

BORANG INVENTORI PROJEK PELAJAR

PERKARA	MAKLUMAT INFORMATION																
Program <i>Program</i>	DKA																
Jabatan <i>Department</i>	Kejuruteraan Awam																
Semester/ Tahun <i>Semester/ Year</i>	5																
Tajuk Projek <i>Project Title</i>	Agro-Tech Clay Brick																
Jenis Projek <i>Type of Project</i>	Inovasi / Rekabentuk / Penyelidikan																
Kategori Kluster Penyelidikan <i>Category/ research Cluster</i>	Tanda “ / ” pada yang berkenaan: <i>Please tick “ / ” where applicable:</i> <table border="1"> <tbody> <tr> <td>☐</td><td>Sains tulen (<i>Pure Science</i>)</td></tr> <tr> <td>☐</td><td>Sains gunaan (<i>Applied Science</i>)</td></tr> <tr> <td>☐</td><td>/ Teknologi dan kejuruteraan (<i>Technology and Engineering</i>)</td></tr> <tr> <td>☐</td><td>Sains kesihatan dan klinikal (<i>Clinical and Health Sciences</i>)</td></tr> <tr> <td>☐</td><td>Sains sosial (<i>Social Sciences</i>)</td></tr> <tr> <td>☐</td><td>Sastera dan sastera ikhtisas (<i>Arts and Applied Arts</i>)</td></tr> <tr> <td>☐</td><td>Warisan alam dan budaya (<i>Natural Sciences and National Heritage</i>)</td></tr> <tr> <td>☐</td><td>Teknologi maklumat dan komunikasi (<i>Information and Communication Technology</i>)</td></tr> </tbody> </table>	☐	Sains tulen (<i>Pure Science</i>)	☐	Sains gunaan (<i>Applied Science</i>)	☐	/ Teknologi dan kejuruteraan (<i>Technology and Engineering</i>)	☐	Sains kesihatan dan klinikal (<i>Clinical and Health Sciences</i>)	☐	Sains sosial (<i>Social Sciences</i>)	☐	Sastera dan sastera ikhtisas (<i>Arts and Applied Arts</i>)	☐	Warisan alam dan budaya (<i>Natural Sciences and National Heritage</i>)	☐	Teknologi maklumat dan komunikasi (<i>Information and Communication Technology</i>)
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Penyelia Bersama <i>Co-Supervisor</i>	1. Name: Pn. Errawati Binti Mahrilar No. Identification card: 730915045026																
Abstrak <i>Abstract</i>	Clay brick with rice husk ash (RHA) have been produced using agriculture waste from paddy field. The RHA is a potential waste as an additive in existing clay brick to improve quality and reduce amount of cement in clay brick mixture. At the same time, can reduce cost and prevent environmental pollution by reducing solid waste from agriculture field. The compressive strength and water absorption test is use to measuring the quality of bricks. As a conclusion, the use of Agro-Tech Clay Brick is a new innovation that's better than existing clay brick.																

Keyword <i>Keyword</i> (max 5 word)	Rice Husk Ash (RHA)																								
Objektif Projek <i>Project Objectives</i>	1) To produce clay brick using rice husk ash (RHA) from agriculture waste as an additive materials. 2) To determine the compressive strength for RHA clay brick.																								
Skop Projek <i>Project scope</i>	1) Main material is rice husk ash (RHA). 2) These scopes are including doing the water absorption test and compressive strength. 3) Used as a material in construction																								
IP No	-																								
Dapatan <i>Finding</i> (500 words max)	From the experimental test that have been conducted, the researchers have determined the water absorption and compressive strength for each percentage. For water absorption, clay with 40% RHA is the highest where the value is 41%. The lowest value is 16% for clay with 10% RHA. For the compressive strength RHA 10% with clay is stronger than the controller where the results is 15.5 N/mm² have reached above the permitted standard. <table border="1"> <caption>Water absorption (%)</caption> <thead> <tr> <th>Type of Brick</th> <th>Water Absorption (%)</th> </tr> </thead> <tbody> <tr> <td>Controller</td> <td>16</td> </tr> <tr> <td>Clay + RHA (10%)</td> <td>24</td> </tr> <tr> <td>Clay + RHA (20%)</td> <td>32</td> </tr> <tr> <td>Clay + RHA (30%)</td> <td>33</td> </tr> <tr> <td>Clay + RHA (40%)</td> <td>41</td> </tr> </tbody> </table> <table border="1"> <caption>Result Of Compressive Strength</caption> <thead> <tr> <th>Type of brick</th> <th>Compressive strength (N/mm²)</th> </tr> </thead> <tbody> <tr> <td>controller</td> <td>14.5</td> </tr> <tr> <td>10%</td> <td>15.5</td> </tr> <tr> <td>20%</td> <td>13</td> </tr> <tr> <td>30%</td> <td>12.5</td> </tr> <tr> <td>40%</td> <td>11.5</td> </tr> </tbody> </table>	Type of Brick	Water Absorption (%)	Controller	16	Clay + RHA (10%)	24	Clay + RHA (20%)	32	Clay + RHA (30%)	33	Clay + RHA (40%)	41	Type of brick	Compressive strength (N/mm ²)	controller	14.5	10%	15.5	20%	13	30%	12.5	40%	11.5
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