



Master in Nuclear Science and Engineering

INVITED LECTURE:

Approaches at KAIST NICIE Lab to Quantifying Situation Awareness in Nuclear Power Plant Main Control Rooms

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Abstract:

In this presentation, some empirical efforts which were made at the KAIST NICIE (Nuclear I&C and Information Engineering) Lab to quantifying Situation Awareness (SA) in NPP Control Rooms will be introduced.

The presentation will be in two parts. First part will be on quantifying individual situation awareness by using eye tracking system. Second part will be on quantifying team situation awareness analyzing the team members' conversation.

In addition to these, if time allows, an attempt to quantify SA in analytical ways using Bayesian theorem will also briefly be presented.

Dr. Poong Hyun SEONG is currently a Professor in Nuclear Engineering at KAIST, Korea. Prof. Poong Hyun SEONG had his BS degree from Seoul National University in 1977, and MS and Ph D degrees in nuclear engineering from Massachusetts Institute of Technology (MIT) in 1984 and 1987, respectively. He worked as the chief editor of *"Nuclear Engineering and Technology"* from 2003 to 2008. He was a commissioner of the Korea Nuclear Safety Commission from 2006 to 2009. He was the chair of the HFICD (Human Factors and Instrumentation and Control Division) of the ANS (American Nuclear Society) from 2006 to 2007. He worked as the president of Korean Nuclear Society (KNS) from September 2015 until August 2016. He is now an editorial board member of *"Reliability Engineering and System Safety"* and *"Annals of Nuclear Energy"*. His research interest includes Digital Instrumentation and Control systems developments for Nuclear Power Plants, Software V/V, Human Reliability Analysis, and Cognitive Systems Engineering. He published numerous technical papers (<http://niclab.kaist.ac.kr>) and he published a book *"Reliability and Risk Issues in Large Scale Safety-critical Digital Control Systems"*, Springer in 2009.

Fecha y horario: Jueves 10 de noviembre de 2016. 17:30 – 19:00
Biblioteca del Instituto de Fusión Nuclear

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