

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 15.11.2022

(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: 14-11-2022 to 15-11-2022 from 9:00 a.m. to 9:00 a.m. Yesterday: 13-11-2022 to 14-11-2022 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/m²	RF mm		PM _{2.5}		PM ₁₀		RH %	WS m/s	WD	T °C		SR W/m²	RF mm
								Max	Min											Max	Min		
	Today	Yesterday	Today	Yesterday									Today	Yesterday	Today	Yesterday							
4 / 97	139	158	64	76	62	0.4	SSW	33.5	15.5	150	0	Sanjay Place	147	163	62	111	53	0.6	W	32.6	17.7	142	0
3 / 34	122	159	56	73	62	0.4	SSW	33.5	15.5	150	0	Avas Vikas	154	173	73	98	60	0.4	ENE	34.6	16.5	80	0
Science Faculty	149	163	63	74	62	0.4	SSW	33.5	15.5	150	0												

Views of AQI Research Group: Concentrations of Particulate matter have decreased at all sites of Dayalbagh due to increase in intensity of Solar Radiation and change in Wind Direction. The Air Quality Index w.r.t. PM_{2.5} has improved to the *Unhealthy for Sensitive Groups* category, however w.r.t. PM₁₀ though the AQI remains in the *Moderate* category, the AQI value has improved (lowering in the Index value) at all sites of Dayalbagh.

At Sanjay Place and Avas Vikas, Bodla also concentrations of Particulate matter have decreased. At Sanjay Place, the Air Quality Index w.r.t PM_{2.5} has improved to the *Unhealthy for Sensitive Groups* category and w.r.t. PM₁₀ it has improved to the *Moderate* category. Though the PM_{2.5} and PM₁₀ Air Quality Index values at Avas Vikas, Bodla remain in the *Unhealthy for All* and *Moderate* categories, respectively, both AQI values have decreased.

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