

CASE STUDY  
**Sarvodaya  
Hospital**  
**#BEANENERGYSAVER**



OCTIOT  
SWITCH TO SENSORS

**Sarvodaya Hospital**, a leader in healthcare innovation, recently took a significant step towards enhancing patient care & operational efficiency by integrating OCTIOT's Smart Solutions into their regular rooms.



OCTIOT  
SWITCH TO SENSORS



Energy Saver



Auto on/off &  
Auto Dimmable



Long Life



Cost Saving



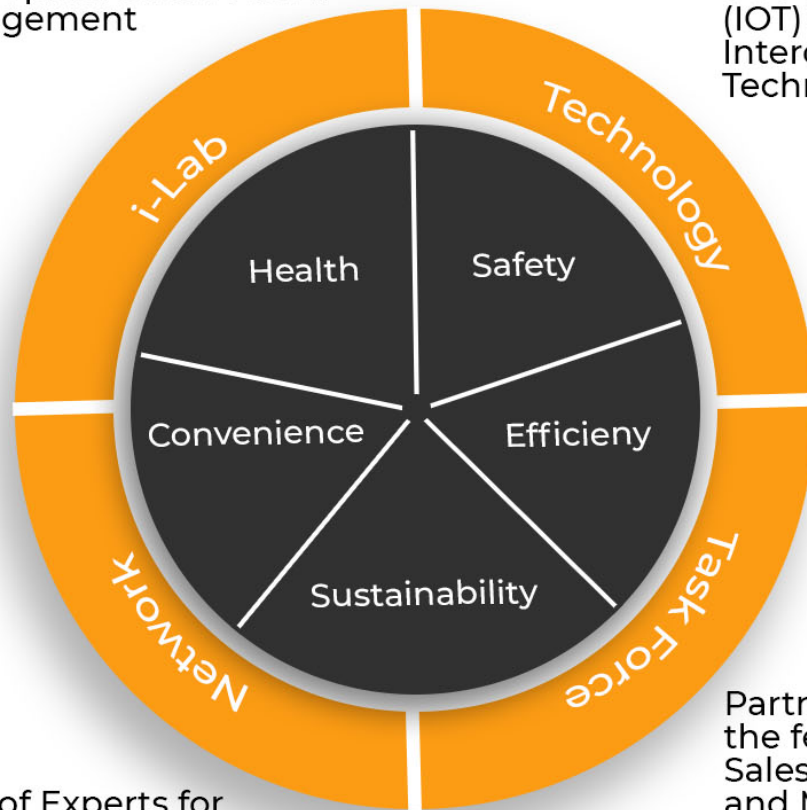
Motion Detection



High Brightness

Research  
Development Innovation  
Management

OCT-iSense Technology  
(IOT) and  
Interconnection Sensor  
Technology LED Technology



Team of Experts for  
Use-case Development  
and Marketing

Partner Network in  
the fields of Consulting,  
Sales, Technology  
and Marketing

## “ OCTIOT's Building Intelligence Framework

More and more Intelligent systems are being used for controlling all sorts of Building types. Buildings are becoming Intelligent, this makes it possible to Save energy, Automate recurring processes, facilitate the usability and Operation to achieve a complete new dimension Of function and flexibility. This is where our Next Generation of Sensors will make A key contribution. They not only control light and detect the True presence.

### OCTIOT's Vision of building Intelligence and Independent Solutions.

In our innovation lab, a task force continue to work on network solutions, and OCTIOT Systems too will helpus make buildings more intelligent.



Since 2017, we have continuously evolved from a pioneer to a leader in technology and innovation in sensor-controlled lighting. Our in-house development facilities create intelligent products that are recognized worldwide.



All products are manufactured in India, embodying OCTIOT's "Make in India" philosophy. Our partners and subsidiaries sell in various markets, and with our skilled team, we are a leading global supplier of sensor-controlled LED technology, ensuring optimal lighting for any situation.



## What Smart Solutions can do to a Hospital's Regular Rooms ?

Ideal Smart Solutions - All made possible by intelligent Sensor - Sensor-based lighting that combines

### Sustainability - Energy Efficiency - Lighting Convenience

- Enhancing Patient Comfort
- Efficient Lighting Control
- Streamlined Operations
- Minimum Light running cost
- Long Life
- Sense of security
- Aesthetically attractive both inside & outside
- Low Maintenance
- Lower energy consumption leads Reduced Carbon Footprints
- No Hassle to switch on & off the Lights or AC



# Challenges

Since 1997, Sarvodaya Hospital has had challenges of high energy consumption due to non-optimized lighting and AC systems, inefficiencies from manual monitoring, and inconsistent environmental comfort in patient rooms. The lack of real-time data and automation hindered effective energy management, while operational inefficiencies and difficulty in maintenance led to increased costs and potential delays in patient care. These issues underscored the need for a smart, integrated system to enhance overall efficiency and patient experience.

OCTIoT  
SWITCH TO SENSORS



## Regular AC System

Appliance	No. of ACs	Wattage	Electricity Rate/Unit	Working Hours	Total Consumption (Annual)	Annual Bill
AC	100	1000	7 Rs Per Unit	24 Hours	8,76,000 Kwh	61,32,000 INR



# Requirements

Sarvodaya Hospital required a smart solution that could adapt to its unique setup as a converted commercial building with 100 patient rooms across 8 floors. Their key requirement was to ensure that air conditioning and lighting systems would remain active and appropriately adjusted when a patient was in a resting or sleep position. This called for intelligent sensors and automation that could detect patient activity and optimize comfort without manual intervention.

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SWITCH TO SENSORS





# OCTIOT Smart Solutions

Days of Meetings, Sample product Monitoring and Analysis, Sarvodaya decided to move ahead with OCTIOT's Smart Solution to Loose number in energy bills. OCTIOT Installed their Smart Solutions in Sarvodaya with 100 bed count Hospital.

## Sarvodaya After OCTIOT's Smart Sensor Solutions

No. of AC controllers	No. of ACs	Wattage	Electricity Rate/Unit	Working Hours	Total Consumption (Annual)	Annual Bill
100	100	1000	7 Rs Per Unit	18 Hours	6,57,000 kWh	45,99,000 INR

# Calculation : Patient's Ward Room AC Controllers

Before OCTIOT, Lighting and AC Systems in Sarvodaya Hospital's regular lighting relied on conventional systems that operated on fixed schedules, regardless of room occupancy or natural light levels. With the integration of OCTIOT's smart solutions, including the OCT-NANOPRO, OCT-iSense Controller, OCT-Xvela, and OCT-XNEU, Sarvodaya Hospital experienced a remarkable transformation in their bills.

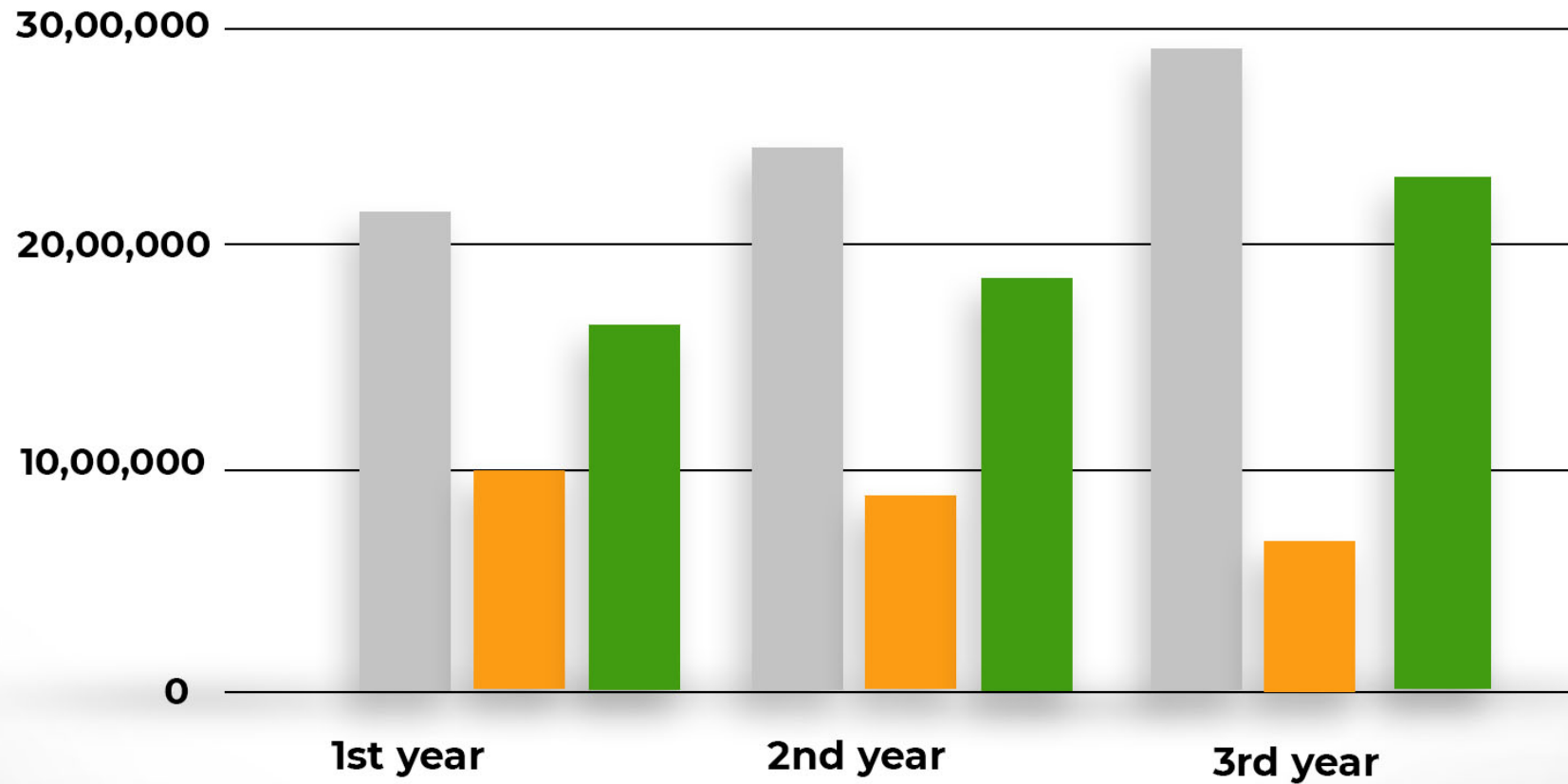
## Calculation of Smart Sensor Solutions

Regular AC Systems		OCTIOT smart Sensor Solutions	
Monthly Bill	Annual Bill	Monthly Bill	Annual Bill
504,000	61,32,000 INR	6,57,000	45,99,000 INR

# Total Savings in 1st year - 15,33,000

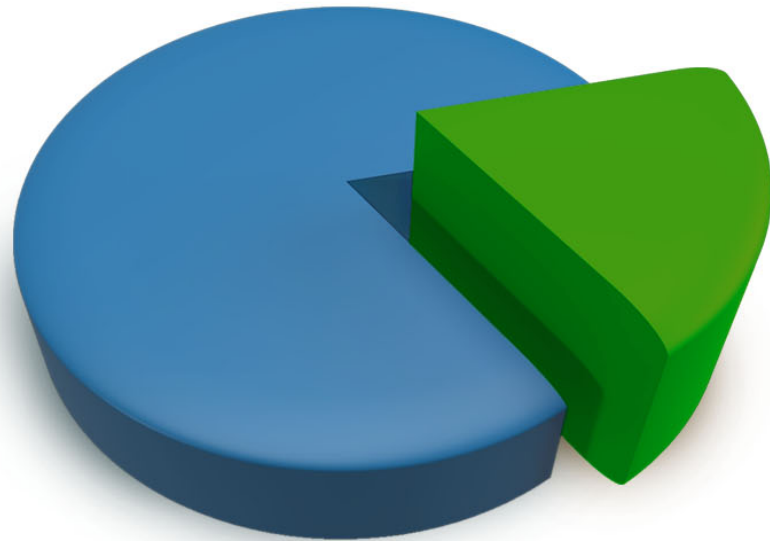


Regular AC System   OCTIOT smart sensor solutions   Savings with OCTIOT



# Let's Go For Green!

## CARBON FOOTPRINT CONTRIBUTION (Co2)



**Regular AC System**  
**OCTIOT Smart Sensor Solutions**

### As of Current Guidelines,

In India there isn't a specific carbon emissions limit set exclusively for hospitals on a national level. India has committed to reducing its carbon intensity by 33-35% from 2005 levels by 2030 as part of its Nationally Determined Contributions (NDCs).

**OCTIOT, made Sarvodaya loose  
25.66% carbon release**

Sarvodaya Annual consumption of Electricity  
**876,000 Kwh**

Sarvodaya Annual consumption of Electricity  
with OCTIOT  
**6,57,000 kWh**

### Annual Carbon Emission

**Before - 6,13,200 kg CO<sub>2</sub>**  
**After - 153,300 kg CO<sub>2</sub>**



Note: Co2 Emission calculator - [www.greencleanguide.com](http://www.greencleanguide.com)