

Radhasoami Dayal Ki Daya Radhasoami Sahai

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 23.7.2022 (BASED ON US-EPA AQI STANDARDS AND THE DAYALBAGH AQI COLOUR CODE)

Permissible Limits (24 Hour Mean): PM₁₀ = 150; PM_{2.5} = 35, all units are in µg/m³ Sampling Duration = 24 hrs (9:00 AM to 9:00 AM)

	Date	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)									Date	SANJAY PLACE (ARITHMETIC MEAN DATA)								
	Today:	Air Quality Index			Meteorological Parameters						Today:	AQI			Meteorological Parameters					
	July 23 – 22										July 23 – 22									
	Yesterday	PM _{2.5}	PM ₁₀	RH %	WS m/s	WD	T °C		SR W/m ²	RF mm	Yesterday	PM _{2.5}	PM ₁₀	RH %	WS m/s	WD	T °C		SR W/m ²	RF mm
	July 22 – 21						Max	Min			Max						Min			
4 / 97	Today	59	27	91	3.2	SSE	33.2	26.2	81	26	Today	76	34	81	2.1	NNE	32.8	28.6	106	23
	Yesterday	61	31	78	3.4	ENE	33.9	28.2	120	Trace										
3 / 34	Today	72	34	91	3.2	SSE	32.4	26.3	81	26	Yesterday	84	50	68	1.3	NE	35.1	30.1	152	0
	Yesterday	74	31	78	3.4	ENE	34.6	28.6	120	Trace										
Science Faculty	Today	74	31	92	3.2	SSE	31.9	26.3	81	26										
	Yesterday	68	28	80	3.4	ENE	33.7	28.2	120	Trace										

Good 0 - 50	Moderate 51 - 100	Unhealthy for Sensitive Groups 101 - 150	Unhealthy for All 151 - 200	Very Unhealthy for All 201 - 300	Hazardous for All 301 - 400	Hazardous for All 401 - 500
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Views of AQI Research Group: In comparison to yesterday, there is a marginal change in the concentrations of both PM_{2.5} and PM₁₀ at all locations of Dayalbagh. The Air Quality Index is in *Moderate* category w.r.t. PM_{2.5} while w.r.t. PM₁₀ it remains in the *Good* category at all the three locations of Dayalbagh.

At Sanjay Place, the concentrations of both PM_{2.5} and PM₁₀ have decreased. The Air Quality Index still remains in the *Moderate* category w.r.t. PM_{2.5} and in the *Good* category w.r.t. PM₁₀.

Inspection of hourly data reveals that both PM_{2.5} and PM₁₀ are < 15 µg/m³ at Relative Humidity < 90% and Temperature > 27 °C, and increase with increase in Relative Humidity (>90%) and decrease in temperature (< 27 °C). PM concentrations exhibit *relatively poorer Correlation Coefficient* (r = 0.6) with Relative Humidity and negative correlation with Temperature (r = - 0.5).

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Subject To Legalise/Legalese/"Laws of the Land".

Saturday, 23-07-2022, 02:59 PM
Received, Saturday, 23-07-2022, 12:40 PM

NOTE: 1 A continuing study conducted as part of **Dayalbagh Sigma Six Qualities and Values Model** implementation.

2 DEI is using United States Environmental Protection Agency (USEPA) methodology and online calculators to calculate AQI. For fair comparison with UPPCB Sanjay Place Weather Station readings, their PM_{2.5} concentration readings are fed in USEPA online calculator for AQI calculation.

3 Formula for AQI calculation for a Pollutant –

$$I = \frac{I_{\text{high}} - I_{\text{low}}}{C_{\text{high}} - C_{\text{low}}} * (C - C_{\text{low}}) + I_{\text{low}}$$

where: I = Air Quality Index; C = Pollutant Concentration (PM_{2.5}); C_{low} = Concentration Breakpoint ≤C; C_{high} = Concentration Breakpoint ≥C; I_{low} = Index Break point corresponding to C_{low}; I_{high} = Index Breakpoint corresponding to C_{high}; *Multiplication Sign