

# AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 26.9.2022

## (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:** 25-09-2022 to 26-09-2022 from 9:00 a.m. to 9:00 a.m. **Yesterday:** 24-09-2022 to 25-09-2022 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 <sub>2.5</sub>		PM <sub>10</sub>		RH %	WS m/s	W D	T °C		SR W/ m²	RF mm	PM <sub>2.5</sub>		PM <sub>10</sub>		RH %	WS m/s	W D	T °C		SR W/ m²	RF m m
								Max	Min										Max	Min		
	Today	Yesterday	Today	Yesterday								Today	Yesterday	Today	Yesterday							
4 / 97	55	53	25	26	78	2.3	ESE	34.4	24.5	172	0	89	59	67	28	71	0.8	SE	34.1	26.6	160	0
3 / 34	68	61	27	24	78	2.3	ESE	34.4	24.5	172	0											
Science Faculty	72	59	24	21	78	2.3	ESE	34.4	24.5	172	0											

**Views of AQI Research Group:** A marginal increase in particulate matter levels has occurred due to appreciable change in Relative Humidity, absence of rain and decrease in Wind Speed, resulting in an increase in the Air Quality Index values. The increase is greater at Sanjay Place in comparison to the three Dayalbagh sites. The Air Quality Index w.r.t. PM<sub>10</sub> at Dayalbagh remains in the *Good* category and in the *Moderate* category at Sanjay Place.

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
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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