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**Master of Information Systems**

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**CERTIFICATE OF LAND OWNERSHIP AWARDS INFORMATION SYSTEM  
(CLOA-IS)  
WITH LDIS STATUS PREDICTION TOOL USING DECISION TREE ALGORITHM  
FOR THE DEPARTMENT OF AGRARIAN REFORM  
PROVINCE OF ILOILO**

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## **ABSTRACT**

In every agency in the government, there has always been a need to improve access to the information available intended solely for the public in a more electronic way. With the advancement of information and communications technology in a developing country, like the Philippines, the government should take advantage of upgrading the traditional manual approach with regard to its record-keeping systems. The Department of Agrarian Reform (DAR) <sup>[15]</sup> is the lead government agency that upholds and implements comprehensive and genuine agrarian reform towards the improvement of the quality of life of its beneficiaries. Due to lack of a more automated method from the department's end, doing tasks such as card indexing and encoding to excel files in a client-oriented setup can sometimes be time-consuming and difficult in a sense that employees tend to be unsystematic. To carry out most of the work, the researcher developed the Certificate of Land Ownership Awards Information System (CLOA-IS) with Land Distribution Information Schedule (LDIS) Status Prediction Tool Using Decision Tree Algorithm, a database management system for the use of the DAR – Iloilo Provincial Office. Through the system, retrieval of CLOA <sup>[16]</sup> title's current status, as well as generation of accurate reports, are now attainable. CLOA-IS is needed to subsist the day to day survival of the department and to cut administration costs as it increases mobility and productivity – that is, to accomplish certain tasks, employees from different municipalities are no longer curbed to walls of the Provincial Office because they can access desired information from anywhere. Given that, the system helped reduce the amount of time on unnecessary errands, which makes the department operate more efficiently and improve client communications.

Furthermore, the LDIS Prediction Tool feature has provided the management with an analysis on which of the CLOA Titles registered in the system are ready for LDIS processing by analyzing input data such as the LDIS documentary requirements. LDIS is needed for the agrarian reform beneficiaries to pay their amortization to the Land Bank of the Philippines (LBP) and to claim their CLOA Titles.

Using the System Usability Scale (SUS), expected users categorized as IT Expert and DAR Employee assessed the system. The test provides an *at-a-glance* snapshot of how usable or unusable the system is. After the evaluation, it is noteworthy to highlight that the SUS interpretation for the SUS result of CLOA-IS with LDIS Prediction Tool is Graded "A" with an adjectival rating of "Excellent," Acceptability as "Acceptable" and Net Promoter Score as "Promoter." Thus, this special project concluded that the significant goals attained had enabled faster traceability, minimize inconsistencies, and provide satisfactory services to the clients of DAR-ILOILO as well as to the end-users of the system.