Federal Remediation Technologies Roundtable

Application of Robotics, Machine Learning and Artificial Intelligence Technologies to Site Remediation

FRTR Spring 2022
Webinar Meetings

June 6 and 13, 2022

Federal Remediation Technologies Roundtable

Introduction to the Spring Meetings

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FRTR Steering Committee Chair and Air Force Subject Matter Expert, Remedial Systems

June 6, 2022

Motivation for Spring 2022 Topic

- Artificial intelligence technologies are beginning to transform how people and machines work together.
  - Robotics and unmanned systems provide opportunities to access dangerous or toxic environments, and improve worker safety.
  - Advances in machine learning are making it possible to process and analyze large data sets in new ways to support remediation decisions.
- FRTR member agencies need to
  - Share information and advances in artificial technology, and
  - Understand how to apply artificial intelligence technologies to site cleanup.

Meeting Objectives

- Review recent technology advances supporting site characterization and remediation.
- Identify potential benefits, risks and limits of robotics and unmanned aerial systems to support site characterization and remediation.
- Discuss appropriate use of machine learning and artificial intelligence to support remediation decisions.

Session 1: ***June 6, 2022*** ***1:00 to 3:45 PM (EDT)***

Advances in Robotics and Unmanned Aerial Systems to Support Site Characterization and Remediation

Session 2: ***June 13, 2022*** ***1:00 to 3:45 PM (EDT)***

Advances in Processing Large Data Sets and Machine Learning for Remediation Decision Support

June 6th Presentations

Advances in Robotics and Unmanned Aerial Systems to Support Site Characterization and Remediation

- Climate Resiliency and Long-Term Surveillance of Nuclear Facilities and Repositories Using Aerial and Ground Mobile Platforms
- Potential Use of Drones and Robotics for Radiological Characterization, Site Surveys and Emergency Responses
- Wearable Robotics for DOE-EM Workers
- Multi-Scale Thermal and Electromagnetic Technologies Toolbox for Improved Mapping and Monitoring of Contaminated Groundwater Discharges to Surface Water
- Are Methane Emissions from Landfills Understated?


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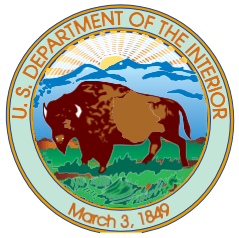
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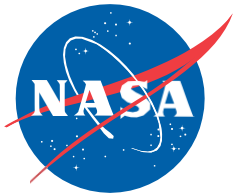
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