

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 18.9.2022

(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 = 24 hrs (9:00 AM to 9:00 AM)

Today: 17-09-2022 to 18-09-2022 from 9:00 a.m. to 9:00 a.m. **Yesterday:** 16-09-2022 to 17-09-2022 from 9:00 a.m. to 9:00 a.m.

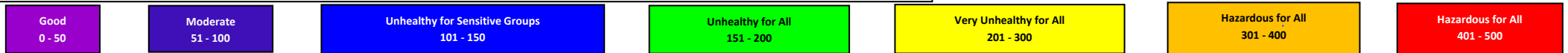
L O C A T I O N	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)											SANJAY PLACE (ARITHMETIC MEAN DATA)										
	AQI				Meteorological Parameters							AQI				Meteorological Parameters						
	PM _{2.5}		PM ₁₀		RH %	WS m/s	WD	T °C		SR W/ m ²	RF mm	PM _{2.5}		PM ₁₀		RH %	WS m/s	WD	T °C		SR W/ m ²	RF mm
	Today	Yesterday	Today	Yesterday				Max	Min			Today	Yesterday	Today	Yesterday				Max	Min		
	4 / 97	50	38	24	21	73	0.6	NNE	38.2	25.2	160	2.0	82	55	55	31	71	1.1	SSE	36.5	26.5	169
3 / 34	68	50	27	16	73	0.6	NNE	38.2	25.2	160	2.0	71					1.1	SSE	36.5	26.5	169	4.5
Science Faculty	72	48	27	19	73	0.6	NNE	38.2	25.2	160	2.0	71					1.1	SSE	36.5	26.5	169	4.5

Views of AQI Research Group: A little rise in particulate matter concentrations seems to have been caused by calm weather conditions due to low wind speeds and moderate relative humidity, which limited the dispersion of pollutants. In terms of PM₁₀, the Air Quality Index remains in the *Good* category at all Dayalbagh locations. However, in terms of PM_{2.5}, it is still in the *Good* category at Vidyut Nagar and in the *Moderate* category at Prem Nagar and the Science Faculty.

An increase in particulate levels has resulted in an increase in Air Quality Index values (*Moderate* category) at Sanjay Place as well.

There is an urgent need to mount further Intesified & Sofisticated Research with the existing Monitoring & Curing equipment at the disposal of the team and made available by DEI, to the extent feasible Perused By Way of Information Only, Subject To Legalise/Legalese/"Laws of the Land".

Sunday, 18-09-2022, 04:47 PM
Received, Sunday, 18-09-2022, 12:53 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 –

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

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