

JAERI Develops DETRAS for Web-based Training

On September 9, the Japan Atomic Energy Research Institute (JAERI) announced that it had developed the Distanced Education/Training System on Reactor Simulator over Internet (DETRAS). The system enables persons to be trained off-site, through the Internet, in the operation of a reactor simulator located within JAERI's facilities. The announcement was made by Yukichi Yamaguchi, section manager of the special team researching the safety of socio-technological systems at JAERI's Tokai Research Establishment.

The system is composed of two sections: (1) a simulator operation center, with a computer for simulating a nuclear reactor, and (2) a remote operation control environment, letting users use the Internet to connect with the center's computer and control the operation of the simulator. Besides allowing users to control the operation of the nuclear reactor simulator, the system also features learning support as a basic function, with instructors stationed at the operation center communicating with the users interactively through audio, as well as monitoring the screens being used by the users.

Traditionally, the simulation of large-scale, complicated systems such as nuclear reactors was prohibitively expensive, necessarily limiting their use to a very few cases. JAERI hopes that the development of DETRAS will enable the simulator to serve as the foundation for a broader educational and training system than before. Not only will it be used for the education and training of nuclear reactor operators, but also "for the education of managers of nuclear reactor facilities and nuclear safety regulators," the organization says.

Also, JAERI hopes for a broader social penetration of the system, saying that the concept and fundamental technology of DETRAS will be also applicable to complicated, large-scale system in other fields of activity, such as giant petrochemical plants.

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