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### 3.3.2 Number of books and chapters in edited volumes/ books published and papers in national / international conference proceedings during year 2020

Sr. no	Year	Title of book, book chapter, paper	Name Of Teacher	Title of the publisher, conference proceedings/ journal	page
1	2020	Computer Graphics	Dr. S. A. Chiwhane	NiraliPrakashan	12
2	2020	Object Oriented Programming,	Ms. P. P. Jorvekar, Mr.S. N. Bhosale	NiraliPrakashan	13
3	2020	To study the use of multimedia and open educational resources in teaching-learning	Mrs. Manisha P. Navale,	Empyreal Publishing House	14
4	2020	Investigation of shift towards online teaching learning	Mrs. Manisha P. Navale,	Empyreal Publishing House	15
5	2020	Threat Detection in Hostile Environment with Deep Learning based on Drone's Vision	Ms.Sufiyan Shaikh, Mr Rushikesh Raskar, Mr. Lajri Pande,.	Global Conference On Next Generation Information Communication Technologies 2020	16
6	2020	Enabling authentication and Access Control-Based Data Sharing with personal Information Hiding for Secure Cloud Storage	Ms.Supriya Raywade , Ms.Ayushi Dixit, Ms Shruti Jain	Global Conference On Next Generation Information Communication Technologies 2020	17
7	2020	Digital Image Processing in Remote Sensing	Mr .Ajinkya, Mrs. P.P.Jorvekar	Global Conference On Next Generation Information Communication Technologies 2020	18
8	2020	IOT to Oversight Smart Home Environment	Ms.Prajakta Sanjay Gaikwad,Mr .Amit Sanjay Shete, Ms. S. D. Shirke	Global Conference On Next Generation Information Communication Technologies 2020	19



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9	2020	Test Case Management Tool	Ms.Dhruvi Modi, Ms.Alisha Bhale, Mr .Karan Borana	Global Conference On Next Generation Information Communication Technologies 2020	20
10	2020	Comparative Analysis of DDoS Mitigation Algorithms in SDN	Mr .Chinmay Dharmadhikari, Mr .Salil Kulkarni, Ms.Swarali Temkar	Global Conference On Next Generation Information Communication Technologies 2020	21
11	2020	A Currency Recognition App For Visually Impaired People	Mr .Hardik Bhutada, Mr .Shubham Kamble, Omkar Mhaske, Rohi tDhanawade	Global Conference On Next Generation Information Communication Technologies 2020	22
12	2020	A Study On Margret Atwood's Particular Novels	Ms.Radha Dr.V.Manimozhi	Global Conference On Next Generation Information Communication Technologies 2020	23
13	2020	Impact Of Socio Economic Factor On Repayment Capacity Of Bank Borrowes	Mr .Sampige NarayanaRao	Global Conference On Next Generation Information Communication Technologies 2020	24
14	2020	Honeyword Security using EBCDIC	Mr .Sumit Pravin Rathi, Mr .PatelRutu Manish, Arivoli A.	Global Conference On Next Generation Information Communication Technologies 2020	25
15	2020	An Initiative Study on Software Defined Cloud Computing	Mr .Kshitij Chaudhari , Mr.Shailesh P. Bendale	Global Conference On Next Generation Information Communication Technologies 2020	26
16	2020	Forest Monitoring Using Remote Sensing	Mr .Y. Bharad, Mrs. P.P.Jorvekar	Global Conference On Next Generation Information Communication Technologies 2020	27
17	2020	Review of Big data: Recent Tools and Technologies	Mr .Prasad Ligade, Mrs. P.P.Jorvekar	Global Conference On Next Generation Information Communication Technologies 2020	28



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18	2020	Review on Blockchain contribution to the Internet of Things	Mr .Siddhant Dani, Mrs.Priti P. Jorvekar	Global Conference On Next Generation Information Communication Technologies 2020	29
19	2020	SELF-DRIVING CARS USING COMBINATION OF AI AND BLOCKCHAIN	Mr .Gaurav Kumar, Mr. Aishwarya Raut, Mrs.Nilam Kadale	Global Conference On Next Generation Information Communication Technologies 2020	30
20	2020	Sentiment Analysis for Text Feedback Approaches	Ms.Priyanka Kumari	Global Conference On Next Generation Information Communication Technologies 2020	31
21	2020	Automated Nursery Management System	Mr .Vijay Prashant Pawar, Mr .Pranav Mukund Patil ,Mr.P.S.Hanwate	Global Conference On Next Generation Information Communication Technologies 2020	32
22	2020	Neural Machine Translation and Artificial Intelligence	Mr.Uday Nath Pandey, Mr.P.S.Hanwate	Global Conference On Next Generation Information Communication Technologies 2020	33
23	2020	SALESFORCE: A CRM	Mr .Praveen Garg ,Mr.P.S.Hanwate	Global Conference On Next Generation Information Communication Technologies 2020	34
24	2020	A Case Study Of Fake Indian Currency Recognition	Mr .Vishal Kumar, Mr.P.S. Hanwate	Global Conference On Next Generation Information Communication Technologies 2020	35
25	2020	Software Defined Network (SDN) for 5G era an emerging Mega-trend	Ms.Ruchira Borkar, Mr .Shailesh Bendale	Global Conference On Next Generation Information Communication Technologies 2020	36
26	2020	Application of Blockchain in Software Defined Network	Ms.Praneeta Dumbre, Mr .Shailesh P. Bendale	Global Conference On Next Generation Information Communication Technologies 2020	37



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27	2020	Transmitting Sound Waves through Cranial Bones by Vibrating Transducers Using Bone Conduction	Ms. Apurva Joshi, Mr. Shailesh Bendale	Global Conference On Next Generation Information Communication Technologies 2020	38
28	2020	Implementing Tools for Monitoring and analysis of Dark net websites	Mr .Ajinkya Ghorpade, Ms. Shweta B Guja	Global Conference On Next Generation Information Communication Technologies 2020	39
29	2020	Reinforcement learning in Open AI five	Mr .Harsh Agrawal, Ms. Shweta B. Guja	Global Conference On Next Generation Information Communication Technologies 2020	40
30	2020	Applying Image Processing to Analyze Liver Cancer	Mr .Raushan Kumar, Mrs. R.P. Karande	Global Conference On Next Generation Information Communication Technologies 2020	41
31	2020	Sanskrit Guru: Development of Gamification-Based M-Learning Application	Ms. Vidya Kamble, Ms. Vina Lomte	Global Conference On Next Generation Information Communication Technologies 2020	42
32	2020	Survey on Devanagari Text Detection in Deep Learning	Mr .Aditya Sovani, Mr .Ashish Pandita, Mr .Chinmay Bansod, Mrs. Vina Lomte	Global Conference On Next Generation Information Communication Technologies 2020	43
33	2020	Detection of Cervical Cancer Using Machine Learning Techniques	Ms. Ashwini Hiremath, Ms. Snehal Pimpodkar, Soujanya Sankathala	Global Conference On Next Generation Information Communication Technologies 2020	44
34	2020	AGRICULTURE USING MQTT PROTOCOL	Mr .Atharva Shewale, Dr. Shwetambari Chiwhane	Global Conference On Next Generation Information Communication Technologies 2020	45
35	2020	Evaluation of Machine Learning Algorithms to Detect Credit Card Fraud	Ms. Sonal Mahajan, Dr. Shwetambari Chiwhane	Global Conference On Next Generation Information Communication	46



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36	2020	A Survey on Cardiac Arrest Detection Using Machine Learning	Ms.Mridul Jain, Ms.Shreya B.Ahire	Global Conference On Next Generation Information Communication Technologies 2020	47
37	2020	A Survey on Host Based Botnet Detection System	Mr .Adwait A.Rajmane,Ms.Shreya B. Ahire	Global Conference On Next Generation Information Communication Technologies 2020	48
38	2020	Blockchain Based Security And Resource Management Models For SDN	Mr .Karan Shingare ,Mr.P.S.Hanwate	Global Conference On Next Generation Information Communication Technologies 2020	49
39	2020	A Survey on Blockchain for Solving Safety Problem of IoT	Mr .Vaibhav Jagtap, Ms.Shreya B.Ahire	Global Conference On Next Generation Information Communication Technologies 2020	50
40	2020	A Survey on Stock Price Prediction Using Deep Learning	Mr.Kalpak Kale Mrs.Shreya B. Ahire	Global Conference On Next Generation Information Communication Technologies 2020	51
41	2020	Generation of E-Certificates using Custom Blockchain for Peer to Peer Network	Ms.Priyanka R Balage Dr. Kishor R Kolhe	Global Conference On Next Generation Information Communication Technologies 2020	52
42	2020	Vehicle Number Plate Recognition for automatic toll tax collection Using IoT and Machine Learning	Mr .AheraazTamboli Mr .Shounak Sugave	Global Conference On Next Generation Information Communication Technologies 2020	53
43	2020	Review of face recognition and face emotion detection system using open source computer visi	Mr .Vaibhav Mandavkar , Mr.S. S. Kale	Global Conference On Next Generation Information Communication Technologies 2020	54
44	2020	Development of	Mr .Gowardhan Mahajan	Global Conference On	55



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		smart cities using artificial intelligence		Next Generation Information Communication Technologies 2020	
45	2020	Survey on Decision Support System in Agriculture	Ms.Priti Jorvekar, Ms.Jayashree Rajesh Prasad	Global Conference On Next Generation Information Communication Technologies 2020	56
46	2020	Artificial Intelligence and Internet of Things (AIoT): Opportunities and Challenges	Mrs. Manisha P. Navale	Global Conference On Next Generation Information Communication Technologies 2020	57
47	2020	Security of Internet of Things Using Blockchain	Mrs.Nilam K. Kadale	Global Conference On Next Generation Information Communication Technologies 2020	58
48	2020	Fuzzy LDA for Topic Modeling: An Overview	Ms.Harshali Patil Ms. Sushila Palwe	Global Conference On Next Generation Information Communication Technologies 2020	59
49	2020	Data Analysis on Machines of Pharmaceutical Manufacturing Industry	Mr .Utkarsh Rahane, Mr .VishalKarande, Mr .Vrushabh Deogirikar	Global Conference On Next Generation Information Communication Technologies 2020	60
50	2020	A Study on the Basics and Approaches of Identifying and Analyzing Human behaviour	Mr .Kshitij Patil, Dr.Shwetambari . A.Chiwhane	Global Conference On Next Generation Information Communication Technologies 2020	61
51	2020	Object Detection and voice assistance for blind person	Mr .Danish Shaikh , Mr .Aniket Patil , Mr .Rohit More,Mr .Sachin Gaikwad	Global Conference On Next Generation Information Communication Technologies 2020	62
52	2020	Computerized Blood Bank Management System Using Geofencing	Ms.Riya Dandekar, Ms.Shweta Mane, Mr .Ronak Shah	Global Conference On Next Generation Information Communication Technologies 2020	63



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53	2020	An Assistive System for Visually Impaired People	Ms.Priya Rathore, Mr. Rhydum Gupta, Mrs. Nilam K. Kadale	Global Conference On Next Generation Information Communication Technologies 2020	64
54	2020	Finding Objects for Assisting Blind People	Mr .Danish Shaikh, Mr.Aniket Patil, Mr .Rohit More	Global Conference On Next Generation Information Communication Technologies 2020	65
55	2020	Currency Recognition App for Visually Impaired People with Audio Output	Mr .Shubham Kamble, Mr .Onkar Mhaske, Mr .Rohit Dhanawade, Mr .Hardik Bhutada,	Global Conference On Next Generation Information Communication Technologies 2020	66
56	2020	Disaster Management Using Geofencing and Datamining	Ms.Anushka Damle, Ms.Madhuri Shinde, Shriya Kulkarni, Shital Kawatge	Global Conference On Next Generation Information Communication Technologies 2020	67
57	2020	A Review on Subpart of Image Processing Technique: Image Filtering	Ms.Nandini Babbar	Global Conference On Next Generation Information Communication Technologies 2020	68
58	2020	A Survey on Chess Engine Using Deep Learning	Ms.Shreya B. Ahire, Mr .Santosh S. Kale, Mr .Sumit U. Mali	Global Conference On Next Generation Information Communication Technologies 2020	69
59	2020	Detection and Reduction of DDOS Attack Using IDS Tools	Mr .S.Emerld Jenifer Mary	Global Conference On Next Generation Information Communication Technologies 2020	70
60	2020	Relative Analysis of Sun Microsystems Open Office and Microsoft Office	Mrs. Rutuja Vilas Kotkar	Global Conference On Next Generation Information	71



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61	2020	Grid Computing	Ms. Swati D. Shirke, Ms. Snehasudha P. Dhage	Global Conference On Next Generation Information Communication Technologies 2020	72
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62	2020	A Survey on Crop Disease Detection Using Machine Learning	Ms.Bharti Athare, Ms.Shreya Sonawane	Global Conference On Next Generation Information Communication Technologies 2020	73
63	2020	Survey on Crop Disease Prediction using different techniques For Crop Yield Prediction	Ms.Shruti Kudagi, Mr .Sahas Patil, Ms.Mrunal Bewoor	Global Conference On Next Generation Information Communication Technologies 2020	74
64	2020	Prediction of Disease through Data Mining	Mr.AlokNagargoje, Mr.AnandBohara, Mr.Vijay Kakade	Global Conference On Next Generation Information Communication Technologies 2020	75
65	2020	Dam water level prediction system utilizing Artificial Neural Network Back Propagation	Mr.More Vaibhav Jagannath, Mr .Sonavane Swapnil Devidas	Global Conference On Next Generation Information Communication Technologies 2020	76
66	2020	System for Authentication and Security of User in Car	Mr.Amruta Vikas Patil, Mr .Vikas Madhukar Patil	Global Conference On Next Generation Information Communication Technologies 2020	77
67	2020	Campus Connect:A cross platform Questions and Answering app with Recommendation System	Mr.Jayesh Kale,Mr .Hetansh Bharad, Mr.Sourav Ghatage	Global Conference On Next Generation Information Communication Technologies 2020	78
68	2020	Application Of Bct In Secure Electronic Voting System	Mr. P.T.Suradkar, Mr.Mayur Mandlik	Global Conference On Next Generation Information Communication Technologies 2020	79
69	2020	ECG Signals Classification For Early Detection Of Cardiovascular Diseases (CVDs)	Ms.Vrushali Shinde , Ms.Rutuja Raut	Global Conference On Next Generation Information Communication Technologies 2020	80
70	2020	Determining Stock Market Prediction Using Opinion Mining	Ms. Pranjali Dudhal, Ms.TaniyaNimbalkar	Global Conference On Next Generation Information Communication	81



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71	2020	Online Show Popularity Prediction	Mrs.Triveni Landge , Ms.Supriya kore	Global Conference On Next Generation Information Communication Technologies 2020	82
72	2020	Interface For Farmers And Customers By Avoiding Mediators Using Location-Based Distribution Of Agricultural Products	Mr.Rushikesh B Chidrawar, Mr.Prasad M Bichkule	Global Conference On Next Generation Information Communication Technologies 2020	83
73	2020	Unusual Human Activity Detection Using Opencv Python with Machine Learning	Mrs. Manisha P. Navale	Global Conference On Next Generation Information Communication Technologies 2020	84
74	2020	Anti-Theft Car Security System	Mr .Kiran Panchal, Ms.Nilam Kadale	Global Conference On Next Generation Information Communication Technologies 2020	85
75	2020	A Study of 3D-GANs and their Implementation Challenges	Mr .Siddhant Shah, Mr .Shailesh Bendale	Global Conference On Next Generation Information Communication Technologies 2020	86
76	2020	Cyberhate Speech Detection With Fuzzy Approach	Mr .Sangita Padolkar , Ms.Poonam Mohalkar	Global Conference On Next Generation Information Communication Technologies 2020	87
77	2020	Secure Cloud Log for Cyber Forensics	Ms.Aditya Vanjari,Mr. Shubham Sahare	Global Conference On Next Generation Information Communication Technologies 2020	88
78	2020	A Secure Model for Detecting Origin Forgery and Packet Drop Attacks in Wireless Network	Ms.Pranali Salunkhe, Mr .SandeshThorat	Global Conference On Next Generation Information Communication Technologies 2020	89
79	2020	A Survey on Folder Lock System based	Mr .D. H. Patil, Dhananjay	Global Conference On Next Generation	90



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		on Fingerprint Authentication	NehaTakale	Information Communication Technologies 2020	
80	2020	Detection and Rescue of Emergency Vehicles from Traffic Using RFID	Ms.Pradnya Autade, Mrs.Chetna Kasturwar Mr .AtulAmbulgekar	Global Conference On Next Generation Information Communication Technologies 2020	91
81	2020	Question Generation from Text	Mr .Yash Oswal, Mr .IshaPisal,Mr .Mehul Shah	Global Conference On Next Generation Information Communication Technologies 2020	92
82	2020	Software Defined Network systems embedded with big data	Ms.Teleshwari Chouhan , Mr .Shailesh Pramod Bendale	Global Conference On Next Generation Information Communication Technologies 2020	93
83	2020	A Survey Paper on Smart Trolley Using RFID Technology	Mr .AshutoshWalimbe, Mr .Vikrant Pagnis,	Global Conference On Next Generation Information Communication Technologies 2020	94
84	2020	Document Clustering in Product Development Analyzer using TFIDF and K- Means Algorithm	Mr .Mohit Murotiya, Mr .Madhur Mahajan, Mr .KetanLaddha	Global Conference On Next Generation Information Communication Technologies 2020	95
85	2020	Prediction Of The Future Electricity Consumption And Production Using The Most Efficient Machine Learning Algorithm	Mr .Sohum R. Dhavale, Ms.Sakshi D. Mane Deshmukh,	Global Conference On Next Generation Information Communication Technologies 2020	96
86	2020	Cross User Big data Deduplication	Mr.Yash Karanje, Ms.Ankita Jadhav	Global Conference On Next Generation Information Communication Technologies 2020	97
87	2020	Diversified Troll Detection	Mrs Mrunmayee Patil, Mr .Sarang Patil,	Global Conference On Next Generation	98



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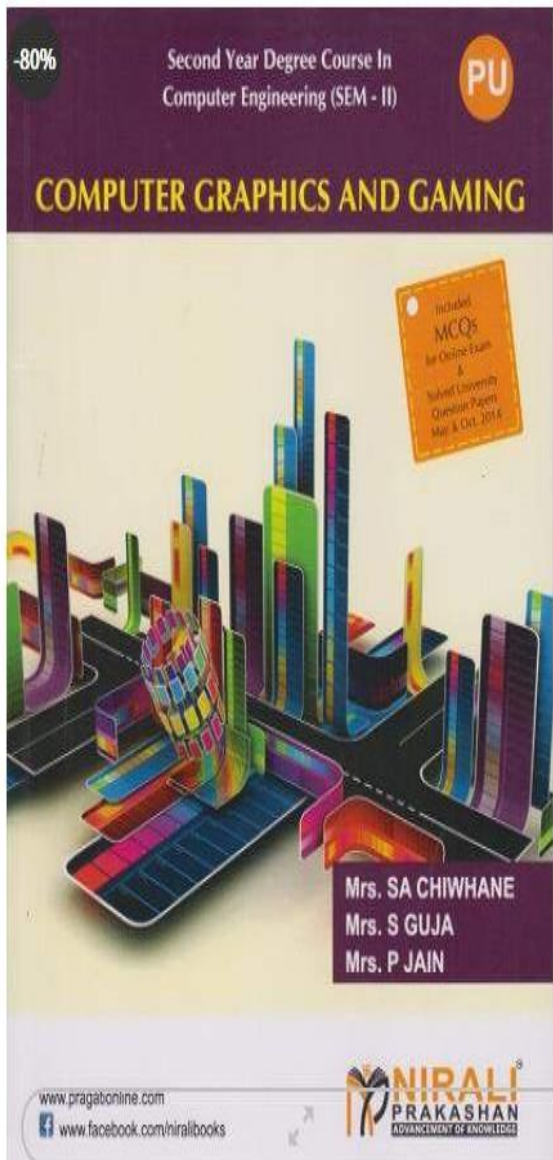
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		Mechanisms Using AI/ML Techniques		Information Communication Technologies 2020	
88	2020	9op;Study of Credit Card Fraud Recognition using machine learning classification methods	Ms.Saba Latif Ms.AditiKulkarni, Mrs.Rani Molkire	Global Conference On Next Generation Information Communication Technologies 2020	99
89	2020	Digital Agriculture System for Crop Prediction & Disease Analysis Based on Machine Learning	Ms.Nikita Vyavahare , Ms.Vrushali Vishwase	Global Conference On Next Generation Information Communication Technologies 2020	100
90	2020	Extending drone's capabilities for autonomous flight approach combined with indoor pod delivery mechanism	Mr.PiyushAgrawal, Mr.ShaileshBendale	Global Conference On Next Generation Information Communication Technologies 2020	101
91	2020	Vehicle Crash Alert System	Mr.Sahi lAnis Pathan, Mr.Shubham Sanjay More	Global Conference On Next Generation Information Communication Technologies 2020	102
92	2020	Sketch Classification Using CNN To Help Reduce Language Barrier	Mr.ManthanK, Mr.Esha.S,Satyam .J	Global Conference On Next Generation Information Communication Technologies 2020	103
93	2020	Detection Of Lung Cancer Nodule Using Digital Image Processing	Mr.Nishant Singh, Mr.ShubhamPote , Ms.Ganesh Patil	Global Conference On Next Generation Information Communication Technologies 2020	104

# 1.Computer Graphics by Dr. S. A. Chiwhane



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Authors Name Mrs SA Chiwhane , Mrs S Guja , Mrs P Jain

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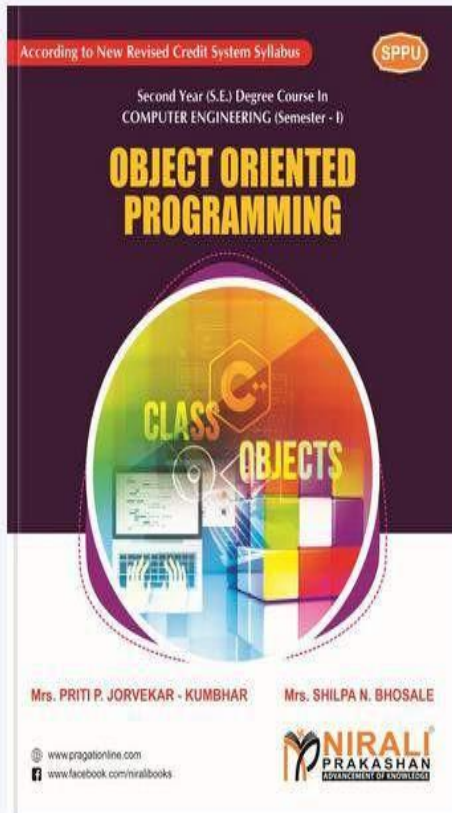
Edition First

Pages 316

Language English

# 1.Object Oriented Programming by Ms. P. P. Jorvekar/ Prof. S. N. Bhosale

College > B Tech Computer Engineering > Semester 3



## Object Oriented Programming

Author : Priti P Jorvekar, Shilpa N Bhosale

ISBN : 9789390225262

Book Type : eBook



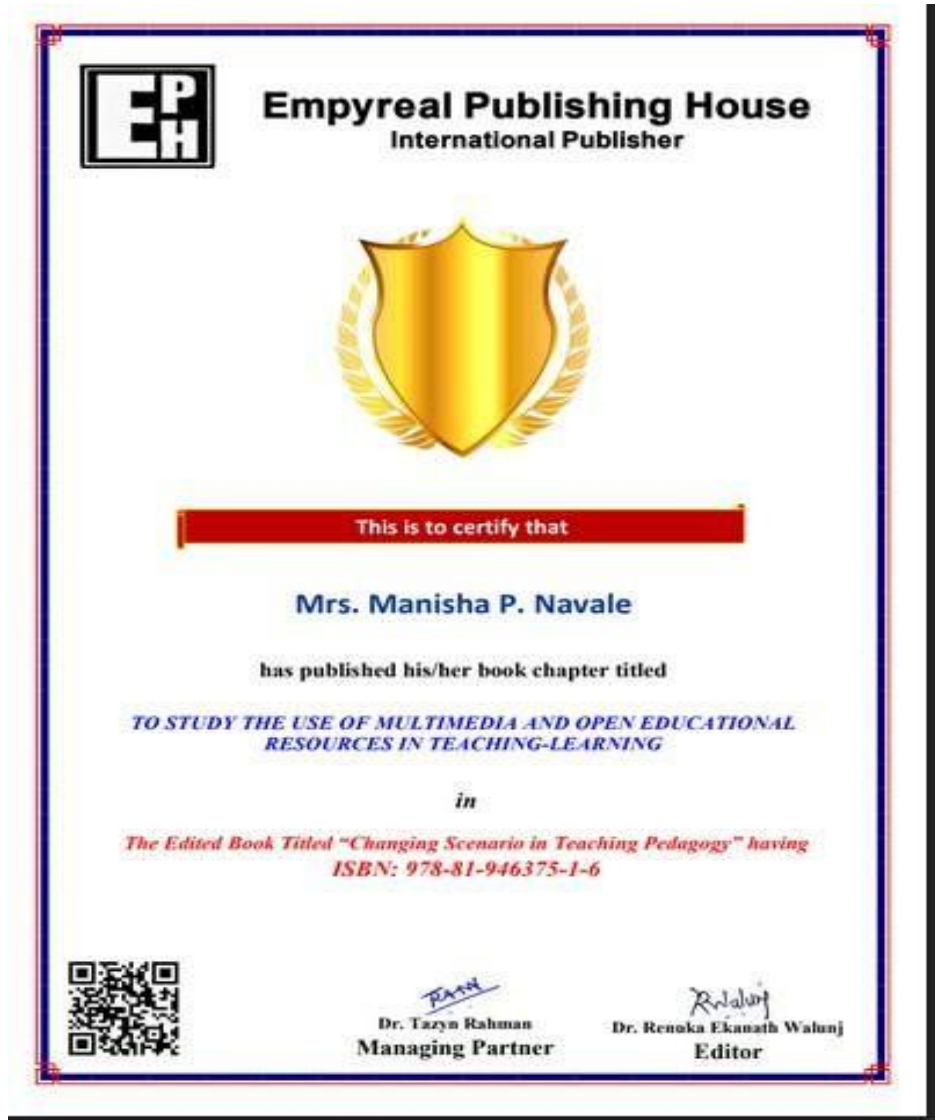
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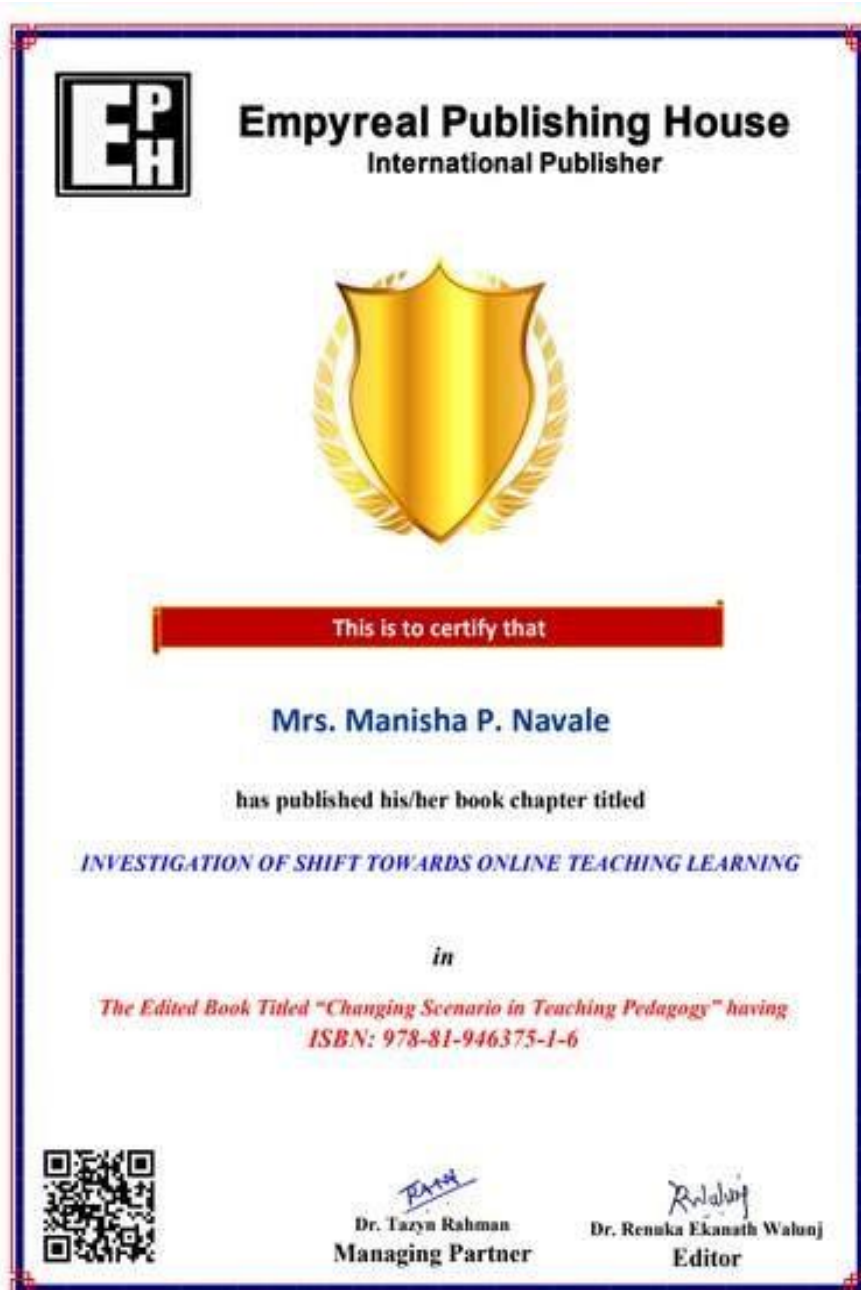
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3. Investigation of shift towards online teaching learning by Mrs. Manisha P. Navale





4. Threat Detection in Hostile Environment with Deep Learning based on Drone's Vision by Sufiyan Shaikh, Rushikesh Raskar, Lajri Pande, Zeenat Khan

## **Threat Detection in Hostile Environment with Deep Learning based on Drone's Vision**

**Sufiyan Shaikh<sup>1</sup>, Rushikesh Raskar<sup>2</sup>, Lajri Pande<sup>3</sup>, Zeenat Khan<sup>4</sup>, Prof Shweta P. Guja<sup>5</sup>**

<sup>1,2,3,4</sup> B.E student, Dept. of computer, NBN Sinhgad School of Engineering, Ambegaon, Pune- 411041, Maharashtra, India

<sup>5</sup> Prof. ,Dept of Engineering, NBN Sinhgad School of Engineering, Ambegaon, Pune-411041, Maharashtra, India

### ***Abstract***

*We have consider a video surveillance system, using a camera which is mount on a drone flying over the area that has to be monitored and send the video to a control center. The resulting network that we have to get composed of a static components, and a moving components on (Drone). The video signal will be transferred via radio signal to the control center. The control center will be equipped with AI/ML enabled application which will be able to detect what is in the frame. This system is very useful in hostile environment where we need to examine the whole area before proceeding and where the involvement of human being is dangerous to his life. This drone will the video feed with minimum to very low latency. The drone will be stealth and will make low noise which will make it difficult to be easily noticed.*

**Keywords:** Artificial Intelligence (AI) and Machine Learning (ML).

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5.Enabling authentication and Access Control-Based Data Sharing with personal Information Hiding for Secure Cloud Storage by SupriyaRaywade ,Ayushi Dixit,Shruti Jain, Deepali Jain

**“Enabling authentication and Access Control-Based Data Sharing with personal Information Hiding for Secure Cloud Storage”**

**Supriya Raywade , Ayushi Dixit, Shruti Jain, Deepali Jain**

*Dept. of Computer Engg. NBN Pune, India*

**Abstract**

*Unfortunately, the e-healthcare cloud system has shown its potential to improve health care and the quality of life of the individual, privacy and security slows its general deployment and application. There are a number of researches on the protective privacy of electric healthcare high (EHR). Information. However, all of these have two major limitations, they only work on the 'blackorwhite' access regulator policy. Additionally, they suffer from mutual attack. In this paper, for the first time, we find that inferential attack-resistance*

*We first recommend a two-layer encryption scheme with an e-healthcare cloud company with a fine-grained access regulator. To ensure an effective and fine-grained controller over EHR data, we employ first-layer encryption, where we advance a specific threshold for each data feature in the EHR and independently encrypt it with high efficiency. To reserve an understanding of the role features and access strategies in first-layer encryption, we build second-layer encryption fully to the benefit of cloud server revenue. In order to protect the appearance of accessibility to, we will build an additional blind data retrieval protocol. We also show that we can easily extend our scheme to support search functionality. Finally, we perform extensive security analyzes and performance assessments.*

**Keyword:** *Advanced Encryption Standards, Personal Data Extraction, Anonymous Authentication, Rotating Group Signature, Elliptic Curve Cryptography, Smart Health Applications.*

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## 7. Digital Image Processing in Remote Sensing by Ajinkya, Prof. P.P. Jorvekar

### **Digital Image Processing in Remote Sensing**

**Ajinkya, Prof. P.P. Jorvekar**

*Computer Department, NBN Sinhgad School of Engineering*

#### *Abstract*

*Image Processing is a method or technique in which the image is taken as an input and it is processed further to get the result which is also an image with data extracted from the input image. We can also take more than one image at a time as an input and can get the output which may be a single image or group of images. In the modern era image processing plays a vital role in almost all fields that come in our imagination. There are certain algorithms which get used in Image processing technology. Remote means something which is not exactly in contact or in physical contact, something which is far away and sensing means extraction of data of the target object. Basically, Remote Sensing is a procedure of measurement or accomplishment of information of some property or phenomena by a recording device without any physical contact with the object under study. The primary motive of this paper is to present an overview of image processing in remote sensing.*

**Keywords:** *Image processing, remote sensing, thematic map, Sensors, Image Acquisition, Image Segmentation*

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## 8.IOT to Oversight Smart Home Environment by Prajakta Sanjay Gaikwad, Amit Sanjay Shete, Prof. S. D. Shirke

### **IOT to Oversight Smart Home Environment**

*Prajakta Sanjay Gaikwad, Amit Sanjay Shete, Prof. S. D. Shirke  
Computer Department, NBN Sinhgad School of Engineering*

#### *Abstract*

*In day to day life, everyone wants to urge some comfort also as secure life. Home Automation is the concept where we will control home appliances remotely to scale back efforts. Home security system is useful to protect home from fire and theft. Wireless smart home system plays a crucial character in human day to day life and growing in popularity thanks to its flexibility, adjustability and less cost installation charges. Smart home system is extremely helpful in lifestyle because it decreases human burden, saves power and reduces stress about home security for working people. Smart home automation is concerned about to regulate light*

*ON/OFF status, fan speed and other home appliances remotely. Home security comprises services like gas leakage and theft detection. In this system, we suggest a secure as well as an effective smart home automation that allows guarding our homes from thieves or unfamiliar activities. It will also concentrates on saving power. Given smart home automated system is designed by enabling the key aspects of IoT that promotes users to watch an IoT developed home from any place and at any moment from a web when data is saved within cloud. The smart home automated system consists of motion sensor to sense an object in motion from surrounding where smart home automated system is planted.*

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## 9. Test Case Management Tool by Dhruvi Modi, Alisha Bhale, Karan Borana, Vaishnavi Chatap

### Test Case Management Tool

<sup>1</sup>Dhruvi Modi, <sup>1</sup>Alisha Bhale, <sup>1</sup>Karan Borana, <sup>1</sup>Vaishnavi Chatap,

<sup>1</sup>BE-Computer, VIIT Pune

<sup>2</sup>L.A. Deshpande, Assistant Professor, Computer Engineering, VIIT Pune

#### *Abstract*

*Software Testing is one of the crucial activities in developing quality software. Although a range of software testing techniques has been developed to efficiently identify bugs in source code, these techniques are not always fully employed in practice. This has many explanations, including the challenge of understanding the complexity of handling all the test cases for large-scale projects. Test case management involves organizing the testing process in a systematic manner. To be successful, test case management requires a high degree of discipline to accommodate the large volume of elements under consideration. This paper aims at the development of a powerful test case management tool. Our proposed methodology will manage the test cases efficiently thereby reducing the effort required by the testing team, saving cost and approximating the complexity of them. Tracking the status of every test case, from its engineering to complexity estimation, will be done efficiently. The main feature of the system is that it will be estimating the complexity level of the test cases based on a number of steps, verification points and data entry points in the test case.*

**Keywords** - Software Testing, Web-based Software Tool, Complexity Estimation, Status Tracking, Verification points, Data entry points

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10. Comparative Analysis of DDoS Mitigation Algorithms in SDN by  
Chinmay Dharmadhikari, Salil Kulkarni, Swarali Temkar.

**Comparative Analysis of DDoS Mitigation Algorithms in SDN**

**Chinmay Dharmadhikari<sup>1</sup>, Salil Kulkarni<sup>2</sup>, Swarali Temkar<sup>3</sup>, Shailesh Bendale<sup>4</sup>**

<sup>1,2</sup>B.E. Student, Dept. of Computer Engineering, NBN Sinhgad School of Engineering, Ambegaon,  
Pune-411041, Maharashtra, India

<sup>4</sup>Professor, Dept. of Computer Engineering, NBN Sinhgad School of Engineering, Ambegaon, Pune –  
411041, Maharashtra, India

**Abstract**

*Today, Software Defined Network (SDN) is the most popular network architecture. It is one of the famous applications of virtualization. It has completely changed the perspective of the network industry. SDN basically separates the data plane from the control plane providing a centralized control over the network with the help of a controller. Although SDN provides a simplified way to control the network, it is prone to various security attacks such as DoS attacks, Man in the middle attacks etc. One of the most common attack SDN faces is Distributed Denial of Service Attack (DDoS). It attacks the server and disrupts the whole network. Thus, it is very important to detect and mitigate these attacks. There are several approaches in the market to detect and mitigate these attacks. However, there is no significant comparison among these approaches. Hence, in this paper we attempt to replicate the results of two approaches and compare them so as to find the better approach. These approaches are: algorithmic approach and the second is the machine learning approach.*

**Keywords**—Software Defined Networks (SDN), Distributed Denial of Service (DDoS), IDS, Machine learning, DDoS Mitigation

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## 11.A Currency Recognition App For Visually Impaired People by HardikBhutada, ShubhamKamble, OmkarMhaske, RohitDhanawade

### **A Currency Recognition App For Visually Impaired People** **Hardik Bhutada, Shubham Kamble, Omkar Mhaske, Rohit Dhanawade** *B.E, Computer Engineering, NBSSOE, Pune, India*

#### *Abstract*

*In this paper, we will use computer vision techniques for currency detection, which will run on a computationally low smartphone. the appliance runs on the smart phone without the necessity for any local server. It's intended for wide and practical use by the blind people. Though we use the INR paper currency as a case in point, our method is unique and can scale to variety of domains beyond the currency. Our solution will use a visible OCR Algorithm detection method. To enable robust detection during a segmented environment, we will firstly crop the bill background by using an step by step evaluated supported IGC (iterative graph cuts) method. We analyze the popularity problem as an object retrieval task, which will run on mobile devices. We analyze the performance on a group of images which are captured in variety of natural environments, which will report an accuracy of 95.6% on 2438 images. **Keywords:** Currency, Detection, Blind People, Artificial Intelligence, Machine Learning, Image Processing, Dim-sighted People*

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12.A Study On Margret Atwood's Particular Novels by M.Radha  
Dr.  
V.Manimozhi

**A Study On Margret Atwood's Particular Novels**

**\*M.Radha,**

*Research Scholar, Department of English, Bharath Institute of Higher Education and Research, Chennai*

**\*Dr. V.Manimozhi,**

*Professor and Head, Department of English, Bharath Institute of Higher Education and Research, Chennai.*

**Abstract**

Margaret Eleanor Atwood, as a feminist writer and Canadian nationalist approaches to the issue of gender inequality, problems of women's search for identity in his novels. As written by Eleonora Rao, 'the most critical readings's work Atwood, however, emphasize the presence of research subjects for the discovery of unity and self-control. Her novels represent the power struggle between the sexes. Atwood, in his novels explores and exposes the unfortunate situation of women in the stifling patriarchal society. J. Brook Bouson noted in this context, the novels "Margaret Atwood's women show concern extreme by male domination and sexual exploitation that have always plagued women."

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# 13. Impact Of Socio Economic Factor On Repayment Capacity Of Bank Borrowes

by SampigeNarayanaRao

## **Impact Of Socio Economic Factor On Repayment Capacity Of Bank Borrowes**

**\*Sampige Narayana Rao K,**

*Assistant Professor, M S B Arts and Commerce College, Davanagere.*

### **Abstract**

*Microfinance institutions (MFIs) Were established to fill the space inside the monetary offerings zone by means of offering budget to the bad and decrease income group and for this reason lessening deficiency and augment their enterprise sports. In the Credit score market, employer problematic, ethical threat and negative choice occur since of facts asymmetries. Information asymmetries are the primary difficulty for MFIs to deliver loans to clients. This looks at sought to investigate socio-financial troubles that affect loan reimbursement in micro finance establishments Kenya. Some of the socio-monetary elements that had been tested encompass the borrowers' profits degree, training qualification, age of the borrower and circle of relative's size. Being a quantitative look at, descriptive studies layout could be established. The study populace changed into 66 workforce of Kenya Women Finance Trust microfinance who consists of the senior managers and the loan/credit score officers in six branches within Nairobi. Subsequently the populace is small, a survey examine become accepted subsequently all the sixty six personnel shaped the pattern length for the take a look at. The study gathered primary statistics thru a questionnaire which had each closed and open-ended questions. A pilot take a look at of the tool changed into performed to pattern for validity and reliability. The scholar in my opinion administered the questionnaire to the respondents. Both descriptive and inferential data was accepted for the examine. Expressive records encompassed frequency delivery tables and procedures of imperative tendency, measures of variability and actions of relative frequencies. The inferential records protected a multivariate linear regression version which established the connection between variables. Data changed into supplied the use of tables, pie charts and bar graphs. The have a look at located that majority of the defendants designated they measured the borrowers' earnings when progressing loans in their group. Further majority of the respondents indicated those customers under Kshs. 10,000 income stage were probable to default. The study additionally determined that majority of the respondents indicated their organization contemplates the borrowers' education stage when progressing loans to person debtors. The have a look at additionally mounted that majority of the respondents indicated they did now not keep in mind the age of the borrower while advancing loans to man or woman debtors. The study also accomplishes that the wide variety of revenue resources of the borrower regulates his/her ability to pay off a loan and additionally the debtors' source of earnings. The examine concludes that the number of dependents affects borrowers' repayment of loans and the family expenses have an effect on borrower's capability to reimburse loans. In addition the earnings of the borrower influences loan compensation in their enterprise to first rate extent. In a nutshell the examine concluded that socio-monetary factors have an effect on borrowers' timeliness to pay off loans. The have a look at recommends that; this have a look at recommends that micro finance establishments have to revise the term and conditions connected to mortgage so that it will reduce the mortgage repayment troubles associated with socio-financial factors and additionally that financial institutions have to develop appropriate mechanisms to ensure that loans are repaid within the special time period. This is because poor mortgage repayment can have an effect on the destiny get right of entry to price range from financial establishments.*

14.Honeyword Security using EBCDIC by SumitPravinRathi, Patel Rutu Manish,  
Arivoli A.

**Honeyword Security using EBCDIC**

**Sumit Pravin Rathi<sup>\*1</sup>, Patel Rutu Manish<sup>\*2</sup>, Arivoli A.<sup>\*3</sup>**

*School of Computer Science and Engineering, Vellore Institute of Technology, Vellore*

*Abstract*

*Password breach is a frequent and common phenomenon in software applications. These breaches are sometimes undiscovered for years. Many times, the users as well as companies are unaware of these unhandled breaches and they are not much interested in reporting or building up against them. Hence, there is a requirement for a robust system that could detect these breaches efficiently. Honeyword generation is one such technique to mitigate the risk of password breaches. Honeywords are fake, hashed character strings that are stored in databases which makes it difficult for the attacker to predict the correct password. As it is essential for a system to withstand brute force attack and provide better security, we propose honeyword generation approach using EBCDIC values which will randomly generate numbers to form sweet words, which is a file with all the honeywords and valid passwords altogether.*

*Keywords: honeyword, hashing, password prevention, brute force, targeted password guessing*

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15. An Initiative Study on Software Defined Cloud Computing by Kshitij Chaudhari  
, Prof. Shailesh P. Bendale

**An Initiative Study on Software Defined Cloud Computing**

**Kshitij Chaudhari , Prof. Shailesh P. Bendale**

*Computer Department, NBSSOE.*

***Abstract***

*Cloud Computing is the use of hardware and software to deliver a service over a network (typically the Internet). With cloud computing, users can access files and use applications from any device that can access the Internet. An example of a Cloud Computing provider is Google's Gmail. Software-defined networking (SDN) is an architecture that aims to make networks agile and flexible. The goal of SDN is to improve network. Various applications have different requirements. Network congestion within a data center can cause severe failure for an application. In SDN-enabled clouds it is possible for transferring high priority data over the other traffics in network congestion by reconfiguring network flows dynamically. SDN and CC have been widely used in research and industrial fields, but widespread acceptance of Software Defined Cloud Computing is hampered due to security threats. This also states the importance of SDCC in two domains resource orchestration and application development. Software Defined Cloud Computing helps to attain a certain level of Quality of Service for an application. We refer to Software-Defined Cloud Computing, or simply Software-Defined Clouds (SDC), as an approach for automating the process of optimal cloud configuration by extending virtualization concept to all resources in a data center.*

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## 16.Forest Monitoring Using Remote Sensing by Y. Bharad, Prof. P.P. Jorvekar

### **Forest Monitoring Using Remote Sensing**

**Y. Bharad, Prof. P.P. Jorvekar**

*Computer Department, NBN Sinhgad School of Engineering*

#### ***Abstract***

*Due to sudden climatic changes we are facing natural disasters every now and then. Floods and Forest fire news are always hitting the headline of newspapers. Recently Brazil and Australia have been affected by Forest Fire. There is also increase in illegal activities such as Poaching, Deforestation etc. which lead to attack by animals in nearby areas. The Forest Rangers are not able to monitor the forest covers due to lack of accessories and resources. Therefore, we decided to study various Forest Monitoring System. In this system we will monitor the forest using various Remote Sensing techniques.*

***Keywords—*** Forest Monitoring System, Deforestation, Remote Sensing, Poaching, Forest Rangers, Forest Fire

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17.Review of Big data: Recent Tools and Technologies by Prasad Ligade, Prof. P.P.Jorvekar

## **Review of Big data: Recent Tools and Technologies**

**Prasad Ligade, Prof. P.P.Jorvekar**  
*Computer Department, NBN Sinhgad School of Engineering*

### ***Abstract***

*Today Big data becomes very important concept in IT world. There is rapid rise in volume of data which can be in a structured, unstructured and semi-structured form. Now a days sources of big data are through social media like Facebook, twitter, search engines, etc. Big data is largely growing very fast at exponential rate so it necessarily becomes important to develop new tools and technologies to handle with it. This paper represents various fields where Big data is used largely and also gives the brief information of different frameworks available to process a Big data.*

**Keywords—***Big data, Hadoop, NoSQL, Analytics, Spark.*

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18. Review on Blockchain contribution to the Internet of Things by Siddhant Dani,  
Priti P. Jorvekar

**Review on Blockchain contribution to the Internet of Things**

**Siddhant Dani, Priti P. Jorvekar**

*Department of Computer Engineering, NBNSinhgad School of Engineering,*

**Abstract**

*The Internet of Things became widely popular as a technology with the start of the fourth industrial revolution. IoT operates to gather confidential information remotely via a network of devices. IoT systems gather a huge amount of important and confidential information, often shared with external organizations for useful services. But such devices can be easily hacked, and the protection of these devices is therefore critical when IoT scenarios are implemented. Blockchain is a promising new framework to solve security and IoT trust challenges. This paper offers a summary of existing blockchain solutions for IoT networks. At first, it defines the terms IoT and Blockchain and reviews current surveys dealing with blockchain technology implementations in IoT networks. Then, it includes a general overview of IoT architecture, classification of specific IoT attacks, and blockchain architecture. Moreover, this paper provides a taxonomy of state-of-the-art methods for stable and privacy-preserving IoT network blockchain applications in relation to the blockchain framework, basic security requirements, efficiency, constraints, machine complexity and communication overhead. Based on the present study, we stress the open barriers of research and potential future work directions in blockchain IoT technologies.*

**Keywords-** *Blockchain, IoT, IoT security, Blockchain IoT, BIOT, IoT, Attacks on IoT*

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19. Self-driving cars using combination of AI and Blockchain by Gaurav Kumar, Aishwarya Raut, Prof. Nilam Kadale

## SELF-DRIVING CARS USING COMBINATION OF AI AND BLOCKCHAIN

Gaurav Kumar, Aishwarya Raut, Prof. Nilam Kadale

Computer Engineering Department, NBNSOE Pune,  
Maharashtra

### *Abstract*

*Integration of AI and blockchain means a mixture of two technologies, AI and blockchain. These are becoming very popular technologies in now days. A revolution can be made using these technologies combination. Complication is reduced in process of automatic driving cars and blockchain is used to distribute the experience. Driver less car are trained like this, that they will stop when nearer to an entity. In starting car will drive till it collides with that object. All the actions done by car get stored in memory and after some more hits, car learns that it have to when it reaches too close to an object. The present scenario is that, individually all cars are trained until they get to know that at how much distance they should stop. The purpose of this paper is to link all cars with a distributed public ledger on which data is shared by one car to all other for learning the tasks like when to from the other's experiences this will eliminate heavy work of teaching each car individually. Blockchain Technology can be used for carrying out this integrated learning.*

*Keywords: AI, Blockchain, Public ledger (blockchain), Driver less cars, Self-driving cars, Information Imparting.*

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## **Sentiment Analysis for Text Feedback Approaches**

**Priyanka Kumari**

*Department of computer Engineering, NBSSOE, PUNE*

### **Abstract**

*Sentiment analysis can be account for web content mining of different feedbacks from social platforms, online products, organizations, events, employees. Collecting feedbacks is considered facile but extracting insights out of it is still challenging. Dramatic increase of internet utilization around the world raised up the amount of feedback data which is a challenge to manage and classify the sentiments. It is been motivated for companies to get more meaningful and actionable insight from their feedback data that will help them to improve their products also it will be convenient for the customers to choose the right product in lesser time. In this system we will see all the different approaches used for sentiment analysis which includes lexicon-based, machine-learning and hybrid approaches. Opinions of people in feedback analyzed for english words and sort the texts in positive and negative reviews for which there must be one or more positive or negative word. To create pool of words firstly it selects words having sentiments and from reviews of product using standard approaches it mines the polarity and hence opinion mining is carried out for the betterment.*

**Keywords-***Machine-learning, Sentiment Analysis Lexicon, Polarity*

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21. Automated Nursery Management System by VijayPrashantPawar,  
PranavMukundPatil ,Mr.P.S.Hanwate

**Automated Nursery Management System**

**Vijay Prashant Pawar, Pranav Mukund Patil ,Mr.P.S.Ha nwate**

*Department of Computer Engineering  
NBN Sinhgad School Of Engineering, Ambegaon (BK), Pune.*

**Abstract**

*The pollution level is increased due to an increase in industrialization and Urbanization. Such increased pollution causes drastic and continuous changes in Moisture, Temperature, and Humidity. For small nurseries, one person may be able to handle the nursery but in the case where the nursery is divided into several branches, it is essential to have at least one backup person who understands crop status, knows everything that needs to be done, and knows how to do these things. The extra person who handles the nursery in the absence of admin is a backup person which keeps the track of nursery in absence of admin. Different Nursery managers have different personalities and Management Skills. Some general characteristics, however, are important to good nursery management. The effective nursery is one which uses less labor and which cannot be easily influenced by the climate. It is not that much easy to handle Nursery located at different branches. In some previous years that is in recent years, there is a canopy remote Monitoring System that Monitor Nursery remotely. In this System, we use different modules such as Temperature sensor, Moisture Sensor, Humidity Sensor and Light sensor with different types of controller, GSM, ADC, etc. All the above-mentioned modules are used to sense the different Nursery parameters such as Temperature, Moisture, and Light Intensity. Those all sensors are connected to the controller for the automatic monitoring of the Nursery Appliances to control Temperature, Moisture, and Light Intensity level. The output is in the form of an Analog signal which needs to be converted into Digital signal. For the same analog to digital converter that is ADC is used.*

**Keywords:** *ADC, Light sensor, Moisture sensor, Temperature sensor and Microcontroller*

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22. Neural Machine Translation and Artificial Intelligence by Uday Nath Pandey,  
Mr. P. S. Hanwate

**Neural Machine Translation and Artificial Intelligence**

**Uday Nath Pandey, Mr. P. S. Hanwate**

*Research Scholar, Assistant Professor*

*Department of Computer Engineering, NBSINHGAD SCHOOL OF ENGINEERING, AMBEGAON (BK), PUNE.*

**Abstract**

*This paper aims to show the artificial intelligence's effect on MT (machine learning) on language translators. The latest development around the neighboring areas the latest development in the field of AI in the current era of technology has been accepted quietly opposite of positive way by many translators, they think that job they have and at the status at which they are in the society are intimidated by machines. But, according to the survey, this fear should not be present among them, as the number of work losses because of everything being controlled by machine would not be larger than the job created by the new ones where new expertise would be needed. The Moto of the latest job is, analyzing the development of automation in the field of machine translation (MT) by accessing the production of various MT tools, namely DeepL, Google Translate, Systran and Amazon Translate, in the conversion of few lines of code of text accepted by a random or general website. Practical instances show the development of NMT (neural machine translation) – the robustness of the ML (machine learning) foundations is provided by it – it has been analyzed that the most important thing in translation is nothing but our effect, even after the excellent result of NMT neural machine translation tools. It has been analyzed that machine /language translators must rely on automation in the form of assistance in their respective work, as it permits those people to be quick and, hence, even further efficient and productive. The crucial benefits provided by NY (neural translation) is that it provides room for additional developing and less boring works, leveraging the translators' output gives to the tasks where our mind can improve.*

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## 23.SALESFORCE: A CRM by Praveen Garg ,Mr.P.S.Hanwate

### **SALESFORCE: A CRM**

**Praveen Garg ,Mr.P.S.Hanwate**

*Research Scholar, Assistant Professor*

*Department of Computer Engineering, NBN Sinhgad School Of Engineering, Ambegaon (Bk), Pune.*

#### **Abstract**

*A technology named cloud computing has put itself in huge demand and headed and used by most of the organization, which provide services like Infrastructure as service (IaaS) and it provides a basic block for building application that is known as a Platform as service (Platform as a Service), and access any of such services there is no need to install any external software. Salesforce is named organization in the Cloud computing domain. To work upon Salesforce, it requires programming languages like java and APEX, where Apex is used as a backend language, Apex is the same as java language but there is a bit of syntax difference to java. Salesforce strives to secure data on the cloud with a single sign-on authentication service. Being a named domain in the field of cloud computing provides two ways to work upon a server namely configuration and customization, With help of configuration, we can write code our self while configuring our project and in customization, we can customize the salesforce framework in drag and drop manner.*

**Keywords:** *Salesforce, CRM, customization, configuration*

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## 24.A Case Study Of Fake Indian Currency Recognition by Vishal Kumar,Mr.P.S.Hanwate

### **A Case Study Of Fake Indian Currency Recognition**

**Vishal Kumar, Mr.P.S.Hanwate**

*Research Scholar, Assistant Professor*

*Department of Computer Engineering, NBN Sinhgad School Of Engineering, Ambegaon (Bk), Pune.*

#### ***Abstract***

*In this paper, I intend to design the system for the recognition of currency notes of India and find out its legitimacy. The necessity for a currency recognition system is more relevant due to the various technologies and machinery used to counterfeit banknotes. We can identify whether the currency note is legitimate or not by various physical means but practically we can't check the legitimacy of various notes. Hence, there is a requirement of a system by which we can determine the legitimacy of currency notes. This system will prove to be very useful in banks and many other places where cash flow is continuous.*

***Keywords:-Fake Currency, Currency Identification, Image Processing, Currency Verification***

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## 25. Software Defined Network (SDN) for 5G era an emerging Mega-trend by Ruchira Borkar, Shailesh Bendale

### **Software Defined Network (SDN) for 5G era an emerging Mega-trend.**

**Ruchira Borkar<sup>1</sup>, Shailesh Bendale<sup>2</sup>**

<sup>1</sup>Student, Dept. of Computer Engineering, NBN Sinhgad School of Engineering, Ambegaon, Pune-411041, Maharashtra, India

<sup>2</sup>Professor, Dept. of Computer Engineering, NBN Sinhgad School of Engineering, Ambegaon, Pune-411041, Maharashtra, India

#### *Abstract*

*As of now in the near future there is a need of improving data rate, increasing capacity ensuring the quality of service provided to the user. With these demands and prime objectives 5G will be implemented in around 2020, which might provide about 100 times better speed rate. With the implementation of 5G limitless connectivity will come into picture i.e. Everything will be connected and online by default. With the emergence of 5G era the need to develop more flexible and agile networks is felt which is when SDN (software defined networks) comes into picture. SDN as originally defined is an approach to build and design the network and also facilitate the management of networks, which separates the network's forwarding planes and control planes which makes the network control precisely programmable, it also abstracts the elemental infrastructure for network services and applications. SDN is rapidly evolving as an architecture in order to provide flexibility to software driven programmable organizations. The conventional SDN architecture is based upon a centralized controller that manages the entire network, which might be inefficient so a new concept of DBU's (Dedicated Backup Unit) is proposed. SDN basically redefines the requirements to support the network architecture for the upcoming 5G era. SDN for 5G will provides an intelligent platform to build multiple programmable networks.*

**Keywords:** Software Defined Networks, 5G

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## 26.Application of Blockchain in Software Defined Network by PraneetaDumbre, Shailesh P. Bendale

### **Application of Blockchain in Software Defined Network**

**Praneeta Dumbre<sup>1</sup>, Shailesh P. Bendale<sup>2</sup>**

<sup>1</sup>T.E. Student, Dept. Of Computer Engineering, NBN Sinhgad School of Engineering, Ambegaon, Pune-411041,

<sup>2</sup>Professor, Dept. Of Computer Engineering, NBN Sinhgad School of Engineering, Ambegaon, Pune-411041

#### **Abstract**

*With Technological advancement it has become necessary to construct a network which is centralized and can be controlled through various policies with maximum security. SDN being a software defined network is introduced to provide agility in network that is being widely used and to provide security to the SDN network we are using Blockchain. Blockchain is a trending technology which allows information to be distributed over a peer to peer network and not copied. Problems faced in providing security to SDN are the attacks like and privacy in the network. The first application of Blockchain was Bitcoin and crypto currency but its application is not limited to this two. There is a lot of work being done in Health-Care, Tourism, Finance, Automation and Management using Blockchain as core technology. To resolve this problem we use Blockchain Technology which will minimise the threats and give effective way of implementing this network. In this paper we are going to study collaboration of SDN and Blockchain together in a network and the applications which can be designed around this two technologies.*

**Index Terms:** Blockchain, SDN, Cyber Security, IoT, EVs

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## 27. Transmitting Sound Waves through Cranial Bones by Vibrating Transducers Using Bone Conduction by Apurva Joshi, Mr. Shailesh Bendale

### **Transmitting Sound Waves through Cranial Bones by Vibrating Transducers Using Bone Conduction.**

**Apurva Joshi, Mr. Shailesh Bendale**

*Dept. of Computer Engineering, NBSSOE, Ambegaon(Bk)*

#### *Abstract*

*Bone conduction is known as to sound conducted due to vibrations along the bones to the cochlea housing the organs of hearing and balance. The vibration is carried through entire skeletal structure. Due to physical vibrations along the bones, bone conducted sound has more influence on nervous system than normal air conducted sound. Bone conduction is why one perceives own sound different when he listens to recorded voice. Because bone conducts sound of lower frequency better than air, people perceive their own voice to be fuller and lower than other do, while in recording of one's voice frequency is higher than one expects. Despite of many uses bone conduction head gears industry is still evolving slowly. The electromechanical transducers converts' electric signal to mechanical vibrations and sends sound to internal ears through cranial bones. Bone conduction head gears bypasses eardrum and do actual work of eardrums. Most cases of hear loss are due to damage to eardrums. Since bone conduction does not uses eardrums, people with hearing difficulties may be able to hear clearly again with the help of bone conduction provided their cochlea is in normal condition. Other uses for bone conduction head gears can be for visually impaired people for navigation while also maintaining situational awareness.*

**Keywords:** - Bone conduction, cranial, cochlea, transducers, head gears

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## 28. Implementing Tools for Monitoring and analysis of Dark net websites by AjinkyaGhorpade, Shweta B Guja

### **Implementing Tools for Monitoring and analysis of Dark net websites**

**Ajinkya Ghorpade, Shweta B Guja**

*Computer Science, NBNSOIE*

#### ***Abstract***

*Deep Web is a system of mystery sites that exists on an encoded arrange. The contents of deep web cannot be recorded by standard web indexes. The contents of deep web include web mail, online banking, government resources. The greater part of Deep Web is the Dark Net. The deep web envelops all unindexed destinations that don't appear up when we do an Internet search. The dark net opens the door for black markets like drug dealing, gun supplying, human trafficking and exercises like illicit document sharing and the trading of unlawful merchandise or administrations including taken financial and private information. The dark web can be accessed by use of unspecified browser called Tor. .onion is a pseudo-top-level area have postfix assigning a mysterious concealed assistance reachable by means of the Tor organize. The program directs the page demand through a progression of intermediary servers worked by a large number of volunteer the world over who show IP address untraceable and plain. This research will describe different monitoring tools to trace illegal activities on dark web.*

***Keywords—Deep Web, Dark Net, Tor, .Onion, Illegal Activities***

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## 29.Reinforcement learning in Open AI five by Harsh Agrawal, Shweta B. Guja

### **Reinforcement learning in Open AI five**

**Harsh Agrawal, Shweta B. Guja**

*Computer Science NBSSOE*

#### **Abstract**

*OpenAI Five is a machine learning project developed by OpenAI that acts as a team of game bots to play against humans in the competitive computer game Dota 2. In the game Dota 2, "The International" is the world championship tournament. A game between Dota 2 world champions and game bots developed by OpenAI was organised and the result was mind blowing. The International world champion 'OG' lost back to back games against OpenAI Five. OpenAI five observes the game after extracting the present game state from Dota developer's API with one layer which contains 1024- unit LSTM. Without any human data involved, the neural network conducts actions via numerous available action heads and each head has meaning. In other words, bots play against each other learning best actions countering every possible move, in short opponent modelling. Opponent modeling is the strategy to observe and anticipate the moves and ability of an opponent. In gaming, the model is an abstracted description of the opponent and his strategy, countering the opponent's behavior in the game. This method is important in multiple agent settings where secondary agents with competing goals also adapt with their abilities [2], yet it remains challenging because strategies interact with each other and change. The result showed that AI (if trained in expert supervision) can be proved effective against a human mind in difficult situations.*

**Keywords** - *artificial intelligence, OpenAI, Dota 2, opponent modeling, Proximal Policy Optimization*

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30. Applying Image Processing to Analyze Liver Cancer by RaushanKumar, Mrs. R.P. Karande

**Applying Image Processing to Analyze Liver Cancer**

**Raushan Kumar, Mrs. R.P. Karande**  
*Department Of Computer Engineering Nbnssoe, Pune*

*Abstract*

*Image Processing is a technique in which the image is taken as an input and it is processed further to get the result which is also an image. We can also take multiple images as input and can get the output which may be a single image or set of images. The image processing technique uses certain types of algorithm to process the images. In the modern era image processing plays a vital role in almost every field that comes in our imagination. The usage of Image Processing can be classified based on the source of generation of the image. The images that we use today are mainly generated from Electromagnetic Spectrum. Image processing is used in Medical Diagnostics, Astronomy, electronic circuit board to examine circuit boards for flaws in manufacturing, like missing components or broken traces, lithography, industrial inspection, lasers, microscopy, in automated visual inspection of manufactured goods, in fake currency detection, Pattern Recognition, MRI etc. In this paper, this technique focuses on detection of Cancer cell of Liver. Here MRI is used to detect the cancer cell.*

***Index Terms:*** -Image Processing, Cancer Cell, MRI, Different Methods

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31.Sanskrit Guru: Development of Gamification-Based M-Learning Application  
by VidyaKamble, VinaLomte

**SanskritGuru:DevelopmentofGamification-BasedM-Learning  
Application**

**Vidya Kamble<sup>1</sup>, Vina Lomte<sup>2</sup>**

<sup>1</sup>Department of Computer Engineering , RMD Sinhgad School of Engineering.

<sup>2</sup>Head of Department, Department of Computer Engineering , RMD Sinhgad School of Engineering.

**Abstract**

*Sanskrit, one of the oldest languages in the world, and has a very rich literature. Though there are many tools available for learning Sanskrit, these tools sometimes fail to engage the students. Gamification has brought a positive change in the teaching and learning; it helps keep students motivated and highly engaged. This paper proposes a system that will harness the positive effect of gamification to help learn Sanskrit. But just blindly learning is not Detailed reviews of the concepts are also provided that help build the design requirements of the system* **Keywords:** Gamification, Learning Algorithm, Sanskrit, Spaced Retention

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32.Survey on Devanagari Text Detection in Deep Learning by Aditya Sovani,  
Ashish Pandita, Chinmay Bansod, Vina Lomte

**Survey on Devanagari Text Detection in Deep Learning**

**Aditya Sovani, Ashish Pandita, Chinmay Bansod, Vina Lomte <sup>4</sup>**

<sup>1</sup>*Department of Computer Engineering , RMD Sinhgad School of Engineering.*

<sup>4</sup>*Head of Department, Department of Computer Engineering , RMD Sinhgad School of Engineering.*

**Abstract**

*Since past decade, numerous attempts are made to digitize Indian languages and scripts. Various computer research organizations are working on digitization of Indian languages. There are Devanagari datasets being developed to recognize text or content in the input. A survey of the Devanagari word recognition system online handwritten is discussed in depth in this article. The increased use of handheld devices that accept handwritten data as input created a need for an application that effectively analyzes and acknowledges data. A camera is used as an input device, owing to the popularity of the digital interface. Using the feature CNN acknowledges the word or letter. This survey focuses on various technologies available on detecting Devanagari text. **Keywords:** Machine Learning, Deep Learning, CNN, RCNN, Character Recognition, Gesture Detection*

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### 33.Detection of Cervical Cancer Using Machine Learning Techniques by Ashwini Hiremath, Snehal Pimpodkar, Soujanya Sankathala

#### **Detection of Cervical Cancer Using Machine Learning Techniques**

**Ashwini Hiremath, Snehal Pimpodkar, Soujanya Sankathala, Tanwee Deshpande  
Prof. Vina Lomte**

*RMD Sinhgad School of Engineering, India*

#### ***Abstract***

*Accurate and efficient detection of cervical cancer at an early stage can be crucial for the survival of a patient. Manual intervention in the process results in costly and time consuming procedures and introduces the risk of manual errors. An effective solution to these drawbacks is automation of the process using machine learning techniques to train neural networks. In this paper, we have presented a survey of the research conducted in the area. The use of convolutional neural networks (CNN) can be frequently observed as they are proven to be effective for images. These networks are based on transfer learning models which have given good results. Other than these, the use of support vector machines (SVM) can frequently be observed. Various pre-processing methods like segmentation and feature extraction plays an important role in all of the papers surveyed.*

**Keywords:** - CNN, Transfer learning, Resnet, Inception V3.

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## 34. Agriculture using mqtt protocol by Atharva Shewale, Dr. Shwetambari Chihwane

### **AGRICULTURE USING MQTT PROTOCOL**

**Atharva Shewale, Dr. Shwetambari Chihwane**

*Computer Department, NBN Sinhgad School of Engineering*

#### **Abstract**

*Increase in technology the environment of agriculture is also increasing. The level of production is ongoing fast. There are various factors that affect agriculture growth. The climate change, humidity, soil, change in temperature and more frequent extreme events decreases the production or damages agriculture. Multiple challenges have to be faced in coming years.*

*Farmers are nowadays working and creating advancement technology named as "Smart Farm". Various Technologies like AI (Artificial Intelligence), Big data IOT (Internet of Things) and ML (Machine Learning), Cloud Computing and many others are involved in various sectors. It is proven that Internet of Things (IOT) helps to grow the value of many areas of farming in various sectors such as from growing crops to forestry. The factors which is most important are*

- *Sensing Soil Moisture*
- *Water usage controlling*
- *Whether Reporting*
- *Temperature sensing*

*These factors include in IOT which is needful and precise information for growing crops, make ease in agriculture. The aim of this project is to introduce new factor for agriculture business and better crop production named MQTT (Message Queuing Telemetry Tracking) protocol.*

**Keywords:** *Light Detecting Resistor (LDR), CC3200, Soil Moisture, 4 channel Relay modules, 6V to 9VDC*

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## 35.Evaluation of Machine Learning Algorithms to Detect Credit Card Fraud bySonalMahajan, Dr. ShwetambariChiwthane

### **Evaluation of Machine Learning Algorithms to Detect Credit Card Fraud**

**Sonal Mahajan, Dr. Shwetambari Chiwhane**

*Computer Department, NBN Sinhgad School of Engineering*

#### ***Abstract***

*Credit card fraud detection is very serious issue nowadays. Every person from youth to aged requires a credit card. Credit card fraud is generally done during online transactions. Information regarding pin is obtained illegally. It is termed as shoulder surfing. Some other ways are card stealing, Buying audit cards, Information and web Traffic, etc. After obtaining information illegally online transactions are made. In many companies fraud credit cards are identified so that customers are not charged for unnecessary equipment. There is a vast need of credit card fraud detection. If proper amount of data is collected, credit card fraud can be detected using machine learning algorithms. In this paper, supervised and unsupervised machine learning algorithms have been applied to detect credit card frauds in a highly imbalanced dataset. It was found that unsupervised machine learning algorithms can handle the skewness and give best classifications result.*

**Keywords:** *Credit card, fraud detection, machine learning, supervised learning, unsupervised learning*

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## 36.A Survey on Cardiac Arrest Detection Using Machine Learning by Mridul Jain, Shreya B. Ahire

### **A Survey on Cardiac Arrest Detection Using Machine Learning Mridul Jain<sup>1</sup>, Shreya B. Ahire<sup>2</sup>**

1. Department of Computer Engineering, NBSSOE, Ambegaon, Pune, Maharashtra, India
2. Department of Computer Engineering, NBSSOE, Ambegaon, Pune, Maharashtra, India

#### **Abstract**

*In hospitals, most IHCA cases are preventable, but the survival rate of In-hospital cardiac arrest (IHCA) patients decreased. More than 54% of IHCA patients had irregular clinical symptoms that had previously gone into cardiac arrest. Take appropriate measures before the IHCA increases patient survival rates and reduces medical expenses. In this paper, a new method for diagnosing events prior to IHCA occurs. Build a dual-shift window (two tasks) that can apply machine learning to a very disproportionate dataset. The results indicate that this method can successfully process an unbalanced dataset to detect cardiac arrest. With the area under the selection performance line, the Area Under the Receiver's Operating Characteristic Curve (AUROC) and Accuracy Under Precision Recall Curve (AUPRC), the finest classifiers are random forests used for task 1 and AUROC of 0.88. LSTM is best for task 2, and the AUPRC for the next task is 0.71. Use the resampling technique to adjust the amount of data between CPR and non-CPR patients in the dataset, clean the data, and build a sliding window. Reduce datasets by applying multiple classifiers to model training. Excessive problems may occur. In addition, the performance of the model is compared and measured using the operating characteristics of the receiver, such as the operating characteristics of the receiver (e.g., the area under the operating characteristics curve (AUROC) of the receiver, and the area under the accuracy evaluation curve (AUPRC)).*

**Keywords:** Cardiac arrest, sacrificing Cardiopulmonary resuscitation (CPR), In hospital Cardiac arrest (IHCA), Data Classification, Machine Learning, Prediction

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## 37.A Survey on Host Based Botnet Detection System by Adwait A. Rajmane, Shreya B. Ahire

### **A Survey on Host Based Botnet Detection System**

**Adwait A. Rajmane<sup>1</sup>, Shreya B. Ahire<sup>2</sup>**

1. Department of Computer Engineering, NBSSOE, Ambegaon, Pune, Maharashtra, India
2. Department of Computer Engineering, NBSSOE, Ambegaon, Pune, Maharashtra, India

#### **Abstract**

Botnets have today turned into one of the considerable threats to security systems. Botnets are believed to gain popularity among cyber criminals for attacking internet-connected devices from DVR players to corporate mainframes. Fake news on social media is spreading for social media bots and automated accounts. Cryptocurrencies like Bitcoin are also on the radar of cyber criminals who are mined using botnets. Botnets are very difficult to detect. Devices that are directly connected to the Internet or can be attacked or infected wirelessly. DDoS can launch complex spam campaigns, launch massive financial fraud campaigns, and shake public beliefs with social media bots. In addition, as botnets continue to expand, many unusual things show a higher level of sophistication and anonymity, and it is more important to oppose them dramatically. Today, network security requires detecting various botnet threats and eventually ending them this section shows you how to implement a host-based intrusion detection system to detect botnet attack threats. This method is based on variations of genetic algorithms for detecting anomalies in the case of an attack.

**Keywords:** botnets, genetic algorithms, intrusion detection systems, bots, intrusions, security, threats, hosts, IDS, distributed denial of service DDoS, spam, malware, MAC address

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## 38. Blockchain Based Security And Resource Management Models For SDN by Karan Shingare ,Mr.P.S.Hanwate

### **Blockchain Based Security And Resource Management Models For SDN**

**Karan Shingare ,Mr.P.S.Hanwate**

*Department of Computer Engineering, NBNSINHGAD SCHOOL OF ENGINEERING, AMBEGAON (BE), PUNE.*

#### **Abstract**

*Security, at present, is one of the major concerns in Software Defined Networks (SDN). Resources sharing in SDN can be made more secure against non-trusting members in SDN by the implementation of blockchain technology. It forces the members to trust and creates a secure private network which then increases the reliability of the system. This paper focuses on preventing the system from being tampered with the integrity of the system, which triggers a variety of attacks, by implementing blockchain technology, which provides its immutable performance to the system and a decentralized resource providence and authentication system to the members of the SDN system. The resource management model provides a distributed authentication mechanism that alleviates the problem of being vulnerable at a single point when using the traditional SDN way of getting authenticated through a single point. Also, each node in the SDN system acts as a blockchain node and the list of nodes or devices in the SDN system is distributed among the devices which then can help authenticate any new connection, detecting the malicious user in the system and helps increase the system scale while maintaining the records of authentications of services as a transaction log.*

**Keywords**—Software Defined Network, Blockchain, network security

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39.A Survey on Blockchain for Solving Safety Problem of IoT by aibhavJagtap,  
Shreya B. Ahire

**A Survey on Blockchain for Solving Safety Problem of IoT**

**Vaibhav Jagtap<sup>1</sup>, Shreya B. Ahire<sup>2</sup>**

1. Department of Computer Engineering, NBSSOE, Ambegaon, Pune, Maharashtra, India
2. Department of Computer Engineering, NBSSOE, Ambegaon, Pune, Maharashtra, India

**Abstract**

Today, blockchain technology attracts a lot of attention from investigators, computer experts, and local professionals in a variety of businesses, including lending, business, real estate, transportation, supply chain, and healthcare. This curiosity is because bitcoin and its equivalent platform were the first applications of blockchain and the framework of cryptocurrencies. In contrast to the critical structure used in the maximum system, the distributed structure and the cryptographic hash algorithm used are particularly preferred in the security field. Use an experimental approach to create a chain of trust to protect IoT devices, IoT device transaction validation, and IoT device mesh network protection via blockchain technology. Forensic examination uses immutable transactions to determine its effectiveness. The BloT concept has four advantages: publishing and replicating sensor data for public and distributed ledgers, timestamps using blockchain structure, data verification, and non-denial.

**Keywords:** Internet of Things, Security, Blockchain, Healthcare

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## 40.A Survey on Stock Price Prediction Using Deep Learning by Kalpak Kale, Shreya B. Ahire

### **A Survey on Stock Price Prediction Using Deep Learning** **Kalpak Kale, Shreya B. Ahire**

1. Department of Computer Engineering, NBSSOE, Ambegaon, Pune, Maharashtra, India
2. Department of Computer Engineering, NBSSOE, Ambegaon, Pune, Maharashtra, India

#### *Abstract*

*Stock market price forecasts have been a topic that both analysts and researchers have long been interested in. Stock prices are difficult to analyse because of the excessive volatility nature that rest on many economic factors. Stock price forecasts based on historical data have proven to be inadequate. A study of sentiment analysis found a relationship between stock price movements and the publication of news articles. Many sentiment analyses use a variety of algorithms, such as support vector machines, naïve Bayesian regression, and deep learning, to look at how they are performed at different levels. The accuracy of the algorithm depends on the amount of training data provided. However, the amount of text information collected and analysed in previous studies is not yet sufficient and produces low-precision predictions. In this paper, collect large amounts of time series data and use deep learning models to analyse related news articles to improve the accuracy of stock price forecasting. Naïve Bayesian classifiers are used to classify news texts with negative or positive emotions. Along with the number of positive and negative emotions in each day's news articles, and past data, close prices and distribution of adjacent days are used for predictive purposes and accuracy of 65.30 to 91.2% achieved in different machine learning technologies.*

**Keywords:** *Stock market, support vector machines, Naïve Bayesian regression, deep learning, RNN*

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## 41. Generation of E-Certificates using Custom Blockchain for Peer to Peer Network by Priyanka R Balage and Dr. Kishor R Kolhe

### **Generation of E-Certificates using Custom Blockchain for Peer to Peer Network**

**Priyanka R Balage and Dr. Kishor R Kolhe**

*School of computer engineering & technology, MIT World Peace University, Pune, Maharashtra, India*

#### **Abstract**

*Blockchain is very emerging trend in recent years; it is basically decentralized approach which provides transparency to transactional data. While data security is the most essential requirement in the 21st century, distributed as well as the centralized environment. Identifying or validate the user's identity based on educational histories is a very tedious task. Many commercial applications validate by respective organizations based on physical verification. Search systems do not provide trustworthy information when declared on a centralized data basis, due to two database security concerns. Various database and software base intrusion attacks can harm centralized data and change the actual information. This paper, the system illustrates blockchain base e certificate generation for the educational field. In a real-time scenario, many organizations make document verification of particular employees on traditional approaches like physical verification, etc. The system proposes is E-certification and token generation using a strategic process which provides hassle-free e verification for the organization of specific employee. This system also carried out custom blockchain implementation with dynamic smart contract, and mining policy, which generate the Unique Identification (UID) number and QR code for each user for online verification. The final phase provides various consensus algorithms for drastic data verification and majority voting in the P2P network. The partial implementation of the system shows the effectiveness of the proposed system over the traditional approaches.*

**Keywords:** *Blockchain, E-Certificate, Proof of Work, Consensus algorithm, Smart contract, mining.*

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## 42. Vehicle Number Plate Recognition for automatic toll tax collection Using IoT and Machine Learning by Aheraaz Tamboli and Shounak Sugave

### **Vehicle Number Plate Recognition for automatic toll tax collection Using IoT and Machine Learning**

**Aheraaz Tamboli and Shounak Sugave**

*School of computer engineering & technology, MIT World Peace University, Pune, Maharashtra, India*

#### **Abstract**

*Automatic number plate recognition recent the recent Trend in current environment, various systems has already developed by existing authors to detect the license plate as well as number plate using machine learning and deep learning algorithms. Internet of things (IoT) and some machine learning techniques for image processing is also contributed many classical systems. In this paper we proposed automatic number plate recognition for smart toll system, in traditional approach it is very tedious to perform the entire process with manual human interfaces. Sometime it also generate long traffic queue on toll plaza, to eliminate such a problem with this propose systems. This system initially deals with some IoT devices which contains camera sensor and arduino based microcontroller. The deep learning libraries have used to process the capture image by IoT environment with OCR library. This system also deals with user applications to auto debit toll charges. The state of art provides the conceptual model of entire system execution with real time as well as synthetic dataset, and theoretical experiment analysis shows the effectiveness of system. . **Keywords:** CNN, image process, ImageNet, Artificial Intelligence, Deep Learning, machine learning*

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43. Review of face recognition and face emotion detection system using open source computer vision by Vaibhav Mandavkar, Mr. S. S. Kale

**REVIEW OF FACE RECOGNITION AND FACE EMOTION DETECTION SYSTEM USING OPEN SOURCE COMPUTER VISION (OPENCV)**

**Vaibhav Mandavkar <sup>[1]</sup>, Mr. S. S. Kale <sup>[2]</sup>**

*[1] Student, [2] Assistant Professor*

*TE Computer, STES's NBN Sinhgad Technical Institute Campus,  
Ambegaon(BK), Pune, 411041*

**Abstract**

*In the last decade there has been rising interest in computer vision. Face recognition and emotion-recognition has transcended from abstract to popular area of computer vision research and one of the best and most successful applications of image analysis. Especially due to the intrinsic nature of the issue, computer vision is not only a field of study in computer science, but also a focus of neuroscientific and psychological studies, primarily because of the general opinion that developments in computer image processing and comprehension study might provide deep insights into how our brain functions and vice versa. The proposed research presents a framework based on facial features and their actions for real-time face recognition and facial emotion detection systems. OpenCV i.e. Open source Computer Vision is used to implement the face detection process, it serves as the input for the algorithm. **Keywords:** Python, OpenCV, Face Recognition, Face Detection, Emotion Recognition, Haar Cascades, Eigenface, Fisherface, Local Binary Pattern Histogram.*

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## 44. Development of smart cities using artificial intelligence by GowardhanMahajan

### **DEVELOPMENT OF SMART CITIES USING ARTIFICIAL INTELLIGENCE**

**Gowardhan Mahajan**

*Computer Engineering Department NBNSOE, Pune, India*

#### *Abstract*

*Development of smart cities using Artificial Intelligence and its advantages to monitor and control the day to day activities of cities. Artificial intelligence used in cities to monitor plant growth, automatic parking systems, smart meters, smart billing systems by the government. This paper proposes ways to improve the quality of life of people living in cities and make their life easier. It proposes use of IOT devices that can be used to manage and control smart systems. Human Intelligence along with smart systems can improve quality living and life of people living in cities.*

**Keywords:** *-Artificial Intelligence smart parking smart meters, smart systems*

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## 45. Survey on Decision Support System in Agriculture by Priti Prakash Jorvekar, Jayashree Rajesh Prasad

### **Survey on Decision Support System in Agriculture**

**Priti Prakash Jorvekar<sup>#</sup>, Jayashree Rajesh Prasad<sup>\*</sup>**

<sup>#</sup>Computer Engineering, Asst. Prof, NBN Sinhgad School of Engineering, Pune, SPPU, India

<sup>#</sup>Computer Engineering, Research Scholar, SKN College of Engineering, Pune, SPPU, India

<sup>\*</sup>Computer Engineering, Professor, Sinhgad College of Engineering, Pune, SPPU, India

#### **Abstract**

*Today a big demand of agricultural product with its best quality essentially needed to survive the product in the market. However, achieving best quality of product with unfavourable climatic conditions and variable soil parameters rises the problems for farmers. As evaluation in modern farming moving forward to agriculture 4.0, there is need of better, trustable and user-friendly decision support system. The objective of this paper is to analyze the real time problems which are faced by farmers community, those needs to be conceded for developing decision support system. Future researchers can improve the decision support systems by overcoming these detected challenges. Authors herewith review state-of-art research on decision support systems with various parameters such as soil parameters, metrological parameters, geographic location parameters. Authors further propose future directions for improving decision support system by using latest technology such as Artificial intelligence, Cloud computing, Internet of things, Machine learning, Deep learning and Big data.*

**Keywords-**Agriculture 4.0, Artificial Intelligence, Decision Support System, Deep Learning, Machine Learning

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## 46. Artificial Intelligence and Internet of Things (AIoT): Opportunities and Challenges by Mrs. Manisha P. Navale

### **Artificial Intelligence and Internet of Things (AIoT): Opportunities and Challenges**

**Mrs. Manisha P. Navale**

Assistant Professor, NBN Sinhgad School of Engineering, Ambegaon, Pune, India

**Mrs. Reshma G. Navale**

Asst. Professor, Sinhgad College of Science, Pune, India

#### *Abstract*

*The Internet of Things, or IoT, refers to the billions of physical devices round the world that are connected to the web, all assembling and sharing data, that makes new applications and services. These services lead to rising our class of lifetime. On the other side, Artificial Intelligence (AI) is applicable to various areas of science. It's goal is to know techniques that need associate degree of intelligent action and solve advanced issues. Integration of IoT with AI can produce a strong technology that may solve several of IoT issues that relate to the massive quantity of knowledge developed by different IoT devices. Huge amount of IoT data can be analysed efficiently with the huge analysis capabilities of AI to extract meaningful information. In addition, AI will facilitate IoT devices to communicate with humans and other objects showing intelligence and create independent conclusions. This paper offers a summary of the combination of the IoT with AI by emphasising the integration opportunities and challenges of AI in various IoT applications. In conclusion the integration of AI with IoT will produce a strong technology that can help companies to avoid unintentional downtime, increase operating efficiency, and enable new IoT applications and services.*

**Keywords:** *Internet of Things (IoT), Artificial Intelligence (AI), Artificial Internet of Things (AIoT), Integration of AI and IoT.*

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## 47. Security of Internet of Things Using Blockchain by Nilam K. Kadale

### **Security of Internet of Things Using Blockchain**

**Nilam K. Kadale**

COMPUTER ENGINEERING, NBN Sinhgad School of Engineering, PUNE, INDIA

#### **Abstract**

*Internet of Things (IoT) is used now by various organizations, industries for completing their many works. Obviously it will influence everyone to use IoT for completing their various day to day life activities. Increasing use of it will result in increase in vulnerabilities. There is very urgent need to secure IoT devices otherwise it will be bigger platform for attacks on various organizations, homes, etc. As per many researcher whatever existing solution are there which not that much efficient to tackle all security problems. Now blockchain is new emerging technology and its main motive is only to give security. In this paper, first an overview of the IoT and blockchain technology is discussed then solutions which are now available for securing internet of things using blockchain are discussed.*

**Keywords:** *Internet of Things; Blockchain; Security.*

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## 48.Fuzzy LDA for Topic Modeling: An Overview by HarshaliPatil and Prof. SushilaPalwe

### **Fuzzy LDA for Topic Modeling: An Overview**

**Harshali Patil and Prof. Sushila Palwe**

*School of computer engineering & technology, MIT World Peace University, Pune, Maharashtra, India*

#### **Abstract**

*Topic modeling is underway from text-mining as well as data mining techniques for determining the suppressed semantic assembly in a collection of various dataset. In the conception of text mining every document is engendered from gathering of topics. Subject modeling is constructed on probabilistic modeling, it has an enormous, variety of solicitations such as morphological sympathetic, image detection, involuntary music creativeness identification etc. Topic modeling is implemented in many grounds such as software engineering development, civil engineering, bio medical environment etc. We describe a topic modeling using fuzzy LDA (Latent Dirichelt Allocation). Basically fuzzy logic algorithm generates the probability for LDA which cultivates the classification accuracy of structured as well as semi structured data. The system illustrates topic modeling on synthetic as well as real time data and evaluates the extensive performance analysis with various parameter tuning methods.*

**Keywords:** *Topic Modeling, Text, Corpus, LDA, Fuzzy LDA, Topic modeling, Twitter sentiment analysis, Fuzzy Logic*

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## 49.Data Analysis on Machines of Pharmaceutical Manufacturing Industry by UtkarshRahane, Vishal Karande, VrushabhDeogirikar

### **Data Analysis on Machines of Pharmaceutical Manufacturing Industry**

**Utkarsh Rahane<sup>1</sup>, Vishal Karande<sup>2</sup>, Vrushabh Deogirikar<sup>3</sup>, Rajas Chaudhari<sup>4</sup>, Prof. Avinash Bagul<sup>5</sup>**

*1,2,3,4B.E. Student, Dept. of Computer Engineering, NBN Sinhgad School of Engineering, Ambegoan, Pune- 411041, Maharashtra, India*

*5Professor, Dept. of Computer Engineering, NBN Sinhgad School Of Engineering, Ambegoan, Pune- 411041, Maharashtra, India*

#### **Abstract**

*Pharmaceutical manufacturing industry involves a variety of machines for various purpose like production, quality check, packaging and many such. Checkweigher and metal detector are machines being used in this industry. Checkweigher is a machine used for checking the weight of packaged products. It is used to verify whether the weight of the packaged goods is in the predefined limits or not. It can also categorize the products as per their weight in specific range. If any discrepancies are found then the packages are discarded from the production line immediately. It is mostly done on fragile goods whose weight content makes a difference. A checkweigher can weigh upto 300 items per minute. In a pharmaceutical manufacturing industry about 15000 to 20000 tablets per machine per hour are produced. During this process, there is a possibility that metal particles may get infused in the contents of the tablets. For checking and discarding such impured tablets, these are passed through the pharmaceutical metal detector which discards the tablets with all possible impurities. We aim to analyse the data generated by both these machines and generate reports that can be used in a pharmaceutical manufacturing industry for traceback activities. Based on this analysis and graphs generated, we will be determining the faults or exceptional cases occurred in the machine or production line when working which will provide assistance in increasing efficiency.*

**Keywords:** *Checkweigher, metal detector, pandas, pharmaceutical industry, dash, analysis, graphical representation, anaconda, error rate*

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50.A Study on the Basics and Approaches of Identifying and Analyzing  
Humanbehavior by KshitijPatil, Dr. Shwetambari. A. Chiwhane

**A Study on the Basics and Approaches of Identifying and Analyzing  
Human behaviour**

**Kshitij Patil, Dr. Shwetambari. A. Chiwhane**  
*Computer Department, NBN Sinhgad School of Engineering*

*Abstract*

With the development in fields of artificial intelligence and machine learning advancing rapidly, the field of human behaviour identification and its analysis has become a widely under research topic all over the globe. The cumulative aspect of processes involved in recognition of human affections is termed as affective computing. It is an integral part of sentiment recognition as well as computer-user interaction. It takes into consideration the emotional states of the user. The identification of human behaviour or feelings is a process which involves multiple domains working together in-order to acquire an inference. There are three sub-domains to be considered while computing human emotions: affect representation and recognition, affect interpretation and modeling, affect simulation while computer vision as well as pattern recognition which are complemented by artificial intelligence and machine learning play an important role in deriving a conclusion.

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## 51.Object Detection and voice assistance for blind person by Danish Shaikh ,AniketPatil , Rohit More, SachinGaikwad

### **Object Detection and voice assistance for blind person**

**Danish Shaikh <sup>(1)</sup>, Aniket Patil <sup>(2)</sup>, Rohit More <sup>(3)</sup>, Sachin Gaikwad <sup>(4)</sup>**

*NB,N Sinhgad School of Engineering, Ambegaon (Bk), Pune.*

#### *Abstract*

Visual blindness caused by several diseases are immensely reduced, but many of us are in threat of age-related vision defect. Visual information is that the basis for many directional responsibilities, so visually impaired people are at a drawback because required information about the surrounding environment isn't accessible. With the recent advances in comprehensive knowledge, it's likely to rise the support given to people with vision defects during their flexibility. During this paper, we have proposed a system, for detecting objects, whose objective is to help blind users to identify obstacles and provide elasticity to maneuver everywhere within the strange environment, whether indoor or outdoor, through a user-friendly interface. This paper is focused mainly on the event of an object detection system using image processing with the OpenCV in python and voice assistance system. Blind people easily get cooperated with the web system through voice assistance. We are detecting an object using the camera and identifying the images stored in the database and matching them with the captured images and giving voice instructions about the direction of an object. Users has to train the system about the thing information using the Yolo model in the beginning. We are then doing feature extraction to go looking for objects within the camera view. We are taking the assistance of an angle where object is placed to allow direction about the thing. The trained model is generated first so the live camera relates with objects after the finding the object users get notified the voice output of related objects so it's easy for blind people to acknowledge objects and find the way.

Keywords: object detection, camera, voice instruction, image processing, Blind people.

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## 52.Computerized Blood Bank Management System Using Geofencing by RiyaDandekar, Shweta Mane, Ronak Shah

### **Computerized Blood Bank Management System Using Geofencing Riya Dandekar, Shweta Mane, Ronak Shah**

*<sup>1,2,3,4</sup>Comp Dept, NBNSOIE, Pune, India*

#### *Abstract*

*Blood is the main constituent of our body there are many problems where the availability of blood is very much important and therefore we have created an application for donors. Donors are going to be prompted to enter the details like name telephone number and blood type. In emergency situations you can check for blood banks or hospitals matching specific blood type with the help of geofencing and filtering techniques. if blood is not there then user can look for donor's that are nearby there houses. an out-sized number of blood donors are attract using Android Application. Since every person has mobile phones with him only the person has to do the registration on the application and he/she will be able to get the services .with the help of GPS technology we can track the blood bank and the requirement of the blood. The person can trace and reach the desired location. if the blood is not there the application can make the range greater to acquire the blood.*

*Keywords: geofencing, filtering techniques, Donor, Receiver*

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## 53. An Assistive System for Visually Impaired People by Priya Rathore, Rhydum Gupta, Palak Choudhary, Prof. Nilam K. Kadale

### **An Assistive System for Visually Impaired People**

**Priya Rathore<sup>1</sup>, Rhydum Gupta<sup>2</sup>, Palak Choudhary<sup>3</sup>, Prof. Nilam K. Kadale<sup>4</sup>**  
*Student, Department of Computer Engineering, NBN Sinhgad School of Engineering, Ambegaon Bk.,  
Pune, Maharashtra, India, 411041*

#### *Abstract*

*IOT stands for Internet of Things. It refers to the always growing and leading network of physical objects that needs an IP address for internet connectivity, and the communication that takes place between these objects and other devices with Internet accessibility. The IOT based devices help visually impaired people in multiple ways. Vision being the most important part and henceforth a system is built to help these people through various phases of their lives. The system uses Ultrasonic sensor, Water sensor and the information through some external sensorial modules. All together a portable system is built using hardware modules. The communication between Raspberry Pi and external modules is done through Headphones and Wi-Fi, as the user is blind so the system is designed to meet the necessary requirements. The connection between Raspberry Pi and the user is done through text-to-speech software module. The system can work well from searching a location to indoor and outdoor guidance. Through tests and implementation, it has been found that system proves to be efficient, portable, small and cost-effective and does not require harsh training.*

*Keywords- Raspberry Pi, Portable System, Visually Impaired person, Indoor and outdoor guidance, GPS, Ultrasonic sensor, Water sensor, GSM module.*

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## 54. Finding Objects for Assisting Blind People by Danish Shaikh, Aniket Patil, Rohit More, Sachin Gaikwad

### **Finding Objects for Assisting Blind People Danish Shaikh<sup>1</sup>, Aniket Patil<sup>2</sup>, Rohit More<sup>3</sup>, Sachin Gaikwad<sup>4</sup>**

*NBN Sinhgad School of Engineering, Ambegaon (Bk), Pune*

#### *Abstract*

*Impairment and visual impairment due to varied health problem have been massively reduced, however existence of those optical problems can be in many of us according to World Health Organization are in danger of age-related damages. Visual info may be the basis for many guidance tasks, thus visually challenged folks are into disadvantage as a result of necessary info concerning the encompassing surroundings isn't offered. Because of latest innovations for overall technology that's doable so that we increase assistance presented to folks having optical problems throughout an individual's life. For these visual problems we tend to introduce a way used for smart assistance, where main goal is that of presenting visually impaired people flexibility to manoeuvre around in unacquainted with surroundings, certainly inner or outer, using user-friendly accommodating interface. Our research is targeted principally within the development of the pc camera visual elements of nearly good quality and voice help system. visually handicapped person simply get interacted with net system through voice help. we tend to are a unit leuthing Associate in Nursing object victimisation the camera Associate in Nursing giving voice directions concerning the path of a element. The user consistently should be training the module initially concerning the item info. We would be then doing feature extraction to go looking for target object within the camera reach. we tend to are that of taking facilitate of angle wherever physical entity is placed in present path concerning the item.*

*Keywords: object detection, camera, voice instruction , image process , Blind folks.*

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## 55.Currency Recognition App for Visually Impaired People with Audio Output by ShubhamKamble, OnkarMhaske, RohitDhanawade, HardikBhutada, and AmolDhumane

### **Currency Recognition App for Visually Impaired People with Audio Output**

*Shubham Kamble<sup>1</sup>, Onkar Mhaske<sup>2</sup>, Rohit Dhanawade<sup>3</sup>, Hardik Bhutada<sup>4</sup>, and Amol Dhumane<sup>5</sup>*

*<sup>1</sup>Student, Comp Dept, NBNSSOE, Pune, India*

#### *Abstract*

*Our aim is to develop an app which will help the person with visual disability to identify the currency notes. The ongoing project would recognize Indian currency notes which will be captured by using the camera of the cellphone. This is an android based on application which will help recognize a Indian Currency bank-note based on its window. This method is based on imagepre-processingtechniquefollowedbynoteclassification. This application will be trained using Indian Currency samples.*

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## 56. Disaster Management Using Geofencing and Datamining by Anushka Damle, Madhuri Shinde, Shriya Kulkarni, Shital Kawatge

*Disaster Management Using Geofencing and Datamining Anushka Damle<sup>#1</sup>, Madhuri Shinde<sup>#2</sup>, Shriya Kulkarni<sup>#3</sup>, Shital Kawatge<sup>#4</sup> Student, Department of Computer Engineering, NBN Sinhgad School of Engineering, Pune, Maharashtra, India.*

### *Abstract*

*Geofencing is a component that makes a virtual fence over a particular zone. The apparatus sets a geofence at a risky region and gives fiasco data to the client. Geofencing joins consciousness of the client's present area with familiarity with the client's to areas which will be the universe of intrigue. In order to characterize a fence, the facilitate (scope and longitude) of the spot are required. A round region is characterized by the organizing and range. A geofence is going to the round region. You'll confine the term of any geofence by indicating a lapse length in milliseconds. After the geofence lapses, area benefits consequently expels it. Geo-fencing will incorporate the notification of the client's present area with familiarity with the client's nearness to areas that will be of premium. To stamp an area of intrigue, its scope and longitude found a workable pace. To direct the closeness for the circumstance, a range is included. In this manner, the scope, longitude, and range characterize a geofence, making a roundabout territory, or fence, round the area of intrigue. For putting away the incentive in geofences, we are utilizing the PHP server. PHP server additionally will store data about the clients who are utilizing this application. Geo-fencing empowers remote observing of geographic territories encompassed by a virtual fence and programmed location when followed portable articles enter or leave these regions. A gigantic arrangement of LBS (area-based administrations) use geo-fence perception as a key component. The area assumes an essential job in setting mindful applications. Geo-wall is client characterized regions. Here areas are urban communities, towns, other recognizable tourists spots. For the most part, the client is in a situation to characterize the limit of geo-fence territory for example in the easiest case it's only a span that characterizes some roundabout region. By and by, inside the vehicle following framework, a vehicle is chosen to be at a particular area if it's inside the geo-fence. Information is out there from the MySQL database concluding calculation is utilized to sort the database. By choosing the exact area of the fiasco, the administrator makes the geofence from the followed area up to the world secured by the debacle. With the decision making and separation estimation strategies administrator decides the number of clients present inside the geofence. Once the administrator gets the tally of clients it's anything but difficult to search out all other catastrophes the executives' forms. Administrator deals with all medical clinic information, rescue vehicle information, armed force, and police headquarters, fire detachment through an immediate call from an android application. The Android program is created utilizing Android Studio. The client's area is gotten to utilizing Google API to utilize the Maps JavaScript API, an API key's necessary which is then added to the portable application.*

*Keywords: Client server architecture, Geo-fence, Client activity, Notification alertness, disaster management.*

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## 57.A Review on Subpart of Image Processing Technique: Image Filtering by Nandini Babbar

### **A Review on Subpart of Image Processing Technique: Image Filtering**

**Nandini Babbar**

*Assistant professor, Computer Engineering, NBN Sinhgad School of Engineering*

*Abstract*

*In this paper, there is a discussion about what the image really is, why there is a need to process the image and explains the steps for image processing. And we are going to do deep review of one of the steps used in the image processing and i. e. is image filtering. Developed to address two major issues. Improve image data to reduce unwanted distortion. Improve image data to reduce unwanted distortion. In addition, two techniques for image filtering are described. One is fuzzy logic filtering and the other is guided filtering.*

*Keywords-Image processing, Image Filtering, Fuzzy Filters, Guided Image Filtering.*

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## 58.A Survey on Chess Engine Using Deep Learning by Shreya B. Ahire, Santosh S.Kale, Sumit U. Mali

### **A Survey on Chess Engine Using Deep Learning**

*Shreya B. Ahire<sup>1</sup>, Santosh S. Kale<sup>2</sup>, Sumit U. Mali<sup>3</sup>*

*Department of Computer Engineering, NBSSOE,  
Ambegaon, Pune, Maharashtra, India*

#### *Abstract*

*Chess games have been avantgarde in the history of artificial intelligence. Traditional chess engines such as Stockfish and Komodo have been developed using heuristics with thousands of*

*rules handcrafted by human chess professionals. However, in recent developments, Alpha Zero adopts a completely different strategy and replaces these handmade rules with deep neural networks. In addition, the generic Algorithm used to develop Alpha Zero knows nothing beyond the basic rules of the game, but it achieved superhuman performance in chess, go and shogi games by learning from self-playing games. In addition, you can see how the chess engine evolved over time using different technology and algorithms. In addition, alpha zero is a method of generalizing the algorithm of chess, shogi (shogi), and Go. Starting with random play, I studied how not to be given domain knowledge other than game rules, and Alpha Zero became the best in chess games in a few hours of self-learning. Finally, by observing how the use of deep learning affects the performance of the chess engine and the movement of chess games played on these two engines, Alpha Zero is summarized as compared to other traditional chess engines.*

*Keywords: Chess Engine, Deep Learning, Artificial Intelligence, Alpha Zero.*

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## 59. Detection and Reduction of DDOS Attack Using IDS Tools by S. Emeard Jenifer Mary, C. Nalini

### **Detection and Reduction of DDOS Attack Using IDS Tools**

S. Emeard Jenifer Mary <sup>1</sup>, C. Nalini <sup>2</sup>

<sup>1,2</sup> Bharath Institute of Higher Education and Research, Chennai.

#### *Abstract*

*In recent scenario, the Cloud provides ultimate solutions for the new age of computing with some features like multi tenancy and agility. The major concern is the data available with the customers while the attackers attained all the important data wherever the cloud area is compromised. The vital problem in the cloud computing is one and only security issues. The key idea of our proposed system is that IDS, it could be used to protect the various protocol change. All the routers have faced the same security issues so that all other protocols are need to be coordinate with each other. Hence we designed the perfect system called IDS to become safety from the attacks. The Intrusion Detection System is a basic key idea to monitor the attackers going to attack and how to protect routers from the various attacks. So, here we proposed IDS with signature controls attack with the same time monitored the packet movements.*

*Keywords— Distributed Denial of service, Intrusion detection System, Interconnected Network.*

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## 60. Relative Analysis of Sun Microsystems Open Office and Microsoft Office by Prof. Rutuja Vilas Kotkar

### **Relative Analysis of Sun Microsystems Open Office and Microsoft Office**

*Prof. Prachi Dattatraya Varpe, Prof. Rutuja Vilas Kotkar*

*Prof. Renuka Subhash Tanpure*

*MCA-Department PIRENS Technical Campus, Loni*

#### *Abstract*

*OpenOffice and Microsoft Office are the two greatest players in the workplace profitability showcase today. OpenOffice is fabricated and kept up by Sun Microsystems and the other, as the name suggests, is made by Microsoft. The fundamental contrast between the two is the way of thinking. Open Office is for nothing out of pocket, and open source. Sun and the OpenOffice's people group have constructed and kept up their product to benefit PC clients, much like the improvement of Linux. here examination will think about the distinctions, and how they stack facing each other. Finally, we will finish up which one is directly for you and abstain from sitting around idly, and potentially cash, on an inappropriate one[1].*

*here a central point like a word processor, Spreadsheets, backing to various sorts of records, PDF backing, Alignment and designing, auto spare, backing to math formulae and conditions, stage (working frameworks), size of documents and so on. And lastly defined which one is the most financially savvy and effective office suite for which sort of PC clients[2].*

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## 61. Grid Computing by Ms. Swati D. Shirke, Ms. Snehasudha P. Dhage

### **Grid Computing**

<sup>1</sup>Ms. Swati D. Shirke, <sup>2</sup>Ms. Snehasudha P. Dhage

<sup>1</sup>Asst. Professor, SITE's NBN Sinhgad School of Engineering, Ambegaon, bk Pune.

<sup>2</sup>Asst. Professor, Loknete Ramdas Patil Dhumal Arts,  
Science Commerce College Rahuri

#### *Abstract*

*The Grid is dynamic essentially, with hubs closing down individually coming up once more. Similar holds for associations. For long-running register escalated applications adaptation to internal failure is a significant concern. An advantage of the Grid is that if there should arise an occurrence of a disappointment an application might be moved and restarted on another site from a checkpoint document. Lattice processing requires the utilization of programming that can partition and branch out bits of a program to upwards of a few thousand PCs.*

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## 62.A Survey on Crop Disease Detection Using Machine Learning by BhartiAthare,ShreyaSonawane

### **A Survey on Crop Disease Detection Using Machine Learning**

*Bharti Athare, Shreya Sonawane, Purva Daware, Amruta Deshmukh  
Shri chhatrapati Shivaji Maharaj College of engineering, Nepti, Ahmednagar*

#### *Abstract*

*India is an agriculture nation or more 70% of our populace relies upon the agriculture. 33% of our national salary originates from farming. Agriculturalist are confronting misfortune because of different yield ailment and it gets dreary to cultivators to screen the harvest normally when the developed territory is huge(acres).So the plant leaf disease identification assumes a significant job in farming field. Opportune and precise disease discovery is significant for the misfortune caused because of harvest illnesses which influences antagonistically on crop quality and yield. Early finding and medication can decrease the loss of plant distrotion and diminish the pointless medication use. Prior, programmed recognition of plant ailment was performed by picture preparing. For malady discovery and characterization we are proposing AI instruments and picture preparing devices. Yield malady will be distinguished through different phases of picture preparing, for example, picture securing, picture pre-handling, picture include extraction and highlight characterization. For picture include extraction we will be use picture worldwide element extraction method.*

*Keywords: ImageProcessing,MachineLearning,FeatureExtraction,ImageGlobalFeatures, Classification.*

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## 63.Survey on Crop Disease Prediction using different techniques For Crop Yield Prediction by ShrutiKudagi, SuhasPatil, MrunalBewoor

### **Survey on Crop Disease Prediction using different techniques For Crop Yield Prediction**

*Shruti Kudagi<sup>#1</sup>, Suhas Patil<sup>\*2</sup>, Mrunal Bewoor<sup>#3</sup>*

*Department of Computer Engineering,*

*BharatiVidyapeeth(Demeedtobemiversity)collegeofEngineering, Pune 411043,  
Maharashtra, India*

#### *Abstract*

*Due to advancement in technology, the research in agriculture is rapidly increased. This is giving opportunity to many researchers to solve upcoming challenges in area of agriculture. In India agriculture being the main part which is responsible for development of countries economy. Sugarcane is one of the paddy crops which is playing important role in crop production. But due to underlying diseases there is large number of financial loss. So climate, soil, type of sugarcane and disease will affect the yield. So, prediction of crop disease is one of the essential which is responsible for crop yield. So, predicting crop disease increase the growth rate of agriculture. Many researchers are proposing different technique to predict crop diseases by using artificial intelligence, image processing, neural network. In this paper, survey has been done on different solution to predict crop disease. This paper introduces machine learning technique which uses Support Vector Machine(SVM) to predict crop disease which will help to select appropriate algorithm for predicting the crop disease and to increase the pace of crop yield.*

*Keywords— Crop disease, Crop yield Machine learning, prediction, SVM*

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## 64.Prediction of Disease through Data Mining by AlokNagargoje, AnandBohara, Vijay Kakade

### **Prediction of Disease through Data Mining**

*Alok Nagargoje, Anand Bohara, Vijay Kakade, Mrunal Kale and Prof.P.S.Hanwate  
NBN Sinhgad School of Engg,Ambegaon (Bk),Pune.*

#### *Abstract*

*According to the World Bank collection of development indicators in 2018, shows that out of the total population of India, the Rural population was reported as 65.97%. Due to less availability of public health-care, lack of awareness, inadequate facilities and less knowledge regarding various diseases are among the main causes for improper health issues. With increase in various types of technologies supporting in the field of health-care, it can be possible to help to reduce the number of people dying by various diseases in rural. It can be achieved through various types of data of symptoms regarding different diseases that are generated by various hospitals, NGO's and various government organizations. We propose to build our project with the main focus on creating an application that classifies and predicts diseases on basis of prior data-sets regarding various symptoms on diseases and the user's knowledge about their health and symptoms. It consists of three different algorithms - Navies Bayes, Random Forest and Decision Tree to classify and predict the diseases. Due to lack of adequate health facilities, often people are not aware of their disease until it's too late. The private health-care is too costly and located at far distances, while most often the public health-care doctors have knowledge regarding common viral 'sand influenza. The starting symptoms can be quite similar and this leads to wrong prediction of disease and treatment, and this causes late treatment of disease after non-effectiveness of treatment from prior. At times when particular disease is volatile, late treatment can lead to fatal death. With the help of data mining, data-sets of symptoms and algorithms we can achieve the predicting of disease before its too late and thus improve the future health conditions of people in rural as well as urban areas.*

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## 65. Dam water level prediction system utilizing Artificial Neural Network Back Propagation by More Vaibhav Jagannath, Sonavane Swapnil Devidas

### **Dam water level prediction system utilizing Artificial Neural Network Back Propagation**

*More Vaibhav Jagannath, Sonavane Swapnil Devidas, Thakur Jay Bhanupratap*

#### *Abstract*

*For flood and drought disasters, Reservoir dams are the one of the best protection mechanism. While in time of flood like conditions, the gate of the dam must be open sufficient to make sure that the reservoir potential will now not cross its limits and the discharges no longer reason for the overflow downstream. While at some point of drought the reservoir wants to impound water and launch properly to fulfill its purposes. Modeling of the reservoir water launch is fundamental to help the reservoir operator to make quickly and correct choices when dealing with each disasters. In this paper, shrewd selection help mannequin primarily based on Artificial Neural Network (ANN) Back Propagation is proposed. The proposed mannequin consists of state of affairs assessment, forecasting, and selection models. Situation evaluation utilized the temporal records mining approach to extract applicable statistics and attribute from the reservoir operation record. The forecasting mannequin makes use of ANN to operate forecasting of the reservoir water level, whilst in the choice model, ANN is utilized to operate the classification of the cutting-edge adjustments of reservoir water level.*

*Keywords: Artificial Neural Network (ANN), Back Propagation and Data mining*

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## 66. System for Authentication and Security of User in Car by AmrutaVikasPatil, VikasMadhukarPatil

### **System for Authentication and Security of User in Car**

<sup>1</sup>Amruta Vikas Patil, <sup>2</sup>Vikas Madhukar Patil Asst.  
Professor, Department of Information Technology Zeal College of  
Engineering and Research, Pune, India

#### *Abstract*

*In current era, numbers of car on our roads are increasing day by day, but there is also need of safety factors. Now a day's car comes with lots of safety features. To increase safety of car and the driver the present invention use various safety features and to increase security of car to reduce human efforts. One of the important security systems in cars is door access control. Most doors are controlled manually, through the use of handles and locks with key to operate the locks. The present invention proposed the use of RFID to use for opening of car door automatically. And essential safety features that need to be installed in car are that the car engine will start if and only if when driver is wearing a seat belt.*

*Keywords- RFID Tags and Reader, Raspberry pi 3, Sensors.*

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## 67.Campus Connect:A cross platform Questions and Answering app with Recommendation Systemby Jayesh Kale, HetanshBharad, SouravGhatage

### **Campus Connect: A cross platform Question and Answering app with Recommendation System**

Jayesh Kale<sup>1</sup>, Hetansh Bharad<sup>2</sup>, Sourav Ghatage<sup>3</sup>, Soham Meher<sup>4</sup>, Dr. Shwetambari Chiwhane<sup>5</sup>  
<sup>1,2,3,4</sup>B.E Student, Dept of computer Engineering, NBN Sinhgad school of Engineering, Ambegaon, Pune-411041, Maharashtra, India

<sup>5</sup>Prof. Dr., Dept of computer Engineering, NBN Sinhgad school of Engineering, Ambegaon, Pune-411041, Maharashtra, India

#### *Abstract*

*Question and answer (Q&A) forums are getting bigger day by day as number of internet user increases every user will have a specific and new problem which is either already solved or yet to be solved. So for creating a platform for college student where they can find all the relatable questions and also ask questions about the studies whose answer can be given by the community. In this paper we are focusing on the implementation survey on various features and technology which are involved in creating a forum with a recommendation engine. Explained steps are Recommendation engine, Leading user detecting, FAQ detection and Open Information extraction system. Based on the analysis, the ideal process and procedure is acknowledged, which will make the forum effective and used in all devices.*

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## 68. Application Of Bct In Secure Electronic Voting System by Prof. P.T. Suradkar, Mayur Mandlik

### **Application Of Bct In Secure Electronic Voting System**

*Prof. P.T. Suradkar, Mayur Mandlik, Gayatri Kothawade, Rutuja Andhalkar, Anjali Jagtap*

*Department of Computer Engineering, NBSSOE, Pune*

#### *Abstract*

*As traditional election uses electronic devices which needs paper for its working. Also we are not sure about the security and transparency which may be a threat. Currently traditional election uses centralized system whose database and system is controlled from one organization. This may cause occurrence of many issues if the system fails. Database if gets hacked may cause long time for recovery and can hyper all the organization at the same time. But blockchain election system has control of all the database from its specific organization so if system fails can cause issue to one organization and others can work without any trouble. Also blockchain reduces the chances of security break as the database goes one level lower in size more secured it can be made. Block chain itself has been used in the Bit-coin system consulted to as the decentralized Bank system. The ultimate aim of project is to represent the voting result using Block Chain that too from every place of election. Unlike Bit-coin with its Proof of labor, this can be a way supported a predetermined activate the system for every node within the built of block chain.*

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## 69. ECG Signals Classification For Early Detection Of Cardiovascular Diseases (CVDs) by Vrushali Shinde, Rutuja Raut

### ECG Signals Classification For Early Detection Of Cardiovascular Diseases (CVDs)

Vrushali Shinde<sup>1</sup>, Rutuja Raut<sup>2</sup>, Vrushali Patil<sup>3</sup>, Prof. Nandini Babbar<sup>4</sup>, Milind Ankleshwar<sup>5</sup>

<sup>1,2,3</sup> Student, Dept. of Computer Engineering, NBN SSOE, Maharashtra, India

<sup>4</sup> Guide-Professor, Dept. of Computer Engineering, NBN SSOE, Maharashtra, India

<sup>5</sup> Director, Mass Technologies, Maharashtra, India

#### Abstract

Cardiovascular Diseases is one of the major cause of human deaths. The increasing threats of CVD can be early detected with various medical tests including electrocardiogram (ECG), and also 2D Echo, Stress Test. With the help of ECG signal, early detection of CVD is possible and proper medication can be provided for human life as and when needed. However to examine all these signals manually can be very much hectic, stressbuster and would require ample lot of time. Discrete wavelet transform (DWT) method combining with nonlinear features for automated characterization of CVDs will be main highlight in this research which will also help overcome manual ECG work. DWT subjects ECG signals upto five levels of normal, dilated cardiomyopathy (DCM), hypertrophic cardiomyopathy (HCM), myocardial infarction (MI). DWT coefficients extracts fuzzy entropy, sample entropy, fractal dimension, and signal energy etc as

relative wavelet. Our proposed methodology is inclusive of multiple CVD devices signal which helps us to increase the accuracy of the data and giving right prediction to save and help human life by taking proper medication.

**Keywords:** CVD, ECG, Discrete Wavelet Transform, Hypertrophic cardiomyopathy, Dilated Cardiomyopathy, Myocardial infarction.

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## 70. Determining Stock Market Prediction Using Opinion Mining by Miss Pranjali Dudhal, Miss Taniya Nimbalkar

### **Determining Stock Market Prediction Using Opinion Mining** **Miss Asmita Kadam, Miss Kajal Warghude, Miss Pranjali Dudhal, Miss Taniya Nimbalkar**

*Department of Computer Engineering, Savitribai Phule Pune University*

#### *Abstract*

*The field of stocks or securities exchange has faced many transformations over the years. While the only thing constant in the stock market domain is its volatility, it still remains the most powerful investment strategy if you want to make money even when you sleep. In this paper, we propose an online website, that will make predictions on the performance of stocks in the future and help investors reach the most accurate decisions about investments. For this, we use a machine learning model, the base of which is a linear regression algorithm. Recent studies have suggested using a support vector machine (SVM) to make the predictions, which lead to a look-ahead bias, which was then tackled by coupling it with a rolling window approach to improve its accuracy. We, on the other hand, use linear regression to make predictions. The results of four experiments show that our method is more accurate as compared to SVM. Furthermore, any new investor who needs to brush up his knowledge about stocks will be redirected to articles or teaching videos about what the stock market is.*

*Keywords— Stock market prediction, Linear Regression, Machine Learning, Classification, Data mining.*

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## 71. Online Show Popularity Prediction by TriveniLandge ,Supriyakore

### **Online Show Popularity Prediction**

Triveni Landge <sup>#1</sup>, Supriya kore <sup>#2</sup>, Neha Bora <sup>#3</sup>, Priya Shelke<sup>#4</sup>

<sup>#</sup> Information Technology Department, Vishwakarma Institute of Information Technology

#### *Abstract*

Reality show is the new mantra of television producers and channel executives. Online Show Popularity prediction using sentiment analysis is one of the most interesting tasks because of the "similar-but-tweaked-here-and-there" shows churned out by the competition. Nowadays number of productions and cost of production is very high due to which it become most important and challenging tasks to predict Online Show Popularity using some simple method over traditional one. These traditional methods are costly and consume time as well. Online Show producers and advertisers constantly seek ways to understand their target audience along various dimensions. This allows Online Show producers to understand certain aspects of the preferences of their viewers, gain valuable feedback and improve their shows. The accurate and timely prediction of program popularity is of great value for content providers, advertisers and broadcast operators. This information can be beneficial to evaluate the performance of the Online Shows and also calculate how many people like a particular show or actors of that show and predict popularity of those shows, based on the text reviews.

*Keywords:* Tweets, Popularity prediction, Sentiment Analysis, Online Shows, Natural Language Processing, Porter Stemmer.

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## 72.Interface For Farmers And Customers By Avoiding Mediators Using Location-Based Distribution Of Agricultural Products by Rushikesh B Chidrawar, Prasad MBichkule

### **Interface For Farmers And Customers By Avoiding Mediators Using Location-Based Distribution Of Agricultural Products**

**Rushikesh B Chidrawar, Prasad M Bichkule, Sukrut S Revalkar, Omkar S Gosavi, Nilam K Kadale**

*Student, Computer Department, NBN SSOE, Pune, India*

#### *Abstract*

*Our aim is to develop an interface for farmers/sellers and customer/buyers by avoiding mediators using location based distribution system for agricultural products connecting farmers and customers on a common digital platform. The website allows any account holder to behave as seller (farmers) or buyer. The seller can list the products they want to sell, and the buyer can directly buy from the seller. This establishes direct connection facilitating both to get a better deal on farm products. It also provides easy access of information from local to national markets. User can easily access market prices for any product according to the location. We are also providing a system by which farmer can enter soil related details on the basis of which our system will suggest which crop can produce high yield.*

*Keywords: Crop Yield Prediction, Soil Classification, Artificial Intelligence, Machine Learning, Data Mining*

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## 73. Unusual Human Activity Detection Using Opencv Python with Machine Learning by Prof. Manisha P. Navale

### **Unusual Human Activity Detection Using Opencv Python with Machine Learning**

<sup>1</sup>Abhishek S. Mohite, <sup>2</sup>Darshan K. Sangale, <sup>3</sup>Prathamesh R. Oza, <sup>4</sup>Tushar D. Parekar,  
<sup>5</sup>Prof. Manisha P. Navale,  
<sup>1,2,3,4</sup>BE-Computer, NBSSOE, Pune, <sup>5</sup>Guide, NBSSOE, Pune

#### *Abstract*

*Within proposed paper, we introduce a completely unique method for detecting unusual activities of human. An activity which attracts the attention of others is classified as unusual. It can be quarreling or any suspicious behaviour which is not appropriate. A system has been proposed which uses machine learning algorithms to analyse human behaviour and classify it into usual or unusual. The system uses concept of supervised learning. The system is developed to try to automate the manual surveillance system. Security is major concern today. So there is a need to develop a system which automatically detects suspicious behaviour.*

*Keywords- Unusual act, detection, Video surveillance, OpenCV, Image processing, Machine learning, Face recognition, CNN.*

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## 74. Anti-Theft Car Security System by Kiran Panchal, Nilam Kadale

### **Anti-Theft Car Security System**

**Kiran Panchal, Nilam Kadale**

*Department of computer Engineering  
Nbnsoe, Pune*

#### *Abstract*

*Recently, in the last few years, it has been noticed that the theft of cars and the use of stolen cars in suspicious acts by robbers has been increased. So, systems plan is to reduce the ever-committed crime of stealing cars. Requirements are Fingerprint sensor, 8051 Microcontroller, Buzzer, Keyboard, LCD display, Capacitors, Resistors, and Transistors. These will thus help us in creating a steal proof vehicle with the help of card key systems and authentication systems. When the car owner comes near the car with the card key, it will sense owner's presence within 10 feet of car sensor and that will be the first step of authenticity. The second step will be the card key system being activated by sensing the card by the sensors on the door of the car. It will thus help in showing the car that the car is being opened and the car will make a beeping sound. The third and final step will be the fingerprint authentication which will confirm that the person driving the car is the owner himself.*

*Keywords- Intelligent car security system, RFID, Microcontroller, Fingerprint sensor.*

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## 75.A Study of 3D-GANs and their Implementation Challenges by Siddhant Shah,ShaileshBendale

### **A Study of 3D-GANs and their Implementation Challenges**

*Vrushali Ghodnadikar<sup>1</sup>, Aditi Thopte<sup>2</sup>, Prabhdeep Singh Gandhi<sup>3</sup>, Siddhant Shah<sup>4</sup>, Shailesh Bendale<sup>5</sup>*

*<sup>1,2,3,4</sup>B.E. Student, Dept. of Computer Engineering, NBN Sinhgad School of Engineering, Ambegaon, Pune- 411041, Maharashtra, India*

*<sup>5</sup>Professor, Dept. of Computer Engineering, NBN Sinhgad School of Engineering, Ambegaon, Pune – 411041, Maharashtra, India*

#### *Abstract*

*Computer vision is undoubtedly the most researched field in Artificial Intelligence, the introduction of GANs was intended for applications in this domain as well. General Adversarial networks as a paradigm are intriguing as it takes the old adversarial learning concept and brings new perspectives on it. From human faces to mortgages, GANs are hired to produce a wide range of images. Speaking of the emergence of GANs, since its inception in 2014, various approaches have been developed by bright minds in this field to gain convergence. It has a number of challenges that need to be addressed before we can acquire the same ability as other well-known methods of deep learning. In this research paper, we focus on the generation of 3D models using GANs. They sample the distribution of sound evenly while producing these models. Because the strength of the GANs is based on a random sample, it becomes more difficult to make the desired result and reach it over the spectrum. And, since human understanding mainly benefits from triple-digit numerical data, our focus will be on using two-dimensional drawings to produce and rebuild 3D characters. Finally, as noted earlier, GAN training is a way to punish a wild horse! So, basically we will learn different ways to achieve the same. To conclude, this paper will contribute to a deeper understanding of the philosophy and engineering behind Generative Adversarial Networks, their unique challenges, and will end with a focus on 3D modeling.*

*Keywords: Conditional Networks (GAN), Artificial Intelligence, 3D model, 2D to 3D modeling.*

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76. Cyberhate Speech Detection With Fuzzy Approach by Sangita Padolkar  
, Poonam Mohalkar

**Cyberhate Speech Detection With Fuzzy Approach**

*Sangita Padolkar 1, Poonam Mohalkar 2, Jui Kadam 3*  
*Computer Department, Savitribai Phule Pune University NBN Sinhgad*  
*School of Engineering, Pune, India*

*Abstract*

*In the context of text classification of sentiment analysis to great, instances are naturally fuzzy and therefore to get clear-cut outcome by extracting the opinion in a new innovative in a fuzzy combination way and assign a relevant sentiment, usually either positive or negative. Due to this new approach we get an advancement for extracting the opinions of people more deeply even if instance in a sentences are manipulated more complexly.*

*Keywords: Cyberhate speech detection, Mixed Feature Rule Formation Algorithm, sentiment analysis, Twitter, Machine Learning, Bag of words, Doc2Vec.*

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## 77. Secure Cloud Log for Cyber Forensics by Aditya Vanjari, Shubham Sahare

### **Secure Cloud Log for Cyber Forensics**

**Aditya Vanjari, Shubham Sahare, Amar Sawant, Shubham Wasade**  
*NBN Sinhgad School of Engineering*

#### *Abstract*

*Nowadays cloud computing has become a popular computing paradigm. There is a lack of support for cloud forensic investigation in cloud computing. The vital role in cloud computing is to analyze various logs (e.g., network log or process log or activity logs). Hence log is a valuable information source in investigations of cloud forensics. There are many other existing sources for secure log storage designed for the typical ordinary system instead of the complexity in the cloud environment. Therefore our team is proposing an another scheme for secure log data in the cloud environment. In our proposed system we have been encrypted various log files using the unique public key of the user so that the content cannot be decrypted by other users. In order to prevent modifications of a log for unauthorized, due to such approach, the verification time can be reduced significantly.*

*Keywords-Cloud Forensic; Cloud Log; Cloud Computing; Cloud Security; Proof of past log.*

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78.A Secure Model for Detecting Origin Forgery and Packet Drop  
Attacks in Wireless Network by Pranali Salunkhe,  
Sandesh Thorat

**A Secure Model for Detecting Origin Forgery and Packet Drop Attacks in  
Wireless Network**

**\*\*Pranali Salunkhe, Sandesh Thorat , Prateek Parihar, P.T. Suradkar\*\***

*BE Student, NBSSOE*

*\*Computer Department \*\*NBN Sinhgad School Of Engineering*

*Abstract*

*Wireless sensor network uses the data collected from various data nodes for the decision- making process. But advisory nodes tend to compromise and temper with the data and because of that data gets altered. Provenance is used for verifying the data but some problems may arise while doing so like bandwidth consumption and space complexity.*

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79.A Survey on Folder Lock System based on Fingerprint Authentication by D.  
H.Patil, DhananjayNehere, NehaTakale

**A Survey on Folder Lock System based on Fingerprint Authentication**

*D. H. Patil, Dhananjay Nehere, Neha Takale, Rutika Kadam, Pankaj Sharma(2019)*

*Abstract*

*There are many local, state, and federal levels, including private companies, MNCs, security agencies, educational institutions where people share their equipment. It is possible that some unauthorized person may harm your important and confidential data, such as stealing information, copying, modifying, deleting or other illegal activities. Folder Lock is one way to ensure that your data remains secure and only accessible to an authorized person. So, it's protected against Biometric-protected Folder Lock - Fingerprint Authentication here. Think of the existing password Authentication system in place, there are many issues and issues associated. For example, a user needs to remember a password, it is human tendency not to forget passwords, many passwords can be guessed or cracked using multiple methods, such as Brute Force, can be broken using social engineering attacks, etc. Therefore, the program replaces password authentication with Biometric Fingerprint Authentication. The non-encrypted biometric authentication proposed here try to overcome the above mentioned issues, locking your data to be stored in an encrypted format, thus making it more secure and more reliable.*

*Keywords- Biometric, Fingerprint, Authentication, Folder, Password.*

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## 80.Detection and Rescue of Emergency Vehicles from Traffic Using RFIDby PradnyaAutade, ChetnaKasturwarSurabhiMahadik, AtulAmbulgekar

### **Detection and Rescue of Emergency Vehicles from Traffic Using RFID**

<sup>1</sup>Pradnya Autade, <sup>2</sup>Chetna Kasturwar , <sup>3</sup>Surabhi Mahadik, <sup>4</sup>Atul Ambulgekar, <sup>5</sup>Leena  
Deshpande

<sup>1234</sup>BE-Computer, VIIT Pune

<sup>5</sup>Assistant Professor, Computer Engineering, VIIT Pune

*Abstract*

*Smart Traffic System enables us to detect and control the course of traffic. The aim of our system is to control the smooth motion of vehicles in the High Traffic lanes. Normal Traffic management system is not able to handle Traffic congestions. Here we are using different types of sensors to detect density of traffic and scans the Emergency vehicles to provide easy passage through the high traffic. Here we are using highly calculated algorithm to work, sensors will control traffic. The traffic density for future is estimated by this algorithm to minimize the traffic congestion. RFIDs are mainly used to set privilege levels of emergency vehicles like ambulance, fire brigade etc.*

*Keywords- Infrared (IR) sensor, RFID Sensor, Traffic Detector.*

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## 81.Question Generation from Text byYashOswal, IshaPisal, Mehul Shah

### **Question Generation from Text**

*Yash Oswal<sup>1</sup>, Isha Pisal<sup>2</sup>, Mehul Shah<sup>3</sup>, Rushikesh Rote<sup>4</sup>\* Computer  
Department, VIII, Pune University*

#### *Abstract*

*A goal to generate questions based on text which is given as input to the system. Our proposed system aims at generating the questions by analyzing vivid texts. Soft-copy of the text is given to the system, and wh-question is the expected output. Question Generation is a major challenge for natural language understanding communities, recently QG is turned now into an information seeking systems. Interest of the Natural Language Processing , Information Retrieval and Natural Language Generation communities now have identified the Text-to- Question generation as a prominent task for a system, where, given a text which can be anything such as: a single sentence, a word or set of words, a text or set of texts, an inadequate question, and soon; and its goal would be to make a set of questions. Also, semantics of the words extracted are been checked for appropriate sentence formation.*

*Keywords— Question Generation, Rule Based Technique, POS Tagging, Semantics.*

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## 82. Software Defined Network systems embedded with big data by Tejeshwari Chouhan, Shailesh Pramod Bendale

### **Software Defined Network systems embedded with big data**

*Tejeshwari Chouhan<sup>1</sup>, Shailesh Pramod Bendale<sup>2</sup>*

*<sup>1</sup>Student, <sup>2</sup>Professor*

*Dept. of Computer Engineering, NBN Sinhgad School of Engineering, Ambegaon, Pune- 411041, Maharashtra, India*

#### *Abstract*

*Sdn and big data both are independently powerful technology. But when we combine aspects of both the technology then we can get good results. Sdn requires big data for many different operations like – extracting data, storing, processing and transmitting data. So in this paper, we will discuss the advance and emerging technology of sdn and big data, how big data is beneficial for the software defined networks. Beneficial methods on how the sdn will solve the problems of the big data. The interrelationship or correlation between sdn and big data has not been defined properly so, both the technology presents unique challenges beyond the existing works.*

*Keywords used: Software defined networks, Network Virtualization, Cloud Data Center, Big Data, Data Traffic, and Data Center*

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## 83.A Survey Paper on Smart Trolley Using RFID Technology by Ashutosh Walimbe, Vikrant Pagnis,

### **A Survey Paper on Smart Trolley Using RFID Technology**

<sup>1</sup>Ashutosh Walimbe, <sup>2</sup>Vikrant Pagnis, <sup>3</sup>Akshit Alva, <sup>4</sup>ASidhesh Balapure,

<sup>5</sup>Madhuri Karnik

<sup>1,2,3,4</sup>BE-Computer, VIT Pune

<sup>5</sup>Assistant Professor, Computer Engineering, VIT Pune.

#### *Abstract*

*India is one of the fastest growing economies in the world and aspires to become a 5 trillion dollar economy. E-commerce has surely spread itself and there have been many advancements in this field. The working class and most of our community prefers to go to malls or supermarkets and get their shopping done. Due to increasing populations, shopping is a cumbersome process as one has to wait in long queues to get their processing done. Clearly, it is a waste of time and a tedious affair. The major problem lies with the system of barcodes where every item is being scanned individually which makes the process slow and time consuming. RFID based shopping cart is a new way of shopping and avoiding long queues. The object would be tagged with a unique reader tag, which will be identified by the RFID reader attached to the trolley as the object is added to the cart. As the scanning is done the cost of the product will automatically be displayed on the screen attached to the cart. The bill value changes dynamically as the objects are added and subtracted.*

*Keywords—UHF RFID, RFID Modules, ZigBee, Shopping Cart, Supermarkets, Smart Trolley*

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## 84. Document Clustering in Product Development Analyzer using TFIDF and K-Means Algorithm by MohitMurotiya, MadhurMahajan, KetanLaddha

### **Document Clustering in Product Development Analyzer using TFIDF and K-Means Algorithm**

**MohitMurotiya<sup>1</sup>, MadhurMahajan<sup>2</sup>, KetanLaddha<sup>3</sup>, SourabhRathi<sup>4</sup>,  
Prof. Shreya Ahire<sup>5</sup>**

<sup>1,2,3,4</sup>Student, Dept. of Computer Engineering, NBN Sinhgad School of Engineering, Ambegaon Bk., Pune, Maharashtra, India, 411041

<sup>5</sup>Professor, Dept. of Computer Engineering, NBN Sinhgad School of Engineering, Ambegaon, Pune, Maharashtra, India, 411041

#### *Abstract*

*The physical constructional supervisory of documents is costly in terms of time and efforts. The pass-oversizable amount of documents to interpret labouring is additionally challenging issue. Therefore, the knowledgeable means are needed to cope up with the challenges. The Clustering is altogether the motorized outcome. It is significant tool in many approaches of Data Sciences and Business logics. Document clustering classify the records into diverse gatherings called as groups, where the record in each group have same possessions as indicated in closeness or analogy/affinity measure. This paper proposed method for clustering textual documents using Automatic text classification with TF-IDF, Word embedding algorithm and classifies data using K-means clustering machine learning algorithm.*

*Keywords -Document Clustering, K-Means Algorithm, Tf-Idf, Word-Net, Stop Word Removal, String Matching*

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85. Prediction Of The Future Electricity Consumption And Production Using  
The Most Efficient Machine Learning Algorithm by Sohum R. Dhavale,  
Sakshi D. Mane Deshmukh, Khyati P. Shah

**Prediction Of The Future Electricity Consumption And Production Using  
The Most Efficient Machine Learning Algorithm**

*Sohum R. Dhavale<sup>1</sup>, Sakshi D. Mane Deshmukh<sup>1</sup>, Khyati P. Shah<sup>1</sup>, Pradyot J. Itkar<sup>1</sup> <sup>1</sup>BE  
Student, Dept. Of Computer Engineering, NBN Sinhgad School of Engineering, Ambegaon (Bk), Pune-411041,  
Maharashtra, India*

*Abstract*

*The prediction of electrical energy demand is a matter of concern for many countries as the forecast of consumption of electricity is crucial for policy making. This paper presents an efficient way to predict the future load on the system by using various machine learning approaches. The data-set, consisting of numerous patterns of electricity consumed from various commercial and domestic areas, are the readings collected by the Axonet Smart Energy meter. To accomplish this task, this survey introduces the most efficient algorithm among these machine learning algorithms viz. Naïve Bayes Classifier Algorithm, Decision Tree Algorithm and Random Forest Algorithm to predict the electricity consumed using the historical data.*

*Keywords: Electricity Consumption Prediction, Smart Energy Meter, Forecasting, Naïve Bayes Classifier, Decision Tree, Random Forest, Machine Learning, Data Analysis.*

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### **Cross User Big data Deduplication**

*Yash Karanje, Ankita Jadhav, Nikhita Biradar, Ketaki Kadam, Prof. M. P. Navale  
Department of Computer Engineering  
NBN Sinhgad School of Engineering, Pune, India*

#### *Abstract*

*Today's world has been digitalized to a large extent. The total amount of data generated per day is more than 2.5 exabytes out of which social media fuels up with maximum contribution along with business transactional data, sensor-generated data. Such a huge amount of data must be managed properly to use it for certain business domain-specific decision-taking purposes. It is very confronting to store and manage such huge amounts of data which is mostly redundant in nature and that too present over multiple cloud platforms for multiple users; it requires high resources including the cost required to store, backup time, processing time; which results into reduction of system throughput. So, Data Deduplication is the most preferable way that we propose here considering the above issue. We propose a model that will perform deduplication of data for multiple users to achieve the uniqueness of textual data (only) uploaded by multiple users; data access must be efficient though, maintain the privacy of data against brute-force attacks. This intension will be achieved by employing certain algorithms like a Fixed-size blocking algorithm & Encryption algorithm and effective data organization. It will not only preserve the space by means of reducing storage allocation but also effectively manage network bandwidth.*

*Keywords—Hashkey, Securehashingalgorithm, Brute-forceattack, Inter-User deduplication, Intra-User deduplication, Fixed size blocking algorithm, Cryptokeys.*

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## 87.Diversified Troll Detection Mechanisms Using AI/ML Techniques by MrunmayeePatil, SarangPatil, MayuraRane

### **Diversified Troll Detection Mechanisms Using AI/ML Techniques**

*Mrunmayee Patil<sup>1</sup>, Sarang Patil<sup>2</sup>, Mayura Rane<sup>3</sup>, Aishwarya Gaikwad<sup>4</sup>, Dr.*

*Shwetambari Chivhane<sup>5</sup>*

*1, 2, 3, 4 B.E. Student, 5 Professor,*

*Dept. of Computer Engineering, NBN Sinhgad School of Engineering, Ambegaon, Pune – 411041, Maharashtra, India*

#### *Abstract*

*Online trolling is another form of harassment that made its way over the internet. Various troll detection measures should be implemented to handle this issue. It is necessary to prevent promoting the trend of trolling. This trend has been noticed to be rising on social media to make offensive and inflammatory remarks. A few manual measures like neglecting, reporting or blocking the trolls are being used, yet the rising number of trolls require an efficient automated approach. Some social sites block the trolls on the basis of set of troll words, nonetheless trolls counter these measures by purposefully misspelling their words or other clever methods. This paper emphasizes on various methodologies of anti-troll systems using AI/ML for adapting to the latest trolling techniques.*

*Keywords: Machine Learning, Artificial Intelligence, Naïve Bayes, Sentiment Analysis, Twitter troll detection, Anti-Troll System*

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88.Study of Credit Card Fraud Recognition using machine learning classification methods by Saba Latif ,AditiKulkarni, Rani Molgire

**90p;Study of Credit Card Fraud Recognition using machine learning classification methods**

*Saba Latif<sup>1</sup> ,Aditi Kulkarni<sup>2</sup>, Rani Molgire<sup>3</sup> and Pooja Nangare<sup>4</sup>  
NBN Sinhgad School of Engineering*

*Abstract*

*The usage of credit cards for electronic transactions has rapidly increased due to the emergence and exponential development in e-commerce and it has triggered a drastic surge in credit card fraud. Fraudulent transactions are mixed in real life with legitimate transactions and clear pattern matching methods are not always sufficient to accurately identify such frauds. Efficient fraud monitoring program applied.*

*Keywords: Credit Card Fraud Detection, Machine Learning Classification Techniques, Data Mining.*

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## 89. Digital Agriculture System for Crop Prediction & Disease Analysis Based on Machine Learning by Nikita Vyavahare , Vrushali Vishwase

### **Digital Agriculture System for Crop Prediction & Disease Analysis Based on Machine Learning**

*Nikita Vyavahare , Vrushali Vishwase , Sayali Ingle , Rachana mane Prof.P.P.Jorvekar  
Department of Computer Engineering,  
NBN Sinhgad School of Engineering, Ambegaon.*

#### *Abstract*

*Agriculture is the number one source of livelihood for approximately 58 percent of India's population and is the most crucial part of GDP. Indian farming is based totally on economic advantages from crop yields, but now day's agricultural generation has failed to verified satisfactory crop choice techniques and to boom crop yield in all over India. So, lower in crop yield will increase the trouble in farmer's monetary health situations. So, it will become the maximan trending hassle for our agricultural region to invent such noble technique to advocates super appropriate crop for a particular region. To reap high-quality appropriate crop desire for areas primarily based on parameters like soil conditions, rainfall and weather we have got applied gadget studying method. Secondary hassle is lack of understanding or absence of steering even as farming. Lack of guidance in Indian farmers may follow incorrect farming strategies or inefficient traditional strategies. Most of farmers are uneducated and non- technical backgrounds so they'll berelying on conventional crop choice and farming techniques which falls them into reasonable loss. With the assist of disorder assessment tool, we predic the crop disease prediction and propose the precaution from the ones illnesses. Last and most essential hassle isn't any right marketplace assessment at the equal time as cultivation of any unique crop, which can also reason a cheap lack of farmers.*  
*Keywords- Crop Selection, Disease analysis, Prediction, SVM.*

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90.Extending drone’s capabilities for autonomous flight approach combined with indoor pod delivery mechanism by Piyush Agrawal, Mr. Shailesh Bendale

**Extending drone’s capabilities for autonomous flight approach combined with indoor pod delivery mechanism**

*Piyush Agrawal, Mr. Shailesh Bendale  
Dept. of computer engineering, NBNSOE, Ambegaon (BK) Affiliated to  
Savitribai Phule Pune University*

*Abstract*

*Drone technology is being tested and used in various fields today. Using drones to deliver items is one of the most promising aspects of the technology which is being developed by many companies around the world. It is very challenging to develop algorithms to decide flight paths and maneuver drones autonomously in the real world. Making an autonomous flying vehicle requires interdisciplinary approach. An array of various sensors working together and sharing data combined with machine learning models to analyze and act on that data is paramount for executing the level of autonomy required to achieve this feat. The drone needs to have intuitive understanding of routes. Removing discrepancies in the flight path requires well-constructed algorithms to assess the real life situations and make decisions to tackle problems which might occur due to accidents, collisions, onboard control issues etc. The technology should be optimal enough to handle practical constraints such as battery life, distance of travel, weather proofing etc. This paper focuses on the tools and algorithms available today and how they can be extended and modified to make a delivery system by combining delivery drones and a network of indoor tubes to deliver the item directly to one’s home without them having to collect it outside.*

*Keywords-Delivery, Autonomous, Drones, Tubes, Pods.*

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## 91. Vehicle Crash Alert System by Sahil Anis Pathan, Shubham Sanjay More

### **Vehicle Crash Alert System**

**\*Sahil Anis Pathan, \*Shubham Sanjay More, \*Amogh Satish Kumathekar,  
\*Priyadarshan Sanjay Deshmukh**

*Dept. of Computer Science and Engineering  
NBN Sinhgad School Of Engineering, Pune-411041*

#### *Abstract*

*It is really very important to understand the road traffic volume in real time specially in metropolitan and developed cities for controlling traffic signals and traffic management. Controlling traffic is very difficult task for traffic control department, specially in big and metro cities. Due to heavy traffic there are lot of accidents which are caused and every time there is not any safety alert which is been provided so this project is all about saving human life in accidental case without any human assistance to notify about the accidental victim. We have designed this project with arduino, GPS modules and GSM modules, pressure sensor. In this project we will be using this module to connect together with pressure sensor using Arduino and as the pressure of desired psi impacts on the pressure sensor the Arduino will get activated and the message of current location and help will be sent to the emergency contacts of the accident victim which will include family members, nearest police station and the nearest hospital.*

*Keywords: arduino, GPS modules and GSM modules, The high precision receiver, android, KNN algorithm.*

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## 92.Sketch Classification Using CNN To Help Reduce Language Barrier by ManthanK,Esha.S, Satyam.J

### **Sketch Classification Using CNN To Help Reduce Language Barrier Manthan.K , Esha.S , Sumit.P , Satyam.J , Pallavi T. Suradkar**

#### *Abstract*

*The main concept or idea behind the project is to create an application which enables you to track the hand movement, while you are drawing a sketch using a highlighted cursor in front of the camera and the machine learning model using CNN tries to configure the sketch and present you the image which is most significant to the pixels traced by the hand movement. This will not only help reducing the language barrier between people using different language as images are one of the best and efficient way to communicate, but also help people who are differently-abled to communicate effectively using sketch made by hand movement.*

*Keywords- Convolutional Neural Network, sketch prediction, Image Classification, Real-World Applications, Deep Learning, Image Frame Analysis*

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## 93.Detection Of Lung Cancer Nodule Using Digital Image Processing by Nishant Singh, ShubhamPote ,Ganesh Patil ,VedikaPatil

### **Detection Of Lung Cancer Nodule Using Digital Image Processing**

*Nishant Singh Shubham Pote Ganesh Patil Vedika Patil, Prof. P. P. Jorvekar  
B.E. Computer Engineering Dept. NBN Sinhgad School of Engineering Pune, India*

#### *Abstract*

*Lung nodule detection and segmentation is important for clinical diagnosis. Characteristics of pneumonic nodules always indicate the nature of lung disease. This paper uses CT images for the lung nodule detection and segmentation. The identification stage includes pattern matching and confirmation to increase accuracy, performed by otsus algorithm, support vector machine, segmentation. The categorization stage includes matching characteristics (like texture, shape and density) of the detected nodules. Firstly, lung CT images are put through otsus algorithm for nodule detection. Secondly, lung nodules are detected inside the lung area using image processing techniques. And finally segmentation is applied to highlight the characteristics.*

*Index Terms—Lung Nodule, Otsus algorithm, Computerised Tomography(CT), Detection, Segmentation*

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