

# AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 2.11.2022

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

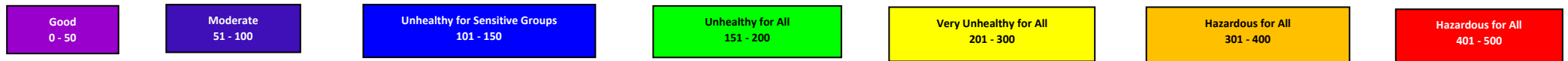
Permissible Limits (24 Hour Mean): PM<sub>10</sub> = 150; PM<sub>2.5</sub> = 35, all units are in µg/m<sup>3</sup> Sampling Duration = 24 hrs (9:00 AM to 9:00 AM)

Today: 1-11-2022 to 2-11-2022 from 9:00 a.m. to 9:00 a.m. Yesterday: 1-11-2022 to 31-10-2022 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 <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
	Today	Yesterday	Today	Yesterday				Max	Min			Today	Yesterday	Today	Yesterday				Max	Min		
4 / 97	165	174	93	120	64	0.4	SSW	36.0	18.3	117	0											
3 / 34	174	179	91	105	64	0.4	SSW	36.0	18.3	117	0	166	NA	168	NA	53	0.2	WSW	35.4	21.8	55	0
Science Faculty	193	199	104	107	64	0.4	SSW	36.0	18.3	117	0											

**Views of AQI Research Group:** Concentrations of particulate matter have decreased at all sites of Dayalbagh due to improvement in the meteorological conditions associated with increase in temperature and Solar Radiation and change in Wind Direction. The Air Quality Index w.r.t. PM<sub>2.5</sub> remains in the *Unhealthy for All* category at all sites of Dayalbagh while, w.r.t. PM<sub>10</sub> it has improved to the *Moderate* category at Vidyut Nagar and Prem Nagar but remains in the *Unhealthy for Sensitive Groups* category at Science Faculty.

*Sanjay Place data though available, values show fluctuation and the samplers are still under maintenance. We are sampling at Sanjay Place today with our device after their due permission.*



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