TWELFTH INTERNATIONAL CONFERENCE OF RADIATION,
NATURAL SCIENCES, MEDICINE, ENGINEERING, TECHNOLOGY AND ECOLOGY
JUNE 17-21, 2024
HUNGUEST HOTEL SUN RESORT, HERCEG NOVI, MONTENEGRO

Study of Radon in Workplaces with Continuous Monitors RadonEye +2

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The measurements of radon indoor in workplaces in Albania is very low, this is due to the long measurement time with CR-39 also the lack of government policies.
In workplaces such as offices, where hazards are normally low, radon can be the largest occupational health risk.

In in the framework of the project ALB 9011 supported from IAEA were provided 10 continues radon monitors Radoneye+2 as a new opportunity for studying the temporal variations of indoor radon and for more precise exposure estimates based on the actual hours spent in workplaces.

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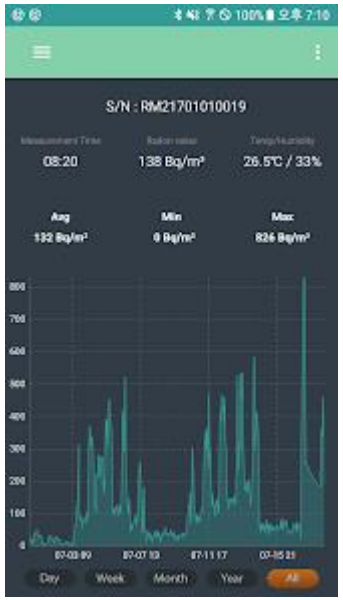
Radoneye+2 monitor



- The measurement of radon concentration with Radoneye+2 monitors were performed in the same workplaces with different typology and ventilation including response time as with passive detector CR-39 before in the Institute of Applied Nuclear Physics. The Radoneye+2 monitors stayed during for tow-weeks continuous monitoring.

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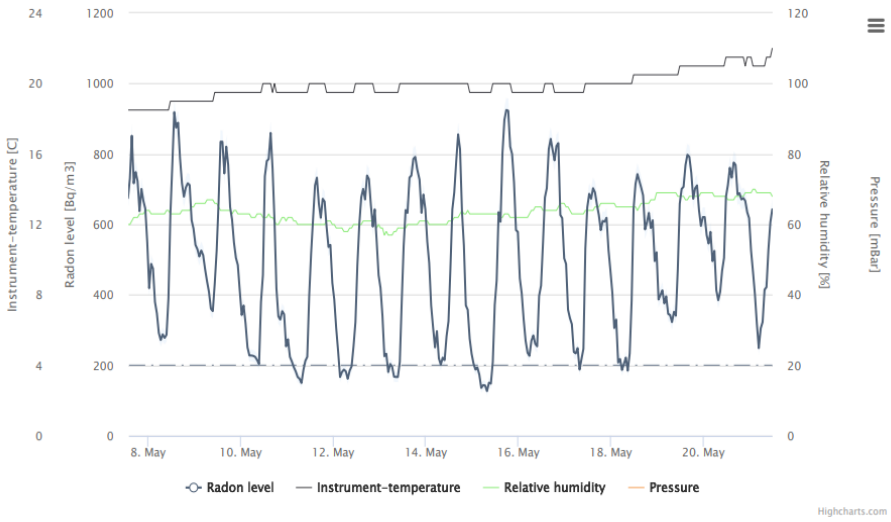
Measurement with Radoneye+2 monitor (example)



Data for all points in graph interval

Average Radon level	493 ± 12 Bq/m^3
Lowest value	127 Bq/m^3
Highest value	925 Bq/m^3
Instrument-temperature (Average value)	20.0 °C
Relative humidity (Average value)	64.0 %

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Measurement Solid state nuclear track detectors (SSNTD) Radtrak (example)

For three month exposure

988 Bq/m^3	**±10%**

The CR-39 film are etched for approximately 8-10 hours in NaOH (6M) solution at temperature-controlled bath ranging from 70°C to 80°C

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- It is observed that the average of indoor radon concentration was approximately as average value measurement with passive method. The deviation of the values is found to vary from 15-20%.
- The RadonEye+2 have high sensitivity and for this case shown that have linearity of values up to 2000 Bq/m^3.

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• This study is in the early stages and requires more measurements to give more accurate results.
• The continuous monitoring of radon concentration is important as a tool to keep under control the radon concentrations as indicator to increase the awareness against radiation hazards among the workplaces and critical population groups.

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Thank you !

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