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**INTEGRATION OF LAND RECORDS AND SATELLITE  
DERIVED DATA FOR THE DEVELOPMENT OF MODERN  
CADASTRE IN MALAYSIA**

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## **ABSTRACT**

The concept of Coordinated Cadastral System (CCS) was first introduced in Malaysia on 1996. The conceptual model of CCS was focused on using satellite technology as a tool for improving accuracy of land record data. Survey measurement always contain error in each observation. In order to have geometric constraints in every observation, adjustment is needed especially in cadastral network. Cadastral control station is used to avoid the collective error. GPS technology is found to be useful in providing control for the existing large cadastral network. By improving the existing network with appropriate spacing of GPS stations, better adjustment results are obtained. The objectives of this study are i) to develop a Cadastral Control Infrastructure (CCDB) using GPS technology for both urban and rural areas, and ii) to execute comprehensive analysis of cadastral network adjustment that based on GPS derived data. The development of CCDB is essential in providing cadastral control for cadastral network adjustment. Great lengths of comprehensive analysis of large-scale cadastral network adjustments are presented. Meanwhile, the least square adjustment technique is one of the best methods for the cadastral network adjustment with different accuracy in observation. Beside that, this adjustment method is also the best technique in network adjustment. Cadastral network adjustments are depends on the competency and accuracy of control station. Based on the analyses, its shown that satellite derived data (GPS) has improved the accuracy of the coordinates in the Digital Cadastre Database (DCDB).