



Vehicle Information Website by Implementation of NFC

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ABSTRACT: In this modern and fast world people are unable to carry the required documents in physical format to show to the respective persons who asks for it so we have created a website to store the documents there, for now we are implementing this on the vehicle information system where people should carry their required documents with them although we have an alternative to carry a soft copy in apps like digital locker the user must spend time to show the document and if there is no internet connection soft copy can't be shown to the police so we have implemented a NFC (near field communication) tag in the vehicle of the user which is written with a specific URL for the specific user. This makes this easy by just reading (tapping) the NFC tag implemented in the vehicle and the police will get the vehicle details and the user details immediately. This makes this process easy and we have login and password for the police so that not everyone can see the vehicle information and this information can be edited by the user using user login and password. This method will save time and will make this process easier for both user and police.

KEYWORDS: vehicle information website, NFC tag/card, NFC receiver

I- INTRODUCTION

We are developing a website to store vehicle information using login id for each user to access their documents which is implemented using NFC (near field communication), which helps the user not to carry all the required documents for driving the vehicle only when the given card or the tag which is attached to the vehicle. While reading the given card or tag the website where we stored our documents will open after we enter our login pin. This will be helpful for the users who are using a basic mobile phone or a user who does not have active mobile data and for the user who forgets to carry the card the tag which is attached in the vehicle will be able to show the required documents. This NFC tag can be attached while the manufacturing of a vehicle so that the vehicle is delivered with the user's information in the NFC tags which makes the police more easy to access their documents. This method will save a lot of time and no user can say that they don't have the required document, they can take their vehicle and it will show the documents to the required person. This can be implemented in many other sectors in the future.

II- METHOD

In this we are using 2 methods in which one is using card and another is using tags both having NFC. The cards are handed over to the user and the NFC tags are attached in the user's vehicles. Police can scan the NFC and access the user's data by giving their user id and password so that not everyone can access the data. For the modification of the data the users are provided with login id and password to edit their information. The process is simple just to tap (read) the NFC tag to get the user info and the vehicle info.

a. Procedure

In this project we start with the creation of the website which is connected to a database where user data's are stored and secured. This can be accessed by the user to edit and update their documents but this will be updated and will be received while you purchase a vehicle. This makes the user not to worry about the documents to be carried with them. The other website has the login and password of the police officer where this can access the detail of the required vehicle information with user information within a tap in the NFC tag. For example if there is a vehicle parked in the no parking or if the police needs to know the info of the user of the vehicle he can go near the vehicle and get the user details and contact the user there will be no use to call the control centre and ask for the user details. We use the govt API to make sure the given information is correct so that the user can't show a fake document.

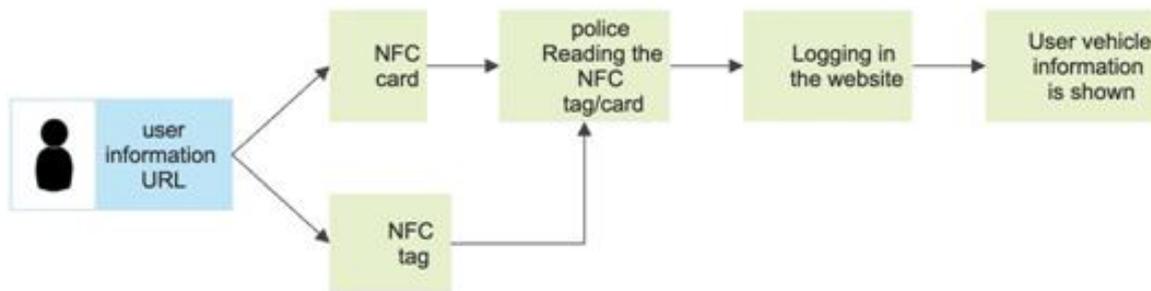


Figure 1: Vehicle Information using NFC Workflow Diagram

b. Problem Statement

- 1 People forgetting their required documents to show when it is asked by the required police.
- 2 Client(user) needs active mobile data connection for showing their documents as a soft copy in digital locker to the police.
- 3 Waste of time for showing the document and the required details.
- 4 loss of documents

c. Overcome

We overcome the problems like the user forgetting the required documents to carry while driving, In this police can access the user info without having the users presence. For example if car I sparked in the no parking area and the police needs to know the user details they need to wait for the user or the police ceases the car, To avoid this our website shows the data of the user which is use ful for both police and user, We over come ama in problem where in this project the user is unable to say that he/she is not having the required document.

d. Advantage

The advantage of our project is making the users not to worry about the documents that to be carried while driving and for the police we make it easier to find the vehicle user data using our website.

III- PROCESS

The user’s vehicles are implemented with the tag where each user is given a unique URL to their respected vehicle when the police needs to see the user data he/she can just tap the NFC tag with the receiver which opens an webpage created by us with the user data’s which can be accessed with the login id and password for respective police officer and to edit the data each user can login with their respective login id and password to edit and save them.

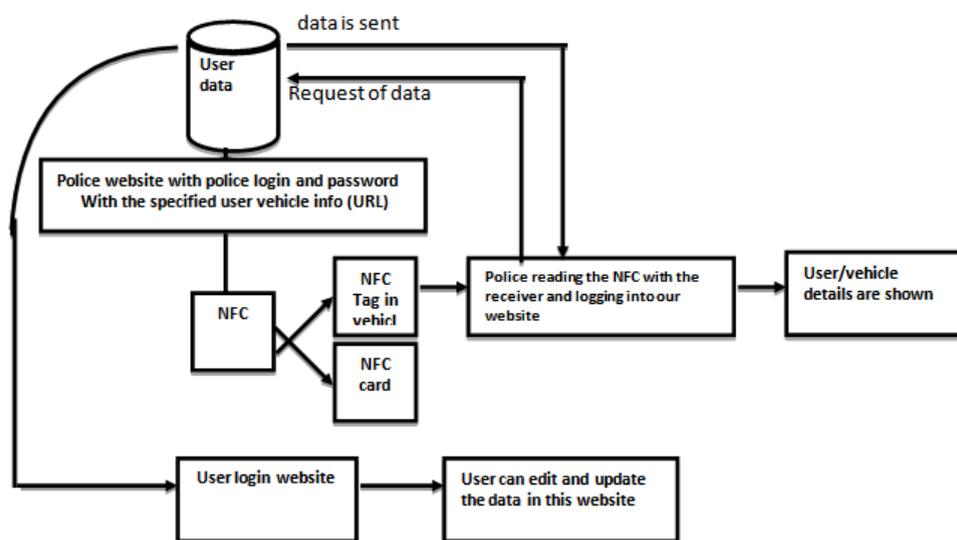


Figure 2: Vehicle Information using NFC Implémentation method

VI- CONCLUSION

NFC is a useful technology that has vast innovative potential. While the exact working so NFC can seem complicated, the basic premise of instant and passive information sharing allows for a great deal of applications of the technology. In Today’s fast paced world, simply tapping a tag / card against a receiver to view required documents seems like a great way to improve time management and efficiency.

REFERENCES

- [1] Geotab's RFID solution, <http://www.geotab.com/blog/using-rfid-with-telematics-technology/>.
- [2] Working of NFC Tags, <http://www.androidauthority.com/nfc-tags-271872/>.
- [3] Hussien Ahmad Al-Ofeishat: Near Field Communication, 2012.

- [4] Api to find the document is correct or not: <https://apisetu.gov.in/api/transport>
- [5] To know about NFC: <https://electronics.howstuffworks.com/nfc-tag.htm>
- [6] Near Field Communication (NFC): From Theory to Practice Book by Busra Ozdenizci, Kerem Ok, and Vedat Coskun
- [7] M. Sumithra and Dr. S. Malathi, "Modified Global Flower Pollination Algorithm-based image fusion for medical diagnosis using computed tomography and magnetic resonance imaging", International Journal of Imaging Systems and Technology, Vol. 31, Issue No.1, pp. 223-235, 2021
- [8] B. Buvanswari and T. Kalpalatha Reddy, "A Review of EEG Based Human Facial Expression Recognition Systems in Cognitive Sciences" International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS), CFP17M55-PRJ:978-1-5386-1886-8, August 2017.
- [9] M. Sumithra and Dr. S. Malathi, "3D DenseNet Model with Back Propagation for Brain Tumor Segmentation", International Journal of Current Research and Review, Vol. 13, Issue 12, 2021.
- [10] K. Sridharan, and Dr. M. Chitra "SBPE: A paradigm Approach for proficient Information Retrieval, Jokull Journal", Vol 63, No. 7; Jul 2013
- [11] M. Sumithra and Dr. S. Malathi, "Segmentation Of Different Modalities Using Fuzzy K-Means And Wavelet ROI", International Journal Of Scientific & Technology Research, Vol. 8, Issue 11, pp. 996-1002, November 2019.
- [12] B. Buvaneswari and Dr. T. Kalpalatha Reddy, "EEG signal classification using soft computing techniques for brain disease diagnosis", Journal of International Pharmaceutical Research, ISSN : 1674-0440, Vol. 46, No. 1, Pp. 525-528, 2019.
- [13] M. Sumithra and S. Malathi, "A Survey of Brain Tumor Segmentation Methods with Different Image Modalities", International Journal of Computer Science Trends and Technology (IJCT) – Vol. 5 Issue 2, Mar – Apr 2017
- [14] B. Buvaneswari and Dr. T. Kalpalatha Reddy, "High Performance Hybrid Cognitive Framework for Bio-Facial Signal Fusion Processing for the Disease Diagnosis", Measurement, ISSN: 0263-2241, Vol. 140, Pp. 89-99, 2019.
- [15] M. Sumithra and Dr. S. Malathi, "A Brief Survey on Multi Modalities Fusion", Lecture Notes on Data Engineering and Communications Technologies, Springer, 35, pp. 1031-1041, 2020.
- [16] K. Sridharan, and Dr. M. Chitra "Web Based Agent And Assertion Passive Grading For Information Retrieval", ARPN Journal of Engineering and Applied Sciences, VOL. 10, NO. 16, September 2015 pp:7043-7048
- [17] M. Sumithra and S. Malathi, "A survey on Medical Image Segmentation Methods with Different Modalities", International Journal of Engineering Research and Technology (IJERT) – Vol. 6 Issue 2, Mar 2018.
- [18] B. Buvaneswari and Dr. T. Kalpalatha Reddy, "ELSA- A Novel Technique to Predict Parkinson's Disease in Bio-Facial", International Journal of Advanced Trends in Computer Science and Engineering, ISSN 2278-3091, Vol. 8, No. 1, Pp. 12-17, 2019
- [19] K. Sridharan, and Dr. M. Chitra, Proficient Information Retrieval Using Trust Based Search On Expert And Knowledge Users Query Formulation System, Australian Journal of Basic and Applied Sciences, 9(23) July 2015, Pages: 755-765.
- [20] B. Buvaneswari and Dr. T. Kalpalatha Reddy, "ACPT- An Intelligent Methodology for Disease Diagnosis", Journal of Advanced Research in Dynamical and Control Systems, ISSN : 0974-5572, Vol. 11, No. 4, Pp. 2187-2194, 2019.
- [21] Sumithra, M., Shruthi, S., Ram, S., Swathi, S., Deepika, T., "MRI image classification of brain tumor using deep neural network and deployment using web framework", Advances in Parallel Computing, 2021, 38, pp. 614-617.
- [22] K. Sridharan, and Dr. M. Chitra "RSSE: A Paradigm for Proficient Information Retrieval using Semantic Web", Life Science Journal 2013; 10(7s), pp: 418-425

