NUVIATECH INSTRUMENTS

NuWATCH   SCALABLE RADIATION MONITORING NETWORK

NuWATCH is a comprehensive solution to monitor the level of radiation around nuclear facilities and at the national territory level. The system is used to protect the population, critical infrastructure or the environment from the consequences of a radiation event. It is designed to monitor radioactivity in the air, water or soil and integrate existing radiation networks. The acquired data enables to assess the exposure of the population and, in emergency situations, to bring awareness of the radiation situation in the contamionated areas and to subsequently implement protective measures.

Characteristics

· Online radiation monitoring
· Possibility of combination monitoring of possibility of combining data from radioactivity in air, water or the food chain
· Ability to aggregate information from CBRN, including nuclear facilities and radioactive waste repositories
· Automatic data transfer between defined entities, national and international data exchange
· Trend analysis of data monitored and prediction of the evolution of the radiation situation

Benefits

· All data analyzed and displayed in a single interface
· Coverage of any area (from a single facility to a nationwide monitoring network)
· Customization and scalability of the solution according to customer requirements
· Adaptable system - integration of existing functional network, outputs from laboratory measurements or mobile devices
· Easy report creation (international IRIX data format)

instruments@nuviatech.com | nuviatech-instruments.com

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Environmental monitoring

In addition to online data from the monitoring network, the system also integrates data from laboratory systems.

Monitoring the environment and food chains allows to monitor the global development of the country's radiation situation on the basis of long-term trends.

These long-term data can be used to create so-called consumer baskets and make recommendations to the population. These data can be used in the event of a radiation accident as a basis for an emergency response.

- Additional data for the overall information on the radiation situation
- Monitoring and identification radionuclides
- Location of the integrated measurement system either within the national monitoring or around the nuclear power plant
- Use of data especially as addition to online measurement and monitoring of deviations from the long-term normal

Related products: WIMP, NuRADON Soil, TGS

Early warning network

The system allow early identification of a radiation situation. The results from radiation monitoring devices can be used in the decision-making process to determine protective measures for the population.

The system can be extended with online monitoring of aerosols, drinking water etc.

- Online monitoring of dose rate
- Immediate notification of defined subjects in case of exceeding limits of the radiation situation
- Measurements with dose rate probes with a measurement range from 10 nSv/h to 10 Sv/hv
- Variable measurement period
- Possible integration of existing monitoring networks, e.g. around nuclear facilities, military installations or critical infrastructure (TDS)
- Real-time monitoring and trend tracking based on historical data
- SAFEWATER monitoring of drinking and service water possible - fast and accurate detection of potential gamma or beta radiation contamination

Related products: NuDET EGM, ENA, ENA UW, RAMS, RAMSAT, SAFEWATER

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Mobile monitoring

Mobile monitoring is an effective way to obtain comprehensive information during routine monitoring, transport of radioactive material or radiation incidents.

In the event of an emergency, additional mobile devices can be integrated into the system.

Mobile monitoring can consist of ground and air assets. Monitoring of large areas is carried out using a drone or helicopter, for more accurate localization of the source can be used other detection and measuring equipment (portable devices, handheld devices, detection systems in cars).

- Quick measurement preparation
- Self-powered and GPS system, independent on the vehicle
- Easily transportable
- Data available in real time
- Additional data available
- Modularity of the system
- Easy data visualisation in map module

Related products: Drones-G, NuGBall, RadScout

Data collection and processing

A unified software solution, which has the advantage of having all data from these sources in one place, without the need to switch between applications and providers.

The system allows the creation of a publicly accessible section where selected measurement results from both the EWN and other types of measurements can be published on a regular basis.

- Easy data orientation, interpretation and reporting
- Increased level of security due to the sensitivity of the transmitted data - communication over secure https protocol, digitally signed and encrypted data message already at the level of the measuring device
- Unified interface and data structure allowing integration of data from other providers
- Centralised database facilitating bi-directional international data exchange based on bilateral agreements
- Data exchanges performed according to international standards in IRIX format
- Possibility to provide data to partner countries as well as to the mandatory European EURDEP database
- Public section showing data in a map for easy orientation

Related products: NuSOFT RADIS

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Our solution

NUVIA offers a simple solution under the NUVIATech Instruments. We will use your existing hardware and software, add missing parts and components and create an efficient radiation monitoring system.

Why NUVIA?

- **We have many years of experience - we have implemented reference projects in the Czech Republic, Poland, Croatia, Latvia, Slovakia, Italy or Quatar**
- **We are experts in our field**
- **We measure with our own instruments, we are able to integrate third party instruments or existing equipment**
- **We have flexible equipment service, online software service covered by SLA**
- **We offer customized solutions - the goal is not to replace your existing functional equipment, but to integrate it**
- **We also provide radiation monitoring services - for example, drone surveys of a selected area**
- **We provide continuous support and development so that the system does not become obsolete**
- **Cyber security**