

# AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 19.11.2022

## (BASED ON US-EPA AQI STANDARDS AND THE DAYALBAGH AQI COLOUR CODE)

Permissible Limits (24 Hour Mean): PM<sub>10</sub> = 150; PM<sub>2.5</sub> = 35, all units are in µg/m<sup>3</sup> Sampling Duration = 24 hrs (9:00 AM to 9:00 AM)

Today: 18-11-2022 to 19-11-2022 from 9:00 a.m. to 9:00 a.m. Yesterday: 17-11-2022 to 18-11-2022 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 <sub>2.5</sub>		PM <sub>10</sub>		RH %	WS m/s	WD	T °C		SR W/m <sup>2</sup>	RF mm		PM <sub>2.5</sub>		PM <sub>10</sub>		RH %	WS m/s	WD	T °C		SR W/m <sup>2</sup>	RF mm
								Max	Min											Max	Min		
	Today	Yesterday	Today	Yesterday										Today	Yesterday	Today	Yesterday						
4 / 97	134	134	55	61	60	0.7	WNW	28.1	12.1	136	0	Sanjay Place	137	147	81	80	48	1.3	NW	27.4	15.3	149	0
3 / 34	127	134	57	58	60	0.7	WNW	28.1	12.1	136	0	Avas Vikas											
Science Faculty	122	139	56	56	60	0.7	WNW	28.1	12.1	136	0		152	149	71	66	55	0.6	NE	27.3	13	82	0

**Views of AQI Research Group:** Particulate matter concentrations have marginally changed at all sites of Dayalbagh. Lower values at Science Faculty are probably due to misting from DEI Gate to Jubilee Gate. At all Dayalbagh locations, the Air Quality Index continue to fall in the *Unhealthy for Sensitive Groups* category w.r.t. PM<sub>2.5</sub> and in the *Moderate* category w.r.t. PM<sub>10</sub>, respectively.

At Sanjay Place and Avas Vikas, Bodla also concentrations of Particulate matter have changed marginally. The Air Quality Index at Sanjay Place remains in the *Unhealthy for Sensitive Groups* category w.r.t PM<sub>2.5</sub> and in the *Moderate* category w.r.t. PM<sub>10</sub> while at Avas Vikas, Bodla, Air Quality Index w.r.t. PM<sub>2.5</sub> is in the *Unhealthy for All* category and remains in *Moderate* category w.r.t. PM<sub>10</sub>.

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<sub>2.5</sub> 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<sub>2.5</sub>); C<sub>low</sub> = Concentration Breakpoint ≤C; C<sub>high</sub> = Concentration Breakpoint ≥C; I<sub>low</sub> = Index Break point corresponding to C<sub>low</sub>; I<sub>high</sub> = Index Breakpoint corresponding to C<sub>high</sub>; \*Multiplication Sign