

Invited seminar

Virginia Tech Research Center, Arlington, VA
10-11 am, March 21, 2013

Locations

VTRC: 3-024

Blacksburg: Randolph 117A (via videoconferencing)



**Videogames in Classrooms and Labs; or,
Classrooms and Labs in Videogames**

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ABSTRACT

Several stars have lined-up to force an alarmingly large number of people to explore computer- and videogames as a means to transmit knowledge and skills. These include several technological innovations, affordability, as well as increasing comfort level of teenagers with these games. Undivided attention these games attract from pre-teens and from teenagers is a source of envy for all classroom instructors. How many times have we suspected that the bored student in the back row is actually playing *angrybirds* (*solitaire* or *mine sweeper* for those with gray hair)? If they can bring games to the classroom, why can't we put the classroom in their games? As with all such "disruptive" technologies, initial focus should be on how to take advantage of the beneficial components of the new technology, while minimizing the potential harm.

An entire industry is growing around the idea of teaching STEM skills via videogames. Even NSF is willing to fund projects to explore options. Our focus is to take advantage of 3D, interactive, multi-player videogame technology to provide laboratory experience that may otherwise be not available to students. This seminar will describe our own evolution over the last decade focusing on some of our latest achievements. These include a chemistry lab for safety training; a research reactor; and a radiation lab.

Biography

Dr Rizwan Uddin is currently Professor of Nuclear, Plasma and Radiological Engineering; and Professor of Computational Science and Engineering at the University of Illinois at Urbana-Champaign. His areas of interest include thermal hydraulics; CFD; computational methods; coupled neutronics and thermal hydraulics; biological systems and general modeling and simulation. He has also been exploring the use of computer- and video-games for education and training.