





BORANG INVENTORI PROJEK PELAJAR

PERKARA	MAKLUMAT INFORMATION
Program <i>Program</i>	DET
Jabatan <i>Department</i>	KEJURUTERAAN ELEKTRIK
Semester/ Tahun <i>Semester/ Year</i>	LIMA
Tajuk Projek <i>Project Title</i>	SMART AQUAPONIC FISH FEEDER
Jenis Projek <i>Type of Project</i>	INOVASI
Kategori Kluster Penyelidikan <i>Category/ research Cluster</i>	TEKNOLOGI DAN KEJURUTERAAN
Ahli Kumpulan <i>Group member</i>	<ol style="list-style-type: none"> 1. MUHAMMAD MIRZA AQIL BIN KAMARUDDIN 990810055237 2. MUHAMMAD AMIRUL HAKIM BIN MOHMAD ALI 991228045249 3. 4. 5.
Penyelia <i>Supervisor</i>	ZAIFUL HIZAM BIN HAMIDON 750927086253
Penyelia Bersama <i>Co-Supervisor</i>	
Abstrak <i>Abstract</i>	<p>Aquaponics is an eco-friendly system for food production utilizing aquaculture and hydroponics to cultivate fish and crop without soil. It is an inexpensive symbiotic cycle between the fish and plant. In an aquaponic system, fish waste (ammonia) is fed into the plant bed which acts as a bio-filter and takes the nitrate which is essential to grow vegetation. The fresh new water is then returned to the fish enclosure to restart the cycle. A unique advantage of an aquaponic system is conserving water more effectively compared to traditional irrigation systems. Conservation of water is accomplished by recirculating water between the plant and the fish habitat continuously. Organic fertilization of plants using dissolved fish waste is the other benefit of aquaponics. Utilizing plants as a natural</p>

	alternative to other filters, requires less monitoring of water quality. In our project, an aquaponics system was designed by us. The future purpose of our project is finding an optimized situation for the aquaponics system to produce food and save water more efficiently and eco-friendly.
Keyword <i>Keyword</i> (max 5 word)	SAFF
Objektif Projek <i>Project Objectives</i>	<p>1.To help the gardener and fish breeder to improve their way in gardening and fish feeding using the aquaponic system</p> <p>2.To save their time to water their plant using the aquaponic system and feed their fish using the auto fish feeder</p> <p>3.To save their energy and deliver information by using the GSM to send the notification to their mobile phone for them not to always check their fish feeder.</p>
Skop Projek <i>Project scope</i>	<p>The fish tank can contain 10-20 small Tilapia fish</p> <p>The fish tank width 30cm, height 21cm, length 38cm</p> <p>The fish feeder can contain 150ml fish food</p> <p>The fish feeder will operate 8/4 hour according to the setting</p> <p>The plant container can plant 5-6 water spinach</p> <p>The plant container width is 24cm, height 9cm, length 35cm</p> <p>The water pump is a 12V pump</p> <p>We used cotton to replace electric filter</p>

IP No		
Dapatan <i>Finding</i> (500 words max)	500	
Cadangan untuk kerja-kkerja akan datang <i>Suggestion for future work</i> (500words)	cipta projek baharu	
Gambar berkaitan projek <i>Picture related to project (700kb)</i>		
Rating/Level	JABATAN	

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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.

