VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI - 590018

2020–2021

A

Phase II Project Report

on

"A Smart Gadget For Women Security Based On Iot Concept"

Submitted in the partial fulfillment of the requirement for the VII Semester Project Phase-II 17CSP85 for the award of degree of

Bachelor of Engineering

in

Computer Science and Engineering

by

P AKASH DEEP	1GV17CS005
REETHU DEVKAR R	1GV17CS056
SUPRIYA S N	1GV17CS069
TRISHA N	1GV17CS070

Carried at

Dr.T.THIMMAIAH INSTITUTE OF TECHNOLOGY.

Under the guidance of

Mrs. HAMSALATHA J,

Asst. Professor, Department of Computer Science

Dr.T.Thimmaiah Institute of Technology

Oorguam Post, K.G.F-563120

(Approved by AICTE, New Delhi, Affiliated to VTU-Belgavi, Approved by Govt. Of Karnataka and ISO 21001-2018 Certified)

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(Approved by AICTE, New Delhi, Affiliated to VTU-Belgavi,
Approved by Govt. Of Karnataka and ISO 21001-2018 Certified)

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING.

CERTIFICATE

Certified that the Project Work entitled ***"A SMART GADGET FOR WOMEN SECURITY BASED ON IOT COCEPT"*** is a bonafide work carried out by **P AKASH DEEP (1GV16CS005), REETHU DEVKAR R (1GV17CS056), SUPRIYA S N (1GV17CS069), TRISHA N (1GV17CS070)** in the partial fulfillment for the award of degree of Bachelor of Engineering in **Computer Science Engineering of the Visvesvaraya Technological University**, Belagavi during the year 2020-2021. It is certified that all corrections/suggestions indicated for the assessment have been incorporated in the report deposited in the departmental library. The Project phase-II has been approved as it satisfies the academic requirement in respect of Project phase-II prescribed for the Bachelor of Engineering Degree.

Sign of the Guide	Sign of the HOD	Sign of the principal
Mrs. HAMSALATHA. J	**Dr. S SREEDHAR KUMAR**	**Dr. SYED ARIFF**
Asst.Prof., Dept. of CSE	**Head of Department. CSE**	**Principal, Dr.TTIT**

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ABSTRACT

The Internet of Things (IOT) describes the network of physical object that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet. This ability to send and/or receive information makes things smart, and smart is good.

This project aims at providing security for women by detecting Heartbeat rate of a person whenever they face threat. The main drawback of these applications and services is that the initial action has to be triggered by the victim which often in situation like these doesn't happen.

We use biosensors in this application. If values of any sensor signal crosses the threshold limit indicating that the women is in threat and according to victim condition, when sensor crosses the threshold limit the buzzer is activated. Hence the GPS transmits the location to the ESP32 microcontroller and then the microcontroller transmits the signal to the cloud which will store the sensor values and then using a blynk app we can monitor the system.

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ICRTTEAS 2021

July 19th - 20th

Certificate

This is to certify that Mr. Akashdeep P, Student, Dr.T.Thimmaiah institute of Technology, presented a paper titled "A Smart Gadget For Women Security Based On IOT Concept " in the 3rd International Conference on Recent Trends in Technology, Engineering and Applied Science - ICRTTEAS 2021 held virtually on 19th and 20th July 2021.

Dr. Palaniswamy K M	Prof. Ruckmani Divakaran	Dr. H.G. Shenoy	Dr. Syed Ariff
Convener	General Chair	Vice Principal	Principal

CertificateID: ICRTTEAS2021/R745

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Certificate

This is to certify that Mr. Reethu Devkar R, Student, Dr.T.Thimmaiah institute of Technology, presented a paper titled "A Smart Gadget For Women Security Based On IOT Concept " in the 3rd International Conference on Recent Trends in Technology, Engineering and Applied Science - ICRTTEAS 2021 held virtually on 19th and 20th July 2021.

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This is to certify that Miss. Supriya S N, Student, Dr.T.Thimmaiah institute of Technology, presented a paper titled "A Smart Gadget For Women Security Based On IOT Concept " in the 3rd International Conference on Recent Trends in Technology, Engineering and Applied Science - ICRTTEAS 2021 held virtually on 19th and 20th July 2021.

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CertificateID:ICRTTEAS2021/P335

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ICRTTEAS 2021

CERTIFICATE OF PARTICIPATION

This is to certify that

Mr/Mrs/Ms/Prof. Trisha N

Dr. T. Thimmaiah Institute of Technology, KGF

participated in the **3rd International Conference on Recent Trends in Technology, Engineering and Applied Science - ICRTTEAS 2021**, held virtually on 19th and 20th July 2021.

Dr. Palaniswamy K M	Prof. Ruckmani Divakaran	Dr. H.G. Shenoy	Dr. Syed Ariff
Convener	General Chair	Vice Principal	Principal

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI - 590018

2020-2021

A

Project Phase-II Report

on

"Development of Random Authentication System on e-Learning Platform" (LEARN APP)

Submitted in the partial fulfilment of the requirement for the VIII Semester

Project Work-17CSP85 for the award of degree of

Bachelor of Engineering

In

Computer Science and Engineering

Submitted by

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Carried at

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Under the Guidance

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This is to certify that the **Project Work Phase-II** entitled **"Development of Random Authentication System on e-Learning Platform (LEARN APP)"** is a bonafide work carried out by **ABHISHEK H S (1GV17CS001), AKHILA P (1GV17CS004), ANAGHA M (1GV17CS005), KAVYA BIRADAR (1GV17CS026)** in the partial fulfilment of the requirement for the completion of 8th semester of Bachelor of Engineering in Computer Science and Engineering of the Visvesvaraya Technological University, Belgaum during the academic year 2020-2021.

The Project report has been approved as it satisfies the academic requirements in respect of **Project Phase-II 17CSP85** prescribed for the Bachelor of Engineering Degree.

22.7.2021		02/08/2021
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Mrs. Premalatha D	**Dr. S Sreedhar Kumar**	**Dr. Syed Ariff**
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External Viva

Name of the Examiners	**Signature with date**
1.....	.....
2.....	.....

ABSTRACT

Due to easiness and expansion in property of smart mobile devices, it is becoming inevitable for mobile applications to have an important role in higher education systems. Currently educational institutions are choosing online platform to conduct classes and exams. The existing system doesn't monitor the attentiveness of the student throughout the session, whether the student is present virtually or not because the audio and video of the students will be on mute. Since conducting the exams, scanning and uploading the documents are done through different applications, it is a long process which is time consuming.

"The LEARN" application allows the faculties to check the attentiveness of the student and obtain automatic attendance of students using facial recognition. For online classes, video will get turned on at random instance of time, so that the faculty monitors the attentiveness of a particular student. Classes and examination schedule will be notified to students. Notification service is also provided to faculties, if a foreground or background application comes into picture on the student's application. The Online examination service allows the students to attend exam online and upload the answer scripts after completing the exam through same application in the specified time. Online meeting services enhance faculties and students to interact virtually.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI – 590018

2020-2021

A Project Report

On

"IMPROVED COMMENT SENTIMENT ANALYSIS METHOD USING DEEP LEARNING"

Submitted in the partial fulfilment of the requirement for the VII Semester

Project Work-17CSP85 for the award of degree of

Bachelor of Engineering

In

"Computer Science and Engineering"

Submitted by

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

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ABSTRACT

Sentiment Analysis of the comment text from the social media is helpful for understanding the public opinion on the product review. The essence of sentiment analysis is the text classification task, and different words have different contributions to classification. The classification provides that the product is positive or negative based on the comment text provided by the user's of the product.

Our proposed system uses the comment text of the product from the online platform and perform the data-preprocessing and feature extraction. The processed data are given as input to the bidirectional long short term memory (BiLSTM) to make the text classification effectively, The sentiment is positive or negative of the comment is obtained.

The system will be tested with the comment text collected by the user product review from social media, e-commerce website, and the result shows that the product has the positive or negative reviews.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI - 590018

2020–2021

A Final Project Report

on

"An Improved Technique for Identifying Fake News on Social Media Network using Supervised Machine Learning Concepts"

Submitted in the partial fulfilment of the requirement
for the VIII Semester Project – 17CSP85 for the award of degree of

Bachelor of Engineering

in

Computer Science and Engineering

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING.

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Certified that the **Project Work** entitled "An Improved Technique for Identifying Fake News on Social Media Network using Supervised Machine Learning Concepts" is a bonafied work carried out **by Avinash S - 1GV17CS009, M Shoaib Numaanulla Baig - 1GV17CS033, Mamatha CH - 1GV17CS035 and P Vaishnavi- 1GV17CS046** in the partial fulfilment for the award of degree of Bachelor of Engineering in **Computer Science and Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2020-2021. It is certified that all corrections/suggestions indicated for the assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirement in respect of **Project Work- 17CSP85** prescribed for the Bachelor of Engineering Degree.

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Signature of Guide	**Signature of HOD**	**Signature of Principal**
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ABSTRACT

Fake News in the form of dark journalism or propaganda that comprises of intentional or frauds spread via conventional print and broadcast news media or online social media. The concocted data is primarily spread by social media but is periodically dispersed through mainstream media. Fake information is written and issued with the intention to inform in order to barter the authority, entity, or individual, and/or increase financially or politically, frequently applying sensationalist, dishonest, or outright fabricated headlines to increase readership, online sharing, and net stop revenue. In the latter case, it is interconnected to shocking online clickbait headlines and relies upon ad revenue generated from the process, irrespective of the truthfulness of these printed, posted and shared stories. Deliberately misleading and misleading fake news differs from overt humour or parody, which is meant to entertain rather than inform its people. If writing a narrative with a false message attracts users, the benefits advertisers and improves ratings. Simple access to online advertising-income escalated political polarization, and the quality of social media, mainly those Twitter and Facebook information Feed, have all been implicated in this distribution of fake news, which competes with legitimate news stories. Hostile regime actors have also been implicated in generating and spreading fake information, especially within elections. This paper presents an improved technique for identifying fake news on social media network and checking for the realness of news, that we consume on our routine day based on the supervised machine learning concepts. During the first phase, we manage our data and prepare it into the required format for the next phase, which is processing the data using supervised machine learning concepts i.e., Naïve Bayes technique, and in the last phase, we validate the processed antonyms output for concluding the legitimate news amongst the questionable media news.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI-590018

2020-2021

A

PROJECT

PHASE-2 REPORT

ON

"A GRAPHICAL PIN ENTRY SYSTEM USING SHOULDER SURFING RESISTANCE"

Submitted in the Partial Fulfillment of the Requirement for VIII Semester Project Phase-2 17CSP85 for the Award of the degree of

BACHELOR OFENGINEERING

in

COMPUTER SCIENCE ENGINEERING

By

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KAVYASHREE S	**1GV17CS027**

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This is to Certify that the **Project Work Phase-2** entitled ***"A GRAPHICAL PIN ENTRY SYSTEM USING SHOULDER SURFING RESISTANCE"*** is a bonafide work carried out by **BHAVANA PG (1GV17CS010), HEMALATHA S (1GV17CS020), KAVYASHREE S (1GV17CS027)** in the partial fulfilment for the award of degree of Bachelor of Engineering in **Computer Science Engineering of the Visvesvaraya Technological University**, Belagavi during the year 2020-2021. It is certified that all corrections/suggestions indicated for the assessment have been incorporated in the report deposited in the departmental library.

The Project Phase-2 Report has been approved as it satisfies the academic requirement in respect of Project Phase-2 17CSP85 prescribed for the Bachelor of Engineering Degree.

Signature of Guide	Signature of H.O.D	Signature of Principal
Mrs. SHALINI G	**Dr.S SREEDHAR KUMAR**	**Dr.Syed Ariff**

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ABSTRACT

Personal identification number or PIN based authentication systems are most commonly used authentication systems. Due to maturity and simplicity, these authentication systems are vastly deployed in many different areas such as automatic teller machine (ATM), point of sale (POS), electronic door access system and in different kinds of mobile applications. However, due to limited password space and small password length, they are highly susceptible to different kinds of shoulder surfing attacks. In this, we have proposed a graphical PIN entry scheme that provides resistance against shoulder surfing attacks.

To alleviate the shoulder surfing attack in our proposed scheme, we have used specialized interface design and indirect PIN entry method. For indirect PIN entry method, we have used extra information in the form of reference location, which is not observable for the attacker.

We have implemented the prototype of the proposed authentication scheme and conducted a user study to evaluate the usability of our proposed scheme. The results of the user study show that this scheme provides a reasonable balance between security and usability.

BHAVANA PG **1GV17CS010**

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI – 590018

2020-2021

Project Phase II Report

On

"PAIRING-FREE CP-ABE BASED CRYPTOGRAPHY COMBINED WITH STEGANOGRPHY FOR MULTIMEDIA APPLICATIONS"

Submitted in the partial fulfilment of the requirement for the VII Semester

Project Work-17CSP85 for the award of degree of

Bachelor of Engineering

In

"Computer Science and Engineering"

Submitted by

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

Certified that the Project work entitled **"PAIRING-FREE CP-ABE BASED CRYPTOGRAPHY COMBINED WITH STEGANOGRPHY FOR MULTIMEDIA APPLICATIONS"** is a bonafied work carried out by **CHAMPA K P (1GV16CS086), MEENA S (1GV18CS401), LAKSHMI B R (1GV16CS033), YOGENDRA N (1GV16CS084)** in the partial fulfilment for the award of degree Bachelor of Engineering in **Computer Science and Engineering**of the **Visvesvaraya Technological University, Belagavi** during the academic year 2020-2021. It is certified that all corrections/Suggestions indicated for the assessment have been incorporated in the report deposited in the department library. The Project phase-1 report has been approved as it satisfies the academic requirement in respect of **Project Work Phase-2 17CSP85** prescribed for the Bachelor of Engineering Degree.

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ABSTRACT

Technology development has led to rapid increase in demands for multimedia applications. Due to this demand, digital archives are increasingly used to store these multimedia contents. Cloud is the commonly used archive to store, transmit, receive and share multimedia contents. Cloud makes use of internet to perform these tasks due to which data becomes more prone to attacks. Data security and privacy are compromised. This can be avoided by limiting data access to authenticated users and by hiding the data from cloud services that cannot be trusted. Hiding data from the cloud services involves encrypting the data before storing it into the cloud. Data to be shared with other users can be encrypted by utilizing Cipher Text-Policy Attribute Based Encryption (CP-ABE).

CP-ABE is used which is a cryptographic technique that controls access to the encrypted data. The pairing-based computation based on bilinearity is used in ABE due to which the requirements for resources like memory and power supply increases rapidly. Most of the devices that we use today have limited memory. Therefore, an efficient pairing free CP– ABE access control scheme using elliptic curve cryptography has been used. Pairing based computation is replaced with scalar product on elliptic curves that reduces the necessary memory and resource requirements for the users.

Even though pairing free CP-ABE is used, it is easier to retrieve the plaintext of a secret message if cryptanalysis is used. Therefore, this paper proposes to combine cryptography with steganography in such a way by embedding crypto text into an image to provide increased level of data security and data ownership for sub-optimal multimedia applications. It makes it harder for a cryptanalyst to retrieve the plaintext of a secret message from a stego-object if steganalysis were not used. This scheme significantly improved the data security as well as data privacy.

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING.

CERTIFICATE

Certified that the Project Work entitled ***"Face Mask Detection Using CNN And Temperature Screening ."*** is a bonafied work carried out by **Charls Reynold J- 1GV17CS011, Jananey B - 1GV17CS023, Poovarasi S- 1GV17CS048 and Preethi N- 1GV17CS050** in the partial fulfillment for the award of degree of Bachelor of Engineering in **Computer Science and Engineering of Visvesvaraya Technological University, Belagavi**, during the year 2020-2021. It is certified that all corrections/suggestions indicated for the assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirement in respect of project work phase II - 17CSP85 prescribed for the Bachelor of Engineering Degree.

N. Sharmila 6/8/2021		06/08/2021
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VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI – 590018

2020–2021

A

Phase II Project Report on

"Face Mask Detection Using CNN And Temperature Screening."

Submitted in the partial fulfilment of the requirement for the VIII Semester Project – 17CSP85 for the award of degree of

Bachelor of Engineering

in

Computer Science and Engineering

by

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ABSTRACT

Face Mask Detection has evolved as a very popular problem in Image Processing and Computer Vision. Many new algorithms are being devised using Convolutional Architectures have made it possible to extract even the pixel details. We aim to design a Binary Face Classifier which can detect any Face Mask Present in the Frame irrespective of its Alignment. We present a Method to generate accurate Face Segmentation Masks from any arbitrary size input image. Beginning from the RGB image of any size, the Method uses Predefined Training Weights of MobileNetV2 Architecture for Feature Extraction. Training is performed through Convolutional Neural Networks to Semantically Segment out the Faces present in the Image. Gradient Descent is used for training while Binomial Cross Entropy is used as a Loss Function. Further the Output Image from the CNN is processed to remove the Unwanted Noise and avoid False Prediction if any and make Bounding Box around the Faces.

The COVID-19 pandemic forced government across the world to impose lockdowns to prevent virus transmissions. This resulted in the shutdown of all economic activity and accordingly the production at manufacturing plants across most sectors was halted. While there is an urgency to resume production, there is an even greater need to ensure the safety of the work force at the plant site. Reports indicate that wearing Face Masks while at work clearly reduces the risk of transmission. We decided to use Computer Vision on CCTV feeds to monitor worker activity and detect violations which trigger real time voice alerts on the shop floor. This project describes an efficient and economic approach of using AI to create a safe environment in a manufacturing setup.

The Ultrasonic Sensor sends out 8 pulses of Ultrasonic Sound when you pull the trigger line high these Sound Waves travel with the speed of sound. When the waves hit an obstacle, they bounce back and the sensor receives the waves. The sensor then pulls the echo pin high for a few milliseconds. When connecting this sensor to an Raspberry pi, it is possible to measure the time between sending and receiving the pulses. Once we detect a person with the use of temperature sensor will detect the temperature of that person.

Dr. T. THIMMAIAH INSTITUTE OF TECHNOLOGY

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

Certified that the Project work entitled **"DETECTING PHISHING WEBSITE USING MACHINE LEARNING"** is a bonafide work carried out by **CLADINA SHARON R - 1GV16CS013, NICKY M – 1GV17CS043, REBECCA ANN DINGLE - 1GV17CS055** and **RIHIKA K – 1GV17CS059** in the partial fulfillment for the award of degree Bachelor of Engineering in **Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi during the academic year 2020-2021**. It is certified that all corrections/suggestions indicated for the assessment have been incorporated in the report deposited in the department library. The Project Phase-2 report has been approved as it satisfies the academic requirement in respect of **Project Phase-2 work 17CSP85** prescribed for the Bachelor of Engineering Degree.

A. Mercy 6/05/2021		06/05/2021
Signature of guide	**Signature of HOD**	**Signature of Principal**
Mrs. MERCY FLORA	**Dr. S SREEDHAR KUMAR**	**Dr. SYED ARIFF**
(Asst. Prof., Dept. of CSE)	**(HOD, Dept. of CSE)**	PRINCIPAL
		Dr. T. Thimmaiah Institute of Technology
		Oorgaum, K.G.F. - 563 120.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI - 590018

2020–2021

A

Phase II Project Report

on

"IOT BASED SMART MIRROR USING RASPBERRY PI"

Submitted in the partial fulfillment of the requirement for the VII Semester Project Phase-II 17CSP85 for the award of degree of

Bachelor of Engineering

in

Computer Science and Engineering

By

DEEPIKA AN	**1GV17CS014**
KAVYASHREE S	**1GV17CS028**
RAMYA R	**1GV17CS052**

Carried at

Dr.T.THIMMAIAH INSTITUTE OF TECHNOLOGY.

Under the guidance of

Mr. MANJUNATH SINGH H

Associate Professor, Dept. of CSE

Dr.T.Thimmaiah Institute of Technology
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(Approved by AICTE, New Delhi, Affiliated to VTU-Belgavi, Approved by Govt. Of Karnataka and ISO 21001-2018 Certified)

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Approved by Govt. of Karnataka and ISO 21001-2018 Certified)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to Certify that the **Project Work Phase-2** entitled *"IOT BASED SMART MIRROR USING RASPBERRY PI"* is a bonafide work carried out by **DEEPIKA A N (1GV17CS014), KAVYA SHREE S (1GV17CS028), RAMYA R (1GV17CS052)** in the partial fulfilment for the award of degree of Bachelor of Engineering in **Computer Science Engineering of the Visvesvaraya Technological University**, Belagavi during the year 2020- 2021. It is certified that all corrections/suggestions indicated for the assessment havebeen incorporated in the report deposited in the departmental library.

The Project Phase-2 Report has been approved as it satisfies the academic requirement in respect of Project Phase-2 17CSP85 prescribed for the Bachelor of Engineering Degree.

Signature of Guide	Signature of H.O.D	Signature of Principal
Mr. MANJUNATH SINGH H	**Dr.S SREEDHAR KUMAR**	**Dr.Syed Afifi**

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1.	1.
2.	2.

ABSTRACT

The Internet of Things (IOT) describes the network of physical object that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data with other devices and systems over the internet. This ability to send and/or receive information makes things smart, and smart is good.

This paper depicts the design and development of smart mirror that represents an elegant interface for glancing information and also used for thief detection in a home environment. A smart mirror is a system that functions as mirror with additional capability of displaying date, time, current temperature, news remainders, news-updates, weather details. A smart mirror that receives a online news and display it using Internet of things (IoT) circuitry. There is never an end to devices that can be made 'smarter' with the help of adequate technology. There are lot of smart display devices but mirrors provide an interactive environment while displaying information. This paper presents the design and development of a smart mirror using raspberry pi with additional features which provide face recognition for security and smart unlocking process. Using face recognition technique, we can detect the user's face and verify the user.

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ICRTTEAS 2021

Certificate

This is to certify that ***Miss. Kavya Shree S, Student, Dr.T.Thimmaiah institute of Technology, presented a paper titled "IOT Based Smart Mirror Using Rashpberry Pi" in the 3rd International Conference on Recent Trends in Technology, Engineering and Applied Science - ICRTTEAS 2021 held virtually on 19th and 20th July 2021.***

Dr. Palaniswamy K M	Prof. Ruckmani Divakaran	Dr. H.G. Shenoy	Dr. Syed Ariff
Convener	General Chair	Vice Principal	Principal

CertificateID: ICRTTEAS2021/R737

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ICRTTEAS 2021

Certificate

This is to certify that Miss. Deepika A N, Student, Dr.T.Thimmaiah institute of Technology, presented a paper titled "IOT Based Smart Mirror Using Rashpberry Pi" in the 3rd International Conference on Recent Trends in Technology, Engineering and Applied Science - ICRTTEAS 2021 held virtually on 19th and 20th July 2021.

Dr. Palaniswamy K M
Convener

Prof. Ruckmani Divakaran
General Chair

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Vice Principal

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CertificateID: ICRTTEAS2021/R736

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI, KARNATAKA-590018

2020-2021

A

Project Report on

"AN ENHANCED APPROACH OF IDENTIFYING DISTINCT CLUSTERS OVER A COLOUR IMAGE USING AGGLOMERATIVE CLUSTERING TECHNIQUE".

Submitted in the Partial fulfilment of the requirement for the VIII Semester Project Work- II 17CSP85 for the award of degree of

Bachelor of Engineering

in

Computer Science and Engineering

Submitted By

DEEPIKA.M	(1GV17CS016)
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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

This is to certify that the Project work entitled -"An Enhanced Approach Of Identifying Distinct Clusters In Colour Image Using Agglomerative Clustering Technique." – is a Bonafede work carried out by DEEPIKA.M – 1GV17CS016, SUMAIYA KHANUM – 1GV17CS068,VIDHYASHREE.C– 1GV17CS074, RAVI KUMAR M.S – 1GV17CS054 in the partial fulfilment for the award of degree Bachelor of Engineering in Computer Science and Engineering of the Visvesvaraya Technological University, during the academic year 2020-2021. It is certified that all correction/suggestions indicated for the assessment have been incorporated in the report deposited in the department library. The Project phase- 2 report has been approved as it satisfies the academic requirement in respect of Project Phase – 2 17CSP85 prescribed for the Bachelor of Engineering Degree.

Sign. Of the Guide	Sign of the HOD	Sign of the Principal
Dr.S.SREEDHAR KUMAR	**Dr.S.SREEDHAR KUMAR**	**Dr.SYED ARIFF**

08/10/2021

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI – 590018

2020–2021

A

Phase II Project Report on

"IoT based Forest Tracker using Raspberry pi model."

Submitted in the partial fulfillment of the requirement for the VIII Semester Project – 17CSP85 for the award of degree of

Bachelor of Engineering

in

Computer Science and Engineering

by

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CERTIFICATE

Certified that the Project Work entitled *"IOT Based forest tracker using Rasperry pi model."* is a bonafied work carried out By **Aishwarya J.P-1GV17CS003, Avelin sheena V-1GV17CS008, Deepika D-1GV17CS015, Dharani J.J-1GV17CS017** in the partial fulfillment for the award of degree of Bachelor of Engineering in **Computer Science and Engineering of the Visvesvaraya Technological University**, Belagavi during the year 2020-2021. It is certified that all corrections/suggestions indicated for the assessment have been incorporated in the phase 2 report deposited in the departmental library. The Phase 2 Project report has been approved as it satisfies the academic requirement in respect of Project Work-17CSP85 prescribed for the Bachelor of Engineering Degree.

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Signature of Guide	**Signature of HOD**	**Signature of Principal**
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	Head of the Department Dept. of Computer Science Dr. T Thimmaiah Institute of Technology Oorgaum, K.G.F - 563 120	PRINCIPAL Dr. T. Thimmaiah Institute of Technology Oorgaum, K.G.F. - 563 120.

ABSTRACT

Over the last two decades, the forest fire has been increased dramatically, due to forest fire animals are not secure and moves out of the forest boundaries. In this system the Forest monitoring unit has been developed to provide a monitoring and communication solution for Forest protection. The system provides an intelligent forest environment monitoring solution based on the Raspberry pi, analogical and digital sensors. The user's accessibility to the collected data is ensured via Internet and a mobile application that allows the user to receive notifications, whenever fire or animals are detected. This Forest monitoring solution is an IOT project, addressed to public and private forest owners as well as to national environmental and disaster response authorities. The purpose of the IOT concept is to transform the real world and every day electronic devices, appliances, etc., into intelligent interconnected virtual objects. By keeping the user informed on the state of things and giving the users control of things, a better global humans-devices-humans communication can be achieved.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI – 590018

2020-2021

A
Report of Project Phase II
on

"An Innovative Approach to Provide Communication Interface between Deaf and Dumb People"

Submitted in the partial fulfilment of the requirements for the VIII Semester Project Work-17CSP85 for the award of the Degree of

Bachelor of Engineering
in
"Computer Science and Engineering"

Submitted by

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CERTIFICATE

Certified that the Project work entitled **"An Innovative Approach to Provide Communication Interface between Dumb and Deaf People"** is a bonafide work carried out by **Gangothri KR - 1GV17CS018, Imaad Uwaiz -1GV17CS022, Keerthana R-1GV17CS029, Lakshmi V – 1GV17CS032** in the partial fulfilment for the award of the Degree of Bachelor of Engineering in **Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the academic year 2020-2021. It is certified that all corrections/suggestions indicated for the assessment have been incorporated in the report deposited in the department library. The project phase-1 report has been approved as it satisfies the academic requirement in respect of project Phase-II 17CSP85 prescribed for the Bachelor of Engineering Degree.

2/8/2021

Signature of Guide
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Head of Department

04/08/2021

Signature of Principal
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ABSTRACT

The deaf and dumb people face problems in communicating with others. Addressing the problems and issues of individuals with Visual, Hearing and Vocal Impairment through single aided system may be a powerful job.

The project focuses on finding a unique technique that aids the visually impaired by letting them hear what is represented as text, and letting them visualize what is been represented as voice command, it is achieved by the technique that captures the video through a camera and convert it text form and visualize which is in audio form by speech to text conversion technique.

Our goal is to design a desktop human computer interface application that facilitates communication among such people with normal ones. This can be done by making use of Machine Learning.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI – 590018

2020-2021

A

Report of Project Phase II

on

"Novel Approach to Data Security using Steganography and Visual Cryptography"

Submitted in the partial fulfilment of the requirements for the VIII Semester Project Work-17CSP85 for the award of the Degree of

Bachelor of Engineering

in

"Computer Science and Engineering"

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CERTIFICATE

Certified that the Project work entitled "NOVEL APPROACH TO DATA SECURITY USING STEGANOGRAPHY AND VISUAL CRYPTOGRAPHY" is a bonafide work carried out by **VEDHASHREE.A - 1GV17CS073, REKHA VITTAL BIRADAR - 1GV17CS057, JAYAKUMARI.V -1GV16CS029, HEMANTHKUAMR.N – 1GV16CS025** in the partial fulfilment for the award of the Degree of Bachelor of Engineering in **Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the academic year 2020-2021. It is certified that all corrections/suggestions indicated for the assessment have been incorporated in the report deposited in the department library. The project phase-2 report has been approved as it satisfies the academic requirement in respect of project Phase-2 17CSP85 prescribed for the Bachelor of Engineering Degree.

10/8/2021

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Abstract

In today's Information age, Information sharing and transfer has increased exponentially. The threat of an intruder accessing secret Information has been an ever existing concern for the data communication experts. Cryptography and steganography are the most widely used techniques to overcome this threat. Cryptography involves converting a message text into an unreadable cipher. On the other hand, Steganography embeds message into a cover media and hides it existence. Both these techniques provide some security of data neither of them alone is secure enough for sharing information over communication channel and are vulnerable to intruder attacks. Although these techniques are using to achieve higher levels of security but still there is need of a highly Secure System to transfer Information over any communication media minimizing the threat of intrusion.

Steganography is a data hiding technique which uses images, audio or video as cover medium. Cryptography has become an essential part of security. Image to reduce vulnerability to cryptanalysis. We overcome the drawbacks of using textual steganography as it easier to intercept and decipher. We encrypt the plain text with a randomly generated key using XOR and One Time Pad algorithm and in turn embedding it into Least Significant Bit of the cover Image.

The main objective of the proposed method is to introduce more security of data by using visual cryptography and steganography techniques to make it more difficult to retrieve the plain text of a secret message from the stego object. Main goal is to improving security, reliability and efficiency. XOR and One Time Pad algorithm proposed for encryption the data. The scrambling algorithm is carried out where pixel location are scrambled. This technique of stego Image provides extra protection. The secure message is then decrypted from the Stego image. If the threshold value is used for generation of the shares is unknown at the Receiver end it will be impossible to reveal the secret message from the image making this highly secure and strong. Proposed approach is applicable to, but not limited to, the following areas are, Confidential communication and secret data storing, Protection of data alteration, Access control system for digital content distribution, Media Database systems.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI - 590018

2020–2021

A

Project Phase-2 Report

On

"DETECTION OF DEPRESSION IN TEXT SEQUENCES "

Submitted in the partial fulfillment of the requirement for the VIII Semester Project phase-2 Work-17CSP85 for the award of degree of

Bachelor of Engineering

In

"Computer Science and Engineering"

By

SAVITHA SHREE M	1GV17CS064
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Under the Guidance of

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Dr. T.THIMMAIAH INSTITUTE OF TECHNOLOGY

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

Certified that the Project work entitled **"DETECTION OF DEPRESSION IN TEXT SEQUENCES"** is a bonafide work carried out by **SAVITHA SHREE M - 1GV17CS064, INFANCIA R – 1GV17CS077, SANDRA CAROLIN S - 1GV17CS078** and **MARIA REBECCA D – 1GV17CS079** in the partial fulfillment for the award of degree Bachelor of Engineering in **Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi during the academic year 2020-2021.** It is certified that all corrections/suggestions indicated for the assessment have been incorporated in the report deposited in the department library. The Project Phase-2 report has been approved as it satisfies the academic requirement in respect of **Project Phase-2 work 17CSP85** prescribed for the Bachelor of Engineering Degree.

.....	.....	..... 09/06/2021
Signature of guide	Signature of HOD	Signature of Principal
Mrs. SOPHIA S	Dr. S SREEDHAR KUMAR	Dr. SYED ARIFF
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ABSTRACT

Depression is ranked as the largest contributor to global disability and is also a major reason for suicide. Still, many individuals suffering from forms of depression are not treated for various reasons. Previous studies have shown that depression also has an effect on language usage and that many depressed individuals use social media platforms or the internet in general to get information or discuss their problems.

This paper addresses the early detection of depression using machine learning models based on messages on a social platform. In particular, a convolutional neural network based on different word embeddings is evaluated and compared to a classification based on user-level linguistic metadata. An ensemble of both approaches is shown to achieve state-of-the-art results in a current early detection task.

Furthermore, the currently popular ERDE score as metric for early detection systems is examined in detail and its drawbacks in the context of shared tasks are illustrated. A slightly modified metric is proposed and compared to the original score. Finally, a new word embedding was trained on a large corpus of the same domain as the described task and is evaluated as well.

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ICRTTEAS 2021

Certificate

This is to certify that ***Miss. M Savitha Shree, Student, Dr.T.Thimmaiah institute of Technology,*** *presented a paper titled* ***"Utilizing Neural Network And Linguistic Metadata For Early Detection Of Depression Indications In Text Messages"*** *in the 3rd International Conference on Recent Trends in Technology, Engineering and Applied Science - ICRTTEAS 2021 held virtually on 19th and 20th July 2021.*

Dr. Palaniswamy K M	Prof. Ruckmani Divakaran	Dr. H.G. Shenoy	Dr. Syed Ariff
Convener	General Chair	Vice Principal	Principal

CertificateID: ICRTTEAS2021/R666

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Approved By AICTE Govt. of India New Delhi | ISO 21001: 2018 Certified

ICRTTEAS 2021

Certificate

This is to certify that ***Miss. Infancia R, Student,*** *Dr.T.Thimmaiah institute of Technology, presented a paper titled "****Utilizing Neural Network And Linguistic Metadata For Early Detection Of Depression Indications In Text Messages****" in the 3rd International Conference on Recent Trends in Technology, Engineering and Applied Science - ICRTTEAS 2021 held virtually on 19th and 20th July 2021.*

Dr. Palaniswamy K M	Prof. Ruckmani Divakaran	Dr. H.G. Shenoy	Dr. Syed Ariff
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CertificateID: ICRTTEAS2021/R667

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ICRTTEAS 2021

Certificate

This is to certify that ***Miss. Sandra Carolin S, Student, Dr.T.Thimmaiah institute of Technology,*** *presented a paper titled* ***"Utilizing Neural Network And Linguistic Metadata For Early Detection Of Depression Indications In Text Messages"*** *in the 3rd International Conference on Recent Trends in Technology, Engineering and Applied Science - ICRTTEAS 2021 held virtually on* ***19th and 20th July 2021.***

Dr. Palaniswamy K M	Prof. Ruckmani Divakaran	Dr. H.G. Shenoy	Dr. Syed Ariff
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GOLDEN VALLEY EDUCATIONAL TRUST

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ICRTTEAS 2021

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This is to certify that **Miss. Maria Rebecca D, Student**, *Dr.T.Thimmaiah institute of Technology, presented a paper titled* **"Utilizing Neural Network And Linguistic Metadata For Early Detection Of Depression Indications In Text Messages"** *in the 3rd International Conference on Recent Trends in Technology, Engineering and Applied Science - ICRTTEAS 2021 held virtually on 19th and 20th July 2021.*

Dr. Palaniswamy K M	Prof. Ruckmani Divakaran	Dr. H.G. Shenoy	Dr. Syed Ariff
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CertificateID: ICRTTEAS2021/R669

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI - 590018 2020–2021

Project Report

On

"AN IMPROVISED TECHNIQUE FOR HUMAN ACTIVITY VIDEO CLASSIFICATION USING MACHINE LEARNING CONCEPT"

Submitted in the partial fulfilment of the requirement for the XIII Semester Project Work-15CSP85 for the award of degree of

Bachelor of Engineering

In

"Computer Science and Engineering"

By

KISHORE B	1GV14CS023
PRASHANTH M	1GV15CS066
JOEVIN K	1GV16CS030
PAVAN KUMAR S	1GV16CS047

Under the Guidance of

Dr.S SREEDHAR KUMAR

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING.

CERTIFICATE

Certified that the Project work entitled "AN IMPROVISED TECHNIQUE FOR HUMAN ACTIVITY VIDEO CLASSIFICATION USING MACHINE LEARNING CONCEPT" is a bonafide work carried out by KISHORE B – 1GV14CS023, PRASHANTH M –1GV15CS066, JOEVIN K-1GV16CS030 and PAVAN KUMAR S– 1GV16CS047 in the partial fulfillment for the award of degree Bachelor of Engineering in Computer Science and Engineering of the Visvesvaraya Technological University, Belagavi during the academic year 2020-2021. It is certified that all corrections/suggestions indicated for the assessment have been incorporated in the report deposited in the department library. The Project phase-II report has been approved as it satisfies the academic requirement in respect of Project phase-II 15CSP85 prescribed for the Bachelor of Engineering Degree.

.....	.....	..... 08/10/2021
Signature of the guide	Signature of the HOD	Signature of the Principal
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ABSTRACT

Our proposed project is used to monitor public gathering and to detect malicious activities like fraud, pick pocket, chain snatching etc. and we can take precautions, detect them and hence preventive measures can also be taken. And finally social distancing between the people can be monitored as well during these pandemic situations. This system is capable of detecting human activities in crowds from data captured from cameras. The detection is achieved by classifying the movements of people in crowds, and those patterns can be different and can be classified as walking, hand clapping, hand waving and boxing activities. A model for classifying movements is trained by using Machine learning technique. The system is going to be tested by using test datasets collected from trusted internet source. Results will show that the test data can detect correctly the human activity in crowd.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI, KARNATAKA-590 018
2020-2021

A Project Phase -IIReport On

"TEXTURAL DATA REMOVAL OF MEDICAL IMAGE USING PATTERN RECOGNITION TECHNIQUE"

Submitted in partial fulfillment of the requirement for the VIIIsemester Project Phase II work 15CSP85 for the award of the degree of

Bachelor of Engineering

in

Computer Science and Engineering

By

MADHAVI K S	**1GV16CS036**
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Kolar Gold Fields –563120

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DEPARTMENT OF COMPUTER SCIENCE ENGINEERING

CERTIFICATE

Certified that the Project work entitled ***"TEXTURAL DATA REMOVAL OF MEDICAL IMAGE USING PATTERN RECOGNITION TECHNIQUE"*** isa bonafide work carried out by **SURYA S - 1GV14CS063, MADHVI K.S - 1GV16CS036, SAGAR K -1GV15CS079** and **NATSHATHRA - 1GV16CS043** in the partial fulfillment for the award of degree Bachelor of Engineering in **Computer Science and Engineering** of the **Visvesvaraya Technological University, Belagavi** during the academic year 2020-2021. It is certified that all corrections/suggestions indicated for the assessment have been incorporated in the report deposited in the department library. The Project I report has been approved as it satisfies the academic requirement in respect of Project phase II- 15CSP85 prescribed for the Bachelor of Engineering Degree.

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Abstract

A novel method to automatically detect the texts embedded in medical images is proposed. Specific local features for texts in medical images, such as local edge density, local intensity contrast, and connectivity, are defined and extracted to find out the candidate text regions. Then the histograms of oriented gradient (HOG) for all candidate regions are calculated. With both the HOG features and the aforementioned local features, an adaptive boosting classifier is used to discriminate the texts from non-text structures. Experimental results show that the proposed method has better text detection performance compared with previous methods. It can preserve the text information and eliminate the obstruction caused by different sources. The detected texts can provide additional information in many applications such as medical image retrieval.

We propose a new method to automatically detect the texts embedded in medical images. By exploiting the characteristics of medical images, the proposed method can have better performance than previous natural image text detection methods. The method can be seen as a two-stage process. The first stage is introduced where several types of local features are defined and extracted, with which the candidate text regions are labeled, the second stage is introduced where candidate regions are classified so as to discriminate the texts from non-text structures.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI – 590018

2020-2021

A

Phase 2 Project Report

on

"ANAMOLY DETECTION IN CROWDS USING MULTI VIDEO INFORMATION"

Submitted in the partial fulfillment of the requirements for the VIII Semester Project - 15/17CSP85 for the award of the Degree of

Bachelor of Engineering

in

"Computer Science and Engineering"

Submitted by

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Under guidance of

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

Certified that the Project Work entitled "*Anomaly Detection In Crowds Using Multi Video Information.*" is a bonafied work carried out by **Malavika R - 1GV17CS034, Monisha R - 1GV17CS038, Monisha R - 1GV17CS039 and Monika R - 1GV18CS045** in the partial fulfillment for the award of degree of Bachelor of Engineering in **Computer Science And Engineering of the Visvesvaraya Technological University, Belagavi** during the year 2020-2021. It is certified that all corrections/suggestions indicated for the assessment have been incorporated in the report deposited in the departmental library. The Project report has been approved as it satisfies the academic requirement in respect of Project Work-18/17CSP85 prescribed for the Bachelor of Engineering Degree.

6/8/2021

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06/08/2021

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ABSTRACT

At present, the existing abnormal event detection models based on deep learning mainly focus on data represented by a vectorial form. But here, Anomaly detection in crowds using Multi video information is a system capable of detecting unusual activities in crowds from real-world data captured from multiple cameras. The detection is achieved by classifying the distinct movements of people in crowds, and those patterns can be different and can be classified as normal and abnormal activities. Statistical features are extracted from the data set collected by applying sliding time window operations.

A model for classifying movements is trained by using Deep learning technique.The system was tested by using two data sets collected from CCTV during social events gathering. Results show that data can be used to detect anomalies in crowds as an alternative to video sensors with significant performances. Our approach is the first to detect any unusual behaviour in crowd with non-visual data, which is simple to train and easy to deploy.

Security is always a main concern in every domain, due to a rise in crime rate in a crowded event or suspicious lonely areas. Abnormal detection and monitoring have major applications of computer vision to tackle various problems. Due to growing demand in the protection of safety, security and personal properties, needs and deployment of video surveillance systems can recognize and interpret the scene and anomaly events play a vital role in intelligence monitoring.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI – 590018

2020-2021

A

Project Report of Phase II

on

"COUNTERFEIT PRODUCT IDENTIFICATION USING BLOCKCHAIN TECHNOLOGY"

Submitted in the partial fulfilment of the requirements for the VIII Semester Project Work-17CSP85 for the award of the Degree of

Bachelor of Engineering

in

"Computer Science and Engineering"

Submitted by

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

CERTIFICATE

Certified that the Project work entitled "Counterfeit Product Identification Using Blockchain Technology" is a bonafide work carried out by **MANOJ KUMAR K.N - 1GV17CS036, NAVEEN SAI KUMAR - 1GV17CS042, PRAVEEN R - 1GV17CS049** in the partial fulfilment for the award of the Degree of Bachelor of Engineering in Computer Science and Engineering of the **Visvesvaraya Technological University, Belagavi** during the academic year 2020-2021. It is certified that all corrections/suggestions indicated for the assessment have been incorporated in the report deposited in the department library. The project phase-II report has been approved as it satisfies the academic requirement in respect of project phase-II 17CSP85 prescribed for the Bachelor of Engineering Degree.

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ABSTRACT

Block chain technology is an open distributed ledger that can record transaction of peers. As it is distributed, Block chain is typically managed by peer to peer network. Working simultaneously to solve complex mathematical problems in order to validate new blocks. In Block chain each block will be hashed and that hash value will be used for linking new block, even transactions of the block also get hashed and Merkle tree is used to keep track of hash values of transaction by making all hash values of tractions into single hash value.

The proposed system is capable of detecting the counterfeit products, using the QR code which is embedded on the product which provides the information of the product by using block chain technology. We described block chain with product anti-counterfeiting in that way manufactures can use this system to provide genuine product without having to manage direct operated stores.

Now a days fake products are floating a lot in the market. They are sold at cheaper rates than original products. Sometimes, they are even sold at the same rate. Block chain has a way to prevent such malpractices too.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI - 590018

2020–2021

A Phase II Project Report

on

"AN IMPROVED HANDWRITTEN DIGITS RECOGNITION USING HISTOGRAM & ML TECHNIQUES"

Submitted in the partial fulfilment of the requirement for the VII Semester Project – 17CSP78 for the award of degree of

Bachelor of Engineering

In

Computer Science and Engineering

By

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DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING.

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Certified that the **Phase II Project Work** entitled **"AN IMPROVED HANDWRITTEN DIGITS RECOGNITION USING HISTOGRAM & ML TECHNIQUES"** is a bonafied work carried out **by Jaya Chithra S - 1GV17CS025, Nandhini V – 1GV17CS040 & Rashmita Giri - 1GV17CS053** in the partial fulfilment for the award of degree of Bachelor of Engineering in **Computer Science and Engineering** of the **Visvesvaraya Technological University**, Belagavi during the year 2020-2021. It is certified that all corrections/suggestions indicated for the assessment have been incorporated in the report deposited in the departmental library. The Phase II Project report has been approved as it satisfies the academic requirement in respect of **Phase II Project Work- 17CSP78** prescribed for the Bachelor of Engineering Degree.

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Name of Examiners	Signature with Date
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2.	2.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI - 590018 2020–2021

Project Phase 1 Report

On

"DETECTING THE CRIMINAL RECIDIVISM BEHAVIOUR CLASSIFICATION USING MACHINE LEARNING TECHNIQUES"

Submitted in the partial fulfilment of the requirement for the XIII Semester Project Work-17CSP75 for the award of degree of

Bachelor of Engineering

In

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By

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ABSTRACT

There are numerous cases in the recent times, where a criminal commits a crime, immediately after being granted parole, this is called Criminal Recidivism. The act of recidivism poses a great threat to the society and thus needs to be checked. This work posits a machine learning approach to detect and predict the tendency of a criminal to commit recidivism.

The proposed system helps classify the criminals into Low, Medium, and High risk of committing recidivism. Features like 'Ethnic code', 'Marital Status', 'Age', 'Sex Code', 'Legal Status' and many more are considered while training the model on the dataset.

Supervised Classification Algorithms are implemented, and voting is subsequently done, to select the algorithm with the highest accuracy. An approach for crime detection in India using Data mining techniques is proposed in this paper. The approach consists of the following steps - Data pre-processing, clustering, classification and visualization. Data mining techniques are often applied to Criminology as it provides good results. Criminology is a field which studies about various crime characteristics. Analysing crime data means exploring crime data. Crime is identified using Haarcascade algorithm and the clusters are formed based on the similarity of the crime attributes.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

BELAGAVI-590018

2020-2021

A

Project Report

On

"Detecting fake twitter bots on twitter using svm and neural networks algorithms"

Submitted in the partial fulfilment of the requirement
For the VII Semester Project – 15CSP78 for the award of degree of

Bachelor of Engineering

In

Computer science and Engineering

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CERTIFICATE

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Signature of Guide	**Signature of HOD**	**Signature of Principal**
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ABSTRACT

In the last years big social networks like Facebook or Twitter acknowledge that on their networks are forged and duplicate accounts.

With these accounts, their creators can distribute false information, support or attack an idea, a product, or an election applicant, influencing physical network users in making a decision.

They exploit the implicit belief relationships between users in order to achieve their hateful aims, for example, create hateful links within the posts/tweets. For detecting Twitter accounts, we make use of several new features, which are more effective and robust than extinguished features (e.g. number of Users/followings/followers, etc.).

We evaluated the proposed set of features by exploiting very popular machine learning classification algorithms, namely Support Vector Machine (SVM) and Neural Networks (NN). Their admiration has led to the different problems such as creation of fake accounts and spreading of fake information also creation of malicious content.

Such situations may cause damage to the real-world events which are directly related to peoples, commercial entities, learning fields, etc. In this paper, we present our system build with the aim of recognizing fake users of Twitter social network.