EN-ROOM – A GREEN INITIATIVE TO AN INTUITIVE MOOD ROOM

En-Room aims to create an intuitively smart room, assuming master control over the room features in tune with the user's mood, and at the same time subtly introduce effective power saving schema and partial utilisation of green energy, in a way not obtrusive to the user's experience.

The major features of each mood have been highlighted below-

1. **Default Mood**: By default, the system is always in this mood, where the user has maximum control over the features. If the solar energy stored in a rechargeable battery is sufficient, it takes over the operation of running low power devices. Apart from this, if the system detects zero activity in the room for 5 minutes, it automatically shuts down all lights and fan to save power. If, the light intensity in the room is already too high, the lights automatically shut down. Similarly, when the light intensity is below a certain threshold, the lights come on automatically.

2. **Sleep Mood**: Ideal for users taking a nap or their night's sleep, this mood intelligently switches between the operation of the fan and air-conditioner, aiming to maintain an optimal temperature in the room. Further, the curtains close automatically if the system detects high light intensity in the room.

3. **Holiday Mood**: If the user is away on a holiday, the mood intelligently switches on the lights and fans periodically during the evening to give the false impression of activity inside. Further, if there are more than 3 attempts to unlock the door through entering a wrong password, a warning buzzer automatically rings, and disables the locking mechanism for 1 hour, while sending an SMS to the user and a friendly neighbour (set by the user himself). The locking mechanism can be re-enabled by sending an SMS to the system with the correct PIN. Should the system detect any major movement within the room while in this mood, the warning alarms and lights light up, and SMS is sent to the user and the friendly neighbour, giving him an option to view the live feed of the room, and send an SMS back with a special code, which automatically alerts the Police with a situation on trespassing and possible theft. The alarm and lights can be shut down only through an authorised SMS or entry of the correct PIN generated for one time use, if authorised by the user via SMS. Once the user is back, the door opens automatically on the entry of correct pin or a fingerprint swipe.

4. **Shutdown Mood**: This mood disables every electrical appliance and all switches in the room, however the user can choose to not switch off certain appliances like fridge through the settings.

Security System: Apart from the security against theft, as highlighted in the holiday mood, there is also a highly effective smoke detector, which can determine the presence of smoke very fast, and immediately sends an SMS to the user with live feed from the room, and upon receiving an SMS back, the system automatically calls the Fire Fighting department, alerting them of the situation and address. If the user does not reply for more than 10 minutes, the system assumes that user is unreachable, and automatically calls the Fire Fighting department. If the smoke disappears at any point of time, the system is automatically reset.