AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 21.9.2022

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

Permissible Limits (24 Hour Mean): PM_{10} = 150; $PM_{2.5}$ = 35, all units are in µg/m^3 Sampling Duration = 24 hrs (9:00 AM to 9:00 AM)

Today: 20-09-2022 to 21-09-2022 from 9:00 a.m. to 9:00 a.m. **Yesterday:** 19-09-2022 to 20-09-2022 from 9:00 a.m. to 9:00 a.m.

LOCATION	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)											SANJAY PLACE (ARITHMETIC MEAN DATA)										
	AQI				Meteorological Parameters							AQI				Meteorological Parameters						
	$PM_{2.5}$		PM_{10}					T °C				$PM_{2.5}$		PM_{10}					T °C			
	Today	Yesterday	Today	Yesterday	RH %	WS m/s	WD	Max	Min	SR W/m^2	RF mm	Today	Yesterday	Today	Yesterday	RH %	WS m/s	WD	Max	Min	SR W/m^2	RF mm
4 / 97	72	78	33	37	85	0.75	SSE	37.6	25.0	100	9.0	74	105	40	58	80	1.0	ENE	36.5	26.5	111	4.0
3 / 34	76	84	31	39	85	0.75	SSE	37.6	25.0	100	9.0											
Science Faculty	89	99	33	42	85	0.75	SSE	37.6	25.0	100	9.0											

Views of AQI Research Group: At all three sites of Dayalbagh, the Air Quality Index remains in the Good category w.r.t. PM_{10}, while the Air Quality Index remains in the *Moderate* category w.r.t. $PM_{2.5}$, with a slight improvement due to the rain showers.

At Sanjay Place also, the Air Quality Index values have improved to the *Moderate* category from the *Unhealthy for Sensitive Groups* category w.r.t. $PM_{2.5}$ and *Good* category from *Moderate* category w.r.t. PM_{10}.

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

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