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CIVIC COMPLAINT REPORTING USING IMAGE PROCESSING

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Abstract : In our daily life, common citizens are facing an issue related to public complaint. For reporting a public complaint, it will take long time for procedures. The problem reporting is not an easy process for normal people. The people have to report problems like Electricity problem, Water problem, Garbage management problem, Street damages etc. will follow a long formalities and procedures. When we report a problem related to public, there is no guarantee that the problem should resolve by the concerned department authority within a reasonable amount of time. In today's lifestyle, people are very busy with their own works and they have no time to report such type of problems. People are not taking initiative to register civic complaints, because most of the complaints are unanswered and unresolved. Because of these issues, we develop an easy complaint reporting system using machine learning and image processing. It will help the citizen to report their public problems through an online web portal. Any common man can register their complaints and problems to the municipal authority. Using this web portal, citizens can discuss, share their ideas and also give suggestions for the problems. We can also view the posts of other people. "CIVIC COMPLAINT REPORTING SYSTEM" will also help the people to upload the photo along with the complaint. This complaint once registered, will be directly go to specific departments of corporation. Once the complaint is displayed, the officers can take the necessary actions immediately as possible.

Key words- Public complaint, Citizen, Municipal authority.

I. INTRODUCTION

The objective of the "CIVIC COMPLAINT REPORTING SYSTEM" is that, to take initiative to raise their own voice against civic complaints, which they face into their day-to-day life. It is a platform for people to report their problems, share ideas and suggestions, and it is also helpful for collecting feedback from citizens about the improvement and progress of our city through the different posts or images posted by citizens. The main advantage of the system is that, to solve the problem within the limited time, effort, and it also produces a high quality complaint system. It is a flexible communication platform for people to interact with each other, share their ideas, give suggestions, to make some discussions with municipal authorities. To develop the system, we

use machine learning and image processing. Today we don't have a direct communication platform between the government authority and public people efficiently for solving the civic issues. Now we use the more efficient way for solving the problems, using some online systems. The complaint system will provide a direct communication platform for citizens and higher authority. Online systems are very faster and used for our satisfaction. This system is using the hierarchy of different levels of authority like user level, department authorities and finally the higher level of authority. These levels will provide more effective communication and keep track on each and every work related to public issues posted by citizens.

II. LITERATURE SURVEY

- **Two Tier Citizen Sensing.**

It is a robust paradigm involving civics they're collectively participating in information gathering process. The spreading of the mobile devices has taken citizen sensing to unprecedented levels of adoption, as someone with a phone can easily participate. Now a day's most of the people are familiar with smart-phones. Citizens use different applications easily.

- **An Evangelic Authorization Solution for Smart City Mobile.**

The growth of smart cities also depends on the increasing use of new technologies like mobile apps. Mobile applications are attempt to access resources like public data of the people and government authority. These are available by the government authorities to the use of Application Programming Interfaces. The increasing awareness of the turn of using Application Programming Interfaces makes more suitable and personalized delivery of services. The new wave of innovation contributes more automated city functioning.

- **Tools for Online Contributions by Older people.**

In this paper, we make an online web portal, it is very easy to use for common peoples. The system is the contribution from older adult's peoples. The main purpose is that, to reduce the social isolation for citizens. Here there is less interaction from older adults.

- **Creating a Mobile Application for a Non-profit Agency.**

Today most of the people are familiar with smart-phones and some other mobile applications. People have smart-phones and phones have computational capabilities of computing. With the growing population under this information, individual people have access many more data. Using mobile applications we can easily spread ideas and as anyone can reach anybody else over the internet. People can interact with each other, if they are in the other side of the globe. It is the power of the latest technology.

- **Social Welfare and Over-Aged Care System in the World.**

In this paper we represent social welfare system, and it issues in different countries. And it is also discussing how to solve public problems by using public complaint technologies. The latest available technologies are used in the system, and it is also good for common people.

- **Citizen Emotion Analysis.**

The main objective of the system is that to present a user-friendly smart system application. The emotions of the citizens are found and solved. To improve the quality of the technologies that are used in the city people and their lifestyles are interacting with each other.

- **Civic Complaint Application under Smart City.**

Reporting the public complaints is not an easy process for the public people. The complaining process will take more procedures and formalities. The common problems like street damages, water problems, garbage management problems, light post damages etc. are resolved within the specific date and time. In short, every problem's that comes under the surveillance of municipal authority will be resolved. In some times most of

the complaints are unanswered and unheard. Such types of problems are unresolved. There is still no guarantee that, the reported problem is resolved within the date and time.

- **Social Media Based Application Organizing in Daily Events.**

The software developers make the applications by using the existing resources and also reuse the resources using mobile platforms. It will modify the way of software development that are developed and accessed. The main advantage of the social media based applications is very easy to use for the common people. The developed system makes the people are up-to-date in to their daily events. The developed system is the integration of different social media platforms. That will make the system as more interactive and user-friendly.

- **Social Interactions and Common Life Points.**

In this paper we develop a system, that is more interactive, and it is aims to understand the different behaviors of people. It will also help to interact with each other and interact with higher authority. Using this interaction make a bond between different people. The system development technology aims to reduce social isolation for people with less chance to interact.

- **An Internet Based Information System for Farmers.**

In this system offers a low cost and useful information system for farmers in a very timely manner. It is useful for the farmers for assist their decision-making process. The reason for the development of the system is to provide automation for the farmers in their agriculture. The agriculture is that the backbone of our world.

III. PROPOSED SYSTEM

In this system, we focus on a flexible communication between public people and municipal authority. Here we can also communicate with citizen to citizen and they can share their ideas and suggestions. The "CIVIC COMPLAINT REPORTING SYSTEM" providing a flexible communication, because each and every person can raise their voice against various public issues that are under the specific municipal authority. Using this complaint system, the problems are resolved within the date and time. Firstly, people wants to complaint regarding any civic issue, then that person has to login to their account and then they can register the complaint .If a particular person is new in the system, and then that person has to register first with some personal details. After registration the person can login to the web portal by Aadhar card number. The Aadhar card number gives a unique identification and password. After that, any citizen can posts complaints regarding any civic issue, then that complaint goes to the particular department authority. That categorization of complaints by particular department authority is done by using the machine learning and image processing. Here we use the SVM algorithm. The higher authority of that particular department can view all complaints. When a person register an issue, at the same time the system will automatically generate a date and time. That date is considered as a dead line date for the problem resolving. The date is nothing but, the difference of ten days from date of registering issue. Here we also provide a facility to vote to the complaint, and we check the highest priority complaint. The highest priority complaint will be resolved first and the complaint's which has the lowest priority will be resolved, but it will take some more time. The main advantage of the system is that, in case the issue is not resolved within the time and date given by the citizen and the higher authority of a particular department, that complaint will directly go to the higher authority and also the complaint will be displayed publically. The further action will be taken by the higher authority. Using this system, the major and minor issues are resolved within the given date and time.

i. ADVANTAGES OF PROPOSED SYSTEM

1) "CIVIC COMPLAINT REPORTING SYSTEM" will help the people to register the complaint within the limited time.
2) System is user friendly and cost effective for citizens.
3) It will provide an easier and flexible user interface for the citizens. Each and every person can register the complaints.
4) It will reduce the effort and time for registering the complaint.
5) Location of the citizen, that who register the complaint will be tracked with the help of GPS system.
6) A remainder for the system will be helpful for finding the pending complaints. Because of that each and every problems can be resolved within the date and time.

ii. ALGORITHM

Step1: Start.
Step2: If a citizen is a new one, then register in the system (using Aadhar card number. That is unique identification for citizen).
Step3: Otherwise citizen can login (Using Aadhar card number and password).
Step4: Citizen can register the complaint.
Step5: System will generate a date and time (i.e. Deadline).
Step6: The problem is not resolved within the dead line, complaint will be displayed publically and it will go directly to the higher authority.
Step7: To check the number of votes for the complaint.
Step8: The problems with highest votes are resolved first and then, the lowest vote problems are resolved.
Step9: Registered complaints are checked.
Step10: Track the location of the citizen using the GPS.
Step11: Successfully problem is resolved.
Step12: Stop.

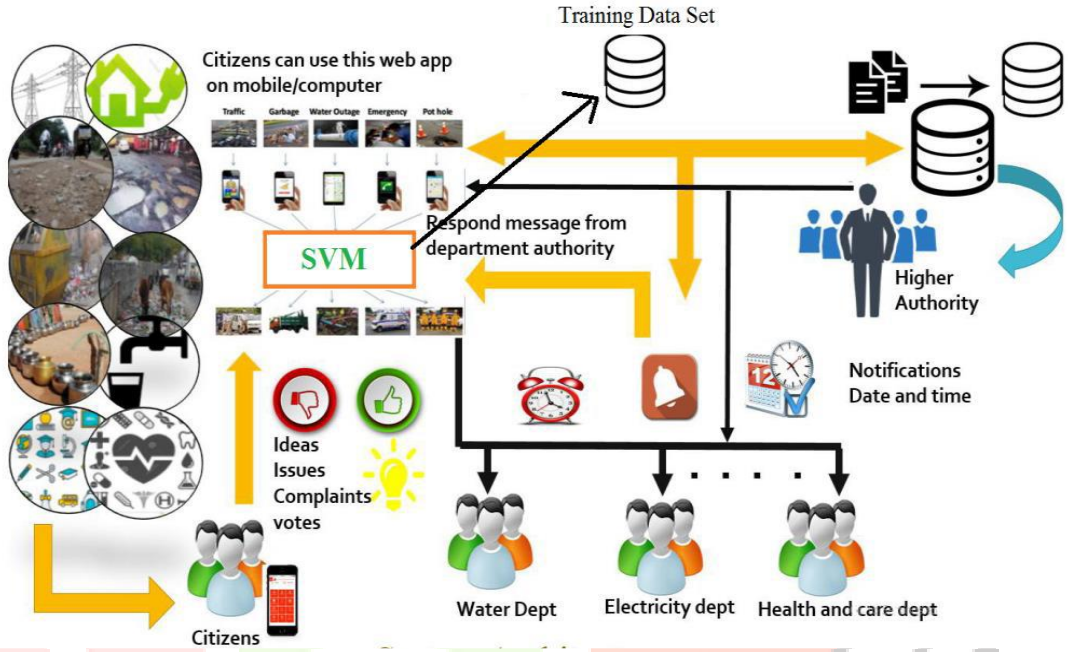
IV. SYSTEM ARCHITECTURE

The proposed system providing an efficient communication between citizen to citizen and citizen to municipal authority. Using this system, each and every person can raise their voice against any type of civic issues. With in the limited time, the reported problems are resolved. People can easy to register their complaints. The complaints are resolved within the date and time.

Firstly, if people want to complaint any civic issue, then that person has to log-in to their account. If the person is new in the system, then they have to register first. The registration requires some personal details like Aadhar card number and password. These are used for the unique identification for the citizen. After registration, citizen can log-in to their account and simply register their complaints. Then that complaint will go to the particular department. That is done by using the SVM algorithm. Here we use the machine learning and Image processing. When person register the complaint, at the same time system will generate a date and time. That date and time will consider as a deadline for the

problem resolving. The date and time is nothing but the difference of ten or fifteen days from the date of registering complaint. The system will automatically generate the deadline.

When the complaint was registered, citizens have an opportunity to vote for the complaint. From the voting system, the authority will be find out the highest priority problem. The highest priority problem is resolved first and after that the lowest priority problem is resolved. The lowest priority problem will take some more time to resolve. In some situations, the issues are not resolved within the deadline given by the citizen, then such complaints will be displayed publically, and it is also gone automatically to the higher authority and further actions are taken by the higher authority. Using the system, the major or minor problems are resolved within the date and time. It is not a time-consuming process.



V. CONCLUSION

We proposed and introduced an online web portal for citizens to register their public complaints they are facing in their day-to-day life and that can be solved by municipal corporations. Using this system, citizens can uploading the pictures of suspected place in very simple way and that use GPS for tracking the location of that suspected place and the person who raise the complaint into respective municipal authority. The system also provides the facility to update the status of the complaint, it is helpful for find out the complaint is solved or not. The proposed system is user-friendly and which can be utilized by the user to perform desired operations. The main advantages of the "CIVIC COMPLAINT REPORTING SYSTEM" is that improved productivity, optimum utilization of resources, instant access of public view, efficient management of complaints and simplification of the duty's. The system is user-friendly, portable and flexible to use.

Thus, we can conclude that, the public complaint reporting problem that are facing in day to day life are very complex and time-consuming process. Because of that no one are raising their voice against the public complaints. Then we develop an online web portal using machine learning and image processing. Using this application, citizens can easily register their complaints and that complaints are resolved within the date and time. So, the web portal is very flexible for resolving civic issues. It will also provide the flexible communication between citizen to citizen and citizen to the respective authority.

VI. REFERENCES

[1] Manisha Adhude, Faizan Sayyed, Wassyatullah Sayed, ”PUBLIC COMPLAINT SORTING USING IMAGE PROCESSING”, Journal Of Analysis And Computation(JAC),Volume XII, Issue I, January 2019.

[2] Pooja Otari, Rohan Pagdal, Nilesh Pansare and Rathod Pranita, ”MUNICIPAL CORPORATION COMPLAINT SYSTEM”, International Engineering Research Journal(IERJ),Volume 3, Issue 3, 2020.

[3] Osman Nasr, Enayat Alkhider,”ONLINE COMPLAINT MANAGEMENT SYSTEM”, International Journal of Innovative Science (IJISET), Engineering and Technology, Volume 2, Issue 6, January 2015.

[4] Devika Radhakrishnan, Nisarg Gandhewar, Ruchita Narnaware, Prayas Pagade, Arpan Tiwari And Pooja Vijaywargi, ”SMART COMPLAINT MANAGEMENT SYATEM”, International Journal Of Trend In Research And Development, Volume 3(6), 2016.

[5] S.V.S Prasad, Dr.T.Satya Savitri, Dr.I.V Murali Krishna, ”CLASSIFICATION OF MULTISPECTRAL SATELLITE IMAGES USING CLUSTERING WITH SVM CLASSIFIER”, International Journal Of Computer Applications, Volume 35, December 2011.

[6] Milos Kovabeviu, Branislav Trivia, Radmila Pavloviu, ”GEOLOGICAL UNITS CLASSIFICATION OF MULTISPECTRAL IMAGES BY USING SUPPORT VECTOR MACHINES” ,International Conference On Intelligent Networking And Collaborative Systems,2009.

[7] Bing Liu, ”SENTIMENT ANALYSIS AND SUBJECTIVITY”, To Appear in Handbook Of Natural Language Processing, Second Edition, 2010.

[8] Ritesh Patil, Sagar Beldare, Satish Kumar Prasad, Prof.Anita Shinde,”CIVIC COMPLAINT APPLICATION UNDER SMART CITY PROJECT”, International Journal of Computer Science and Information Technologies (IJCSIT), 2016.

[9] Vlber Csar Cavalcanti Roza, Octavian Adrian Postolache, ”CITIZEN EMOTION ANALYSIS IN SMART CITY”, 7th International Conference On Information, Intelligence, Systems amp, Applications(IISA),2016.

[10] F. Ibarra, O. Korovina, M. Baez, M.March-ese, F.Casati, G.Barysheva, L.Cernuzzi, “TOOLS ENABLING ONLINE CONTRIBUTIONS BY OLDER ADULTS”, Internet Computing, vol. PP, 2016.

[11] C.J. Burges,”A TUTORIAL ON SUPPORT VECTOR MACHINES FOR PATTERN RECOGNITION”, In Data Mining and Good Knowledge Discovery, U. Fayyad, E.D. Kluwer Academic, 1998.