



# Case Study

**Curated BMS solution delivering  
optimal energy and operational efficiency**

**Indian Bank- Chennai**

Presented By  
ZEDBEE TECHNOLOGIES

---

## About the client

Indian Bank is a state-owned banking & financial services company established in 1907 and headquartered in Chennai, India. The existing HVAC system with an AHU of 9000 CFM. They wanted greater control over power usage by minimizing electricity losses and lowering electricity bills. There was a dire need to reimagine the prevailing air conditioning management system which was proving to be expensive, complicated, and risky.

## Challenges

- Manually operated Variable Frequency Drive (VFD) running at fixed speed resulting in energy losses
- No options to modulate the flow of chill water
- Zero feedback from room temperature sensors
- Exorbitant bills due to heavy electricity consumption
- Uneven cooling across rooms, resulting in a lack of comfort
- Existing HVAC system with an AHU of 9000 cfm ran at full capacity with no monitoring or control systems

## Solutions

- A full-scale deployment of an automated air conditioning system, capable of delivering improved billing accuracy, reduced heat loads, and accelerating electricity unit savings was deployed.
- ZedBee Technologies ensured centralized air conditioning systems work at variable speeds and consume power based on heat loads.
- Intelligent, variable air volume sensor boxes designed to decentralize a centralized air conditioning framework. It cuts AC supply from sections where there are no human occupants and also decides on the amount of power required to cool the room if there is any human occupancy

## Results

The client saw a good ROI by investing in a smart, flexible solution that helped them resolve the spiraling costs of electricity consumption. With a minimum viable capital investment for automation, the client experienced everyday savings of more than 50% within 4 months of installation.

Everyday savings vary based on the number of occupants in a room. The HVAC temperature was maintained at 24- degree Celsius. These outcomes gave the client a deeper understanding of energy consumption, savings, specific areas where energy is wasted, and why they should consider ZedBee Technology's innovative building and air conditioning management system as a long-term investment.

Mode	Manual	Auto	Savings (kWh)	Savings (%)
Total electrical unit (KWh)	183.2	74.2	109	59.4
Total heat load (KWh)	2627	1191	1436	54.6



**59%**

**BTU Consumption**