

## **ABSTRACT**

In the development of mapping and remote sensing, emerging technologies Geographic Information Systems (GIS). GIS is a tool that makes it easy in terms of reading, processing, and storage of information in the form of spatial data that is geographic. SIG has a variety of benefits in many fields. One of them, GIS can be utilized for health and social fields. One was for the management of health centers. During this clinic information data management still done conventionally, in addition to the information data management personnel, particularly in the central government was not informed about the distribution and the current state of health centers in the area. Therefore we need a system to overcome the above problems by creating a clinic-based management applications of Geographic Information Systems (GIS).

In the manufacture of clinic-based management applications Gegrafis Information System (GIS) is divided into two parts, namely the creation of websites to process data from the clinic and the map to map the distribution of health centers. For the creation of websites based digunakan CodeIgniter PHP framework. As for the map-making is done by some open source software, including WinGRASS GIS, OpenLayers and OpenStreetMap.

Results can be obtained from this study is the realization of an application for managing data centers in the province of West Java with a Geographic Information System (GIS) based on open source.

Key words: Geographical Information Systems, Puskesmas, open source