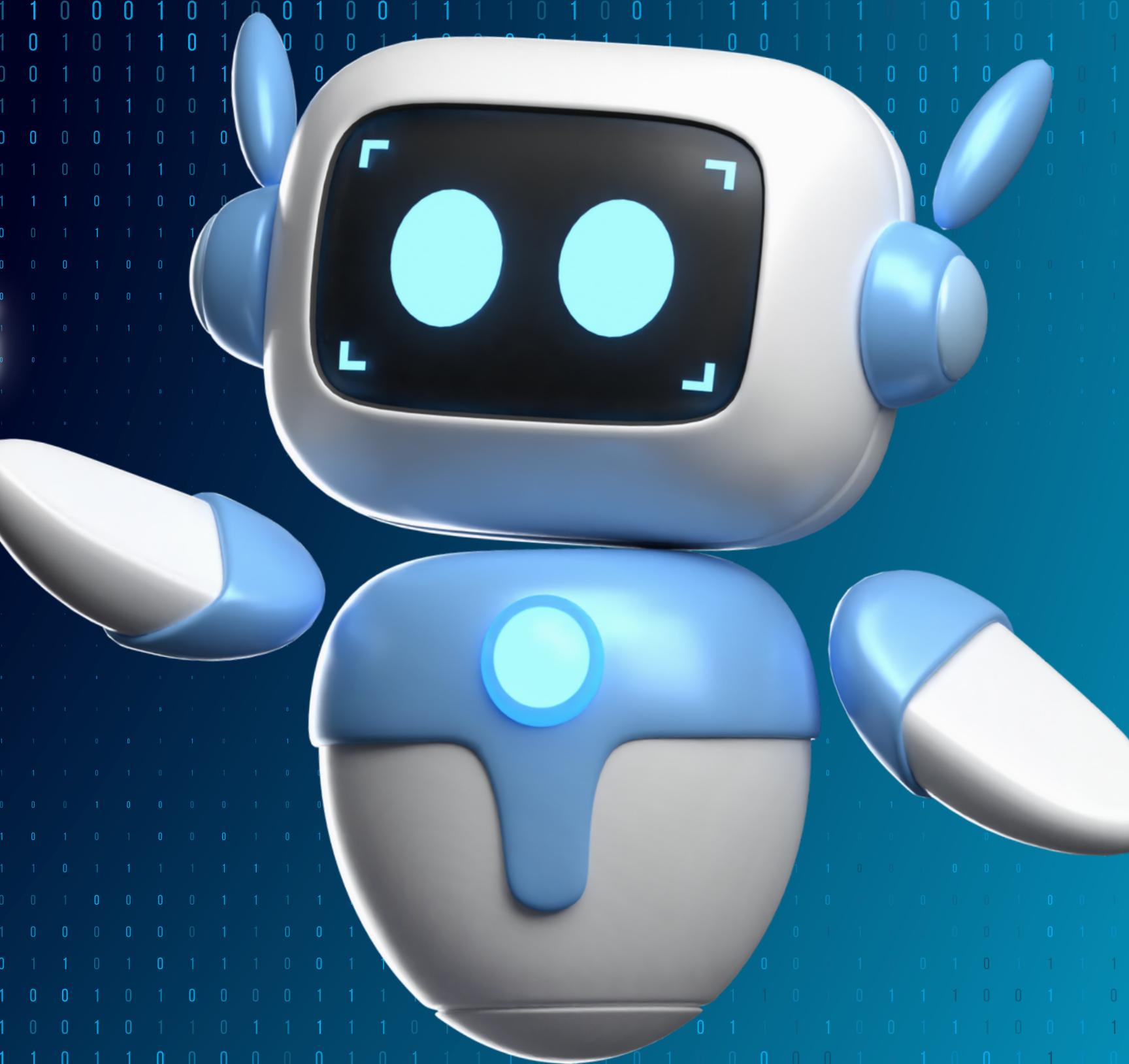


ENERGY TRACKING FRAMEWORK

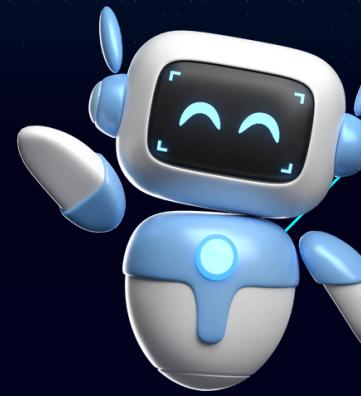
Bit Byte



BIT BYTE TEAM



YUSUF MOHAMMAD YUNUS



WAN AHMED FAUZIZAFRY BIN
WAN KHALID

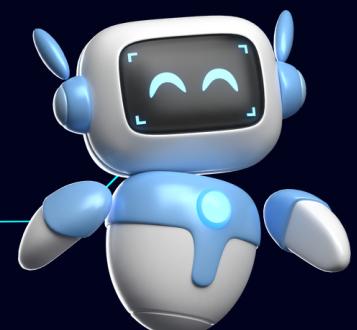


TENGKU MUHAMMAD ABDUH BIN
TENGKU MOHAMAD ZULKIFLI

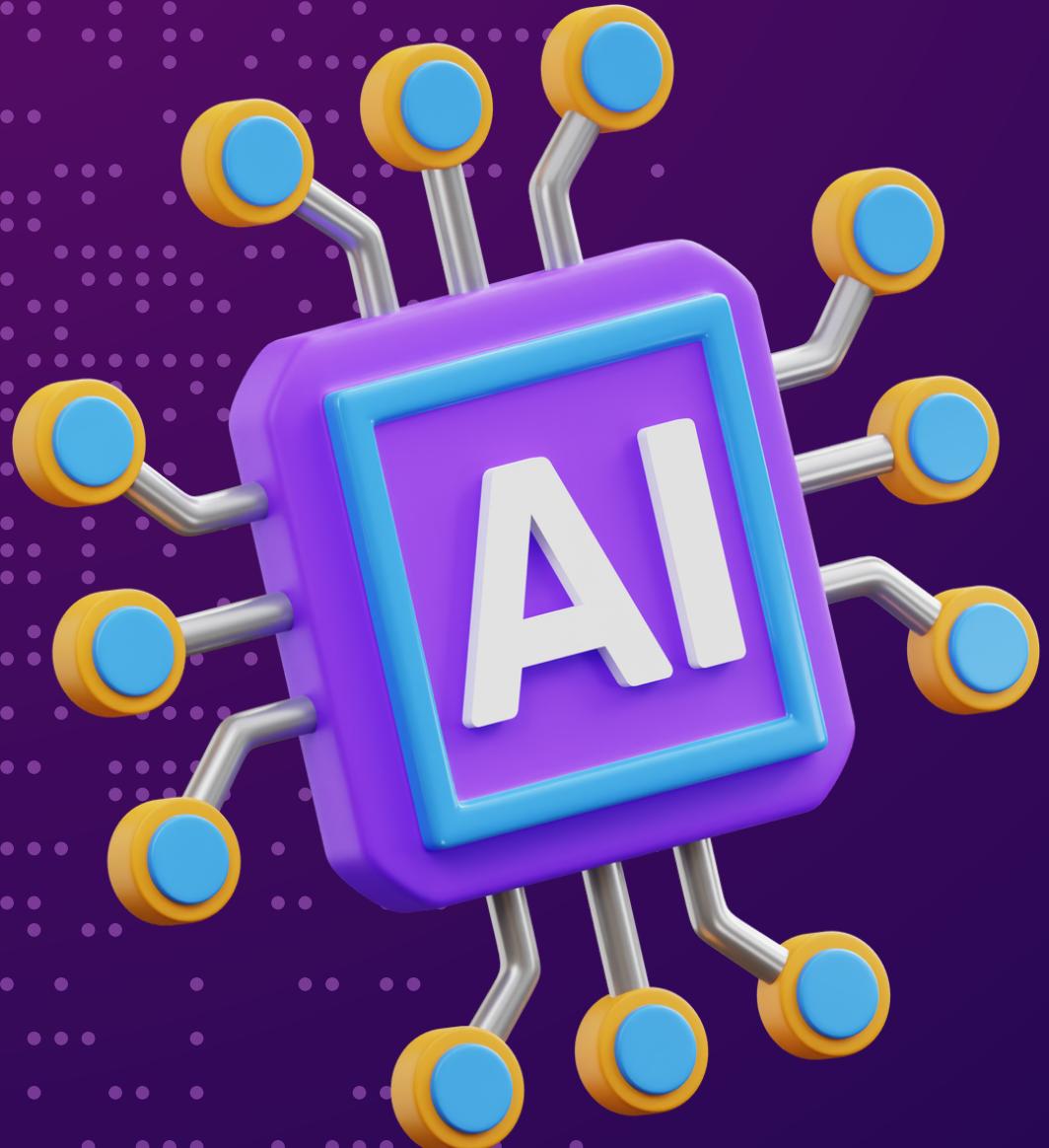
AKIF ASYRANI BIN MOHAMAD
IZANI



AHMAD SYAWQI BIN WAHID



1.1 GENERAL PROJECT INFORMATION



- ① Aligns with SDG 7: Universal access to affordable, reliable, and sustainable energy.
- ② Objectives:
 - Facilitate universal access to modern and sustainable energy in university classrooms.
 - Contribute to economic growth through innovative energy solutions.

1.1 GENERAL PROJECT INFORMATION

3

Key Components and Targets of SDG 7:

- Universal energy access.
- Promotion of renewable energy.
- Building sustainable energy infrastructure.

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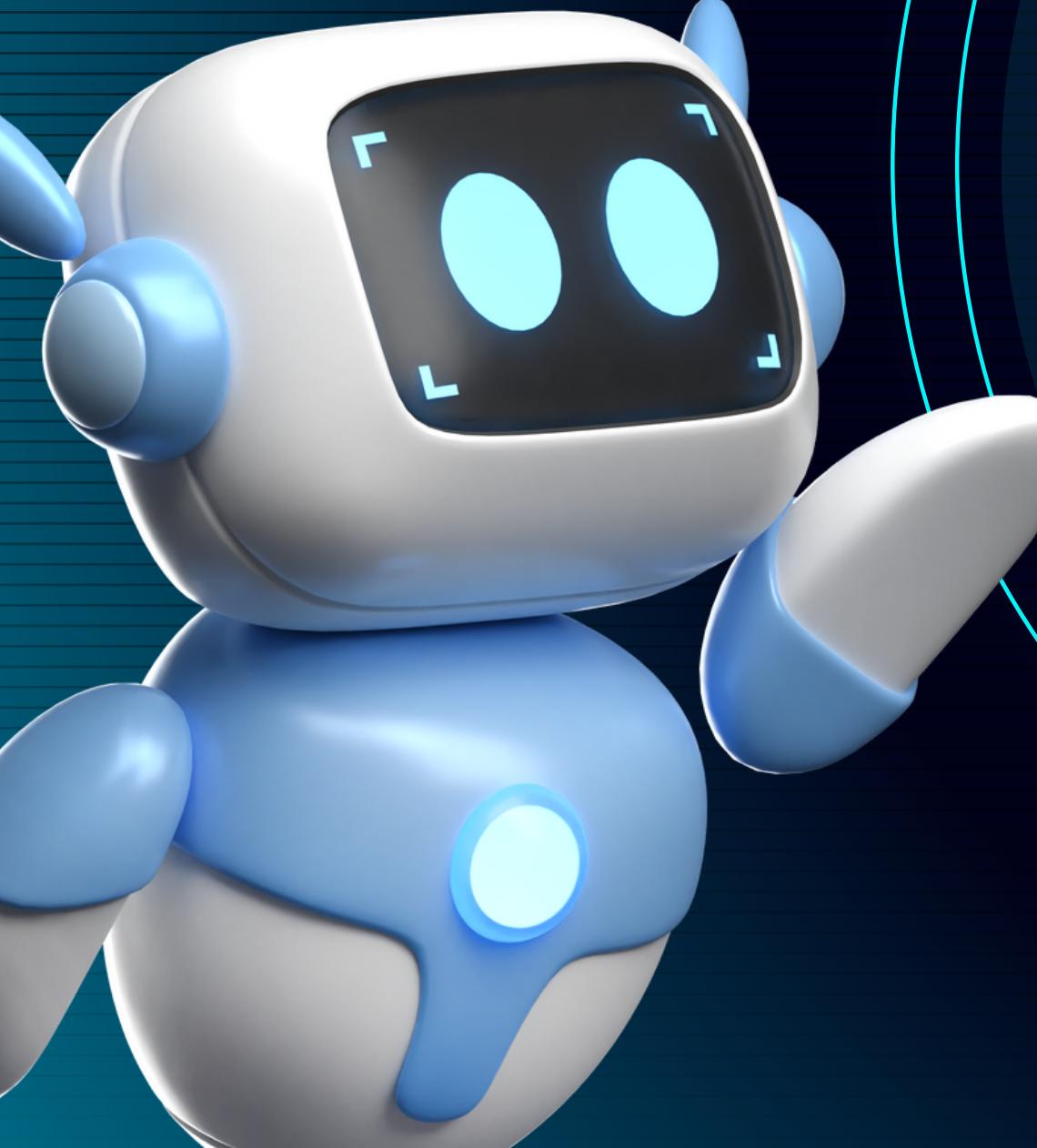
Company Focus: Bit Byte Company pioneers modern innovations supporting sustainable energy goals in university settings.



ORGANIZATIONAL BACKGROUND

Bit Company, comprised of dedicated specialists in energy efficiency tracking systems, is driven by a mission to foster sustainable and environmentally responsible energy consumption. With a focus on SDG 7, affordable and clean energy, our team leverages expertise, innovation, and a commitment to excellence to accelerate the transition to a greener future. By tracking energy usage, we aim to enhance efficiency as a crucial step towards achieving clean energy objectives.





PROBLEM DESCRIPTION

BACKGROUND OF THE PROBLEM

The inefficiency of energy management within educational institutions poses a significant challenge, primarily due to the absence of reliable Tracking systems. This absence inhibits the identification of energy waste and inefficiencies. To foster a more sustainable and cost-effective educational environment, there's a pressing need to enhance Tracking and Tracking systems, raise public awareness, and prioritize energy-efficient practices.



PROBLEM STATEMENT

Problem Statements in Educational Energy Management

1. Lack of Real-Time Energy Tracking Systems:

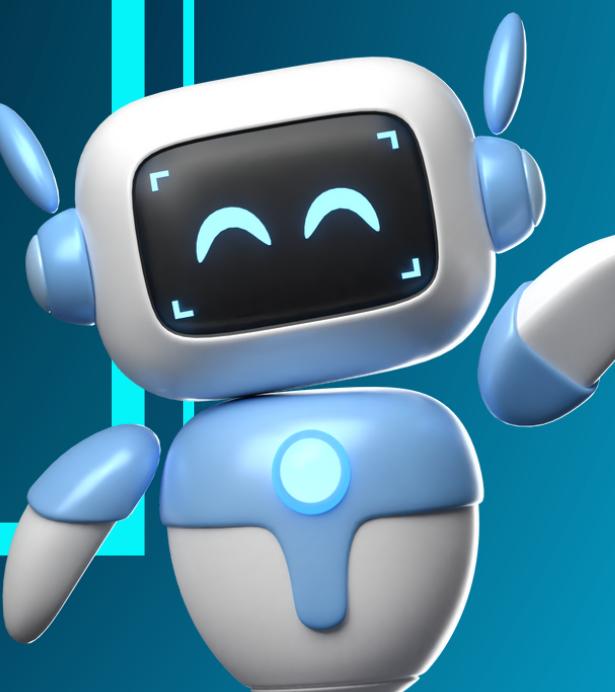
- Educational institutions lack sophisticated, real-time energy Tracking systems, leading to energy waste and inefficiency.
- Necessary for understanding energy usage patterns and implementing effective energy-saving measures.

2. Lack of Benchmarking and Performance Standards:

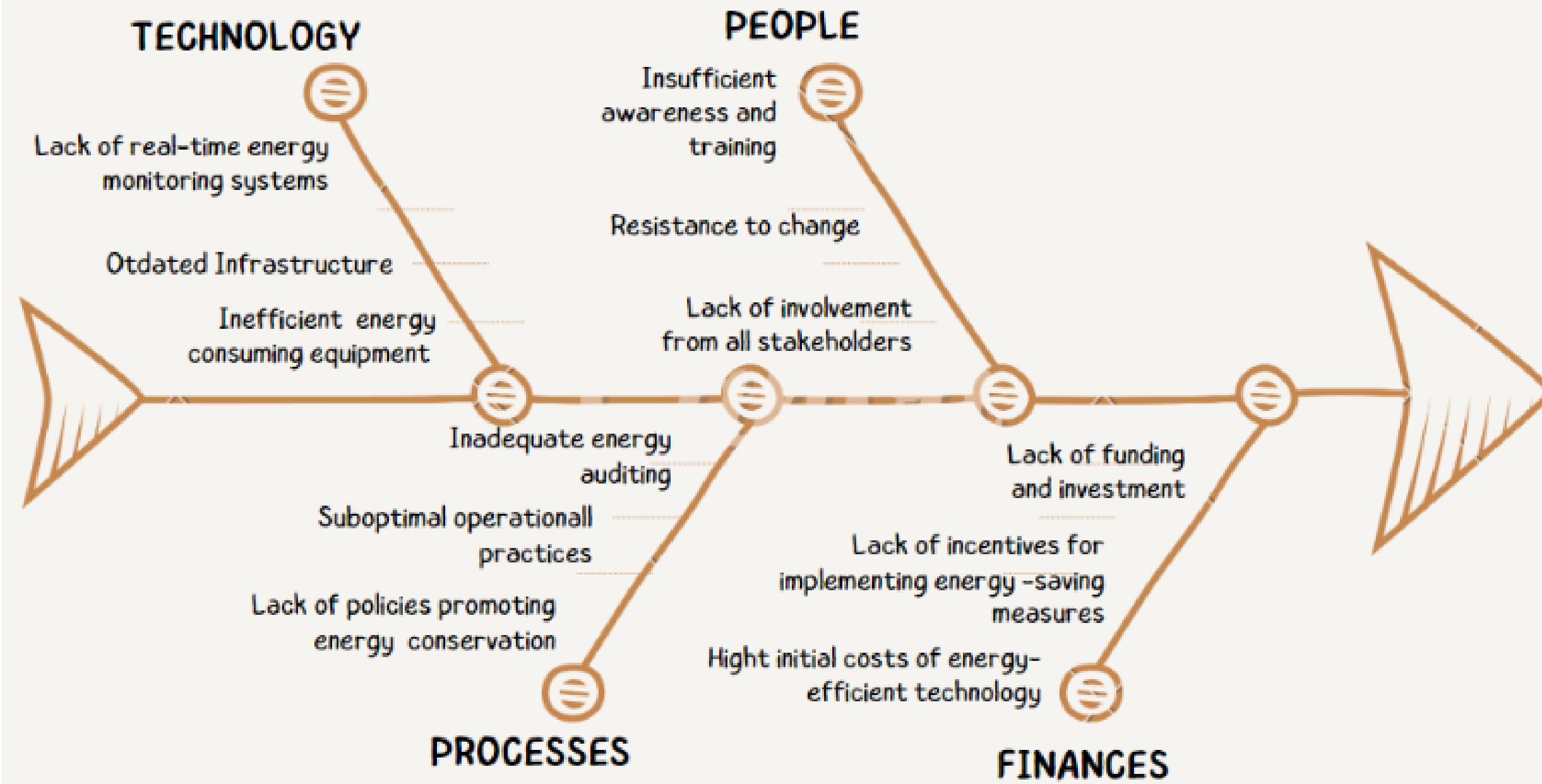
- Absence of clear benchmarking and performance standards for energy consumption in educational institutions.
- Challenges in setting realistic energy-saving goals and tracking progress.

3. Insufficient Awareness and Training:

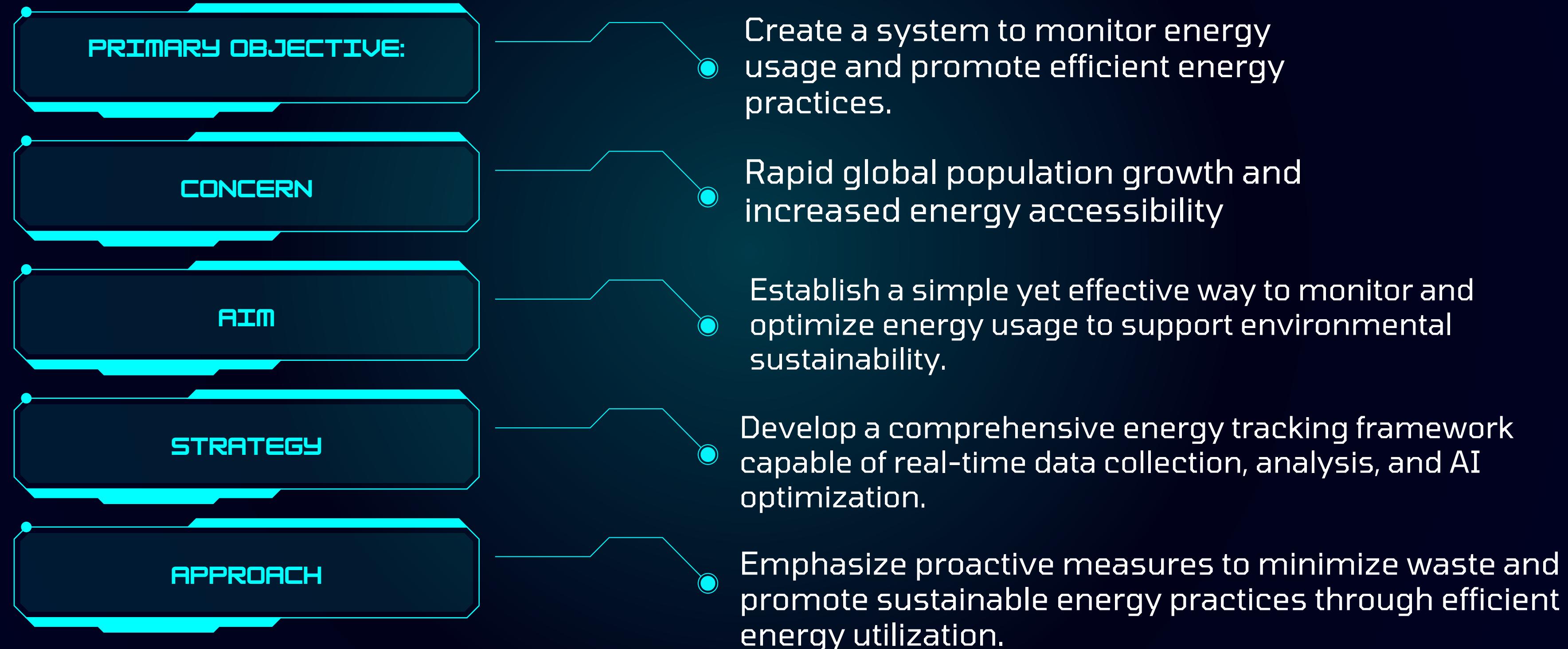
- Significant gap in awareness among stakeholders regarding the benefits and practices of energy efficiency.
- Lack of knowledge extends to both financial advantages and environmental impacts of energy-saving measures.

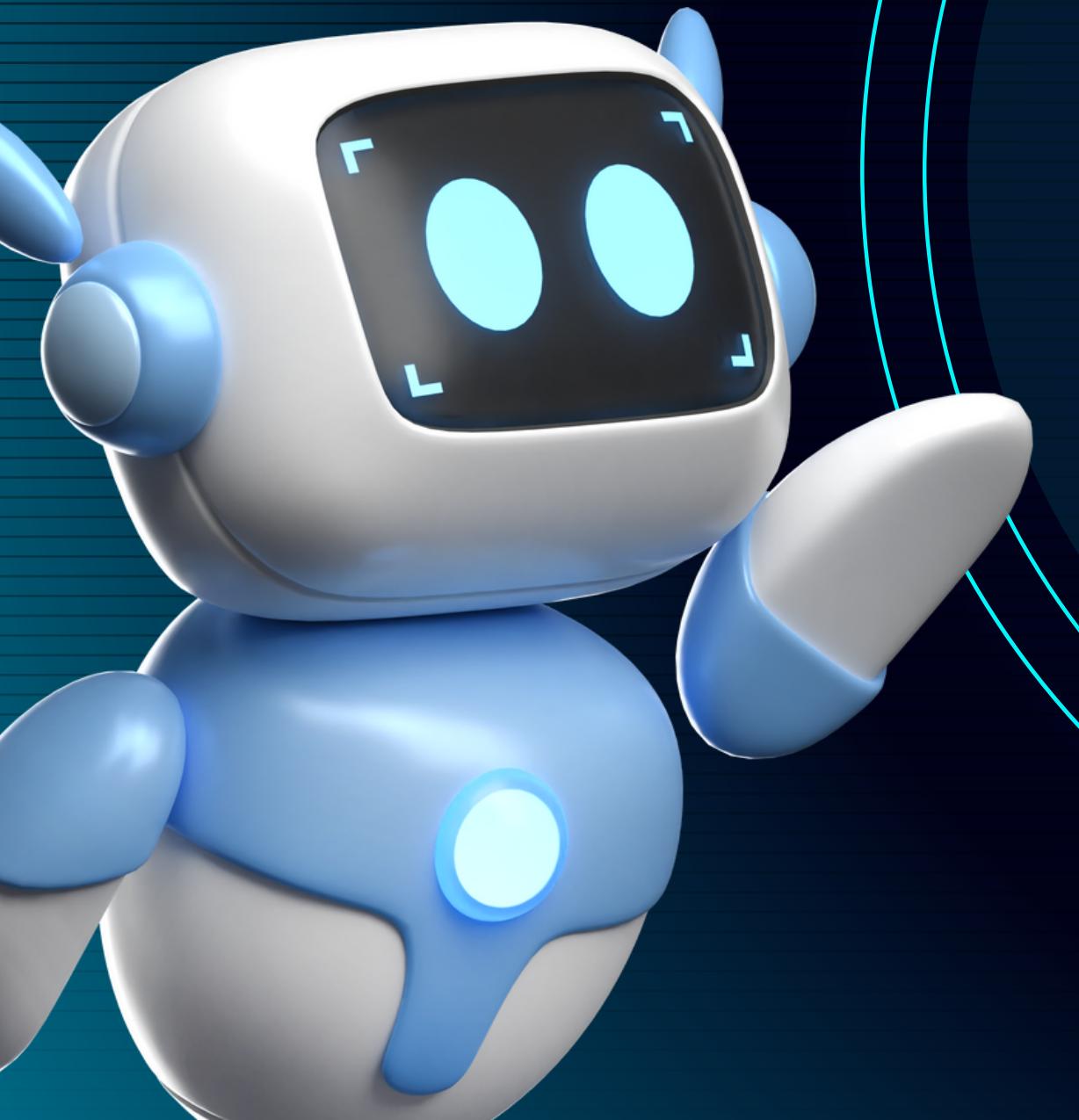


FISHBONE DIAGRAM



PROJECT OBJECTIVES





PROJECT SCOPE



TARGETED USERS AND THEIR REQUIREMENTS

KICT STUDENTS

Student body of KICT.

- Desire energy-saving technologies like motion-activated lighting to enhance educational experience and promote sustainability.

LECTURERS AND ACADEMIC STAFF OF KICT

Professors, academic, and teaching staff.

- Value system that reduces energy consumption and enhances the learning environment.

KICT STAFF & FACILITY MANAGERS (DAYA BERSIH)

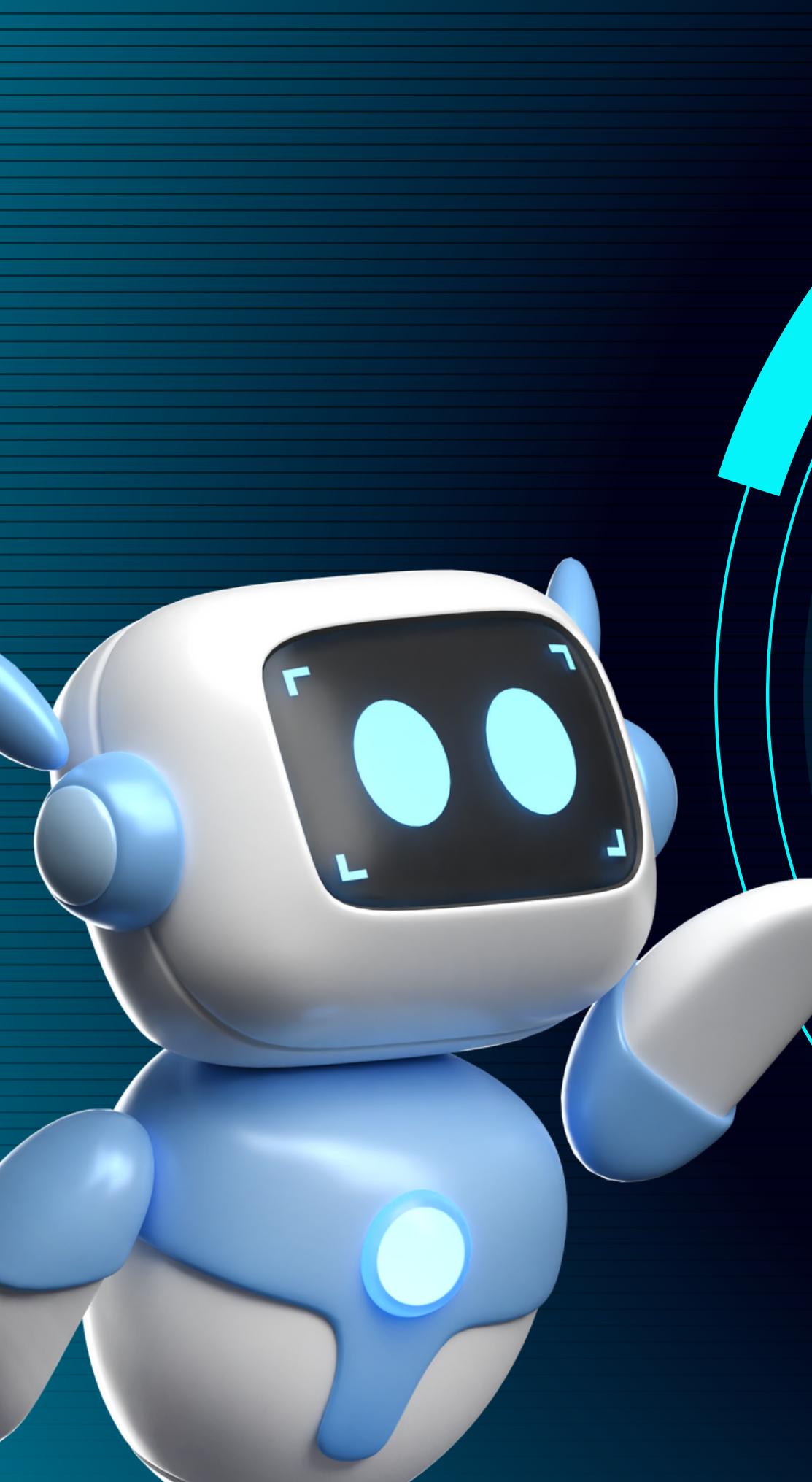
Janitorial and cleaning staff responsible for KICT buildings.

- Need an energy-efficient system and well-lit workplace for safe and efficient operations.

GENERAL KICT POPULATION

All KICT individuals, including visitors and maintenance personnel.

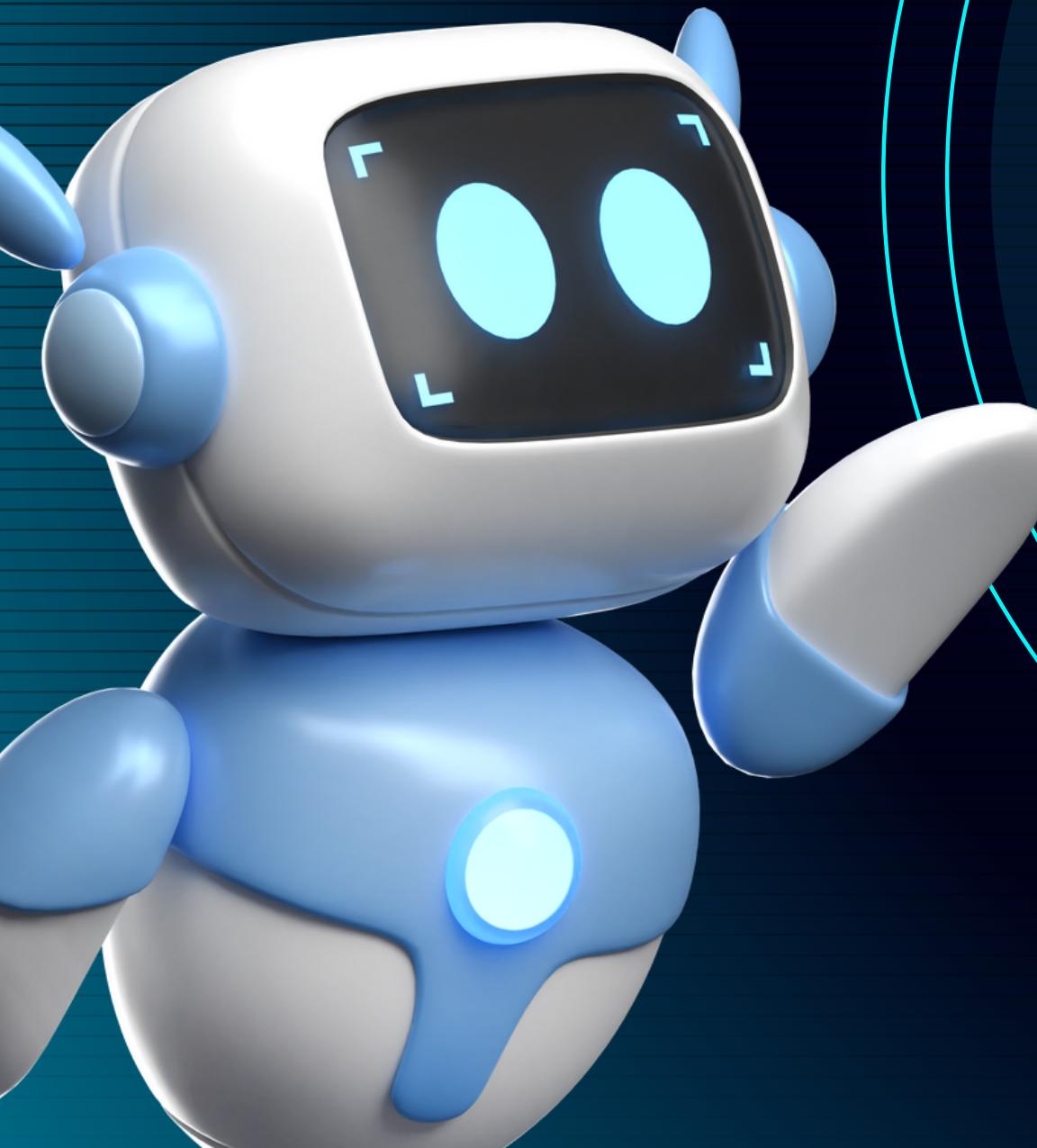
- Appreciate well-lit, energy-efficient environments in common and outdoor areas for convenience and safety, such as hallways.



SIGNIFICANCE OF THE PROJECT

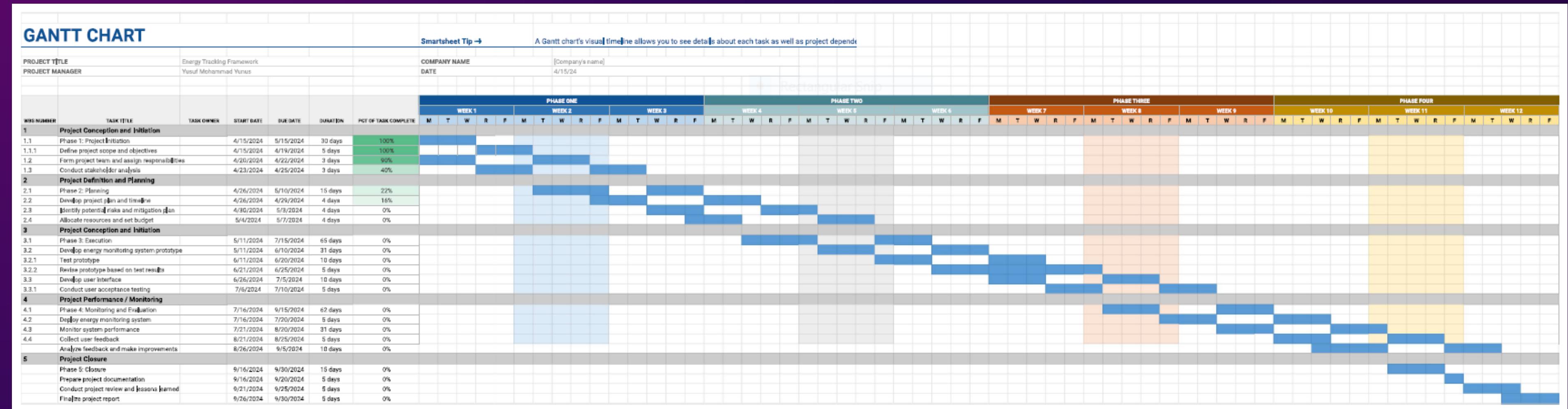
SIGNIFICANCE OF THE PROJECT

- **COST SAVINGS:**
 - Optimizing energy use through software leads to significant cost savings for educational institutions, allowing investment in infrastructure and resources.
- **ENVIRONMENTAL IMPACT:**
 - Reduction of energy waste aligns with global initiatives for environmental sustainability, making a notable contribution to reducing environmental impact.
- **CULTIVATION OF RESPONSIBILITY:**
 - Introducing energy-efficient practices through software cultivates environmental responsibility in educational institutions.
- **ROLE MODEL EFFECT:**
 - Educational institutions serving as role models inspire similar initiatives across industries, promoting long-term sustainability goals.



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POSSIBLE CHALLENGES

IMPLEMENTING AN AI-BASED SOFTWARE SYSTEM

Implementing an AI-based software system that accurately detects human presence and controls various digital systems could be technically challenging.

RESISTANCE FROM STAFF AND STUDENTS

Resistance from staff and students accustomed to current practices may hinder the adoption of new software technologies.

INITIAL INVESTMENT

The initial investment for developing and installing the energy efficiency management software may be significant.

RISKS

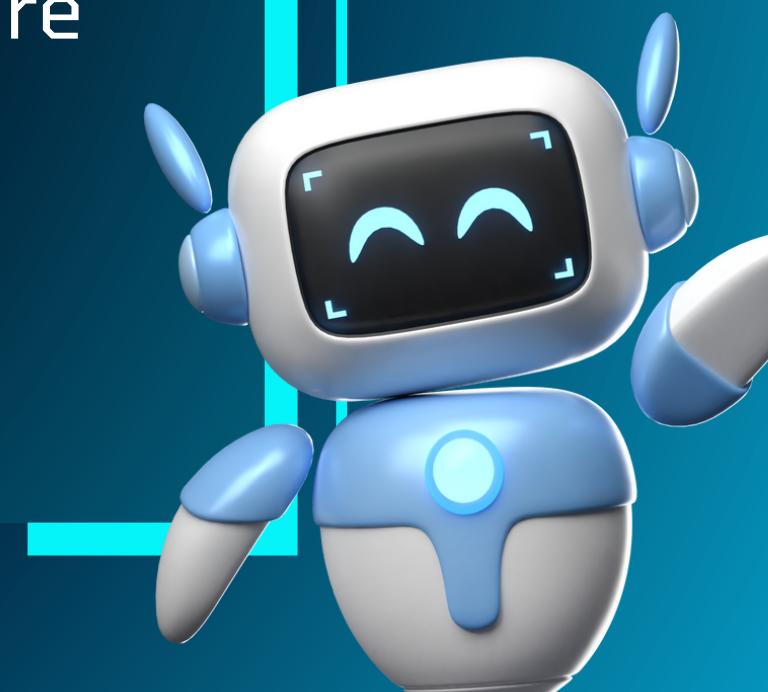
The system's need to monitor human presence could raise data privacy concerns.

Dependence on the software for energy savings puts pressure on its reliability and uptime.

Rapid advancements in technology could render the software outdated if not regularly updated.

MITIGATION PLAN

1. The "Energy Tracking Framework" project adopts a comprehensive strategy to manage challenges. This includes using experienced consultants for technical complexities, conducting educational workshops for user acceptance, and securing funding through grants and partnerships.
2. Maintenance will involve detailed schedules, staff training, and robust security measures. To address technological obsolescence, the software will be scalable, and a pilot project will validate its efficacy, reducing financial risk and promoting sustainable energy management in educational settings.





THANK
YOU

