

Technology Demand Survey

1. Project objectives and contents

Project Title		Development of Energy Saving for Electric Equipments and PC Security Solution based on User Location using Bluetooth Low Energy Technology
Objectives		We have been developing the technology that help people effectively reduce the power consumption, therefore people can contribute to solve the problem of global warming. The proposed project is to develop a solution to measure the distance between smart phone user and user related devices, and to control/manage the power mode of IT devices and electric equipments and PC security in real time by utilizing the estimated distance using Bluetooth Low Energy Technology. The target of this project is to maximize energy savings and effectiveness by expanding to large power consuming electrical equipments, air conditioning, lighting, heating appliances(heater, water purifier) besides various IT devices in office
Contents	Domestic	<ul style="list-style-type: none"> ○ Enhancement of location(proximity) precision by a couple of meter dimension ○ Development of management server and client SW ○ Development and verification of SW over multi OS(Android/IOS and Windows/Mac)
	International	<ul style="list-style-type: none"> ○ Development of BLE(Bluetooth Low Energy) based Smart Socket for electric equipments and Smart Switch for lighting devices ○ Development of BLE, Wi-Fi integrated AP(Access Point) ○ Extension of target devices to other IT devices, Lights and HVAC

2. State of the art in research and development

Necessity of the proposed project	<ul style="list-style-type: none"> ○ Need of technology development and preemptive action for reducing greenhouse gas emissions in response to energy environmental change such as Paris climate agreement and etc. ○ Need of measurement for energy usage for all electrical devices in office/building ○ Need of the IT based integrated energy management system that can help to establish energy saving policy by monitoring all devices energy usage and measuring wasted energy in office
Current Research Activities	We have developed the energy saving and PC security solution based on user location using Bluetooth Low Energy technology for the last 2 years, and completed the prototyping on Windows PC and Android smart phone. Our next plan is to expand the energy saving function for other electrical equipments such as air conditioning, lighting and heating appliances.

3. Administrative Information

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