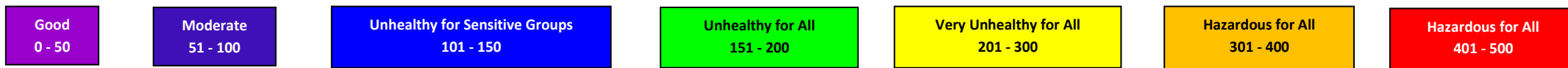


Radhasoami Dayal Ki Daya Radhasoami Sahai

AIR QUALITY MONITORING @ 40 FEET HEIGHT – Report Date: 21.8.2022 (BASED ON US-EPA AQI STANDARDS AND THE DAYALBAGH AQI COLOUR CODE)

Permissible Limits (24 Hour Mean): PM₁₀ = 150; PM_{2.5} = 35, all units are in µg/m³ Sampling Duration = 24 hrs (9:00 AM to 9:00 AM)

| | Date | DAYALBAGH (TIME WEIGHTED AVERAGE DATA) | | | | | | | | | Date | SANJAY PLACE (ARITHMETIC MEAN DATA) | | | | | | | | |
|-----------------|-----------------------------|---|------------------|---------------------------|--------|----|------|------|---------------------|-------|-----------|--|------------------|---------------------------|--------|-----|------|------|---------------------|-------|
| | | Air Quality Index | | Meteorological Parameters | | | | | | | | AQI | | Meteorological Parameters | | | | | | |
| | | PM _{2.5} | PM ₁₀ | RH % | WS m/s | WD | T °C | | SR W/m ² | RF mm | | PM _{2.5} | PM ₁₀ | RH % | WS m/s | WD | T °C | | SR W/m ² | RF mm |
| Max | Min | | | | | | Max | Min | | | | | | | | | | | | |
| | Today: August 21 – 20 | | | | | | | | | | | | | | | | | | | |
| | Yesterday August 20 – 19 | | | | | | | | | | | | | | | | | | | |
| 4 / 97 | Today | 66 | 30 | 86 | 0.9 | S | 31.2 | 25.2 | 94 | 17.5 | Today | 80 | 52 | 80 | 1.8 | SE | 31.3 | 28.6 | 97 | 17.5 |
| | Yesterday | 25 | 13 | 76 | 1.1 | S | 37.3 | 26.3 | 151 | 6.5 | | | | | | | | | | |
| 3 / 34 | Today | 80 | 39 | 86 | 0.9 | S | 31.2 | 25.2 | 94 | 17.5 | Yesterday | 59 | 39 | 68 | 2.7 | SSE | 37.4 | 29.8 | 197 | 01 |
| | Yesterday | 42 | 15 | 76 | 1.1 | S | 37.3 | 26.3 | 151 | 6.5 | | | | | | | | | | |
| Science Faculty | Today | 74 | 28 | 86 | 0.9 | S | 31.2 | 25.2 | 94 | 17.5 | | | | | | | | | | |
| | Yesterday | 46 | 15 | 76 | 1.1 | S | 37.3 | 26.3 | 151 | 6.5 | | | | | | | | | | |



Views of AQI Research Group: In comparison to yesterday, concentrations of both PM_{2.5} and PM₁₀ have increased at all locations of Dayalbagh. The Air Quality Index w.r.t. PM_{2.5} has changed from *Good* to *Moderate* category while w.r.t. PM₁₀, it remains in the *Good* category at all three locations of Dayalbagh.

At Sanjay Place also, the concentrations of both PM_{2.5} and PM₁₀ have increased. The Air Quality Index w.r.t. PM_{2.5} remains in the *Moderate* category, while w.r.t. PM₁₀ it has changed from *Good* to *Moderate* category.

Despite rainfall, this increase may be attributed to increase in Relative Humidity that might have favoured coagulation and agglomeration of particulate matter in the atmosphere.

concentration readings are fed in USEPA online calculator for AQI calculation. with UPPCB Sanjay Place Weather Station readings, their PM_{2.5}

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