands-on experience could be delivered to other universities and organizations that do not have such facilities. The proposed interactive mode is aimed to provide the student with the best possible experience for a remotely delivered hands-on course. The teaching framework developed for this course can be expanded to include other modules and to allow remote instrumentation control through the web.

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