

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 20.11.2022

(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: 19-11-2022 to 20-11-2022 from 9:00 a.m. to 9:00 a.m. Yesterday: 18-11-2022 to 19-11-2022 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	144	134	62	55	65	0.6	WNW	28.6	13.4	128	0	Sanjay Place	155	137	95	81	54	0.7	WNW	27.5	16.0	133	0
3 / 34	144	127	62	57	65	0.6	WNW	28.6	13.4	128	0	Avas Vikas											
Science Faculty	142	122	61	56	65	0.6	WNW	28.6	13.4	128	0		152	149	71	66	55	0.6	NE	27.3	13	82	0

Views of AQI Research Group: Particulate matter concentrations have marginally increased at all sites of Dayalbagh probably due to increase in Relative Humidity and decrease in intensity of Solar radiation. At all Dayalbagh locations, the Air Quality Index continues to fall in the *Unhealthy for Sensitive Groups* category w.r.t. PM_{2.5} and in the *Moderate* category w.r.t. PM₁₀, respectively.

At Sanjay Place and Avas Vikas, Bodla also concentrations of Particulate matter have increased. The Air Quality Index at Sanjay Place and Avas Vikas, Bodla has changed to the *Unhealthy for All* 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