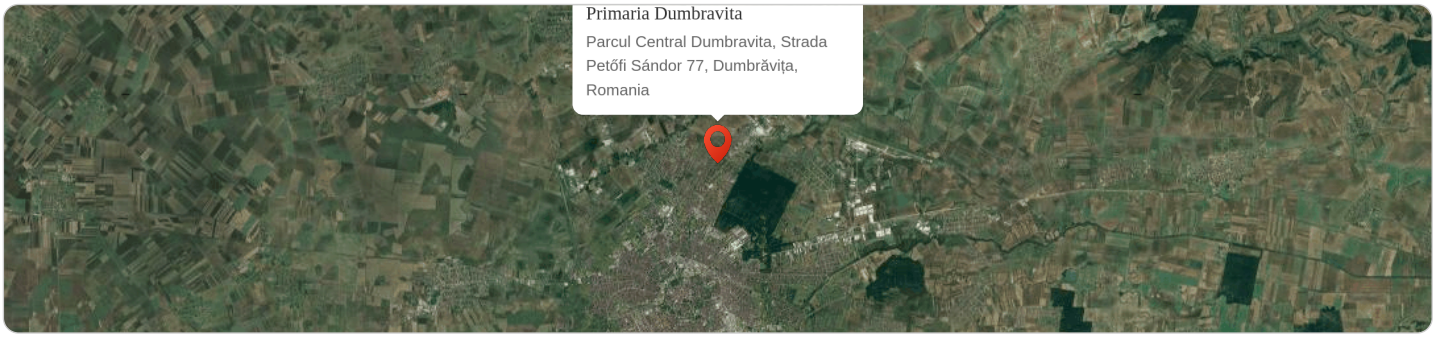
Primaria Dumbravita

MONTHLY AIR-QUALITY REPORT

Timp de la: **01/11/2025, 00:00**
Timp până la: **30/11/2025, 23:59**

Numele dispozitivului: **Primaria Dumbravita**
Locația dispozitivului: **Parcul Central Dumbravita, Strada Petőfi Sándor 77, Dumbrăvița, Romania**

Parametrii: **EAQI , NO_2 , O_3 , SO_2 , $PM_{2.5}$, PM_{10} , Wind Speed , Wind Direction , CO , R. Humidity , PM_1 , PM_{100} , Pressure , Temperature**



Media indicelui de calitate al aerului (ICA): **298**

Prezentare generală zilnică: Parametrii indicelui de calitate al aerului (ICA)

	EAQI AQI	NO_2 µg/m³	O_3 µg/m³	SO_2 ppb	$PM_{2.5}$ µg/m³	PM_{10} µg/m³
Average	298	30.27	5.87	4.71	39.3	99.23
Maximum	439	94.59	21.88	5.77	176.8	557
Date	13/11/2025	05/11/2025	25/11/2025	10/11/2025	11/11/2025	13/11/2025
Minimum	50	4.64	0	3.46	6.46	20.03
Date	25/11/2025	23/11/2025	05/11/2025	05/11/2025	25/11/2025	25/11/2025

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Prezentare generală zilnică: Alți parametri

	Wind Speed m/s	Wind Direction degree	Battery %	CO ppb	R. Humidity %	PM1 µg/m³	PM100 µg/m³	Pressure HPa	Temperature °C
Average	0.97	174.18	100	395.23	79.8	25.56	151.09	1006.2	8.76
Maximum	8.96	165.49	100	489.49	92.98	78.41	1049.44	1015.65	16.97
Date	25/11/2025	25/11/2025	01/11/2025	14/11/2025	30/11/2025	30/11/2025	13/11/2025	05/11/2025	01/11/2025
Minimum	1.03	87.38	100	327.28	61.18	5.13	33.83	994.94	2.7
Date	19/11/2025	19/11/2025	01/11/2025	03/11/2025	17/11/2025	25/11/2025	26/11/2025	25/11/2025	23/11/2025

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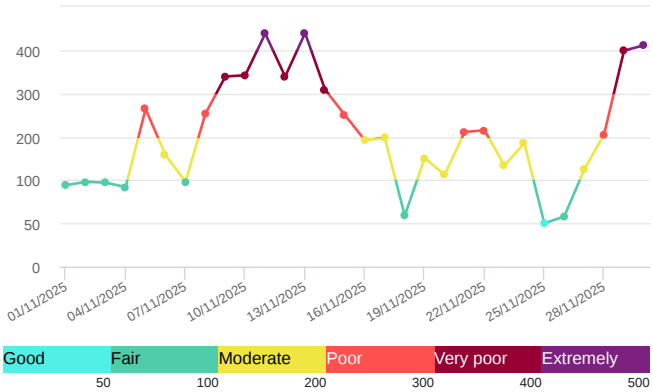
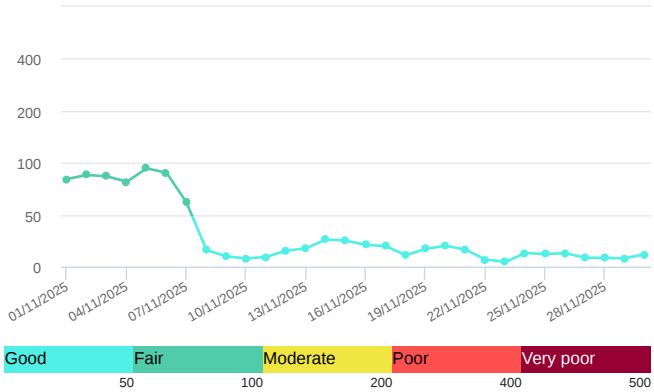
Weekly Average

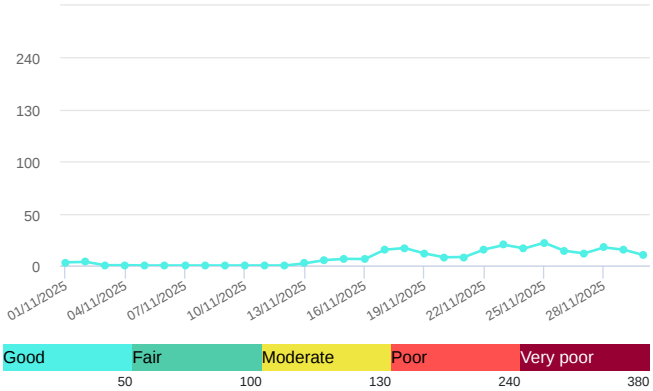
EAQI (AQI)



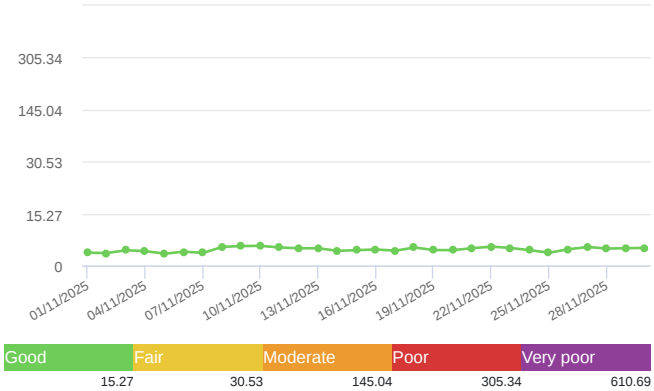
NO_2 (µg/m³)



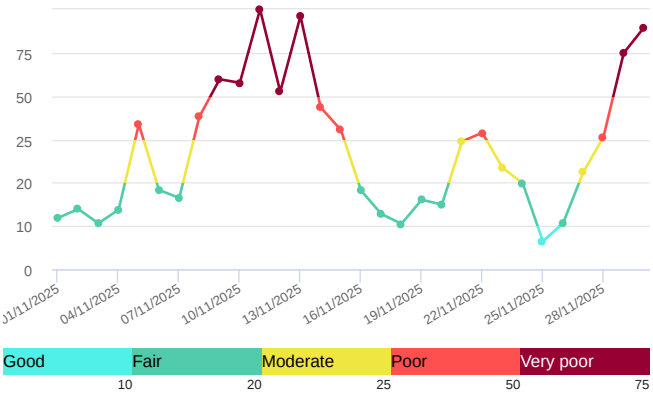
O_3 (µg/m³)



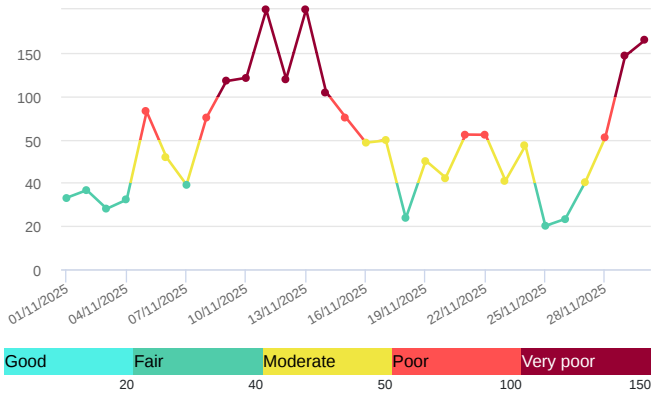
SO_2 (ppb)



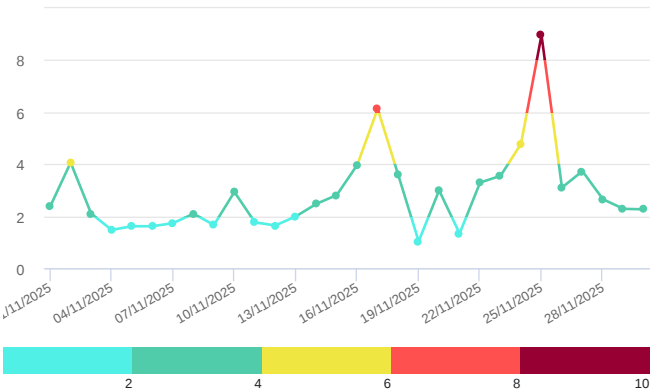
$PM_{2.5}$ (µg/m³)



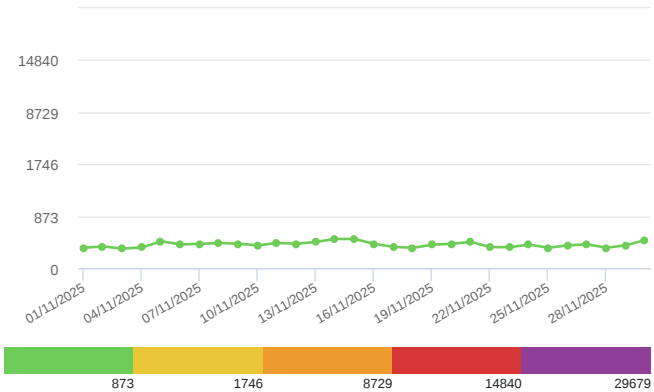
PM_{10} (µg/m³)



Wind Speed (m/s)



CO (ppb)



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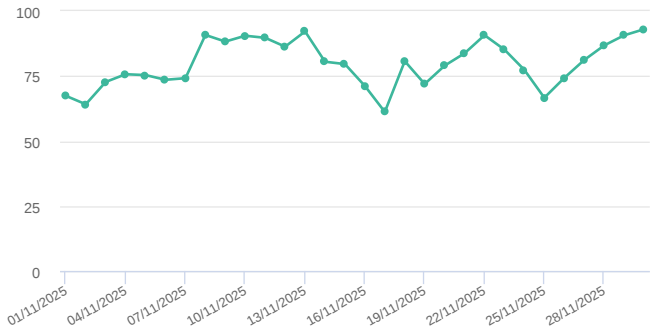
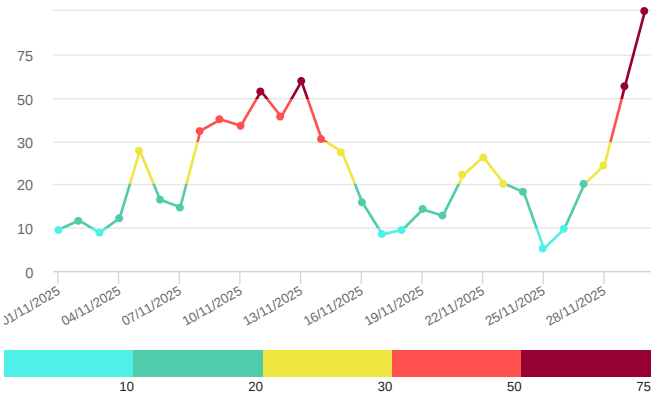
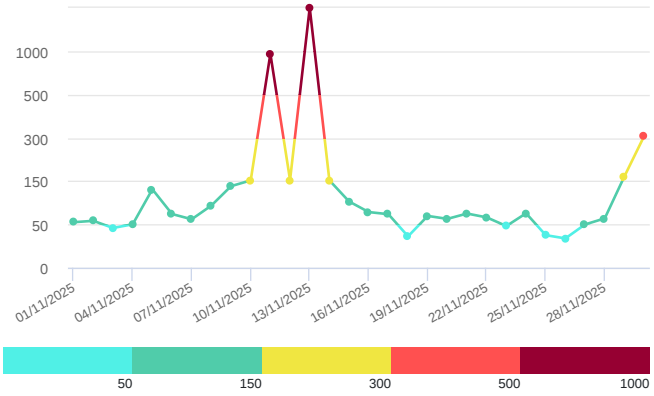
R. Humidity (%)



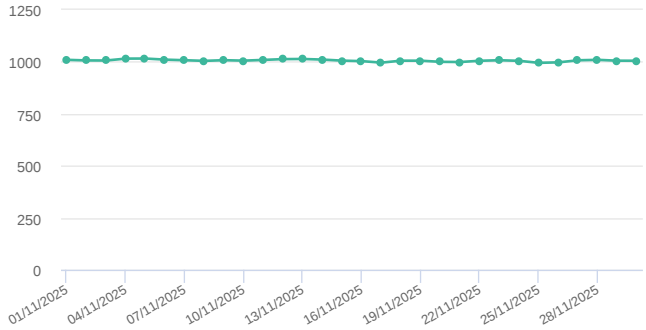
PM₁ (µg/m³)



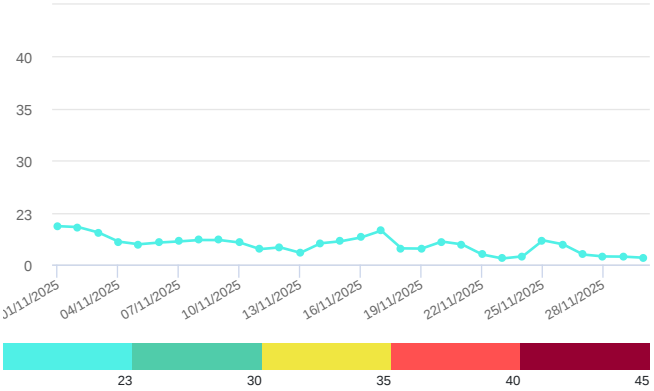
PM₁₀₀ (µg/m³)



Pressure (HPa)



Temperature (°C)



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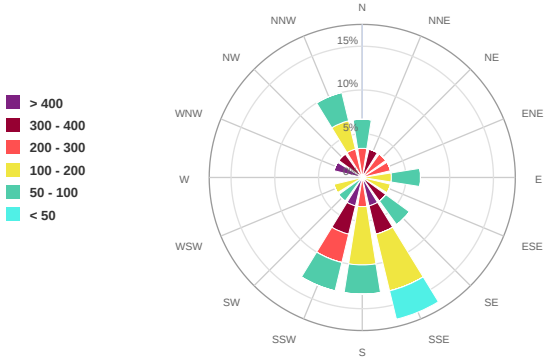
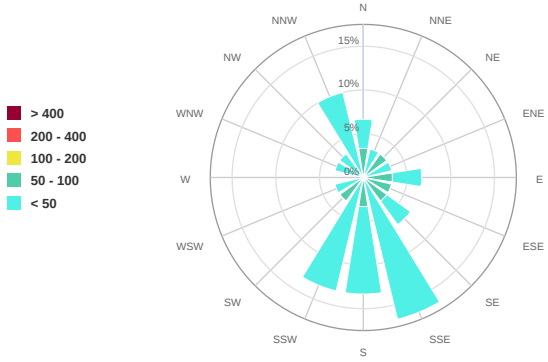
Weekly Average

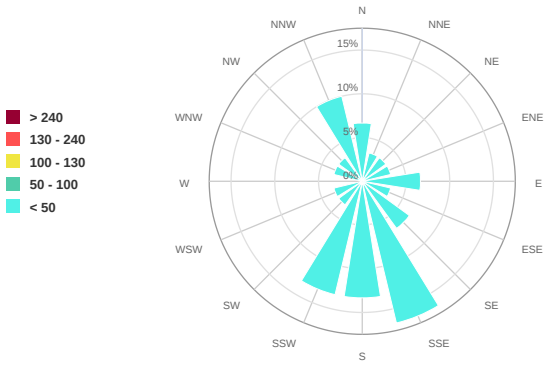
EAQI (AQI)



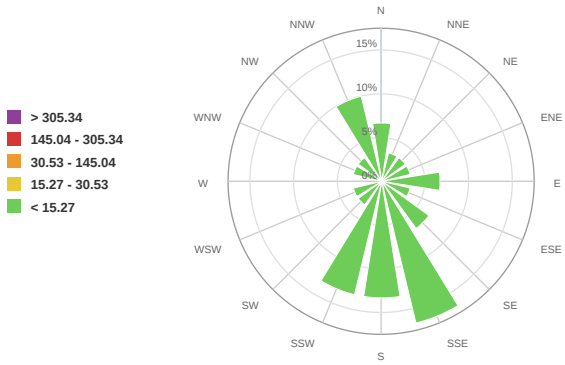
NO_2 (µg/m³)



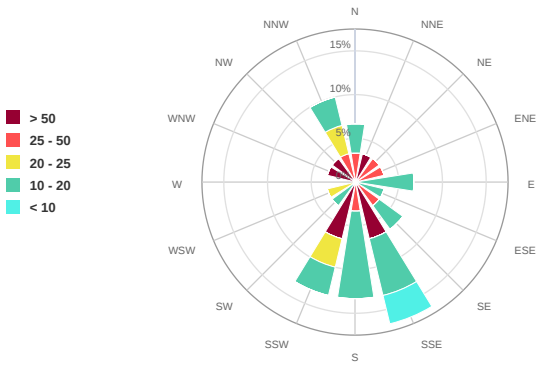
O_3 (µg/m³)



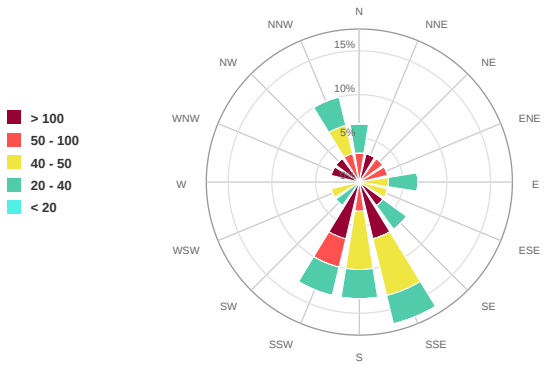
SO_2 (ppb)



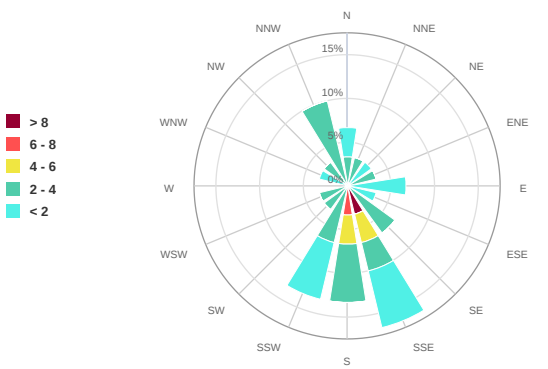
$PM_{2.5}$ (µg/m³)



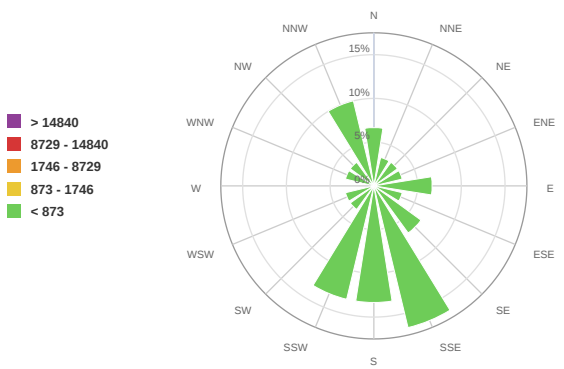
PM_{10} (µg/m³)



Wind Speed (m/s)



CO (ppb)



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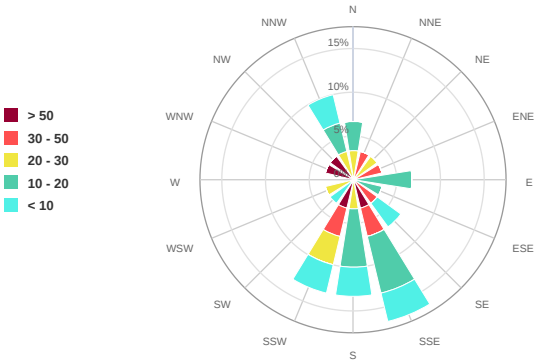
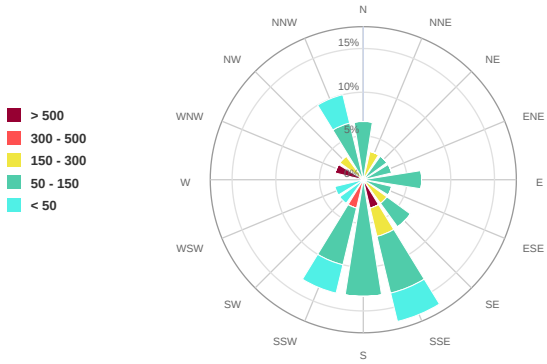
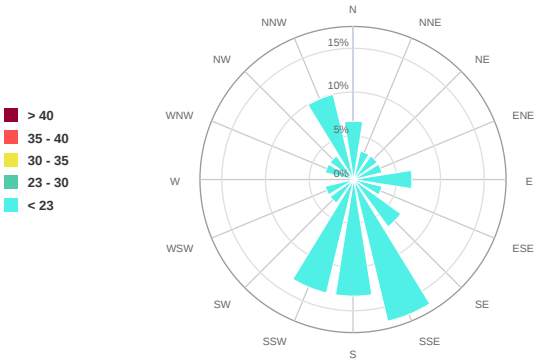
PM_1 (µg/m³)



PM_{100} (µg/m³)



Temperature (°C)



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Alerte

No alerts for the selected date and time range

Insights

- 13/11/2025, 23:59 **EAQI peaks in early November, indicating poor air quality**: The EAQI reached extremely poor levels in early November, peaking at 439, indicating a significant air pollution event. This suggests a period of heightened environmental stress.
- 30/11/2025, 23:59 **$PM_{2.5}$ shows consistently high values in November**: $PM_{2.5}$ levels frequently exceed the 'Poor' threshold (>25 µg/m³) throughout November, with a maximum recorded value of 176.8 µg/m³, indicating a persistent particulate matter pollution issue.
- 13/11/2025, 23:59 **Elevated PM_{10} levels observed, exceeding safety limits**: PM_{10} concentrations often reached 'Very Poor' levels (>100 µg/m³), peaking at 557 µg/m³, posing a substantial risk to respiratory health and overall air quality.
- 06/11/2025, 23:59 **Nitrogen Dioxide exceeds safe levels frequently**: NO_2 levels frequently exceed the 'Poor' threshold (>63.77 µg/m³), reaching up to 178 µg/m³, indicating significant pollution from combustion sources.
- 30/11/2025, 23:59 **Ozone levels consistently low across the observation period**: O_3 levels are consistently low, often registering at 0 µg/m³, which could be due to the titration effect of high NO_2 concentrations or localized consumption.
- 30/11/2025, 23:59 **SO_2 levels remain relatively low across the month**: SO_2 concentrations generally stay within the 'Good' range (<38.17 ppb), suggesting emissions from sulfur-containing fuel combustion are not a dominant pollution source.
- 30/11/2025, 23:59 **Relative humidity is generally high during observed period**: The relative humidity is frequently above 70%, potentially exacerbating the effects of particulate matter on respiratory health and contributing to secondary aerosol formation.
- 30/11/2025, 23:59 **Temperature exhibits fluctuations, with the lowest recorded**: The temperature varies, with the lowest temperature recorded at 2.7°C and the highest at 16.97°C, which could influence the dispersion and formation of pollutants.
- 13/11/2025, 23:59 **High PM_{100} levels correlate with poor air quality**: High PM_{100} concentrations, reaching up to 1049.44 µg/m³, are associated with periods of poor and very poor air quality, signifying coarse particulate matter pollution.
- 30/11/2025, 23:59 **Wind speed variations may affect pollution dispersion**: Wind speed varies, with values ranging from 1.03 m/s to 8.96 m/s, influencing the dispersion and transport of air pollutants in the area.
- 30/11/2025, 23:59 **Wind direction patterns show prevailing flow directions**: The wind direction changes, with prevailing directions suggesting potential sources of pollution from various points around the monitoring station. Requires further geographic context.
- 30/11/2025, 23:59 **Consistent battery percentage indicates reliable monitoring**: The consistently high battery percentage (100%) indicates the monitoring equipment operated reliably throughout the period, ensuring data integrity and minimal downtime.
- 30/11/2025, 23:59 **CO levels fluctuate, but stay relatively consistent**: CO levels vary, staying between approximately 327 ppb and 489 ppb. Elevated CO suggests incomplete combustion processes, potentially from industrial activity or vehicular traffic.
- 30/11/2025, 23:59 **Pressure variations observed, potentially affecting pollutant**: Pressure changes, ranging from 994.94 HPa to 1015.65 HPa, could impact air density and atmospheric stability, thereby affecting pollutant dispersion.
- 25/11/2025, 23:59 **Good air quality observed briefly in mid-November.**: A temporary improvement in air quality was observed with EAQI dropping to 'Fair' on November 25th, offering a short respite from pollution.
- 30/11/2025, 23:59 **PM_1 levels follow a similar trend to $PM_{2.5}$.**: PM_1 concentration, with values up to 59.35 µg/m³, mirrors the trend of $PM_{2.5}$, suggesting common sources and formation processes for fine particulate matter.
- 25/11/2025, 23:59 **Pressure reached lowest level on November 25th.**: The atmospheric pressure hit its lowest point during the month on November 25th with a reading of 994.94 HPa, potentially linked to weather patterns.
- 23/11/2025, 23:59 **Temperature reached the lowest on November 23rd**: The temperature registered its lowest value during the month on November 23rd with a reading of 2.7°C. This change may impact dispersion and chemical reactions.
- 30/11/2025, 23:59 **Correlation between EAQI and $PM_{2.5}$ levels**: A strong correlation exists between EAQI and $PM_{2.5}$ concentrations, highlighting the significant contribution of fine particulate matter to the overall air quality index.
- 13/11/2025, 23:59 **Poorest air quality associated with low temperatures**: The most severe air quality episodes (Extremely Poor EAQI) occurred during periods of lower temperatures (around 5-7°C), potentially due to increased emissions from heating sources.
- 30/11/2025, 23:59 **Air quality worsened after November 25th**: Air quality started to worsen after 2025-11-25, shifting from 'Fair' to 'Very Poor', suggesting a shift in emissions or environmental conditions.
- 26/11/2025, 23:59 **NO_2 exhibits significant concentration**: Even during period when EAQI categorized as 'Fair', NO_2 reading shows 'Fair' conditions (>21.26 µg/m³), suggesting localized NO_2 pollution sources.
- 30/11/2025, 23:59 **Elevated PM_{10} levels correlate with humidity**: High humidity levels exceeding 90% were coincident with high PM_{10} measurements, indicating possible hygroscopic growth of particles or stagnant atmospheric conditions.
- 25/11/2025, 23:59 **Increased wind speeds improves air quality.**: Increased wind speeds seems to correlate with improved air quality. When wind speed reached to 8.96 m/s, EAQI improved to 'Fair'.
- 01/11/2025, 23:59 **Highest temperature recorded early in November.**: The highest temperature of 16.97 °C was observed early in the month, which may have influenced the dispersion or formation of certain pollutants.
- 24/11/2025, 23:59 **Moderate EAQI observed in the mid of November**: A 'Moderate' EAQI was observed in the middle of November (November 7th to November 24th), indicating a fluctuating pollution level with occasional improvements.
- 26/11/2025, 23:59 **Fair air quality recorded briefly in late November**: A 'Fair' AQI Category was observed on the 25th and 26th of November, offering a short period of better air quality amidst the broader pollution trends.

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- 25/11/2025, 23:59 **Pressure is significantly low during good air conditions.**: Lowest pressure of 994.94 was recorded with 'Fair' air quality conditions. This correlation needs further investigation with weather patterns.
- 26/11/2025, 23:59 **Fair air quality associated with moderate Ozone levels.**: Ozone levels were moderate during the 'Fair' air quality period, indicating a possible connection between lower pollution and Ozone.
- 30/11/2025, 23:59 **Extremely Poor Air Quality Index on November 30th.**: The EAQI hit 411 on November 30th, marking an extremely poor air quality day characterized by high PM and other pollutant levels.

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Parametrii indicelui de calitate al aerului (ICA)

Weekly Average

To Date	EAQI AQI	NO_2 µg/m³	O_3 µg/m³	SO_2 ppb	$PM_{2.5}$ µg/m³	PM_{10} µg/m³
01/11/2025, 23:59	94	84.35	3.06	3.74	11.85	33.06
02/11/2025, 23:59	98	88.22	3.46	3.66	13.91	36.54
03/11/2025, 23:59	97	86.94	0.25	4.47	10.61	27.96
04/11/2025, 23:59	92	81.71	0.31	4.21	13.76	32.16
05/11/2025, 23:59	264	94.59	0	3.46	33.66	82
06/11/2025, 23:59	158	90.37	0	4.06	18.31	45.81
07/11/2025, 23:59	98	61.73	0	3.69	16.47	39.04
08/11/2025, 23:59	253	16.02	0	5.45	38.15	75.05
09/11/2025, 23:59	339	9.98	0	5.71	59.68	117.2
10/11/2025, 23:59	342	7.9	0	5.77	57.62	121.02
11/11/2025, 23:59	438	9.46	0	5.29	176.8	552.43
12/11/2025, 23:59	339	15.39	0	5.07	52.48	119.65
13/11/2025, 23:59	439	17.76	2.14	5.05	160.89	557
14/11/2025, 23:59	309	26.27	5.2	4.3	43.43	104.68
15/11/2025, 23:59	250	25.01	6.42	4.51	30.39	74.97
16/11/2025, 23:59	192	21.02	6.2	4.7	18.18	49.24
17/11/2025, 23:59	197	19.74	15.2	4.35	12.78	49.74
18/11/2025, 23:59	59	11	16.79	5.28	10.5	23.58
19/11/2025, 23:59	151	17.15	11.52	4.54	16.05	45.08
20/11/2025, 23:59	112	20.09	7.88	4.5	14.94	41.16
21/11/2025, 23:59	211	16.36	8.19	5.09	24.77	55.49
22/11/2025, 23:59	215	6.9	15.49	5.54	28.79	55.26
23/11/2025, 23:59	134	4.64	19.82	5.15	21.71	40.46
24/11/2025, 23:59	185	13.2	16.44	4.49	19.88	48.54
25/11/2025, 23:59	50	12.17	21.88	3.76	6.46	20.03
26/11/2025, 23:59	58	13.01	14.15	4.76	10.67	23.25
27/11/2025, 23:59	124	8.65	11.64	5.44	21.21	40.1
28/11/2025, 23:59	206	8.38	17.41	4.96	26.5	51.84
29/11/2025, 23:59	399	8.17	15.12	5.08	74.83	146.1
30/11/2025, 23:59	411	11.99	9.88	5.17	133.79	268.56

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Alți parametri

Weekly Average

To Date	Wind Speed m/s	Wind Direction degree	Battery %	CO ppb	R. Humidity %	PM_1 µg/m³	PM_{100} µg/m³	Pressure HPa	Temperature °C
01/11/2025, 23:59	2.37	135	100	342.15	67.37	9.59	55.07	1009.48	16.97
02/11/2025, 23:59	4.06	174.86	100	362.9	64.12	11.66	58.26	1006.61	16.59
03/11/2025, 23:59	2.1	234.05	100	327.28	72.72	8.81	45.92	1006.17	14.18
04/11/2025, 23:59	1.47	353.56	100	347.33	75.68	12.19	50.31	1015.32	10.14
05/11/2025, 23:59	1.61	45.34	100	450.61	75.35	27.73	131.14	1015.65	8.98
06/11/2025, 23:59	1.61	123.22	100	398.39	73.54	16.46	73.96	1010.45	9.73
07/11/2025, 23:59	1.73	88.76	100	407.19	74.16	14.7	61.89	1007.54	10.24
08/11/2025, 23:59	2.09	72.2	100	420.53	90.79	34.71	93.55	1004.51	10.85
09/11/2025, 23:59	1.66	199.09	100	408.35	88.24	39.92	138.26	1007.72	10.83
10/11/2025, 23:59	2.93	13.26	100	382.05	90.49	37.07	152.43	1005.56	9.74
11/11/2025, 23:59	1.76	298.38	100	422.36	89.69	53.67	968.43	1009.07	6.84
12/11/2025, 23:59	1.64	167.41	100	408.39	86.29	41.19	153.79	1012.89	7.6
13/11/2025, 23:59	1.99	147.83	100	440.45	92.14	59.35	1049.44	1013.59	5.2
14/11/2025, 23:59	2.47	145.15	100	489.49	80.49	30.81	152.66	1010.66	9.4
15/11/2025, 23:59	2.81	178.39	100	487.96	79.58	27.53	103.05	1005.63	10.31
16/11/2025, 23:59	3.97	176.78	100	406.03	71.16	15.94	78.48	1003.16	11.98
17/11/2025, 23:59	6.13	190.86	100	357.45	61.18	8.42	73.57	995.98	14.99
18/11/2025, 23:59	3.59	345.9	100	340.66	80.71	9.51	36.25	1005.37	7.15
19/11/2025, 23:59	1.03	87.38	100	391.8	71.93	14.17	69.55	1005.33	7.07
20/11/2025, 23:59	2.99	154.42	100	409.12	78.98	12.75	62.79	999.83	10.17
21/11/2025, 23:59	1.33	205.76	100	438.28	83.74	22.09	75.11	998.93	8.92
22/11/2025, 23:59	3.29	348.04	100	353.07	90.7	26.32	66.19	1004.96	4.45
23/11/2025, 23:59	3.55	250.09	100	351.78	85.15	20.23	48.15	1007.49	2.7
24/11/2025, 23:59	4.78	162.36	100	394.24	77.34	18.18	75.68	1004.69	3.64
25/11/2025, 23:59	8.96	165.49	100	341.34	66.63	5.13	37.6	994.94	10.71
26/11/2025, 23:59	3.1	204.31	100	382.19	74.25	9.63	33.83	997.27	8.94
27/11/2025, 23:59	3.73	347.59	100	398.63	81.15	20	50.01	1007.35	4.41
28/11/2025, 23:59	2.65	358.58	100	341.87	86.74	24.48	63.89	1009.42	3.59
29/11/2025, 23:59	2.28	323.48	100	382.71	90.64	56.22	166.28	1005.33	3.49
30/11/2025, 23:59	2.26	207.5	100	472.36	92.98	78.41	307.1	1005.05	3.02

Oizom will not be responsible for Environmental Data accuracy once Validated

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