


BORANG INVENTORI PROJEK PELAJAR

PERKARA	MAKLUMAT INFORMATION																
Program <i>Program</i>	DTK5A																
Jabatan <i>Department</i>	Jabatan Kejuruteraan Elektrik																
Semester/ Tahun <i>Semester/ Year</i>	Semester 5 Jun 2017																
Tajuk Projek <i>Project Title</i>	Laboratory Key Lending System																
Jenis Projek <i>Type of Project</i>	Hardware and Software																
Kategori Kluster Penyelidikan <i>Category/ research Cluster</i>	<p>Tanda “ / ” pada yang berkenaan: <i>Please tick “ / ” where applicable:</i></p> <table border="1"> <tr><td><input type="checkbox"/></td><td>Sains tulen (<i>Pure Science</i>)</td></tr> <tr><td><input type="checkbox"/></td><td>Sains gunaan (<i>Applied Science</i>)</td></tr> <tr><td><input type="checkbox"/></td><td>/ Teknologi dan kejuruteraan (<i>Technology and Engineering</i>)</td></tr> <tr><td><input type="checkbox"/></td><td>Sains kesihatan dan klinikal (<i>Clinical and Health Sciences</i>)</td></tr> <tr><td><input type="checkbox"/></td><td>Sains sosial (<i>Social Sciences</i>)</td></tr> <tr><td><input type="checkbox"/></td><td>Sastera dan sastera ikhtisas (<i>Arts and Applied Arts</i>)</td></tr> <tr><td><input type="checkbox"/></td><td>Warisan alam dan budaya (<i>Natural Sciences and National Heritage</i>)</td></tr> <tr><td><input type="checkbox"/></td><td>Teknologi maklumat dan komunikasi (<i>Information and Communication Technology</i>)</td></tr> </table>	<input type="checkbox"/>	Sains tulen (<i>Pure Science</i>)	<input type="checkbox"/>	Sains gunaan (<i>Applied Science</i>)	<input type="checkbox"/>	/ Teknologi dan kejuruteraan (<i>Technology and Engineering</i>)	<input type="checkbox"/>	Sains kesihatan dan klinikal (<i>Clinical and Health Sciences</i>)	<input type="checkbox"/>	Sains sosial (<i>Social Sciences</i>)	<input type="checkbox"/>	Sastera dan sastera ikhtisas (<i>Arts and Applied Arts</i>)	<input type="checkbox"/>	Warisan alam dan budaya (<i>Natural Sciences and National Heritage</i>)	<input type="checkbox"/>	Teknologi maklumat dan komunikasi (<i>Information and Communication Technology</i>)
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Ahli Kumpulan <i>Group member</i>	<p>1. Name: MUHAMMAD FAKHRI BIN ZULKIFLI No. Identification card: 970223-04-5271</p> <p>2. Name: AMIRUDDIN BIN AZIZ No. Identification card: 970822-04-5441</p> <p>3. Name: MUHAMMAD HARIZ BIN RAMLE No. Identification card: 970806-04-5441</p>																
Penyelia <i>Supervisor</i>	Name: Puan Suzeyhareda Binti Abd Hamid																
Penyelia Bersama <i>Co-Supervisor</i>	1. Name: -																

<p>Abstrak <i>Abstract</i></p>	<p>For this project use of electronic card access control systems. Most facilities still make extensive use of traditional locks and keys at their facilities. It is still much less expensive to equip a door with a standard lock than it is with any type of electronic access control device. To design the key management system to ensure the returning and borrowing more efficiently. To use timing system to ensure borrower return the key on time. To use fingerprint scanner to ensure that the identity of the borrower is recorded valid able. This project uses components such as Arduino UNO as the controller. LCD 16X2 for the display. Next, for the input this use Thumbprint Sensor that can be recognized the borrower's fingerprint. Global System for Mobile (GSM) is to sent alert message through short message service (SMS). The TowerPro SG90 9G Mini Servo is used as lock. This project has a limit time which is 2 hours before alert message was sent to borrower Maximum fingerprint is 150, and the limitation time of the fingerprint is saved. When button 1 or button 2 is pushed, the servo module will open and borrower can take the key at servo 1 or servo 2. The LCD will appear borrower's data such as Name, borrower's ID, and Contact number. PIC ATMEGA328P function as controller for other device. This project will not only help to improve the safety of laboratory, but also to decrease the cases of missing key or equipment inside the laboratory, because it is created for security that can safely store the keys.</p>
<p>Keyword <i>Keyword</i> (max 5 word)</p>	<p>Time is GOLD</p>
<p>Objektif Projek <i>Project Objectives</i></p>	<ul style="list-style-type: none"> • To design the key management system to ensure the returning and borrowing more efficiently. • To use timing system to ensure borrower return the key on time. • To use fingerprint scanner to ensure that the identity of the borrower is recorded valid able.
<p>Skop Projek <i>Project scope</i></p>	<p>Scope for this project is for lecturer and staff at electric engineering department in Politeknik Merlimau Melaka. This project has a time limit of 2 hours before alert message was sent to borrower. Maximum fingerprint is 150 and when button 1 or button 2 is pushed, the servo module will open and borrower can take the key at servo 1 or servo 2. The LCD will appear borrower's data such as Name, borrower's ID, and Contact number. PIC atmega328p function as controller for other device, because we put a program in the pic.</p>
<p>IP No</p>	<p>-</p>
<p>Dapatan <i>Finding</i> (500 words max)</p>	<ul style="list-style-type: none"> • We are be able to create a security for key lending system using Arduino software. • We are be able to soldering component.
<p>Cadangan untuk kerja-kerja akan datang <i>Suggestion for future work</i> (500words)</p>	<ul style="list-style-type: none"> • Add a keypad to facilitate the borrower entering data. • Add a clock so that the borrower can easily see the time of borrowing.

<p>Gambar berkaitan projek</p> <p><i>Picture related to project (700kb)</i></p>	 <p style="text-align: center;"><i>Figure 1</i></p>	
<p>Rating/Level</p>	<p>Jabatan Departments</p>	

* 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.