AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 21.11.2022
(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 $\mu g/m^3$ Sampling Duration = 24 hrs (9:00 AM to 9:00 AM)

Today: 20-11-2022 to 21-11-2022 from 9:00 a.m. to 9:00 a.m. **Yesterday:** 19-11-2022 to 20-11-2022 from 9:00 a.m. to 9:00 a.m.

LOCATION	DAYALBAGH (TIME WEIGHTED AVERAGE DATA)											LOCATION	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
	Today	Yesterday	Today	Yesterday				Max	Min				Today	Yesterday	Today	Yesterday				Max	Min		
4 / 97	155	144	73	62	61	0.8	WNW	29	13.2	124	0	Sanjay Place	159	155	96	95	52	1.5	NW	28.1	15.5	128	0
3 / 34	155	144	68	62	61	0.8	WNW	29	13.2	124	0	Avas Vikas	167	152	87	71	60	0.6	NE	28.2	13.7	72	0
Science Faculty	156	142	66	61	61	0.8	WNW	29	13.2	124	0												

Views of AQI Research Group: Particulate matter concentrations have marginally increased at all sites of Dayalbagh probably due to decrease in intensity of Solar radiation. At all Dayalbagh locations, the Air Quality Index has changed to the *Unhealthy for All* category w.r.t. $PM_{2.5}$ and remains in the *Moderate* category w.r.t. PM_{10}.

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 remains in the *Unhealthy for All* category w.r.t $PM_{2.5}$ and in the *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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