



Third Joint Laureate Innovation

- ◆ **Project title:** Radiological Plume Simulator System
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Abstract:

The main purpose of the radiological emergency response is using suitable protective measures to reduce the possible consequences for people and environment. In order to raise the emergency capabilities of response teams in nuclear accidents, providing training and exercises is very important. Since the real radiological conditions can cause risks to peoples and environment, relevant national and international organizations have imposed limitations for these conditions. One of the most important principles of nuclear accidents emergency response training and exercise is creating a sense of actual conditions, whilst the environment of training and exercise must be completely safe for participants. For solving this problem, radiological plume simulator is used to train and exercise emergency response teams.

Using this training system, there is no requirement for the use of real radioactive materials in training and exercises in response to dummy nuclear accidents, thus increasing the safety and health of participants in training and exercise. On the other hand due to the high costs of using radioactive materials in training and exercise, the use of the radiological plume simulator system greatly reduces the cost.

