

### BORANG INVENTORI PROJEK PELAJAR

PERKARA	MAKLUMAT INFORMATION	
Program Program Jabatan Department	Diploma Kejuruteraan Elektronik (Komunikasi) (DEP) 5 \( \)  Jabatan Kejuruteraan Elektrik	
Semester/ Tahun Semester/ Year	Semester 5 / Jun2017	
Tajuk Projek  Project Title  Jenis Projek	Electricity Bill Allert System by GSM and Mini Printer.	
Type of Project		
Kategori Kluster Penyelidikan Category/ research Cluster	Tanda "/" pada yang berkenaan:  Please tick "/" where applicable:  Sains tulen (Pure Science) Sains gunaan (Applied Science) Teknologi dan kejuruteraan (Technology and Engineering) Sains kesihatan dan klinikal (Clinical and Health Sciences) Sains sosial (Social Sciences) Sastera dan sastera ikhtisas (Arts and Applied Arts) Warisan alam dan budaya (Natural Sciences and National Heritage)	
a a	/ Teknologi maklumat dan komunikasi (Information and Communication Technology)	
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Abstrak Abstract	This paper is about a single phase digital energy meter based on microcontrollers to control an electric bill meter at house in kilo-watt per hour for a month. The project is using a microcontroller Arduino Atmega 328p as a main component to control everything by creates a C programming. It is the main component for the system. The purpose system is called Electric Bill System Alert (EBAS). By using this system, it has LCD to display how much energy that we use in kilo-watt per hour in Digital Form. Beside this EBAS project is design to convert from kilo watt per hour to Ringgit Malaysia (RM) based on pulse detection For the pulse detection, MEBSS system using a 100 pulse = RM 0.10. So by this converting system we know how much we need to pay by the end of the month. The main objective of this MEBSS is to save our electric bill. This MEBSS can be set the amount (RM) that we want to pay by the end of the month. If the amount that we set is reached, the system	

	will sent a message to user by hand-phone. But if it reaches early of the month they must set back the limit to active the MEBSS System. MEBSS System is using GSM (Global System for Mobile Communications), to send message through hand-phone. This system will alert them how much the user set their limit and they also can save the energy by their self to avoid over limit usage. The developed Monthly Electric Bill Saving System is a success which it able to remind the customer about the usage of electrical energy for a month to the set scopes.	
Keyword  Keyword  (max 5 word)	Bill Allert System	
Objektif Projek Project Objectives	To design Electricity Bill Alert System (E.B.A.S) so user will be provided with an easiest way about their electricity bill.	
	II. To construct Electricity Bill Alert System (E.B.A.S) using GSM and Arduino.	
(	III. To acknowledge the consumer regarding their electric bill they need to pay by the end of the month by implementing mini printer to the System.	
	IV. To make consumer setting their own limit to active the System.	
Skop Projek Project scope	I. It is only can use for home appliances.	
	II. This project is actually a single phase and the voltage would be 240V.	
	III. This project will be converted to Ringgit Malaysia (RM).	
	IV. The maximum amount that user can set is RM1000.	

- V. From Global Service Mobile (GSM) the alert message will send or limit to one user only.
- VI. The consumer must set the limit to active the EBAS System.

#### IP No

# Dapatan Finding (500 words max)

Dapatan projek ini adalah untuk mengira jumlah unit kWh kepada ringgit. Apa yang boleh di tetapkan ialah , kita perlu setkan masa dan setkan harga mengikut pengguna. Setelah kita setkan kedua duanya, Power monitor akan mengira jumlah arus elektrik yang kita sudah guna mengikut masa yang telah ditetapkan. Oleh itu, bila sudah tiba waktu yang ditetapkan , buzzer akan berbunyi dan LCD akan memaparkan jumlah wang ringgit.

The findings of this project are to calculate the total kWh units to the ringgit. What can be set is that we need to set the time and set the price according to the user. Once we set the second one, the Power monitor will calculate the amount of electric current we have used over time. Therefore, when it is time set, the buzzer will sound and the LCD will display the sum of money.

### Cadangan untuk kerja-kerja akan datang Suggestion for future work (500words)

Cadangan untuk projek ini mungkin boleh di naiktarafkan kepada 'Back up' lampu apabila tiada elektrik yang bersambung. Untuk lebih peka , pengguna mungkin boleh menambahkanbaikan dari segi LCD yang boleh memaparkan data elektrik yang sudah digunakan pada masa yang lepas dengan menggunakan touch screen LCD.

Suggestions for this project may be upgraded to 'Back up' lights when no electricity is connected. To be more sensitive, users may be able to improve in terms of LCD that can display electrical data that has been used in the past by using the LCD touch screen.

## Gambar berkaitan projek

Picture related to project (700kb)





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.8	Figure 1	Figure 2
Rating/Level	Jabatan/ Politeknik/ Kebangsaan/ Antarabangsa  Departments / Institutes / National / International	

<sup>\*</sup> Borang ini perlu diisi oleh pelajar dan dihantar kepada penyelia/ penyelaras projek dalam bentuk hardcopy dan softcopy (borang LAMPIRAN J dan gambar hasil projek dalam format jpeg/bitmap) bersama laporan akhir dan hasil projek