

(Appeared by ARTE, Accredited by National Broad of Accorditation and NAW, Affiliated in Anna University) NH 544, Avinavhi Road, Kanivut, Coimbatore 641 659, Ph. 8421 2911288, 2918188 I mail : info a park ac, in Web : www.pret ac in

# List of Students Undertaking Project work/field work/internship for academic

B.E. - COMPUTER SCIENCE AND ENGINEERING year 2021-22 FIELD PROJ MINI STUDENT NAME | REG.NO YE WORK NSHIP PROJ S.N WOR AR 0 K IV 712218104001 ABISHEK.A.V V IV 712218104003 ANTONY ROBERT.A 2 712218104006 IV 3 CHIDANAND.M 712218104007 IV DHARANI.R IV 712218104008 5 GOWRLS IV 712218104009 6 **GOWTHAMI.N** V 712218104010 IV **GURUMOORTHI.S** IV 712218104011 HARI HARA S SUDHAN.P 712218104012 TV 1 HEMALATHA.P IV 712218104013 10 KARTHIK.R 1 IV 712218104014 11 KARUNYASRI.L.N 5 712218104015 12 KEERTHIKA.S IV V 712218104016 LAVANYA 13 LAKSHMI.S.K IV 712218104017 14 MUGESH.K IV 712218104019 15 NALLAMUTHU.S TV 712218104020 16 NANDHAKUMAR.A 712218104021 IV  $\sqrt{}$ 17 NARMATHA.A IV 712218104022 18 NAVEEN.V 712218104023 IV 19 NAVEEN.V IV 712218104024 20 NICHA GANDHIV.P 712218104029 SARATHKUMAR.S 21 IV 712218104030 V SATHYA 22 PRAKASH.N 712218104031 IV V 23 SATHYAPRIYA.T IV 712218104033 24 SHALENE.N IV 712218104034 V 25 SHALINI.S IV 712218104035  $\checkmark$ SHREE POOJA 26 SHEN.S IV 712218104036 27 SNEKA.J IV 712218104037 SRIRAJARAJESHW 28 ARLV IV 712218104038 THIRUNAVUKKAR 29 ASU.T IV 712218104039

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712218104040



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33	VELLIV CORTIO	712219104003	111		1		 	-
34	ANANDA RAJ.K	712219104004	111		u	-	 	-
35	ANANTHA KUMAR.S	712219104005	III		1			
36	BALAGANESH.A	712219104006	111		1		 	-
37	BRINTHA.R	712219104007	Ш		V		 	-
38	GANESAN.K	712219104009	III		~			$\dashv$
39	HARISH KUMAR.M	712219104011	ш		1			_
40	JAYAPRAKASH.K	712219104012	m		1			-+
41	KRISHNARAJ.R	712219104013	Ш		1		 	
42	LAKSHANAA PRIYA.V	712219104014	m		1			
43	MAHADEVAN.M	712219104015	m		1		 	
44	NAGENDRA PRASANTH.A	712219104017	Ш		1			
45	NAVEEN.K	712219104018	п	3	1		 	
46	RAJALAKSHMI.P	712219104019	III		1			
47	SAI VIGNESH.S	71221910402	o III		1			
48	SANKAR SACHIN.P	71221910402	1 M		/	_		*
49	SHARMITHA.U	71221910402	2 111		1			
50	SIVA BALAJI P	71221910402	4 III					
51	SIVABALAN V	71221910402	25 III	31	V	1		
52	SRIRAM K	71221910403	26 III					
53	TAMILARASAN K	7122191040	27 III		<b>V</b>	1		
54	VALLARASU R	7122191040	28 III		~	1		
55	VENKATACHALA PATHI A	7122191040	29 111		~	1		
56	VISHNU P.K	7122191040	30 II	I	~	(		-
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## AY(2021-22) BATCH 2018-22 CS8811-PROJECT WORK

Batch No	Name	Title of project	Guide
1.	Abishek A. V	Ballot Chain for	Ms. A. Vanishree
1.	Chidanand M	Secure and	
	Karunya Sri L.N	Transparent E-	
	Narmatha A	Voting Mechanism	
		Using AI and	
		Block Chain	
		Technology	
2	Gowthami N	Heart Disease	Mr.G.Prabanchan
_	Hemalatha P	Prediction Using	
	SathyaPriya T	Machine Learning	
	Shalini S		
3	Nandha Kumar A	Privacy Preserving	Mr.G.Prabanchan
	Naveen V	of cloud data using	
4	Shalene N	Fingerprint	
	Shree Pooja Shen S	W.15	
4	Dharani R	Integrity Resilient	Mr.G.Prabanchan
	Nicha Gandhi V	Auditing For	
	Sathya Prakash	secure cloud	
	Vigneshwaran R	Storage	
5	Hari Hara Sudhan P	Android Aided	Dr.P.Vivekanandan
	Karthik R	Emergency	
	Lavanya Lakshmi S.K	Service System	
	Sneka J	100	
6	Gurumoorthi S	Automatic	Ms. A. Vanishree
	Mugesh K	Garbage Detection	
8	SriRaja Rajeswari V	System Using	
	Thirunavukkarasu T	DeepLearning	14 CD 1 1
7	Gowri S	Data Protection	Mr.G.Prabanchan
	Keerthika S	using Geo –Fence	
	SarathKumar S	Technology	
8	Anthony Robert A	Android	Dr.P.Vivekanandan
	Nallamuthu S	Application for	
	Naveen V	Women Security	KSHMANAN,ME., Ph
	Engil Cerakumar P	Dr.D.LA	PRINCIPAL PRINCIPAL & Technology

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CS8611 - MINI PROJECT					
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1	Ananthakumar S	Vehicle Detection	Ms.A.Vanishree		
_	Ganesan K	Tracking and			
	KrishnaRaj R	Counting			
	Sharmitha U				
2	Anandaraj K	Bitcoin Price	Ms.A.Vanishree		
_	Harishkumar M	Prediction Using			
	Jayaprakash K	LSTM			
	Sivabalan V				
3	BalaGanesh A	Heart Disease	Ms.A.Vanishree		
	Lakshanaa Priya V.N	Prediction Using			
	Rajalakshmi P	Supervised			
	Sriram K	Learning			
	Yogesh M	Algorithms			
4	MahaDevan M	Face Recognition	Mr.G.Prabanchan		
	NagendraPrasanth A	Attendance System			
	Tamilarasan K	Using OpenCV			
	Sankar Sachin P				
5	Abitha B	Smart Chatbot	Mr.G.Prabanchan		
	Brintha R	Assistant for			
	Sivabalaji P	College			
	Vallarasu R				
8	Venkatachalapathi A				
6	Alfha Colt G				
,	Naveen K	CYBORG ARMS Using	Dr.P.Vivekanandan		
	Sai Vignesh S	IoT	The second secon		
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# BITCOIN PRICE PREDICTION USING LSTM



## A PROJECT REPORT

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## BACHELOR OF ENGINEERING

IN

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Bitcoin is the first digital decentralized cryptocurrency that has shown a significant increase in market capitalization in recent years. The objective of this paper is to determine the predictable price direction of Bitcoin in USD by machine learning technique. We explored several algorithms of machine learning using supervised learning to develop a prediction model and provide informative analysis of future market prices. Due to the difficulty of evaluating the exact nature of a Time Series model, it is often very difficult to produce appropriate forecasts. Then we continue to implement long shortterm memory cells (LSTM) algorithm. Thus, we analyzed the time series model prediction of bitcoin prices with greater efficiency using long shortterm memory (LSTM) techniques. The proposed LSTM model which used the individual features(Open, High, Low, Close) as input value. The models are evaluated using Mean Absolute Error (MAE) and Root Mean Squared Error (RMSE). The Results show 0.189 (MAE) and 0.039 (RMSE) for Open price, 0.143 (MAE) and 0.027 (RMSE) for Low price, 0.233 (MAE) and 0.057 (RMSE) for High price and 0.222 (MAE) and 0.052 (RMSE) for Close price. The low error value of these two metrics show that the models are efficient in predicting predicting price.



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# CHAPTER 7 CONCLUSION

Predicting cryptocurrency market is a challenging task due to consistently changing price values. The analysis was carried out on dataset for predicting bitcoin price values using Long Short Term Memory (LSTM) model. And also compared and analysed the performance of 50 epochs for training data with the 32 batch sizes. The Mean Absolute Error shows 0.189, Root Mean Squared Error shows 0.039 for open price, Mean Absolute Error shows 0.143, Root Mean Squared Error shows 0.027 for low price, Mean Absolute Error shows 0.233, Root Mean Squared Error shows 0.057 for high price, Mean Absolute Error shows 0.222, Root Mean Squared Error shows 0.052 for close price. So, the overall performance shows better results. We think GRU and Bi-LSTM algorithm will shows better performance over than others.



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# FACE RECOGNITION ATTENDANCE SYSTEM USING OPENCY



#### A PROJECT REPORT

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The main purpose of this project is to build a face recognition-based attendance monitoring system for educational institution to enhance and upgrade the current attendance system into more efficient and effective as compared to before. The current old system has a lot of ambiguity that caused inaccurate and inefficient of attendance taking. Many problems arise when the authority is unable to enforce the regulation that exist in the old system.

The technology working behind will be the face recognition system. The human face is one of the natural traits that can uniquely identify an individual. Therefore, it is used to trace identity as the possibilities for a face to deviate or being duplicated is low.

In this project, face databases will be created to pump data into the recognizer algorithm. Then, during the attendance taking session, faces will be compared against the database to seek for identity. When an individual is identified, its attendance will be taken down automatically saving necessary information into a excel sheet.



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#### **CHAPTER 9**

#### CONCLUSION

Before the development of this project. There are many loopholes in the process of taking attendance using the old method which caused many troubles to most of the institutions. Therefore, the facial recognition feature embedded in the attendance monitoring system can not only ensure attendance to be taken accurately and also eliminated the flaws in the previous system.

By using technology to conquer the defects cannot merely save resources but also reduces human intervention in the whole process by handling all the complicated task to the machine. The only cost to this solution is to have sufficient space in to store all the faces into the database storage. Fortunately, there is such existence of microSD that can compensate with the volume of the data. In this project, the face database is successfully built. Apart from that, the face recognizing system is also working well.

At the end, the system not only resolve troubles that exist in the old model but also provide convenience to the user to access the information collected by mailing the attendance sheet to the respected faculty.



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# HEART DISEASE PREDICTION USING SUPERVISED LEARNING ALGORITHMS



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Heart disease is one of the complex diseases and globally many people suffered from this disease. On time and efficient identification of heart disease plays a key role in healthcare, particularly in the field of cardiology. In this article, we proposed an efficient and accurate system to diagnosis heart disease and the system is based on machine learning techniques. The system is developed based on classification algorithm include SVC, SVM. The goal of SVM algorithm is to create the best line or decision boundary that can segregate n-dimensional space into classes so that we can easily put the new data point in correct category in the future. The hyperplane that we are using for classification is in linear condition, then the condition is SVC. The suggested diagnosis system (SVC) achieved good accuracy as compared to previously proposed methods. Additionally, the proposed system can easily be implemented in healthcare for the identification of heart disease.



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## CHAPTER 8 CONCLUSION

Heart diseases are a major killer in India and throughout the world, application of promising technology like machine learning to the initial prediction of heart diseases will have a profound impact on society. The early prognosis of heart disease can aid in making decisions on lifestyle changes in high-risk patients and in turn reduce the complications, which can be a great milestone in the field of medicine. The number of people facing heart diseases is on a raise each year. This prompts for its early diagnosis and treatment. The utilization of suitable technology support in this regard can prove to be highly beneficial to the medical fraternity and patients. In this paper, the two different machine learning algorithms used to measure the performance are SVM, SVC applied on the dataset.

The expected attributes leading to heart disease in patients are available in the dataset which contains 14 important features that are useful to evaluate the system are selected among them. To increase efficiency, attribute selection is done. The correlation of some features in the dataset is almost equal and so they are removed. If all the attributes present in the dataset are taken into account then the efficiency decreases considerably. The two machine learning methods accuracies are compared based on which one prediction model is generated. Hence, the aim is to use various evaluation metrics like confusion matrix, accuracy, precision, recall, and f1-score which predicts the disease efficiently. Comparing the two support vector classification gives the highest accuracy of 90%



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# SMART CHATBOT ASSISTANT FOR COLLEGE



#### A PROJECT REPORT

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Chat bot is one of the evolving Technology that has great demand in various field. Chat bot is to create a human like conversation between human and machine for time consumption purpose. In college especially during the time of admission, reception gets crowded and people have to wait to get their queries solved. If people for from places want to solve their queries, they have to visit the respective college. If the college has its own chatbot, it will be way more easier for them. Although every college has its website, not everybody can find answer to their queries. To solve this Problems, we create an AI chatbot. This chat bot helps to solve to our college related query easily. Chat bot will be able to solve any types of queries regarding our college and doesn't allow the client stand in long queue for their questions. The chatbot will be available for 24/7.



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#### CHAPTER 7

#### CONCLUSION

In this project we made a college specific chatbot system that can be custom fitted to education domain chatbot. The addition of this chatbot system in the college website will make the webpage more user interactive as it responds to the user queries very accurately as it is a domain specific chatbot system, and furthermore we had investigated our college chatbot system design stages and a few different techniques by which the precision of the chatbot system can be made much better. To make the responses given by the chatbot system more meaningful and accurate the administrator has to train the chatbot system with more information regarding to college and increase the scope of knowledge base. Nevertheless, gathering feedback from the potential user can be helpful in developing the college Chatbot system, ultimately servicing the user queries.



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# VEHICLE DETECTION TRACKING AND COUNTING



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Intelligent vehicle detection and counting are becoming increasingly important in the field of highway management. However, due to the different sizes of vehicles, their detection remains a challenge that directly affects the accuracy of vehicle counts. To address this issue, this paper proposes a vision-based vehicle detection and counting system. A new high definition highway vehicle dataset with a total of 57,290 annotated instances in 11,129 images is published in this study. Compared with the existing public datasets, the proposed dataset contains annotated tiny objects in the image, which provides the complete data foundation for vehicle detection based on deep learning. In the proposed vehicle detection and counting system, the highway road surface in the image is first extracted and divided into a remote area and a proximal area by a newly proposed segmentation method; the method is crucial for improving vehicle detection. Several highway surveillance videos based on different scenes are used to verify the proposed methods. The experimental results verify that using the proposed segmentation method can provide higher detection accuracy, especially for the detection of small vehicle objects. Moreover, the novel strategy described in this article performs notably well in judging driving direction and counting vehicles. This paper has general practical significance for the management and control of highway scenes.



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# CHAPTER 7

We have presented the unitized techniques to achieve improvement and outperformance in the vehicle detection and counting process. Major technique used to improve detection of vehicles is the use of background subtraction algorithm. The proposed method eliminates the unnecessary portion and differentiates the vehicles in a more accurate manner.



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## ANDROID AIDED EMERGENCY SERVICE SYSTEM



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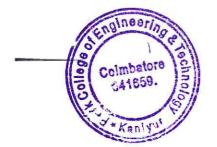
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The large numbers of sick persons in different diseases are very dreaded. and when there isn't succor at the proper time and in the type the sick person need it that makes us lose person. This system offers a succoring system controlled by the patient based on the patients' location. In this emergency system the person will send SMS contains his ID and coordinates (Longitude and Latitude) via Global Positioning System (GPS) network to the web server, in this step the server will locate the sick person on Google map and retrieve the person's information from the database which is stored by the hospital employees. Based on these information, our system will send succoring facility and at the same time informing the hospital, relatives and doctor. This system relied on the dedicated tracking technology to identify the location of the patient. These dedicated alert systems used Global Positioning System GPS to provide the tracking facility. The system allow the user's mobility to be tracked using dedicated GPS or mobile phone which are equipped with an internal GPS receiver and a GPRS transmitter, i.e. most of the applications so far use a handheld GPS receiver device for tracking the location, and ISP are busy in the interval of tracking.

To overcome the problems above and to enhance the performance, throughput, of this type of system, the motivation is reached to system for succoring patients can achieve easy registration (from their homes) can select the nearest Emergency Service Center (ESC) when the patient need a succoring in emergency cases wherever her/his location the scouring facility can reach to her/his. The proposed system is the first tracking system using mobile GIS based on webservice technology to offer online succoring but really works only when the patient sends request for succoring.



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#### **CHAPTER 12**

## CONCLUSION AND FUTURE WORK

The important conclusions obtained from implementing this system are, The using of mobile GIS based on Web service provided a satisfying higher productivity system and this is supported by request and response rate. This response is the highest comparing with other systems. The proposed system achieved higher productivity by selecting the nearest ESC to shorten the time requiring for reaching the patient. The proposed system covers all the aims and objectives, which are required from that system. The mobile application in the proposed system is developed based on Windows, phone, as future work, it can be developed for other cell phones, like iPhone which used different operation systems, like iOS. In future, it will be designed in such a way, it automatically short list the location of hospitals and sends emergency alert SMS to five relatives/friends.



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## ANDROID APPLICATION FOR

#### WOMEN SECURITY



#### A PROJECT REPORT

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Today in the current global scenario, the prime question in every girl's mind, taking into account the ever-rising increase of issues on women harassment in recent past, is only about her safety and security. The only thought haunting every girl is when they will be able to move freely on the streets even in odd hours without worrying about their security. This paper suggests a new perspective to use technology to protect women. The system resembles a normal clove which when activated, tracks the location of the victim using GPS (Global Positioning System) and sends emergency messages using GSM (Global System for Mobile communication), to emergency contacts. The system also incorporates a pill reminder for old age women.

Remembering the time to take the medicines becomes difficult for old age people. This system overcomes the drawback by reminding the time to take pills through alert notification in android mobiles. By this the old age woman feels and takes medicine on time and avoids health risks when they are alone. The messages received that are received as text are converted into voice messages that read the message for the user. This will be useful for old age women and visually impaired person.

Mobile application is developed for the security of women and makes the life ease for old age women by reminding them about their medicine intakes. To create an app that converts the text recognized from messages, calls to voice data for the user's easy living.



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# CHAPTER 11 CONCLUSION AND FUTURE WORK

## 11.1 CONCLUSION:

The "Application for blind people" is a complex system involving many sub process. The system overcomes the limitation of existing manual system. This project has been designed, developed and implemented thus providing a full-fledged approach for proficient and best of results. The project satisfies each efficient user for saving his time and also helps him in clearing the providing help to the physically challenged peoples.

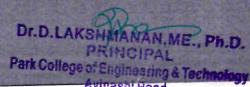
This project deals with the elements of the native technologies.

- It enables the physically challenged and the elderly people to overcome their difficulties and live without much support from others.
- It enables the well-wishers of the users to know their location to ensure their security and safety.

The project monitoring services can be updated with necessary enhancements in the database. The system overheads the problem in the existing ones by capable of processing voluminous data in a user-friendly manner.

The persons, who are involved in working the task manually, have seen this project running and expressing satisfaction about the working procedures and the "conversion handling" incorporated in the project.





## 11.2 SCOPE FOR FUTURE ENHANCECMENT

Future enhancements can be made such as issuing user id to the user, where by the user can use that as a reference which specifies all his previous performance, the project work us stopped at this satisfactory level, due to time constraints.



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# AUTOMATIC GARBAGE DETECTION SYSTEM USING DEEP LEARNING



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EXTERNAL EXAMINER



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One of the biggest problems that municipalities around the world have to deal with is waste management. Due to the population influx in urban areas, the rate of garbage generation has increased exponentially along with garbage diversity. Every day waste leaves the homes of citizens and then arrives in the designated waste collection areas. garbage can cause pollution and have a negative impact on the quality of life of residents in these areas. We propose automatic garbage detection method. In this paper, we use a deep learning (dense net) based model for garbage detection. The main purpose of object detection is to identify and locate one or more effective targets from still image or video data. It comprehensively includes a variety of important techniques, such as image processing, pattern recognition, artificial intelligence and machine learning



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#### CHAPTER 7

## CONCLUSION AND FUTURE WORK

## Conclusion

Garbage classification is achievable. Compared with the traditional classification method, the garbage classification method using deep convolutional neural network has higher accuracy, can achieve the apose of garbage classification, and can save a lot of time and labour costs. This discusses garbage detection with dense net architecture which gives high acuracy rate.

## 7.2 Future work

In the future, an integrated system can be developed that generates a notification on the identification of waste in the image, and transfers the geo coordinates and the time to the concerned authorities so that the action can be taken in the real-time. That way, trash can be collected in the location other than landfills or waste dumbs, ensuring the cleanliness of our surroundings.



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## BALLOT CHAIN FOR SECURE AND TRANSPARENT E-VOTING MECHANISM USING AI AND BLOCKCHAIN TECHNOLOGY



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## ABSTRACT

Artificial intelligence (AI) has demonstrated huge potential in a variety of real-world applications. However, some significant considerations like fairness, transparency and trustworthiness are still challenging when applying AI to trustoriented applications such as E-voting. The technology can ensure the safety of every vote, better and faster and much more accurate counting and automatic tallying. In this project, we aim to facilitate the consolidation of AI ecosystems by developing a blockchain-based traceable self-tallying e-voting system. The proposed system presents a novel voting system by using Fingerprint of Aadhaar card and Face recognization. When the e-voting system is any eligible voter can vote from anywhere as there will be two or more levels of authenticity checks. The system will act as registering module on activating switch by the super admin. For registering module, followed by the fingerprint and face verification. The system permits the elector to cast their vote, block chain technology comes into existence that is integrated within the machine. Each vote is added into each block encrypted by 256bit SHA hash codes, the hashed block cannot be tampered by any individual as more security is added to the system. By adopting Blockchain within the distribution of information will scale back one in every of the cheating sources of database manipulation. The proposed mechanism of voting using Blockchain not only serves the election conducting bodies but also the voters who get notified in case of any meddling with their votes before the counting announcement,



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## **CHAPTER 9**

## CONCLUSION AND FUTURE WORK

## 9.1 CONCLUSION

The idea of adapting digital voting systems to make the public electoral process cheaper, faster and easier, is a compelling one in modern society. Making the electoral process cheap and quick, normalizes it in the eyes of the voters, removes a certain power barrier between the voter and the elected official and puts a certain amount of pressure on the elected official. It also opens the door for a more direct form of democracy, allowing voters to express their will on individual bills and propositions. In this project, we introduced a unique, blockchain-based electronic voting system that utilizes smart contracts to enable secure and cost-efficient election while guaranteeing voters privacy. We have outlined the systems architecture, the design, and a security analysis of the system. By comparison to previous work, we have shown that the blockchain technology offers a new possibility for democratic countries to advance from the pen and paper election scheme, to a more cost- and time-efficient election scheme, while increasing the security measures of the today's scheme and offer new possibilities of transparency. Using an Ballot chain private blockchain, it is possible to send hundreds of transactions per second onto the blockchain, utilizing every aspect of the smart contract to ease the load on the blockchain. For countries of greater size, some measures must be taken to withhold greater throughput of transactions per second, for example the parent & child architecture which reduces the number of transactions stored on the blockchain at a 1:100 ratio without compromising the networks security. Our election scheme allows individual voters to vote at a voting district of their choosing while guaranteeing that each individual voter's vote is counted from the correct district, which could potentially increase voter turnout.



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# 9,2 FUTURE WORK

In the future, it is aimed to simulate with a more realistic system, to operate the system from end to end, and to focus on optimizations for scalability of the system. Another future work is that in the proposed system the end of election is assumed to be depending on the system time. However, the system may be improved to increase the security of the time dimension. In our opinion, transition to the evoting method should proceed slowly by implementing in small pilot populations first and then widening the scope slowly. The implementation of such voting systems still poses many challenges and risks for developers and governments.



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# DATA PROTECTION USING GEO-FENCE TECHNOLOGY



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### ABSTRACT

Data sharing and access are capabilities businesses and organizations require the most these days. Remote working and mobile access to resources and collaboration platforms made it easier to access data and resources from anywhere, anytime. Employees want to access documents and email from different devices, and from various locations at a time. Access from untrusted networks is always a threat to businesses. This might result in data loss and overexposure of critical data. To mitigate the deficiencies of logical security mechanisms, and coinciding with the trend of cyber-physical systems, security mechanisms have been proposed that integrate with the physical environment. To ensure that business's data and resources are safe. In this project we propose an innovative Geo Fence that uses a location data and geospatial intelligence. Geospatial data analysis enhances understanding, insight, decision-making, and prediction. Location intelligence (LI) is achieved via visualization and analysis of geospatial data. Then we improve the security of data access in Data Server for a company or any other specific locations using the location-based cryptosystem. Geo Fence provides a means to secure sensitive information within an organization. It can be set to Off, On, Restricted View or Read Only. The main benefit of setting up such a geo fence is in avoiding data leakage.



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## CHAPTER 7

## CONCLUSION AND FUTURE WORK

## 7.1 Conclusion

In this project, we introduced a location-aware framework for provide data security, which enables the participation of workers without compromising their location privacy. We identified geo fencing as a needed step to ensure that data privacy is protected prior to workers consenting to a task. We provided heuristics and optimizations for determining effective geo fencing regions that achieve high task assignment rate with low overhead. It also generates the victim files; it automatically checks the geo - fencing boundary values and wipeout the system and files when geo - fencing address is mismatch.

## 7.2 Future Work

In the future, we plan to take into more complicated policies to capture other privacy requirements other than the location. And also, we insist this method to popular E-Mail Service Provider too.



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# HEART DISEASE PREDICTION USING MACHINE LEARNING



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#### ABSTRACT

Heart disease is one of the complex diseases and globally many people suffered from this disease. On time and efficient identification of heart disease plays a key role in healthcare, particularly in the field of cardiology. In this article, we proposed an efficient and accurate system to diagnosis heart disease and the system is based on machine learning techniques. The system is developed based on classification algorithm include CNN while standard features selection algorithms have been used such as Relief, Minimal redundancy maximal relevance, least absolute shrinkage selection operator and Local learning for removing irrelevant and redundant features.

We also proposed novel fast conditional mutual information feature selection algorithm to solve feature selection problem. The features selection algorithms are used for features selection to increase the classification accuracy and reduce the execution time of classification system. Furthermore, the leave one subject out cross-validation method has been used for learning the best practices of model assessment and for hyperparameter tuning.

The performance measuring metrics are used for assessment of the performances of the classifiers. The performances of the classifiers have been checked on the selected features as selected by features selection algorithms. The experimental results show that the proposed algorithm (CNN) is feasible with classifier CONVOLUTIONAL NEURAL NETWORK for designing a high-level intelligent system to identify heart disease. The suggested diagnosis system (CNN) achieved good accuracy as compared to previously proposed methods. Additionally, the proposed system can easily be implemented in healthcare for the identification of heart disease.



VII

## CHAPTER 10

## CONCLUSION AND FUTURE WORK

## 10.1 CONCLUSION

To realize that beside the point capabilities additionally degrade the overall performance of the analysis device and improved computation time. Thus, some other revolutionary contact of our have a look at to used capabilities choice algorithms to selects the suitable capabilities that enhance the class accuracy in addition to lessen the processing time of the analysis device. A little improvement in prediction accuracy have great influence in diagnosis of critical diseases. The novelty of the study is developing a diagnosis system for identification of heart disease In the future, we can use different capabilities choice algorithms, optimization techniques to in addition growth the overall performance of a predictive device for HD classification. The controlling and remedy of ailment is importance after analysis, therefore, I'm able to paintings on remedy and restoration of illnesses in future additionally for vital ailment together with heart. The proposed CNN model has end up being a valuable device in the discovery of coronary illness in clinical experts. An extra phase of highlight choice was proposed to improve precision. The dataset is isolated into a preparation set and a test set, and the preparation informational index is utilized to frame singular classifiers. With the test informational collection, the proficiency of the classifiers is tried.



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## 10.2 FUTURE WORK

- > Our proposed system is just a stimulation to predict heart disease for training dataset. We can't get the result for an individual person.
- ➤ In future, we can develop this to get results for an individual person.

  We can also implement this using artificial intelligence to make the prediction automatic and which is more useful in real-world.



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# INTEGRITY RESILIENT AUDITING FOR SECURE CLOUD STORAGE



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#### ABSTRACT

Key presentation is one genuine security issue for distributed storage evaluating. So as to manage this issue, distributed storage examining plan with key-presentation strength has been proposed. Not with standing, in such a plan, the noxious cloud may in any case produce legitimate authenticators later than the key-introduction day and age in the event that it gets the present mystery key of information proprietor. In this paper, we inventively propose a worldview named solid key exposure strong inspecting for secure distributed storage, in which the security of distributed storage reviewing sooner than as well as later than the key introduction can be safeguarded. We formalize the definition and the security model of this new sort of distributed storage evaluating and plan a solid plan. In our proposed conspire, the key introduction in one era doesn't influence the security of distributed storage inspecting in other eras. The thorough security evidence and the test comes about exhibit that our proposed plot accomplishes alluring security and effectiveness.



Ш

# CHAPTER 13 CONCLUSION

We propose a new remote data integrity checking protocol for cloud solvenge. The proposed protocol is suitable for providing integrity protection of customers' important data. The proposed protocol supports data insertion, modification, and deletion at the block level, and also supports public verifiability. The proposed protocol is proved to be secure against an untrusted server.

It is also private against third-party verifiers. Both theoretical analysis and experimental results demonstrate that the proposed protocol has very good efficiency in the aspects of communication, computation, and storage costs. Currently, we are still working on extending the protocol to support data level dynamics. The difficulty is that there is no clear mapping relationship between the data and the tags.



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## PRIVACY PRESERVING OF CLOUD DATA USING FINGERPRINT



## A PROJECT REPORT

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In partial fulfillment for the award of the degree

of

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in

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#### BONAFIDE CERTIFICATE

Certified that this project report "PRIVACY PRESERVING OF CLOUD DATA USING FINGERPRINT" is the Bonafide work "A. NANDHA KUMAR, V. NAVEEN, N. SHALENE, S. SHREE POOJA SHEN" who carried out the project work under my supervision. SIGNATURE

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#### ABSTRACT

With the pervasiveness of mobile devices and the development of biometric technology, biometric identification, which can achieve individual authentication relies on personal biological or behavioral characteristics, has attracted widely considerable interest. However, privacy issues of biometric data bring out increasing concerns due to the highly sensitivity of biometric data. Aiming at this challenge, in this paper, we present a novel privacy-preserving online fingerprint authentication scheme, named e-Finga, over encrypted outsourced data.

In the proposed e-Finga scheme, the user's fingerprint registered in trust authority can be outsourced to different servers with user's authorization, and secure, accurate and efficient authentication service can be provided without the leakage of fingerprint information. Specifically, an improved homomorphic encryption technology for secure euclidean distance calculation to achieve an efficient online fingerprint matching algorithm over encrypted finger code data in the outsourcing scenarios.



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#### CHAPTER 10

## CONCLUSION AND FUTURE WORKS

## 10.1 CONCLUSION

We have proposed an efficient and privacy preserving online fingerprint authentication scheme, called e-Finga, over encrypted outsourced data. Based on an improved homomorphism encryption technology for secure euclidean distance calculation over composite order group, the proposed e-Finga can achieve the privacy of user fingerprint and confidentiality of matching templates. Specifically, OSE'er can directly compute the matching criteria on ciphertext without decryption, and the accuracy of the underling fingerprint identification system will not be compromised.

Meanwhile, the matching result can also only be decrypted by the registered user. Thus, the user can get secure and accurate fingerprint authentication without divulging his/her fingerprint information. Detailed security analysis shows its security strength and privacy-preserving ability, and extensive experiments are conducted to demonstrate its efficiency.



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## 10.2 FUTURE WORKS

This project proposed a flexible privacy-preserving data sharing (FPDS) scheme in cloud-assisted IoT. The FPDS scheme is characterized by employing identity-based encryption and linear secret sharing scheme to not only preserve the privacy of data outsourced to the cloud but also achieve flexible sharing of encrypted data. Detailed security analysis shows that the FPDS scheme is secure against semi-trusted cloud and malicious users. Thorough performance evaluation indicates the high efficiency of the scheme.

The FPDS scheme allows to encrypt data with any recognizable identity and thus avoids complicated public-key certificates in usual secure storage systems. Similarly to the identity-based encryption, however, the FPDS scheme only allows to share data to one recipient, which makes it difficult to share data with a group of users. In our future work, we will explore more general solutions on basis of broadcast/attribute-based encryption, to support privacy-preserving data sharing for multiple recipients in cloud-assisted IoT scenarios.



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#### INTERNSHIP CERTIFICATE

31 / 07 / 2022

#### To Whomsoever It May Concern

Sub: Internship Certificate

This is to certify that **Ms. Dharani** R residing at # 22D/39 Jayasimmapuram, Pappanaickenpalayam Coimbatore 641037 has done an internship with us from 07/02/2022 to 31/07/2022. She was assigned a project in the department of Data Engineering that she could successfully complete to our expectations, well within the agreed timeline.

During the course of the project, she was consistently demonstrating her skills, commitment and sincerity that has well reflected in the overall outcome of the project.

We take this opportunity to sincerely thank and wish her a great career ahead.

All the best!

Warm Regards,

Karthika Natrayasamy

N. Karthike

(Sr.Executive - Human Resources)

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During the course of the project, she was consistently demonstrating her skills, commitment and sincerity that has well reflected in the overall outcome of the project.

We take this opportunity to sincerely thank and wish her a great career ahead.

All the best !

Warm Regards,

Karthika Natrayasamy

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