INTELLIGENT LIGHTING

PRESENT BY

YADUVANSH SHARMA- U13CE067

AMRATA YADAV- U13CE068

What do we mean by ‘Intelligent lighting’?

- Compared with a conventional lighting system, a system where every light has a manual switch or dimmer that you must operate directly, ‘Intelligent lighting’ can be as simple as automating a single light, so that it can be controlled by a remote control device or timer.

Why do we need ‘Intelligent lighting system’?

- 19% of energy use in the world is used for lighting, and 6% of greenhouse emissions in the world derive from this energy used for lighting
- Intelligent lightning is the good way which enables to minimize and save light by allowing the householder to control remotely cooling and heating, lighting, and the control of appliances. This ability saves energy and provides a level of comfort and convenience.
- The concept of Intelligent lighting also involves utilizing natural light from the sun to reduce the use of man-made lighting.
- Lighting control systems serve to provide the right amount of light where and when it is needed.

Methods of intelligent lighting

- **Daylight Dimming**

- Daylight Diming controls the artificial light depending on the available daylight. When enough daylight is available, the artificial light dims down according to how much light is available.

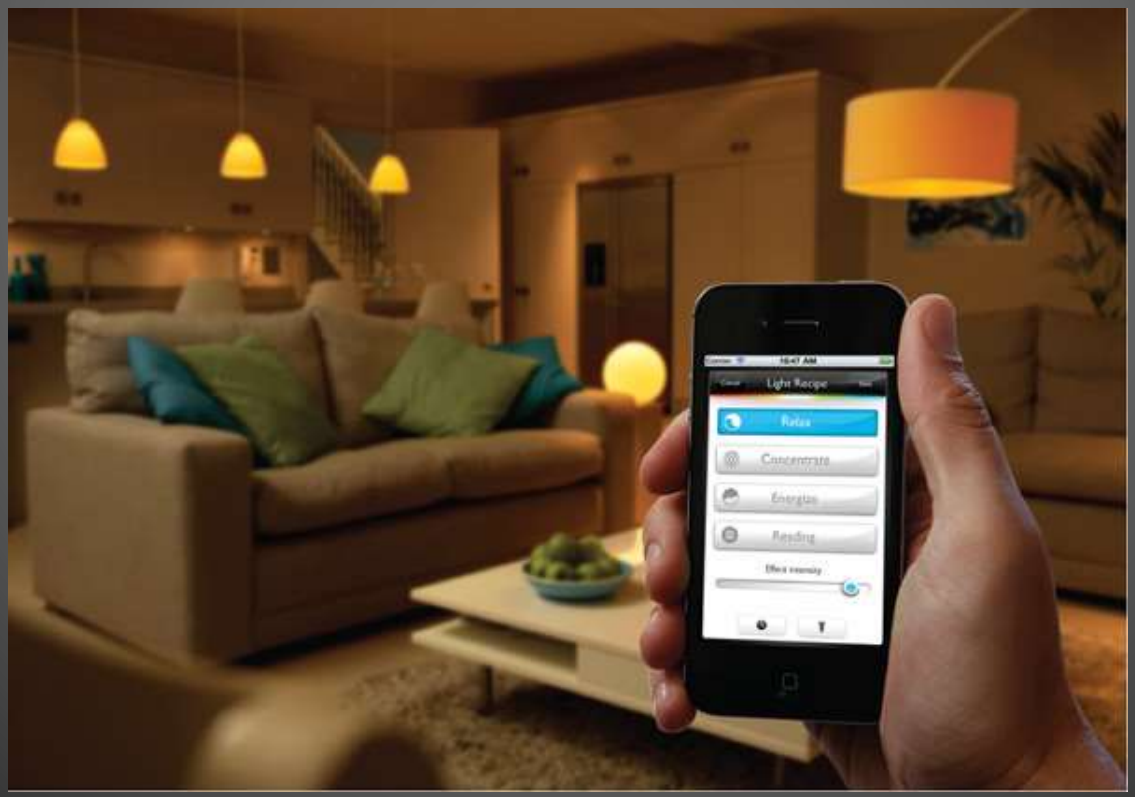
- With the common light fitting , Photo sensor elements are integrated in the ceiling.

Applications

- Office- In offices, we can use day dimmer instead of operating switches multiple times in a day.

Applications

- Home- In mood lighting , we can light the room according to the mood.



Applications

- Street light- We can use day dimmer in street lighting to automatically dim the light in early hours.

Methods of intelligent lighting

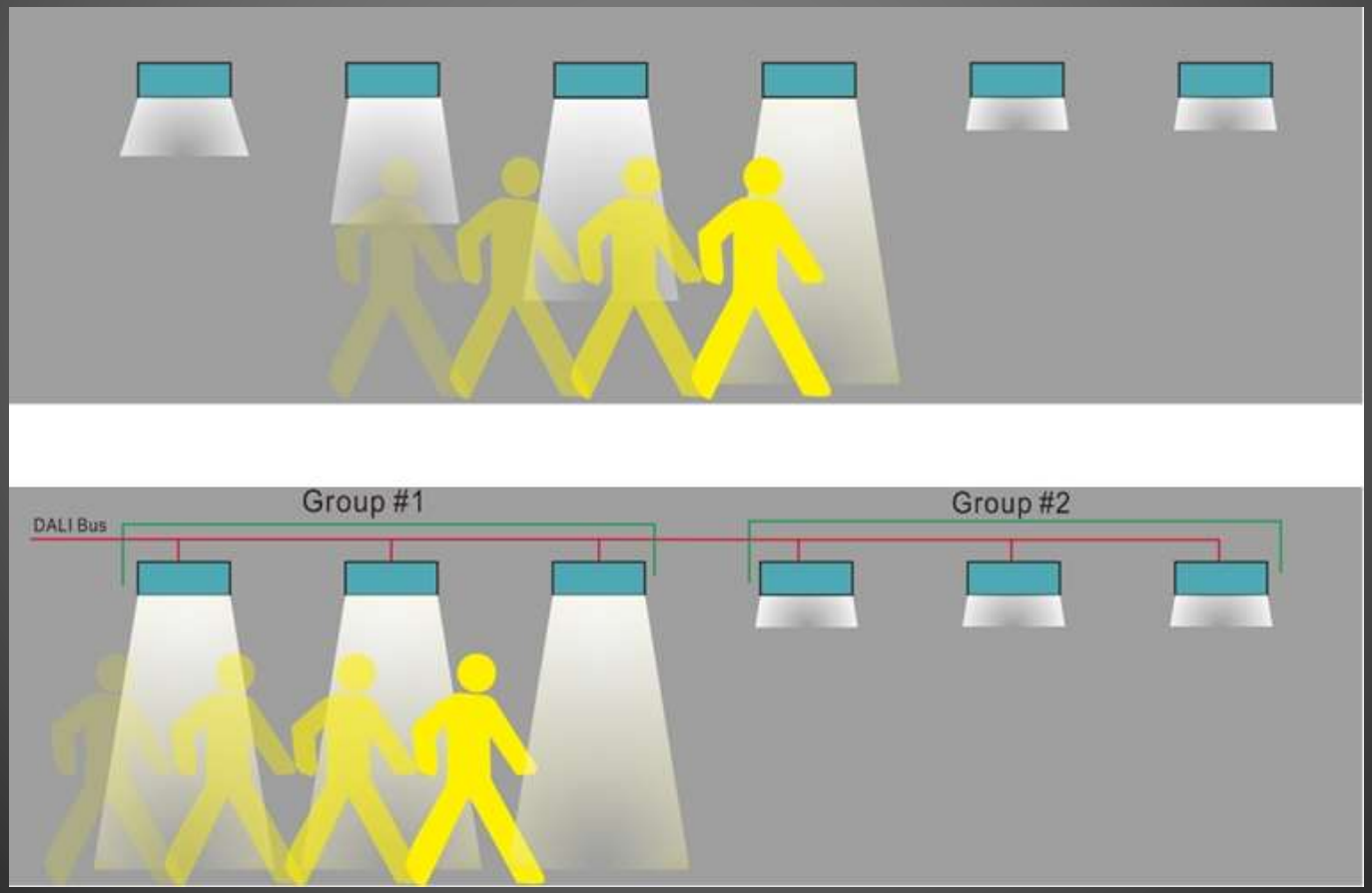
- **Occupancy sensors**

➢ Occupancy sensors / presence detectors are a special type of motion sensors. It automatically turns lights on when a room is occupied and off when a room is vacant.

➢ They are specifically designed to pick up small movements in demanding applications such as tunnels.

Applications

- Long corridors – Motion sensors can be used.



Applications

- In staircase,

Applications

- Security purpose

Methods of intelligent lighting

- Wireless lighting

➢ In Wireless control system, all lamps are connected in a wireless network allowing them to be controlled from remote controls, wall switches or internet connected devices.

Applications

Holiday security function - for your peace of mind

Applications

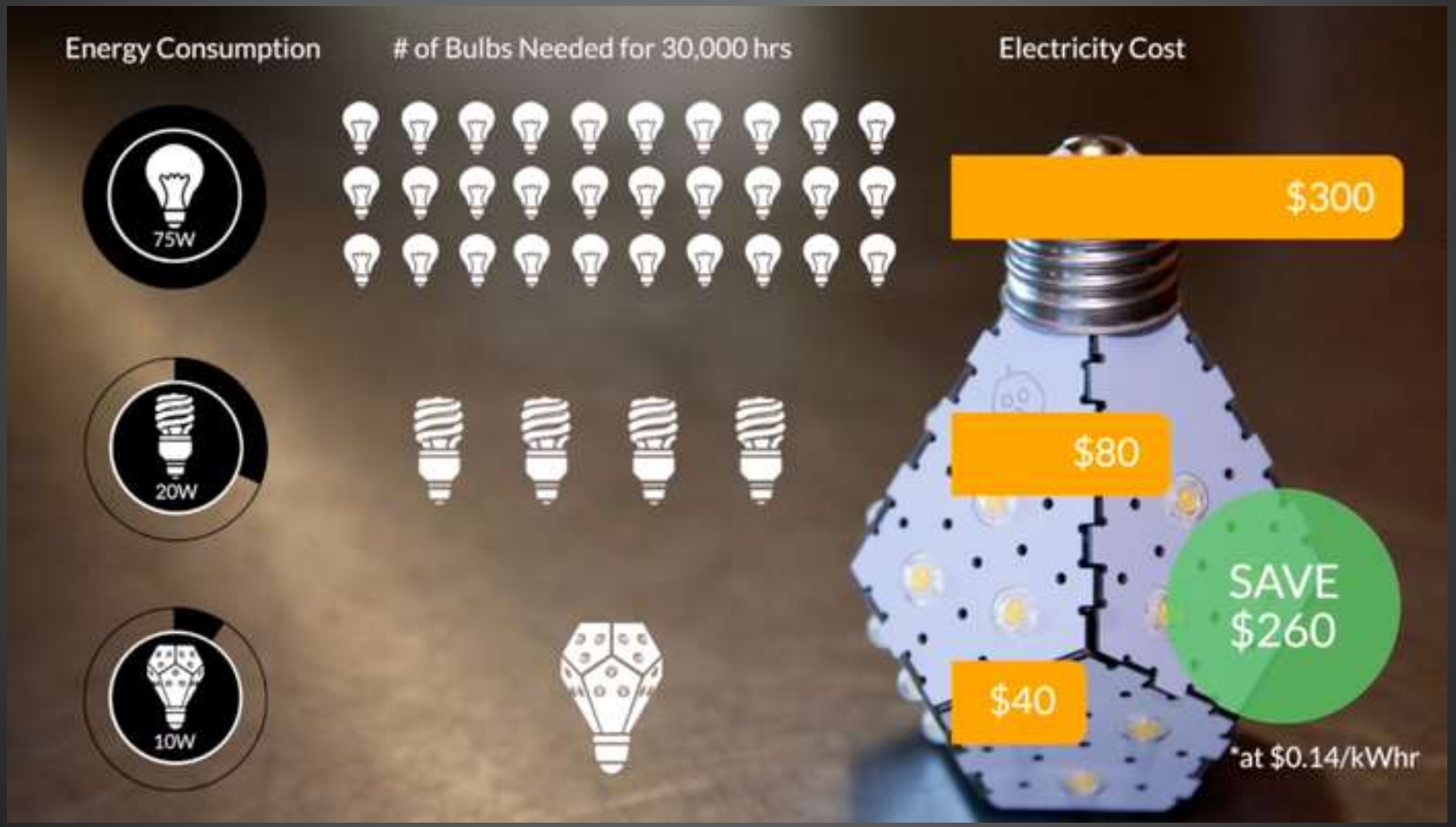
Street lighting

Applications

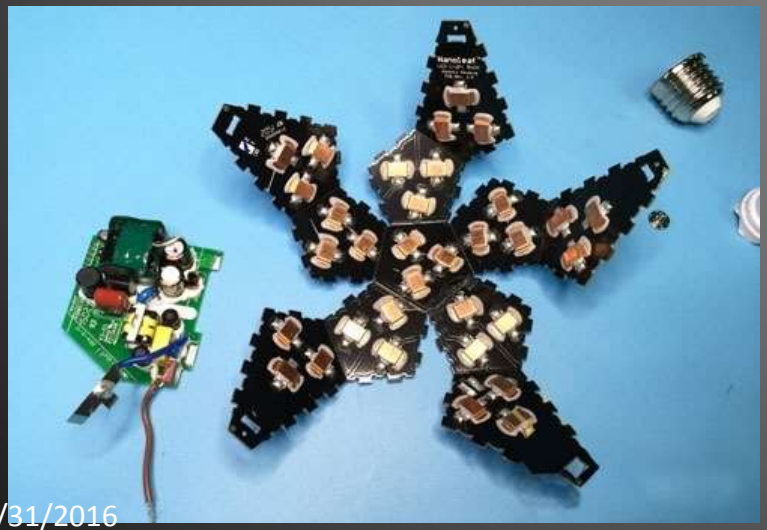
- **Holiday security function - for your peace of mind**
  The optional remote control offers a very reassuring holiday mode: After dusk the sensor will switch your lights on/off for 10 times randomly over the next four hours every day, simulating your presence at home. Enjoy the peace of mind when you are away

Nanoleaf One

World's most energy efficient light bulb.



Nanoleaf one



What is Nanoleaf One???

Nanoleaf one is a light bulb constructed of a folded circuit board with 360 degrees of uniformed light distribution.

- Ultra high energy efficiency
  Save ~$300 over its lifetime in energy cost alone.
- 27.5 year lifespan
  The last bulb you'll buy.
- Self-reinforcing, high strength
  No more broken bulbs.

Advantages of intelligent lighting

- Energy Efficient.
- User friendly.
- More safety & security.
- Environment friendly.

Disadvantage of intelligent lighting

- Initial cost is very high.

INTELLIGENT LIGHTS AVAILABLE IN MARKET

- Philips hue has been around a while, it sets a new precedence when it comes to creating a mood in a room. The wireless system allows you to use your iOS smartphone to not only switch the LED bulbs on and off, but pick the colour and brightness you want , as well as recreate colours within a specific image.

- You can program specific times, for example waking everyone in the house up at 7am every day with bright lights and the Hue system also has a party mode for flashing in time with your music. Additionally, Philips Hue is compatible with the IFTTT service.

- The Philips Hue starter pack offers three light bulbs and a wireless base that can control up to 50 bulbs.


PHILIPS
PHILIPS
PHILIPS
Scenes 1

- Belkin offers all sorts of WeMo connected devices and included within the range is the WeMo Smart LED bulb and the WeMo Light Switch, both of which allow lighting control from an iPhone or Android device.

- The WeMo Smart LED Bulb will need to replace your existing bulbs, like Philips Hue, but you will be able to control, schedule and fully dim them from anywhere using the WeMo Link, Wi-Fi and the WeMo app.

- They can be controlled independently or in groups and like the Philips Hue base, the WeMo Link can handle up to 50 of the 60W bulbs, which according to Belkin last up to 23 years.

- The WeMo LED bulbs have also recently been updated to offer compatibility with IFTTT, meaning you can create various recipes like the Hue system.


wemo
LINK
belkin
wemo
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Kitchen
100%
GROUPED BULBS
Overhead
Island
Cabinets
Pantry
Devices

- Originating on Kickstarter, LIFX is an LED light bulb that can be controlled using a smartphone app - but over your Wi-Fi network, rather than your phone's Bluetooth. From an Android or iOS app, you can turn your LIFX lights on or off, adjust brightness, change the colour, and even create a light show to go with your music.

- Like many of the smart light solutions available, LIFX also offers a wake-up feature, allowing you to wake up naturally each morning with automatically increasing light, or drift off with slowly dimming lights.

- A single LIFX bulb isn't cheap, but it is said to last up to 27 years.

- Other technical aspects include 17W at full brightness, a 130-degree beam angle, 1017 lumens, and colour options that include pearl white and gunmetal grey.