

Radhasoami Dayal Ki Daya Radhasoami Sahai

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 8.9.2022 (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 = 48 hrs (6:00 AM to 6:00 AM)

L O C A T I O N	Date		Duration M = Daytime (6 am – 6 pm) E = Night time (6 pm – 6 am)	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)								Date		Duration M = Daytime (6 am – 6 pm) E = Night time (6 pm – 6 am)	SANJAY PLACE (ARITHMETIC MEAN DATA)											
				AQI		Meteorological Parameters									AQI		Meteorological Parameters									
				PM _{2.5}	PM ₁₀	RH %	WS m/s	WD	T °C		SR W/ m ²	R F m m	P M _{2.5}		PM ₁₀	RH %	WS m/s	WD	T °C		SR W/ m ²	R F m m				
		Ma x	Min						Ma x	Min																
4 / 97	Today	E	59	42	56	0.6	SSE	35.6	28.7	05	0	Today	E	112	79	57	0.5	NNE	37	30.7	7.4	0				
		M	38	30	48	0.7	E	41.6	28.1	337	0															
	Yesterday	E	53	31	68	0.4	E	36.0	27.8	05	0		M	87	65	51	1.6	ENE	40.2	30.9	421	0				
		M	33	27	49	1.0	NNE	41.7	28.0	311	0															
3 / 34	Today	E	70	27	56	0.6	SSE	35.6	28.7	05	0	Yesterday	E	91	66	62	0.7	N	36.4	30.8	8.0	0				
		M	59	22	48	0.7	E	41.6	28.1	337	0															
	Yesterday	E	72	27	68	0.4	E	36.0	27.8	05	0		M	82	65	52	2.0	E	39.8	29.6	371	0				
		M	59	21	49	1.0	NNE	41.7	28.0	311	0															
Science Faculty	Today	E	117	46	56	0.6	SSE	35.6	28.7	05	0															
		M	91	35	48	0.7	E	41.6	28.1	337	0															
	Yesterday	E	142	63	68	0.4	E	36.0	27.8	05	0															
		M	74	27	49	1.0	NNE	41.7	28.0	311	0															
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		

Views of AQI Research Group: The change in wind direction (mostly eastwards) might be a plausible reason for enhanced concentrations of particulate matter resulting in higher Air Quality Index. Air Quality Index during the daytime is better than nighttime (E).

The Air Quality Index at the Dayalbagh sites is better than Sanjay Place.

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