Determining the Installation Points of Crime Preventive CCTV
– Focus on Anyang City

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1. Introduction

We hope that people who live in the society live their life pleasant and get protected from several of crime in their neighborhood. Currently, according to occurring violent crimes in the city, it has been increased of national desire for assured safety[1][2].

We are trying to create a safe city, and safety administration under each agency and local government including Anyang city which has focused on security activity through the establishment of multi-purpose CCTV. The average annual incidence of crime decreased by 18.5%. However, it has been installed in the requirements of the citizens. Thus, it is very limited because they couldn't figure out installation effects and limited budgets do not identify the problem[3].

In the meantime, it is very necessary to design systematic budget and offer personalized services in order to supplement the incomplete part and select systematically safety weak points by installing crime preventive CCTV efficiently and operating it.

The purpose of this study is how to select organized crime preventive CCTV installation point will be suggested. It is installed using a limited budget which you can enhance the effect and reactive crime developed prevention methods

2. Method

While crime map can be able to indentify in spatially crime-prone areas, crime related policing, crime prevention and social services, and decision-making for the minimal number of installing to cover effectively CCTV security monitoring area as a base material.

In order to increase the effect of installing crime preventive CCTV, analysis of urban spatial structure characteristics, spatial analysis of socio-economic indicators, based crime installing statues analysis of installed facilities, validity of the analysis of crime preventive CCTV installed point through selection of the CCTV points it can be able to maximize budget designed and crime preventive CCTV operating.

In this study, it was set as shown in the follow figure the appropriate installation point, CCTV security selection process.
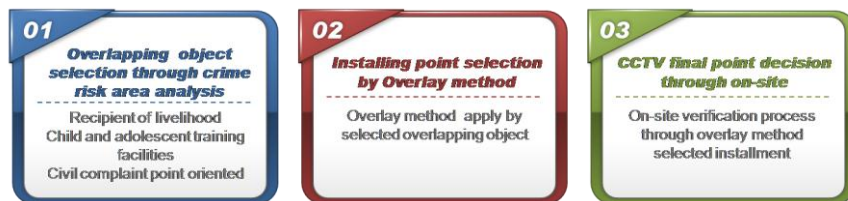

Figure 1. Process of determining crime preventive CCTV location

In this study, it was applied to CCTV surveillance installation point selection and the analysis process was conducted as follows: First, through the analysis of the risk areas in Anyang, it was grouped of the installation point that vulnerable to crime and crime prevention facilities expected point. Second, using selected 7 factors by overlay analysis, it selected expected CCTV installation point; the 7 factors are child and adolescent training facility, second-class citizen, recipient of livelihood, top 5 crime occurring point, CCTV installation statues, CCTV civil complaint, street lights and security light location etc. Last, though selected points on the estimated field research was to determine the final point.

3. Results

The results of selection of overlapping object though analysis of crime risk area in Anyang, it was selected recipient of livelihood, child and adolescent training facilities, CCTV civil complaint points. And using overlay

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method, expecting installment area could be selected by already selected overlapping objects, total 241 points were selected, Dongangu129 points and Manangu 112 points. Lastly, through on-site verification of selected results CCTV final installation point has been selected a total of 143 points, the distribution is the below figures. Through on-site verification it was decreased Dongangu from 129 to 62, Managu from 112 to 81 points.
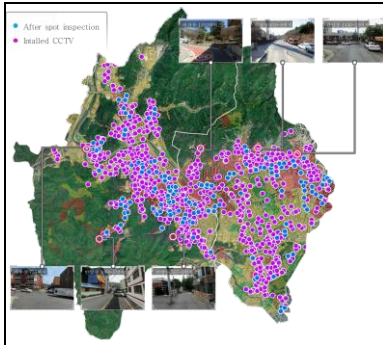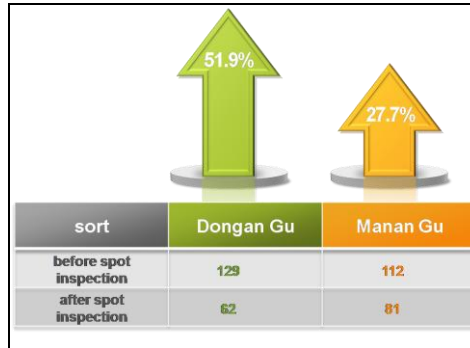

Figure 2. CCTV installation points

Figure 3. Comparison of CCTV installation points

4. Discussion

Government departments and local governments have a clear effect on the crime preventive CCTV installing or plan to establish it. This study has been researched the way of CCTV installing selection point with limited budget design. According to research, it showed that the point has been approximately 40.7% decreased from 241 to 143. Therefore, if they use quantitative research method of this research for future CCTV installing area, it can be helped CCTV overlapping investment and selecting systematical coverage area.

5. Acknowledgement

6. References

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