

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 23.11.2022

(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: 22-11-2022 to 23-11-2022 from 9:00 a.m. to 9:00 a.m. Yesterday: 21-11-2022 to 22-11-2022 from 9:00 a.m. to 9:00 a.m.

L O C A T I O N	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)											L O C A T I O N	SANJAY PLACE AND AVAS VIKAS (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
								Max	Min											Max	Min		
	Today	Yesterday	Today	Yesterday										Today	Yesterday	Today	Yesterday						
4 / 97	107	122	57	59	60	0.8	WNW	29.0	12.9	137	0	Sanjay Place	124	152	86	88	50	1.8	NW	28.2	15.9	144	0
3 / 34	112	117	50	51	60	0.8	WNW	29.0	12.9	137	0	Avas Vikas	149	160	70	79	58	0.7	NE	28.2	15.0	78	0
Science Faculty	132	139	54	57	60	0.8	WNW	29.0	12.9	137	0												

Views of AQI Research Group: Particulate matter concentrations have further decreased at all sites of Dayalbagh probably due to unstable atmosphere favouring dispersion of pollutants. At all Dayalbagh locations, the Air Quality Index remains in the *Unhealthy for Sensitive Groups* category w.r.t. PM_{2.5} and in the *Moderate* category w.r.t. PM₁₀.

At Sanjay Place and Avas Vikas, Bodla also concentrations of Particulate matter have decreased, the Air Quality Index has improved to the *Unhealthy for Sensitive Groups* category w.r.t PM_{2.5} and remains in the *Moderate* category w.r.t. PM₁₀.

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

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