

**REDAC FINAL YEAR PROJECT 2007/2008**

| <b>Supervisor: Prof. Dr. Aminuddin Ab. Ghani</b>   |   |
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| <b>STUDENT/TITLE</b>   | <b>TASKS</b>  |
| <b>Muhd Hakim Abdul Rahman</b><br>Kajian Membangunkan Lengkung Kadar Pengangkutan Endapan Menggunakan Perisian FLUVIAL-12                                  | <ul style="list-style-type: none"> <li>• Field Data Collection @ Sg. Juru</li> <li>• River modeling using FLUVIAL-12</li> <li>• Flow rating curve development</li> </ul>  |
| <b>Mohd Husnul Asrul Hussin</b><br>The Efficiency of Detention Pond As A Flood Water Management System   | <ul style="list-style-type: none"> <li>• Field Data Collection</li> <li>• Water Level Measurement</li> </ul>  |
| <b>Norley Nadirah Shaari</b><br>Ciri-ciri Aliran Sistem Saliran Berumput Bio-Ekoligikal  | <ul style="list-style-type: none"> <li>• Field Data Collection</li> <li>• Flow velocity and depth measurements for Swale</li> </ul>   |
| <b>Supervisor: Mr. Zorkeflee Abu Hasan</b>   |   |
| <b>STUDENT/TITLE</b>   | <b>TASKS</b>  |
| <b>Mastura Ahmad</b><br>The Hydrologic Modelling of Bukit Merah Reservoir Catchment Using HEC-HMS & GIS  | <ul style="list-style-type: none"> <li>• Hydrologic data collection</li> <li>• Field data collection and analyses</li> <li>• Establishment of GIS data-based for Bukit Merah Reservoir Catchment</li> <li>• Hydrologic Modelling using HEC-HMS</li> </ul>   |
| <b>Muhammad Ashraf Shah Zainal Abidin Shah</b><br>Simulation of Dam Operation for water Optimization Using HED-ResSim: Case Study of Bukit Merah Reservoir | <ul style="list-style-type: none"> <li>• Establishment of GIS data-based for Bukit Merah Reservoir</li> <li>• Field data collection and analyses</li> <li>• Collate dam operation data and information</li> <li>• Reservoir modelling</li> </ul>            |
| <b>Umi Rahayu Maznan</b><br>Application of AVSWAT2005 for Water Resources Management   | <ul style="list-style-type: none"> <li>• Hydrologic data collection</li> <li>• Establishment of GIS data-based for Bukit Merah Reservoir Catchment</li> <li>• Field data collection and analyses</li> <li>• Watershed Modelling using AVSWAT2005</li> </ul> |

| <b>Supervisor: Dr. Lai Sai Hin</b>  |  |
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| <b>STUDENT/TITLE</b>  | <b>TASKS</b>   |
| <p><b>Su Wei Loon</b><br/>The use of SWAT for hydrologic and water quality modeling</p>                             | <ul style="list-style-type: none"> <li>• to use ArcView in preparation of Theme layers, Grid layer, DEM and database files.</li> <li>• to obtain data (metheorological, landuse etc.) and parameters (soil, Landuse properties, etc.) needed to run SWAT model.</li> <li>• To estimate discharge and water quality from multiple watershed using SWAT model</li> </ul>   |
| <p><b>Liew Tek Jin</b><br/>The use of artificial neural network for flood estimation</p>                            | <ul style="list-style-type: none"> <li>• To learn artificial neural network.</li> <li>• To write a program for discharge estimation of natural rivers under flood conditions.</li> </ul>   |
| <p><b>Pang Chin Chong</b><br/>Comparison of Rainfall-Runoff Relationship between Conventional and MSMA Drainage</p> | <ul style="list-style-type: none"> <li>• To learn about MSMA, rainfall-runoff relationship</li> <li>• To analyze the data from BIOECODS project (consider as MSMA drain).</li> <li>• Assume the MSMA drain as conventional drain and perform simple a simple modelling through mathematic to obtain the rainfall runoff relationships.</li> <li>• To obtained the effectiveness of MSMA drain in reducing the peak hydrograph</li> </ul> |
| <b>Supervisor: Dr. H Md. Azamathulla</b>  |  |
| <b>STUDENT/TITLE</b>  | <b>TASKS</b>   |
| <p><b>Kee Li Choo</b><br/>Genetic Programming to Predict Bridge Pier Scour</p>                                      | <ul style="list-style-type: none"> <li>• Data Collection from literature</li> <li>• To learn artificial neural network.(ANN)</li> <li>• To learn Genetic Programming (GP)</li> <li>• Write Program code for scour predition at Bridges using ANN &amp; GP</li> </ul>   |
| <p><b>Khor Jiang Chai</b><br/>ANN Model for Total bed Material load prediction</p>                                  | <ul style="list-style-type: none"> <li>• Data Collection from literature</li> <li>• To learn artificial neural network. (ANN)</li> <li>• To learn Genetic Programming (GP)</li> <li>• To write a program for bed load predition</li> </ul>   |
| <p><b>Irwan Shamsuddin Yatim Mustafa</b><br/>Genetic Programming to Predict Flip Bucket Spillway Scour</p>          | <ul style="list-style-type: none"> <li>• Data Collection from literature</li> <li>• To learn artificial neural network. (ANN)</li> <li>• To learn Genetic Programming (GP)To write a program for scour predition for flip bucket spillway</li> </ul>   |