

# Training and assistance on the use of village administration management system using OpenSID in Sukatani Village

Pelatihan dan pendampingan penggunaan sistem pengelolaan administrasi desa menggunakan OpenSID di Desa Sukatani

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## ABSTRACT

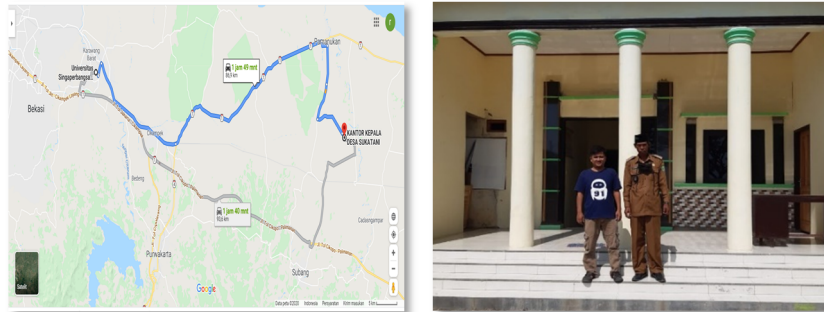
Sukatani Village, Comprang Sub-District, Subang District in carrying out village administration services still uses Microsoft Word in making village correspondence then the letter number is recorded in the village ledger and the Sukatani village population data is still stored in excel form. The problem is that typos often occur, it takes a long time to search for correspondence files and cannot present population data accurately. This problem can be overcome by using a village administration management system that will be used in Sukatani village. The system was developed using the OpenSID framework which is licensed and free to use and developed for village purposes. In order for the village apparatus to easily use the village administration management system, training and assistance is needed. The training and mentoring is carried out by dividing into two groups and each group is accompanied by a trainer so that the training for village officials can run smoothly and well. The result of this service activity is that the village administration management application and village apparatus can use the application well so that the application can be used continuously to improve village administration services to Sukatani villagers.

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## 1. INTRODUCTION

Sukatani Village is part of Comprang District, Subang Regency, West Java Province. To reach the Sukatani Village office from the sub-district, it is about 5 Km or about 15 minutes from Comprang District. The distance between Singaperbangsan University Karawang and the Sukatani Village head office as seen from Google Maps is about 86.9 KM and can be reached in approximately 1 hour 49 minutes by trip (Figure 1). Currently, Sukatani Village is led by a village head named Mr. Abdurrahman with the address of the Sukatani Village office in Sukatani, Comprang, Subang Regency, West Java (Figure 2).



**Figure 1.** Location map of Sukatani Village  
**Figure 2.** Sukatani Village office

Sukatani Village consists of 5 hamlets namely Sukatni Hamlet, Sukanengah 1 Hamlet, Sukanengah Hamlet 2, Bojongsari 1 Hamlet, and Bojongsari 2 Hamlet, 5 RWs namely RW 01, 02, 03, 04 and 05, and 15 RT. Sukatani Village has a population of around 5,453 people with 1,506 family heads consisting of 2,624 male and 2.829 female (Table 1).

**Table 1.** Population data of Sukatani Village

Population data	Total
Male	2,624
Female	2,829
Householder	1,506
Total population	5,453

The problem with Sukatani Village as a partner is that population administration management services are still carried out using Microsoft word, then the recording of incoming and outgoing letter numbers is still carried out in the ledger in Sukatani Village. Village population administration services such as making village certificates, death certificates, and other certificates (Muliati, 2021). The service is still done manually, resulting in village correspondence management data not being stored properly and when needed it is difficult and takes a long time to search for population administration data. (Syukron, 2019). Another problem is that the population data in Sukatani village is only recorded in Microsoft excel so that the data cannot provide easy-to-read population information. At this time the situation is still in a state of the COVID-19 pandemic so that all forms of population administration services for residents of Sukatani Village are served in a limited manner due to restrictions on the number of people who come to the village so that village population administration services are hampered. To overcome the problems mentioned above, we need a population administration management system that can be accessed anywhere and anytime without any distance and time limitations.

At this time, many studies have been carried out related to the population administration system, both in the form of published thesis reports and journals. The village population administration service process is carried out manually, causing the population administration service process to take a long time. To overcome this problem, a web-based population administration information system is needed (Huda et al., 2020; Kesuma & Juniati, 2020; Paryanta et al., 2017). Every file submitted by residents to the registration officer of Tanjung Gagak Village is recorded in the book, this recording often results in errors, namely typos, illegible handwriting, and loss of the agenda book where the registration text is

stored. To overcome this problem, a web-based population administration information system is needed (Basir et al., 2020; Dedi et al., 2019; Wahidin, 2017). Improving the quality of administrative services in the District of Marangkayu Kutaikartanegara requires a computerized system (Wati & Despahari, 2018). RT/RW in providing services to its citizens by providing a form to be filled out by every citizen who needs service in the form of a letter of introduction to the RT and RW. Filling out forms manually has many shortcomings such as writing errors, form data is easy to lose, and it is difficult to search for certain forms when needed. To overcome this, a web-based RT/RW form application system is needed so that services can be effective and efficient (Sugiarta et al., 2019).

Researches and community services have been carried out in order to utilize computer applications that function for village administration governance. The service team conducts training on the use of the application for village officials so that they can use it well (Basir et al., 2020; Arisandy et al, 2018). Service activities is conducted by socialization and training for users of the Administrative Governance Application System (SIPATAS) to increase the effectiveness of village administration governance system services (Zutiasari et al., 2020; Arisandy et al, 2018).

This community service activity aims to provide assistance and training in using the village administration information system in Sukatani Village. The village administration information system was created and integrated with the village profile website to make it easier to manage. The village administration system is made using the OpenSID framework which can be accessed at <https://github.com/OpenSID/OpenSID>. OpenSID is licensed for free and free to use and developed by all villages. OpenSID is now copyrighted by the Open Digital Village Association (<https://opendesa.id>)(Sugiarto, 2016). The stages of implementing this service activity are first to design and adjust the OpenSID framework to suit the needs of Sukatani Village, Compreng District, Subang Regency. Second, create a training module. The third provides a general explanation of the use of the village administration information system. Fourth, provide training and provide assistance. The result of this service activity is that the first village administration information system has been created and can be accessed at <https://sukatani-subang.com/>. In addition, the village apparatus was able to use the village administration information system well.

## 2. METHODS

This community service requires materials and equipment to support the activities. The material and equipment requirements are as shown in Table 2.

**Table 2.** Material and equipment

Material	Equipment
OpenSID	Laptop/computer
Hosting dan domain name	<i>Infocus</i>
	Modules

OpenSID is used as an administrative information system framework that will make adjustments to its appearance and function according to the needs of Sukatani village. After making adjustments, the next step is to create hosting and give a domain name so that the website that has been created can be accessed via the internet. The results of the adjustment of the OpenSID framework can be seen at <https://sukatani-subang.com/> and the OpenSID results are used as training material for village officials.

The service equipment needed is a laptop and that is used by village officials in order to be able to access the website that has been created then *infocus* is used to display computer output so that it can be viewed together. Furthermore, the equipment needed is a training module where this module will be used by village officials so that they can read and practice it. The method of community service activities can be seen in Figure 3.

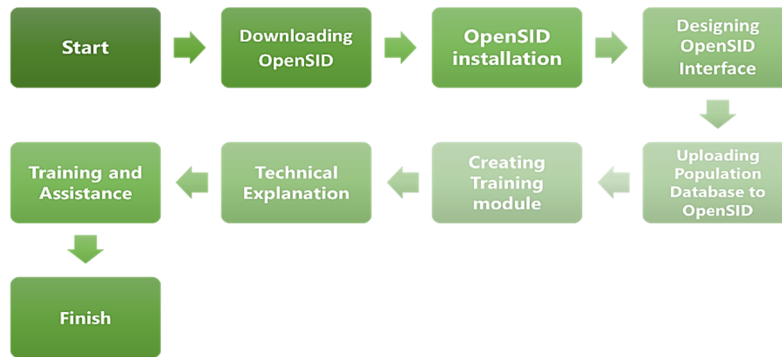


Figure 3. Implementation method

The stages for conducting community service activities are downloading OpenSID, installing OpenSID, designing OpenSID, uploading population data to OpenSID, making modules, providing technical explanations, training, and assistance. The process of implementing community service is divided into two groups, the community service team and village officials as well as the village society. The stages carried out by the team were downloading OpenSID, installing OpenSID, designing OpenSID, uploading population data to OpenSID, and making modules. The stages carried out by village officials and village communities are providing technical explanations, training, and assistance.

### Downloading OpenSID

The first stage in doing community service is getting the OpenSID framework. To get OpenSID the team downloads OpenSID which is available at <https://github.com/OpenSID/OpenSID>. In addition to downloading OpenSID, the supporting software, namely Xampp version v3.3.0, also needs to be downloaded to run OpenSID on a local computer. Xampp software consists of MySQL, Apache, FileZila Mercury, and Tomcat software. There are only two xampp software needed, namely MySQL and Apache software.

### OpenSID Installation

After getting the required software, then install the software. The xampp software must be installed the first time so that during the installation of the OpenSID framework there are no errors. Furthermore, after the Xampp framework OpenSID installation process, the installation process is carried out. After all the required software is complete, the installation process is then carried out to test the software until it runs normally.

### Designing OpenSID Interface

After getting the OpenSID framework, then the OpenSID framework interface design was carried out to suit the needs of the Sukatani Village administrative information system. Interface design is the

layout of information that will be displayed on a web browser so that the information displayed is more organized. The interface design is divided into two, namely the interface design for the admin page and the interface design for the general user page of the Sukatani Village community.

### **Uploading Population Database to OpenSID**

After the interface design stage has been carried out, the next step is to tidy up the population data in Sukatani Village. The population data of Sukatani Village is still in Microsoft Excel form so it needs to be converted into a MySQL database. Population data in MySQL will be used as basic population data to be processed and displayed into information related to correspondence. Furthermore, OpenSID software that is ready to be used will be uploaded to the server so that it is easy to be accessed by village communities via the internet network.

### **Creating a Village Administration Information System Training Module**

After the design phase is complete, the next step is to create a training module. This training module was created to assist village officials in using the installed OpenSID framework. There are two modules, namely the village administration information system admin module and the general public user page module who will use the software. The admin module is made to manage, edit, and store the village administration information system and the user module is made for the process of submitting village community administrative needs.

### **Training and Assistance**

The next step for the service team is to conduct training for village officials so that they can use the OpenSID framework that has been created. Training is carried out during implementation while assistance is carried out after training. The training was conducted for village officials to understand how to use the village administration information system so that they can use it properly and for the general public to be able to use the submission process related to village administration such as village certificates, death certificates, marriage certificates and so on. Assistance is carried out only on village officials who serve as admins so that village officials can use the administrative system.

## **3. RESULTS AND DISCUSSION**

### **Downloading OpenSID**

The result of downloading OpenSID is a village administration information system application software. Figure 4 provides a link to get the OpenSID framework.

### **OpenSID Installation**

The OpenSID installation process can be done by following the guide on the link <https://www.kesambirampak.desa.id/artikel/2020/6/8/panduan-instalasi-opensid-bagi-pemula>. Figure 5 is an interface of the OpenSID framework.

### **Designing OpenSID interface**

The OpenSID installation has been successful, the next step is to design the interface to suit the needs of the village population administration system. The results of the design that have been carried out by the team can be seen in Figure 6 and can be accessed on <https://Sukatani-subang.com/>.

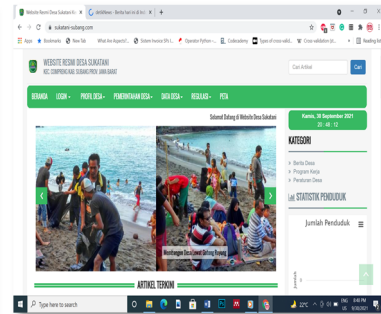
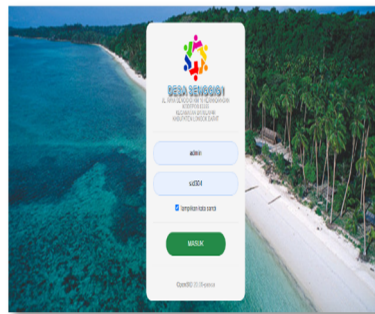
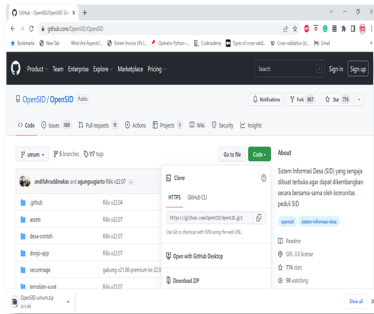


Figure 4. OpenSID download link

Figure 5. OpenSID main page

Figure 6. Sukatani village information system main page

### Uploading Population Database to OpenSID

After completing the interface design according to the needs of the Sukatani village, then the village population data is uploaded to the OpenSID that has been created. Sukatani Village population data is the basis for managing administrative documents and all information related to Sukatani Village.

### Creating a Village Administration Information System Training Module

The next stage is to create a training module on the use of village administration information systems. The modules are arranged according to the functions that exist in the village information system. The module is given to every village official who is present in the implementation of the activity.

### Training and Assistance

Furthermore, the training activity began by providing a general technical explanation of the village administration information system to the participants. This explanation is done so that the training participants can get a general explanation about the use of the application. After a general technical explanation, the participants then conduct training and assistance in using the village administration information system. Participants were divided into two groups and each group was accompanied by a trainer so that the training process could run smoothly. The process of training and mentoring in the use of village information systems can be seen in Figure 7.

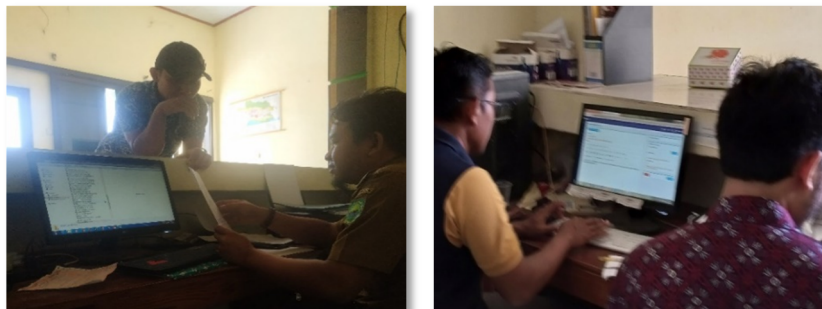


Figure 7. Training and assistance process

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The training and mentoring process is carried out so that village officials can use the village information system, moreover to evaluate the benefits of the village information system. The process of simulating village administration services was carried out before the application (Figure 8) and after using the village administration information system application (Figure 9).



**Figure 8.** Manual village administration service process  
**Figure 9.** Utilizing the village administration information system

Training on the use of village information systems is useful for managing and compiling population administration data and administrative services for residents who need it. Evaluation of the results of the training was carried out by making a questionnaire which was distributed to 20 villagers and the Sukatani Village officials with the questionnaire questions in Table 3.

**Table 3.** The results of the questionnaire on the use of population administration information systems

Question/Evaluation Items	Answers	
	Agree	Disagree
<b>Prior to Training and Assistance</b>		
There has been a population administration information system for Sukatani Village	0	20
Have used the village population administration information system	1	19
The population information system of Sukatani Village is sufficient	4	16
<b>After Training and Assistance</b>		
The Sukatani Village population information system is easy to use	20	0
The user interface of the Sukatani Village population information system is easy to understand	20	0
The village administration information system application makes it easier to manage population administration	20	0

Based on Table 3, there are differences in community responses to the use of population administration information systems. Prior to the training and mentoring, it was shown that in general the people and officials of Sukatani Village did not know and had never used the system. Only 4 people (20%) stated that the existing population information system was sufficient, while the remaining 80% stated that it was insufficient. The results of the evaluation after training and mentoring showed that 100% of the people and apparatus of Sukatani Village stated that the population administration

information system could be used easily and usefully in helping data management. The understanding of the community and village officials about the Population Administration Information System is shown in Table 4.

**Table 4.** Level of understanding of population administration information systems

Question/Evaluation Items	Answer	
	50%-80% Understand	>80% Understand
There has been a population administration information system for Sukatani Village	7	13

In terms of the level of understanding after the training, 20 residents and officials of Suktani village who rated their level of understanding in the range of 50% - 80% as much as 35% and rated their level of understanding in the range of 80% - 100% as much as 65%. This shows that the training process carried out by the implementing team provides an increased understanding of the village administration information system in Sukatani Village.

Good village governance can be created if it is supported by regular and systematic village administration. The development of information technology to improve village government services can provide choices and easy access to information for citizens in order to realize clean and good governance in the village (Putra et al., 2021; Sari & Winarno, 2012). The process of recording data and information regarding the administration of village governance must be supported by an accurate information system, so that an independent and advanced village can be realized (Alam, 2021; Mahyudin et al., 2021). Based on the results of the questionnaire evaluation, it can be concluded that with the village administration information system, population data and information are stored properly and present population information according to the needs of the Sukatani village community. In order for this village administration information system to run sustainably, there needs to be continuous socialization to the village community so that they are accustomed to using the village administration information system.

#### 4. CONCLUSION AND RECOMMENDATIONS

Village administration services in Sukatani Village such as village correspondence services, population data collection was previously carried out using Microsoft word and excel and recorded in the village ledger has several shortcomings including data that is not recorded neatly, data often occurs in errors, data is easily lost, and takes long time to search files. This problem can now be resolved with the village administration information system that has been created by the service team. This administrative information system can assist village officials in improving citizen services quickly and efficiently. In addition, the village administration information system can manage population data and village correspondence administration and all population data is stored in a database making it easier to search and present village population data and information. The results of this service activity are in the form of an application for the Sukatani Village population information system and village apartments can already use the application so that the application can be used sustainably.

The Sukatani village administration system is expected to assist village officials in managing village population administration so that village population administration services can run quickly and efficiently. To maximize the benefits of the Sukatani Village population administration system, it



is necessary to carry out socialization to the Suktani village community in a sustainable manner. With outreach to the community, it is hoped that the people of Sukatani village can know and use the population administration system more familiarly.

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