



## Energy tip of the month

### Centralised control of multiple Air Conditioners

As all of us are generally aware of , air conditioning solutions are available in two forms:

01. **Centralised System:** In such form, compressors are located centrally & the cold air or medium is circulated through AHUs. E.g. a large hall, large hotel with numerous rooms & areas to cool, malls etc.
02. **Individual Air conditioner units for different areas:** In such configuration , individual window or split type AC units are employed for small areas. E.g. Offices , medim size hotels / hospitals

In case of individual ACs , one can find huge amount of energy wastages due to careless attitudes of persons using the area. E,g

- a. Setting the temperature at much below 24 deg. C , which is a recommended set temperature.
- b. Forgetting to switch off the ACs during holidays , lunch breaks etc.

As Air conditioning consumes considerable power , such attitude is a common concern of every Energy manager .

So, what are the ways to control such wastage ?

One can not have a separate automatic switching device for every AC, as the costs involved can be much higher . So, there is a need for a centralised system , which can control through centralised controller .

Now a days, centralised control systems for ACs are available with features as follows :



**Schedules:** Working hour schedules can beset centrally by day, week or month to ensure that the Air Conditioners turn OFF automatically at set times



**Temperatures :**At pre-set periods the set temperature of Air Conditioners can be e-established to standard values to reduce energy consumption



**Peak Rates :** During periods of peak electrical rates specific Air conditioners can be turned OFF and turned back ON after.



**Malfunctioning Air Conditioners :** Exceptionally high over consumption indicates a problematic Air Conditioner and a potential fire hazard which can be tracked centrally



**Vacancy Monitoring** : PIR motion sensors in a room can sense no presence and inform the central system to turn OFF the Air Conditioners



**Hours & Power Monitoring** :Total hours of operation of each Air Conditioner and the power consumption can be monitored

The best part of the solutions is all the interfacing among the ACs & centralised controllers is **wireless**. So, installation is quick, low cost & does not affect the interiors .

This solution has immense potential to save energy & the payback can be as low as less than a year , which , off course depends upon present attitude of the users ..

In case of any queries/ feedbacks , please mail to [marketing@teknocrats.com](mailto:marketing@teknocrats.com)

<http://greenmagic.co.in>