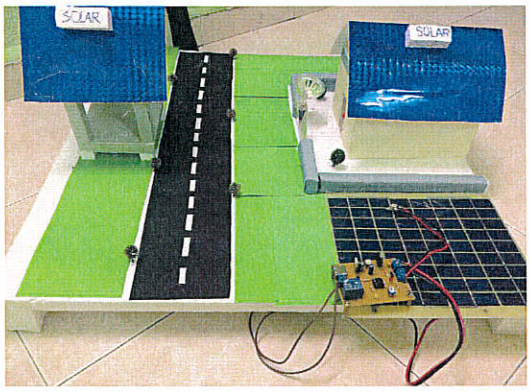
LAMPIRAN J

POLITEKNIK MALAYSIA

BORANG INVENTORI PROJEK PELAJAR

PERKARA	MAKLUMAT *INFORMATION*
Program *Program*	DIPLOMA ELECTRICAL TECHNOLOGY DET 5A
Jabatan *Department*	KEJURUTERAAN ELEKTRIK
Semester/ Tahun *Semester/ Year*	JUN2017
Tajuk Projek *Project Title*	SMART LED WITH PHOTOCELL
Jenis Projek *Type of Project*	HARDWARE (PRODUCT)
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*) ( ) Teknologi maklumat dan komunikasi (*Information and Communication Technology*)
Ahli Kumpulan *Group member*	1. NameMuhammad Zafrul Azamir bin Md Yusuf No. Identification card:14DET15F1004 2. Name:Saiful Amrie Bin Ramli No. Identification card:14ET15F1043 3. Name:Muhd Khairul Ikhwan Bin Noor Azmi No. Identification card:14DET15F1016
Penyelia *Supervisor*	Name:PUAN JUMALIAH BINTI JAHURI No. Identification card:
Penyelia Bersama *Co-Supervisor*	1. Name:PUAN HANISAH BINTI SALAM No. Identification card:
Abstrak *Abstract*	This project has been used from manually observing observations now that

	smart lighting by using photocell. The objective off this project is to design a LED that can save on electricity and mobile costs. Furthermore, there are several studies that have determined the scope of the project, namely, producing 1 smart light machine that only lit when in the dark and it lit up without using a switch These are all set to solve some of the problems that arise with this existing method like. forgetting to close the switch and avoid using flammable mat The materials for the project also need to have special features that are durable and portable. While for the process of producing this project it has resulted in the wrinkle of average time saving compared to the traditional method 36.67%. Based on these results, analysis and discussion bave been made, it can be concluded that the smart lights have achieved the objectives that have been discussed. In addition, this tool also proved to save on the cost of electricity and fuel for consumers.
Keyword *Keyword* (max 5 word)	
Objektif Projek *Project Objectives*	I. To design photocell sensor to switch ON the LED with automatic II. To design solar panel 12V to recharge battery 12V III. To design LED using battery rechargeable
Skop Projek *Project scope*	I. Battery we use 12V and can support LED about 9hours II. The solar panel absorb 6 hours of peak sunlight available III. USB port can connect hardware such as speaker , camera and can recharge battery phone IV. Targeting this project to residences and huts
IP No	
Dapatan *Finding* *(500 words max)*	**I. Battery** can be used for 12 hours to support 2 LED **II. Photocell** when the daylight is off when exposed to sunlight. when the night of the light goes on when it is dark. **III. Usb port** Can use for all 2.0 usb cable for example phone , speaker and Camera **IV. Solar panel** charging battery for 7 hours to full
Cadangan untuk kerja-kerja akan datang	

Suggestion for future work (500words)	My suggestion for this project is to use other items. for example changing all the components on the circuit because our circuit is only able to accommodate some bulbs. how big is the .circuit to facilitate the work that will be made and the solar panel changed to 1 meter for quick charge on the battery. however. batteries also need to be exchanged at high voltage values so as to accommodate the number of bulbs used and can last for 12 hours. The tools also needs to be changed to a durable, tool that can be used for a long time to withstand a variety of outdoor weather. Wire also need to use good quality and enclosed with copper cover as it is to avoid short circuit and make the device become damaged. usb can be added to many more so it can be used by many people. This project can be used in cottages and even places that fit our size.
Gambar berkaitan projek *Picture related to project* (700kb)	 *Figure 1* *Figure 2*
Rating/Level	Jabatan/ Politeknik/ Kebangsaan/ Antarabangsa *Departments / Institutes / National / International*

* *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 project*