GREEN CAMPUS HACKATHON 2024

Building Digital Solutions for SDG and Green Agenda Integration in University Life

TEAM 1

- CHRISTOFAKIS EMMANOUIL
- GENETZAKIS EMMANOUIL
- STAVRAKAKI MARIANNA
- VAMVOUKLIS NIKOLAOS
- VOGIATZIS EVANGELOS

THE PROBLEM

- The problem is that students (and most people) don't associate the usage of electrical devices with CO_2 emmissions
- People act as if everything that is powered by electricity works magically and thus may partake in wasteful usage of electrical devices to the detriment of the enviroment

CONTEXT

Our solution addresses the significant environmental impact of energy use in university housing, which drives up utility costs and contributes heavily to campus carbon footprints.

Aligned with DigiEduHack 2024's theme of sustainable digital innovation, our project uses data analytics to build an ecosystem that can calculate energy usage and actively engages students in daily energy-saving practices.

This tech-driven, scalable model supports the Green Campus Hackathon by integrating SDGs 12 and 13 into campus life through:

- **Reducing Energy Consumption**: Personalized feedback encourages students to use less energy.
- **Boosting Awareness and Accountability**: Real-time data makes energy use visible and impactful.

This approach fosters sustainable dorm management that can be implemented globally across universities.

SOLUTION DESCRIPTION

App Proposal

- An application designed to help users directly measure and understand the costs associated with their electrical devices

User Input

- Users can enter the power rating of a device

Features

- Calculates power consumption, CO_2 emissions, and electricity costs

Environmental Impact Awareness

- Provides recommended daily and yearly CO_2 emissions per person to promote environmental sustainability
- Offers guidelines to help users minimize their impact and support efforts to combat climate change

Image generated by AI tools https://chatgpt.com/

TARGET GROUP

- Our target group are the university students but our app can be useful to anyone in the general population
- The app can provide accurate information to people who are conscious of their environmental impact but haven’t quantified the carbon footprint of their actions and don't know what sustainable carbon emissions look like
- The app can be used to help identify the monetary cost of using electrical devices and hopefully motivate its users to cut back on wasteful usage for their own financial benefit

ENVIROMENTAL IMPACT

Reducing energy demand in dormitories, campuses achieve a measurable decrease in carbon emissions

Over time, this approach can reduce the university's overall carbon footprint, supporting SDG 13 (Climate Action) and SDG 12 (responsible consumption and production) and setting a benchmark for other educational institutions aiming for carbon neutrality

Students learn the value of sustainable living firsthand, which builds a culture of responsibility and eco-conscious behavior. For example, students may adopt habits like turning off lights and unplugging devices when not in use, leading to lasting lifestyle changes.

https://media.istockphoto.com/id/1336223147/photo/light-bulb-yellow-outstanding-among-lightbulb-light-blue-on-same-color-background-concept-of.jpg?s=612x612&w=0&k=20&c=Q3W0szm4ABw1o-DKwVa9d3pMAM9ECIeng7iayACMupA=

INNOVATIVENESS

- Our app raises awareness of the costs of usage of electrical devices to its users
- It will be simple to understand and use and will provide its users with accurate information that they may struggle to find elsewhere
- It will be free and widely accessible to anyone with a phone or computer

TRANSFERABILITY

- Our solution can easily be adapted in many educational contexts, helping people understand the energy consumption and the impact that they could have in the environment

- With this approach, the app can be easily integrated in schools' educational system in order to raise awareness of carbon emissions produced from electrical devices

COST

Approximate cost - make a cost estimation taking into account the feasibility of the idea.

- The cost to make this app and keep it running is very small.
- The app will be easily accessible to anyone with a phone and its costs won't significantly increase with the addition of new users.

Thank You for Your Attention!