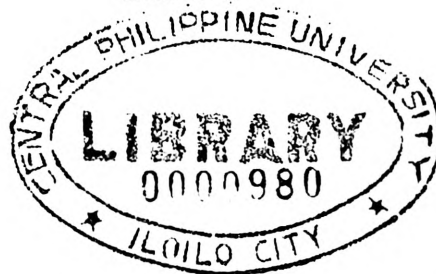


**THE DESIGN AND CONSTRUCTION OF A WASTEWATER PURIFICATION
SYSTEM FOR THE MAIN CAMPUS OF CAPIZ STATE UNIVERSITY
(A PILOT SCALE)**

A Special Paper

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April 2012**

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SYSTEM FOR THE MAIN CAMPUS OF CAPIZ STATE
UNIVERSITY (A PILOT SCALE)**

by

Alberto Paulo Cercado

ABSTRACT

This study was conducted to design and construct a water purifying system that will treat the wastewater produced by the CapSU main campus. Wastewater produced by CapSU was evaluated and the results suggested the need for a water purification system that will treat this wastewater so that it will be safe for reuse (for washing and cleaning only) and for discharge in the Roxas City River.

The wastewater purification system was designed and constructed in a pilot scale which can process a volumetric flow rate of ten gallons of wastewater per hour. The purification process of this system included primary and secondary treatment of wastewater. The primary treatment included screening and filtration, while the secondary treatment included aeration and disinfection.

The design and construction of the water purification system pilot scale was estimated to cost 5000 pesos. If the university decides to adopt the system in the main campus of CapSU, it is estimated to cost 100,000 pesos. If financial issue posts no constraints, it is recommended that the wastewater will undergo a tertiary treatment that would make it potable and safe for drinking.