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INSTITUTE OF INFORMATION TECHNOLOGY
(I.O.I.T)



ADDING VALUE TO ENGINEERING

An Autonomous Institute Affiliated to Savitribai Phule Pune University
Approved by AICTE, New Delhi and Recognised by Govt. of Maharashtra
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DEPARTMENT OF COMPUTER ENGINEERING

TECHNICAL MAGAZINE 2023-2024





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DEPARTMENT OF COMPUTER ENGINEERING

Vision

- To be known for imparting quality education in computer engineering to serve the changing needs of global industry.

Mission

- To create an environment that fosters technical and professional growth to make graduates globally competent.
- To develop industry ready professionals, researchers, and entrepreneurs to solve real world problems and societal issues.

Program Education Objectives(PEOs)

- **PEO1:** Work productively as successful computer professionals / entrepreneurs / researchers in global industry.
- **PEO2:** Adapt latest technological skills to face challenges of the modern computing industry.
- **PEO3:** Work in finance, healthcare, security and banking sectors as a team member or a leader with ethical values.

Program Specific Outcomes (PSOs)

PSO1 Problem Solving and Programming Skills: Graduates will be able to apply knowledge of procedural or object oriented programming to solve computing problems

PSO2 Professional Skills: Graduates will be able to design and develop software systems using front end and back end technologies by following standard software engineering principles.

PSO3 Professional Skills: Graduates will be able to analyse the algorithms and implement optimized solutions in the domain of machine learning, natural language processing, security and cloud computing and Internet of Things.



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Program Outcomes (POs)

Graduates will be able to

1. Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems. [**Engineering knowledge**]
2. Identify, formulate, research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences. [**Problem analysis**]
3. Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations. [**Design/development of solutions**]
4. Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions. [**Conduct investigations of complex problems**]
5. Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations. [**Modern tool usage**]
6. Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice. [**The engineer and society**]
7. Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development. [**Environment and sustainability**]
8. Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice. [**Ethics**]
9. Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings. [**Individual and team work**]
10. Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions. [**Communication**]



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-
11. Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments. [**Project management and finance**]
 12. Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change. [**Life-long learning**]



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Editorial Team



Faculty Coordinator : P.S.Jadhav

I'm glad to invite you to the technical magazine for our department. I view technical magazine as an amazing chance to focus on the projects and seminar subjects that the students seek after to additional their schooling. Through the projects they complete, students have the open door and stage to exhibit their ability, which is valuable to anyone or every other person in improving their technical knowledge. I accept that this magazine achieves its objective.



Student Coordinator: Kaustubha Khandagale



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Objective behind Technical Magazine

The opportunity to present the technical magazine for the years 2023–2024 is an honor for the Department of Computer Engineering. From our students, we had assembled seminar and project titles. Our objective in sharing this data is to inspire students and teach them about the ongoing requirements in the IT business.

The department's goal is to increase technical proficiency among the students. Since the second year, the department has been working on this. Outside of the classroom, the department organizes numerous expert talks, seminars, field trips, and learning materials for students. There are planned activities to make students aware of the present demand for the IT industry. The results of those efforts are shown in their placement and admission to further education.

Coordinator

Mrs.P.S.Jadhav

HOD

Dr. S.N.Zaware



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I. PLACEMENT OF ACADEMIC YEAR 2023-24

Sr.No.	Name Of Student	Name Of Company
1	Swayamsiddha Amrutraj Manedeshmukh	Datametica Solutions Pvt. Ltd.
2	Yash Paraswar	Datametica Solutions Pvt. Ltd.
3	Sumedh Gole	Datametica Solutions Pvt. Ltd.
4	Kushal Hedao	Datametica Solutions Pvt. Ltd.
5	Sakshi Shirsathe	Hewlett Packard Enterprises
6	Vedika Gujalwar	Hewlett Packard Enterprises
7	Diksha Natekar	Hewlett Packard Enterprises
8	Vidhi Mane	Hewlett Packard Enterprises
9	Tazeen Sayed	Hewlett Packard Enterprises
10	Swaraj Buchude	DIAMANTI SOFTWARE
11	Siddhi Jaiswal	DIAMANTI SOFTWARE
12	Salonee Pathan	DIAMANTI SOFTWARE
13	Aditya Bhalerao	DIAMANTI SOFTWARE
14	Ruchira Lolap	Hexaware Technologies limited
15	Prajwal Kuchewar	Hexaware Technologies limited
16	Priya Pathak	Hexaware Technologies limited
17	Lucy Fernandes	Hexaware Technologies limited
18	Ishika C. Chandwadkar	Hexaware Technologies limited



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19	Sanskruiti Pawar	Hexaware Technologies limited
20	Aarushi Adnaik	Hexaware Technologies limited
21	Pranay Devkar	Hexaware Technologies limited
22	Sanskruiti Dhadwe	Hexaware Technologies limited
23	swapnil V. Tekale	Hexaware Technologies limited
24	Manas M. Chachra	Honeywell
25	Shreyash Darade	ExcelR Edtech
26	Jayashri Sambhaji Ghorpade	Johnson Control
27	Prasanna Nilkanth Bhilegaonkar	Johnson Control
28	Om Sachin karkikar	Johnson Control



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II. PROJECT LIST OF ACADEMIC YEAR 2023-24

Group No/ Group ID	Project Group Member Full Name	Title of Project	Name of Guide
1	Ghatage Siddhesh Kishor	In-depth Video Analysis and Content Summarization	Mrs. M. P. Nerkar
	Mane Kedar Pradeep		
	Dudhade Kaushik Mukund		
	Raskar Priyanka Sambhaji		
2	Anandhu Sathyaseelan	Smart Grammar and Plagiarism Checking System	Mrs. M. P. Nerkar
	Dhadwe Sanskruti Shirish		
	Jaiswal Siddhi AkshayKumar		
	Deshmukh Yashwardhan Hemant		
3	Takawale Falguni Jayant	E-Voting System Using Blockchain	Mrs. A. G. Said
	Madane Aarti Rajesh		
	Pawar Sanskruti Chandrakant		
	Sayed Tazeen Gulrez		
4	Adnaik Aarushi Abhijeet	Illegal Parking Detection and Ticketing Using VAV System for Random Area Surveillance	Dr. S. N. Zaware
	Naik Sarthak Rajesh		
	Avati Neha Pravin		
	Khade Laukik Rahul		
5	Pathan Salonee Mustak	AI-Driven Automated Parking System With Identification Through AANPR	Dr. K. S. Wagh
	Kotangale Hardik Mahesh		
	Tirkhunde Atharva Mohan		
	Rajpurohit Rahul Kuksingh		
6	Lolap Ruchira Sachin	Stock Market Prediction Using Deep Learning Techniques	Mrs. S. P. Pimpalkar
	Bachhav Yash Prashant		
	Supekar Atharva Arun		
	Giri Rushikesh Subhash		
7	Natekar Diksha Charudatta	Automatic Question Generator and Descriptive Answer Evaluation System	Mrs. M. P. Nerkar
	Vaibhav Mahesh Londhe		
	Karan Anand Gohire		
	Priya Pathak		
8	Shete Anagha Sanjay	Virtual Dressing Room Using AR, VR and XR	Mrs. N. S. Patil
	Kakade Parul Nishikant		
	Kalyani Yash Vivekanand		
	Roy Avishi Abhishek		



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9	Shiledar Jishan Tajoddin	Smart Dustbin	Mr. P. S. Sadapule
	Shaikh Tausif Rafiq		
	Savale Nileet Sumesh		
	Pandita Ritik		
10	Patil Gautam Jitendra	IOT and ML Driven Smart Fire Alarm and Crowd Tracking	Dr. K. S. Wagh
	Kadam Bhushan Sampat		
	Gujalwar Vedika Pramod		
	Patil Vaishnavi Tukaram		
11	Shirsathe Sakshi Rakesh	Diabetic Retinopathy Detection Using Deep Learning	Dr. K. S. Wagh
	Savardekar Suchitra Chandrakant		
	Kakde Om Kiran		
	Ugale Kaustubh Namdev		
12	Urunkar Madhura Anil	Neuroscan Parkinson Detection Using Voice, Handwriting and Gait Dataset	Dr. C. N. Aher
	Mane Sanket Sudesh		
	Raut Sanket Ravindra		
	Paraswar Yash Chandrakant		
13	Mane Deshmukh Swayamsiddha Amrutraj	Sketch to Image Generation for Police Investigation	Mrs. P. S. Gaikwad
	Dubile Sakshi Annaso		
	Fernandes Lucy Savio		
	Bhilegaonkar Prasanna Neelkanth		
14	Garware Chaitanya Vilas	YOLO Series Approaches For Yield Estimation From Cucumber Flowers	Dr. S. N. Zaware
	Mane Omkar Nitin		
	Chavan Kaushal Vijay		
	Mandavkar Harshad Balaji		
15	Bhalerao Aditya Rajendra	Malaria Parasite Detection Using Deep Learning	Dr. C. N. Aher
	Bora Arpit Atul		
	Ghorpade Jayashri Sambhaji		
	Gole Sumedh Satish		
16	Achrekar Atharva Ashwin	Design and Implementation of an IOT and AI based Fire Evacuation System for Smart Building	Dr. C. N. Aher
	Patil Yash Sunil		
	Kuchewar Prajwal Harish		
	Shewale Suyash Gokul		
17	Karkikar Om Sachin	Lung Diseases Detection Using Chest X-Ray Images	Dr. S. N. Zaware
	Solankure Siddharth Sanjay		
	Yerguntala Swapnil Purushottam		
	Bhandare Tejas Uday		
18	Chandwadkar Ishika	Cervical Spin Fracture	Dr. K. S. Wagh



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	Chandrashekhar Mane Vidhi Vikram Kothavale Siddhi Sunil Jagtap Pranoti Somnath	Detection Using Deep Learning Algorithms	
19	Sonawane Pratham Milind Lohiya Pranav Jugalkishor Patil Gaurav Pandharinath Patil Sohan Mahendra	Liver Disease Detection and Classification System	Dr. K. S. Wagh
20	Dhondkar Sakshi Raghunath Walde Dnyaneshwari Yogiraj Shigwan Prashant Deepak Vanshiv Siddhi Vrushal	Accident Mitigation System with ML and IOT.	Mr. Sugat Pawar
21	Pol Rohit Dhananjay Hedao Kushal Suresh Chachra Manas Manish Singh Ayush Kumar Dhanjee	Smart Attendance System Using Computer Vision and IOT	Dr. S. N. Zaware
22	Zende Sejal Santosh Patil Aniket Rajendra Kumbharkar Rohan Rajendra Dharmadhikari Anurag Dhananjay	Smart Air Pollution Hot Spot Detection and Monitoring Using IOT and ML	Dr. A. S. Chavan
23	Aman Kumar Verma Aditya Pawar Vishal Bawadkar Utkarsh Phatale	IoT and AI-Driven Solutions for Modernizing Traditional Agriculture Practices	Mr. P. S. Sadapule
24	Arnav Amate Jayash Pawar Pradnya Rajugade Shreyas Todkar	Steganography for Audio, Video, Image and Text	Mrs. P. S. Gaikwad
25	Dhanorkar Gauri Laxmikant Mane Sanika Pravin Pingle rudra rahul Desai Ramit Sujit	Text and image summarization for Visually Impaired	Mrs. M. A. Zope
26	Lokhande Omkar Popat Gaurav pravin chaudhari Veer Vaishnavi Nandkumar Shisode Yash Rajesh	AI Gym Tracker: Pose Detection and Repetition Counter	Mrs. M. A. Zope
27	Pandey Ashutosh Manoj Guntiwari Naman Tarun	Deep Fake Image Detection	Mrs. P. S. Gaikwad



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	Patil Yadnesh Anil		
	Buchude Swaraj Ramdas		
28	Mankar Ishan Mahesh	Guardians Watch: Smart Surveillance System With Location Tracking	Mrs. N. S. Patil
	Gojamgunde Amogh Mohan		
	Bondarde Niraj Dhananjay		
	Gaikwad Harshada Darshit		
29	Jagtap Oam Sachin	Deep Blue Vision: An Intelligent System For Underwater Waste Monitoring	Dr. S. N. Zaware
	Jain Ritik Sunil		
	Kacholia Niraj Rajendra		
	Bhalala Het Kishorbhai		
30	Beldar Ajay Harishchandra	A Novel Deep Convolutional Neural Network Approach for Voice Disorder Identification	Dr. C. N. Aher
	Nalage Ajay Bharat		
	Chavan Aditya Vitthal		
	Kale Ishwar Vijaykumar		
31	Vallakati Vedant Sushil	Implementation of R-CNN for Wild Fire and Smoke Detection	Mrs. S. P. Pimpalkar
	Yegare Yash Dnyanoba		
	Tathe Tanmay Rajendra		
	Bhavik Nitin Patwa		
32	Khairnar Rohit Shamkant	Smart Multiple Disease Detection Using ML	Mrs. A. G. Said
	Jamdade Parth Satish		
	Yadav Akanksha		
	Kinger Kanika Anil		
33	Chavan Anish Avinash	Personalized Mental Health Support Recommendation and Assistance System	Mrs. S. P. Pimpalkar
	Sadhana Vijay Gawali		
	Dalvi Shreya Sanjay		
34	Pranay Maruti Devkar	IOT based Home Security and Monitoring of Old Persons	Mrs. M. A. Zope
	Varun Akhilesh Agrawal		
	Aman Bapu Shaikh		
	Sarang Kishor Girase		
35	Patil Nirnay Digambar	Behaviors Analysis in Public Spaces Using GAN	Mr. P. S. Sadapule
	Shantanu Badwe Yogesh		
	Kshirsagar rohan balasaheb		
	Phand Swapnil Santosh		
36	Pathare Tejas Navnath	Harmful and beneficial pest identification and pesticide Recommendation	Mrs. A. S. Varal
	Waghchoure Mahesh Narsing		
	Rathod Pavan Ankush		
	Dalvi Rajveer Sangram		



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37	Patil Mayuresh Pramod	Assistive Technologies for Disabled People	Mr. G. J. Navale
	Gaikwad Saakshi Nilesh		
	Sarkate Pratik Ramakant		
	Munde Abhishek Dnyanoba		
38	Jaiswal Dev Prashant	Obstacle avoiding robot using Bug algorithm and bluetooth manipulation	Mrs. Shraddha Toney
	Ramdassi Hrishikesh Hemkant		
	Marke Shubham Gyaneshwar		
	Bhagat Ashwin Puran		
39	Nikam Anurag Vijay	Tiny Ship Detection in Remote Sensing Images	Mrs. P. S. Jadhav
	Karade Anuj Jeevan		
	Daanish Shaikh		
	Ajay Singh		
40	Lokhande Siddharth Adinath	Human Identification In Multiple CCTV Footages	Dr. Veena Bhende
	Abhay Awachar		
	Gumaste Tanish		



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III. INTERNSHIP DETAILS OF YEAR 2023-24 TE DIVISION A

Roll No	Name of the student	Company Name
1	Aditya Singh	NoQ's Digital
2	Admane Atharva Ajay	Delmon Solutions
3	Agarkar Pratik Sharad	NoQ's Digital
4	Anamika Sharma	Prodigy Infotech
5	Attar Aftab Yunusmiya	TechnoHacks EduTech
6	Awate Onkar Kishor	Internshala
7	Babar Mahesh Kishor	NoQ's Digital
8	Belote Sanika Sakharam	Amuwa Corporation
9	Bhadoriya Kamna Bipendra	Inlusto
10	Bhagesh	NoQ's Digital
11	Bhalerao Sanika Balasaheb	NoQ's Digital
12	Bhat Divya Shridhara	NoQ's Digital
13	Bhirud Sankalp Madan	NoQ's Digital
14	Bhosale Aishwarya Arun	NoQ's Digital
15	Borhade Siddhant Nitin	NoQ's Digital
16	Borkar Srushti Suresh	NoQ's Digital
17	Chavan Janhavi Yogesh	NoQ's Digital
18	Chitare Avinash Vijay	NoQ's Digital
19	Chopane Vedant Sanjay	NoQ's Digital
20	Chopde Sanket Ramrao	NoQ's Digital



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21	Deep Dave	NoQ's Digital
22	Deshpande Kaushal Hemant	ZPlus Cyber Secure Technologies Pvt.LTD
23	Dhanawate Tejas Dattatray	NoQ's Digital
24	Dhane Sanjana Devidas	NoQ's Digital
25	Dhawade Guruprasad Abhijit	ZPlus Cyber Secure Technologies Pvt.LTD
26	Dhomse Aditya Kiran	Mavi Green Energy
27	Dikshit Anuj Sanjay	Scalefull Technologies
28	Diwan Atharva Anil	prodigy infotech
29	Dol Samarth Sangitkumar	Inlusto
30	Firake Yadnesh Yogesh	NoQ's Digital
31	Gandhi Zeenen Praveen	NoQs Digital
32	Ghadge Hiten Chandrakant	NoQs Digital
33	Ghonge Subodh Narayan	Institution of Electronics & Telecommunication Engineers
34	Golikere Riya Anand	NoQ's Digital
35	Gujar Shreyash Kailas	NoQ's Digital
36	Gupta Aman Rajesh Kumar	NoQ's Digital
37	Handore Tanaya Mahendra	Scalefull Technologies LLP
38	Holkar Deepak Sandip	NoQ's Digital
39	Jadhav Manish Anil	Techonsy Pvt Ltd
40	Jadhav Prasad Sanjay	NoQ's Digital
41	Jadhav Prasad Sunil	oyester tecnologia



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42	Jadhav Rohan Rajaram	ZPlus Cyber Secure Technologies Pvt.LTD
43	Kadam Aryan Ajay	PRODIGY INFOTECH
44	Kalange Yash Ashok	KasNet Technologies
45	Kale Aditya Rajabhau	NOVUS Creative studio
46	Kale Pratiksha Nagesh	CodeClause Pvt Ltd
47	Kanchan Sanskruti Mahendra	NoQ's Digital
48	Kavade Rishika Umesh	Inventive Business Solutions Pvt. LTd.
49	Khaladkar Sanika Shashikant	NoQ's Digital
50	Khalid Iliyas Babasaheb Sayyad	NoQ's Digital
51	Megh Nilesh Kashilkar	TechnoHacks EduTech
52	Mulla Salma Samsul	Hope foundation
53	Naiknavare Omkar Sunil	NoQs Digital
54	Neharkar Rutuja Dattatray	Piyush IT services
55	Patil Vedant Sharad	NoQs Digital
56	Pawar Sejal Anil	NoQs Digital
57	Sanskar Sanju Gade	NoQs Digital
58	Sayyad Ayesha Samir	Hope foundation
59	Shah Amey Shashank	NoQs Digital
60	Shivam Shinde	NoQs Digital
61	Sonawane Mihir Ajit	Data Lumina
62	Suraj Bhagwan Divekar	TechnoHacks EduTech
63	Suryawanshi Aditya Vijay	Verinite Technologies Pvt Ltd



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64	Tate Sonali Manesh	NoQs Digital
65	Thade Aadesh Sudhakar	Seed InfoTech
66	Ursal Sushrut Popatrao	Zplus Cyber Secure Technology Pvt. Ltd.
67	Yadav Saurabh Raghuveer	Scalefull Technologies
68	Yashodhan Ajay Kumar Gupta	NoQs Digital
69	Aditya Singh	NoQ's Digital
70	Admane Atharva Ajay	Delmon Solutions
71	Agarkar Pratik Sharad	NoQ's Digital
72	Anamika Sharma	Prodigy Infotech
73	Attar Aftab Yunusmiya	TechnoHacks EduTech
74	Awate Onkar Kishor	Internshala
75	Babar Mahesh Kishor	NoQ's Digital
76	Belote Sanika Sakharam	Amuwa Corporation
77	Bhadoriya Kamna Bipendra	Inlustro



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INTERNSHIP DETAILS OF YEAR 2023-24 TE Division B

Roll No	Name of the student	Company Name
78	Aditya Hemant Raut	ARAI Pune
79	Akshay Suresh Khangre	FlazeTech
80	Ambure Samarth Amar	Shree Auto Ltd.
81	Barve Archit Hemant	National Remote Sensing Center (NRSC-ISRO)
82	Belhekar Ishita Vijay	Collin IT Solution
83	Chirag Mohitkar	Pantech E Learning
84	Deshmukh Atharva Sunil	FlazeTech
85	Ghadge Sakshi Santosh	Esquare Techonolgy
86	Kathare Om Vasant	Piyush IT Services
87	Kharat Aditya Arun	Vishwaguru Infotech
88	Korade Harshal Prabhakar	Harpa Technologies Pvt Ltd.
89	Kulkarni Gauri Ashok	1. Techlyverse 2. NoQs Digital Pvt LTD
90	Kulkarni Kapil Mukund	Tech Master Institute
91	Kurhadkar Akhilesh Sanjay	MVLCO
92	Kute Sarthak Sushilkumar	SMARTTECH construction
93	Londhe Darshan Dilip	KasNet Technology
94	Magar Yogesh Ramchandra	COURSE
95	Mali Harshal Sandip	NoQs Digital Pvt Ltd, Algorithmic Electronic
96	Malode Hariom Vilas	Pixelink Technologies



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98	Marane Yash Sanjay	Superfine Bright Steel Pvt. Ltd.
99	Mehta Sejal Shailesh	Ishana Technologies
100	Mohit Chandrakant Kulkarni	1. NoQs Digital Pvt Ltd 2. Algorithmic Electronic
101	Mohite Piyanshu Dattatray	ZapfinTehnologies
102	More Shivraj Ashok	Peocit
103	Munot Neel Sachin	Xcoode
104	Naik Shreya Rajesh	Mindit
105	Nalavade Satvik Abhijit	TRIARQ Health
106	Nashirkar Nupur Manish	Vishwaguru Infotech
107	Nayak Smitha Suresh	Hope foundation -Bajaj
108	Nimbalkar Vedantraje Prakash	Kesariya Finance
109	Oswal Ayush Nitin	Kesariya Finance
110	Palaskar Vikrant Eknath	KasNet Technologies
111	Pandey Saadgi Girijesh	Inlustro Learning Pvt Ltd
112	Pardeshi Tilakkumar Pravin	Pantech E Learning
113	Parul Puloma	1. NoQs Digital Pvt Ltd 2. Bharat Intern 3. Certification Course 4. CodeClause 5. Oasis InfoByte
114	Pathare Shreyash Bhausahab	R M CONSTRUCTION
115	Patil Aarya Prashant	Vishwaguru Infotech
116	Patil Harshal Prakash	Novus Creative Studio
117	Patil Mayur Vikas	National Remote Sensing Center



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		(NRSC-ISRO)
118	Patil Sakshi Bhagvat	Webeasy Infotech
119	Patil Shivam Sandepan	NoQs Digital Pvt Ltd
120	Patil Tanmay Dattatray	KasNet Technologies
121	Paturkar Abhishek Unmesh	Pixelink Technologies
122	Pawar Samradnyee Sandeep	Kesariya Finance
123	Potdar Neeraj Ajay	Kesariya Finance
124	Pukale Pawan Dattatraya	R M CONSTRUCTION
125	Rade Devankshi Indrasen	UdemyCourse-Web Development
126	Rajput Neha Ajit	Vishwaguru Infotech Pvt. Ltd
127	Rakshe Anushka Rajaram	Quickensol IT Solutions LLP
128	Ranaware Kulbhushan Kamlesh	R M CONSTRUCTION
129	Sakunde Soham Santoshkumar	Elenco Developers
130	Salakke Mayank Mahesh	1.Data Lumina 2. Smart Education Pvt. Ltd
131	Sandeep Raina	Drittle Tech
132	Sangale Siddhant Sharad	Academor
133	Sawarkar Abhay Pradip	Novus Creative Studio
134	Shah Aryan Bhushan	Novus Creative Studio
135	Shaikh Mohd Umar Ashfaqe	Intrainz Innovation Private Limited
136	Shelake Aditya Nandu	NoQs Digital Pvt Ltd
137	Shere Atul Manoj	NoQs Digital Pvt Ltd
138	Shete Sumedh Satish	ARAI Pune



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140	Shinde Gauri Sandeep	Udemy Course:AZ-900:Microsoft Azure Fundamentals Exam Prep(Udemy)
141	Shirsat Srushti Sudhakar	iMocha
142	Shyamsundar Devanshu Milind	Smart Education Pvt.Ltd, Crystal Corner ,Sr No 1,1/1,NSRd,Dighi,Pune,Maharashtra
143	Snehal Lande	Harpa Technologies Pvt. Ltd
144	Snigdha De	ARAI PUNE
145	Sonawane Akanksha Yogesh	Elite softwares
146	Sonawane Vinayak Narendra	SMARTTECH construction
147	Swapnil Madhav Sable	Smart Education Pvt. Ltd.
148	Tarde Tejal Pralhad	Search-In
149	Tekawade Vaibhav Sharad	Elite softwares
150	Tripathi Janhavi Sandeep	1. Samaaro 2. Hope Foundation-Bajaj 3. Noqs Digital Pvt. Ltd
151	Vaishnav Tatyabhau Sakore	Smart Education Pvt. Ltd.
152	Wairagade Yash Haribhau	ARAI PUNE
153	Zanzane Sakshi Shirish	SMARTTECH construction

IV. GLIMPSES OF SPONSORED PROJECTS 2023-24

Title: *A Comprehensive Web Application for Personalized Mental Health Support, Recommendations, And Professional Assistance*

Introduction:

In an age where mental health takes center stage, our web application shines as a symbol of support, ushering in a new era of accessibility to well-being. Our comprehensive platform is meticulously designed not only to identify but also to provide vital assistance for mental health issues. Through a user-focused approach, our goal is to reshape the mental health care landscape by harnessing the potential of technology and compassionate expertise. The core of our application revolves around a user-friendly questionnaire that individuals can engage with. After completion, the results are smoothly delivered via email, creating a swift and discreet method for obtaining feedback. However, what truly distinguishes our system is the personalized recommendations crafted by experienced psychiatrists. This custom guidance encompasses a diverse range of therapeutic components, including engaging activities, compelling narratives, soothing music, guiding affirmations, and calming meditation practices. Our application doesn't just stop at suggestions; it extends to tangible support. Users have the privilege of scheduling appointments with qualified psychiatrists, granting them access to professional assistance at their convenience. Through this feature, we bridge the divide between users and the expert care they require. At the core of our application lies a profound commitment to empowerment. We envision a world where mental well-being is universally accessible, and every individual, regardless of their background or circumstances, can embark on a transformative journey toward mental health. Our web application catalyses the realization of this vision. By embracing cutting-edge technology and seamlessly integrating it with compassionate care, we aim to redefine mental health support, fostering a more inclusive and accessible path to well-being for all.

System Architecture:



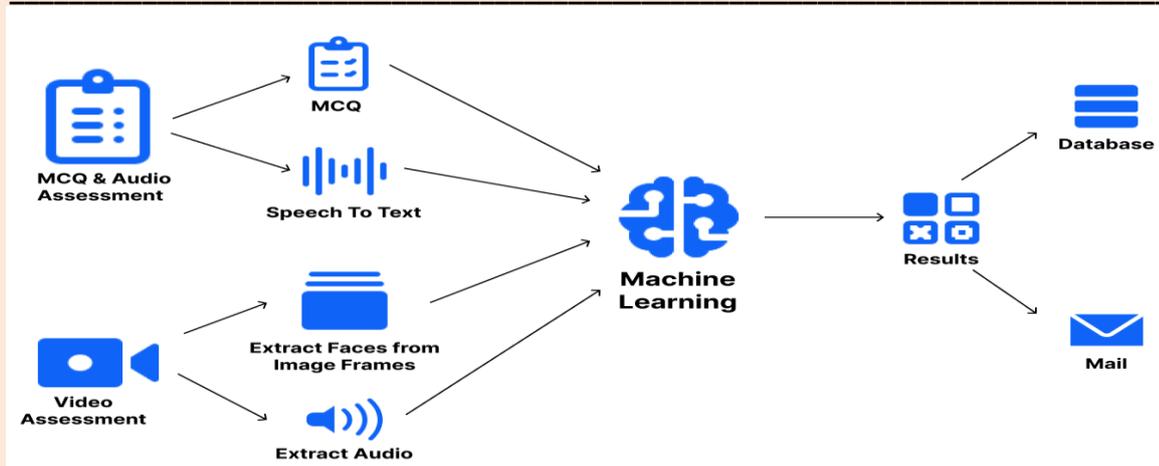
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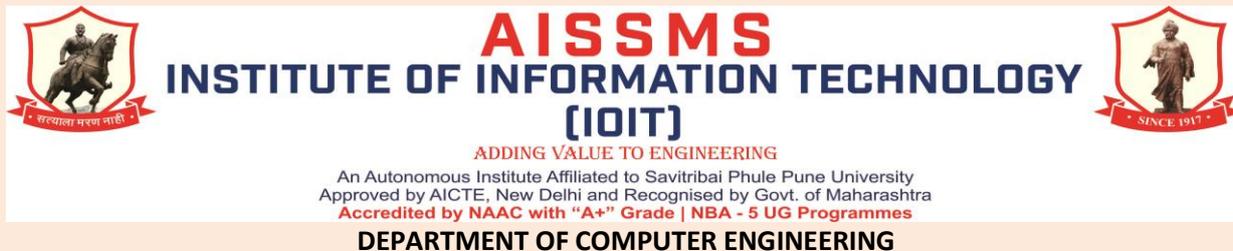
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The system architecture of the web application for depression assessment and support is designed to provide a comprehensive and user-friendly platform for users to evaluate their mental health and access relevant resources. At its core, the architecture comprises several interconnected modules that handle various functionalities. The system begins with a user registration and authentication module, ensuring secure access to the application. Upon login, users are directed to the initial assessment module, where they can complete the BDI-II questionnaire and optionally provide audio or video submissions to express their feelings and emotions. The data from these assessments are then processed by the depression severity analysis module, utilizing machine learning techniques to predict the severity level of depression. Feedback and personalized recommendations are generated based on these predictions, guiding users toward appropriate support resources. The system also includes a video analysis module for emotion detection and additional insights from audio transcription. Furthermore, users can avail additional features such as scheduling online meetings with psychologists, accessing 24x7 chatbot support, and maintaining personal journals within the application. The system architecture leverages a combination of frontend technologies like HTML, CSS, and Flask, backend technologies including Python and MySQL, machine learning models for analysis, AI chatbots for immediate assistance, and integration with external services such as Spotify for music and YouTube for videos. Additionally, location-based services using Open StreetMap are employed to display nearby psychologists, ensuring comprehensive support for users.

Conclusion:

In conclusion, the development of a web application for depression assessment and support presents a significant advancement in addressing mental health challenges in a user-centric manner. By integrating various modules such as initial assessment, depression severity analysis,



video analysis, and additional support features, the application offers a holistic approach to evaluating and addressing depression. Through the utilization of machine learning techniques, users can receive personalized feedback and recommendations based on their questionnaire responses, audio submissions, and video uploads. The availability of additional resources such as online meetings with psychologists, 24x7 chatbot support, and journaling functionalities further enhances the user experience and promotes continuous mental well-being. Overall, the system architecture, comprising frontend and backend technologies, machine learning models, and integration with external services, ensures a robust and reliable platform for users to assess, manage, and seek support for their mental health needs. As mental health awareness continues to grow, such innovative solutions play a crucial role in promoting early intervention, destigmatizing mental health issues, and ultimately improving the overall well-being of individuals in society.

Future Scope:

Looking ahead, there are several promising avenues for expanding the capabilities and reach of the depression assessment and support platform. One potential area for future development lies in the integration of wearable devices to gather real-time physiological data, such as heart rate variability and sleep patterns, which can provide valuable insights into an individual's mental health status. By incorporating data from wearables, the platform can offer more personalized and dynamic assessments, enabling timely interventions and support.

Furthermore, the creation of an Android application would extend the accessibility of the platform to a broader audience, allowing users to conveniently access its features on their mobile devices. With the widespread use of smartphones, an Android application would enhance the reach and usability of the platform, particularly among users who prefer mobile-based solutions.

Additionally, there is potential for the platform to serve as a centralized hub connecting users with mental health professionals, including psychologists and counsellors. By leveraging technology to facilitate online meetings and consultations, the platform can provide users with easy access to professional support services, regardless of their geographical location. A centralized platform connecting psychologists can also streamline communication and collaboration among mental health professionals, fostering a supportive community and ensuring comprehensive care for users.

Incorporating these future enhancements would not only enhance the functionality and usability of the platform but also contribute to its effectiveness in supporting individuals' mental well-being. As technology continues to evolve and mental health awareness grows, there is significant potential for the platform to play a pivotal role in promoting mental wellness and providing accessible support to those in need.



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Group Members:

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- Shreya Sanjay Dalvi

Guide Name: Shilpa Pimpalkar

Project Sponsored By: Sunshine Counselling & Therapy Centre, Nashik



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2. Title: *IOT and ML Driven Smart Fire Alarm and Crowd Tracking.*

Introduction

In recent years, fire-related injuries have caused widespread devastation and significant loss of life. Fires in buildings are often unplanned or accidental, exacerbated by dense residential development, tangled wires, and inadequate fire safety standards.

There are two main types of fire detection methods: traditional and vision-based systems. Traditional methods use sensors like thermal, flame, and smoke sensors, but they struggle to detect dynamic fire features such as motion and color. They also lack multidimensional data on fire and smoke, like location and severity, requiring human intervention to trigger alarms and confirm fire.

Vision-based systems are promising for fire detection, using cameras to detect static and dynamic fire features like color and motion. They process information through light emission and reflection, offering real-time visual data recording. These systems can also identify the number of people trapped in a building during a fire, crucial when visibility is reduced due to smoke and flame.

Current traditional fire alarm systems have limitations in surveillance coverage, reaction time, human interaction, and detailed fire information. Complexity and false triggering remain concerns. Dynamic exit path guidance during a fire is critical, where a dynamic exit path can be more effective than a static one.

In a recent study, a Raspberry Pi-based vision system was implemented for detecting smoke flow and estimating the number of people using a deep neural network (DNN). The DNN model was trained with a sample dataset and used in real-time for fire detection and people counting. Additionally, a web application was designed to visualize real-time visual data from the vision system.

1. System Architecture :

As shown in the figure below, the input can be a text paragraph or document. The given input will through the following stages : pre-processing i.e data cleaning and normalization, processing i.e unique matrix generation, word count per sentences, frequency list of sentences and calculating TFIDF matrix and post-processing i.e cosine similarity matrix generation, graph generation and score generation using Textrank algorithm and sentence ranking. During this process, some NLP methods will also be used to enhance the output. After all the processing, the summarized output will be generated.



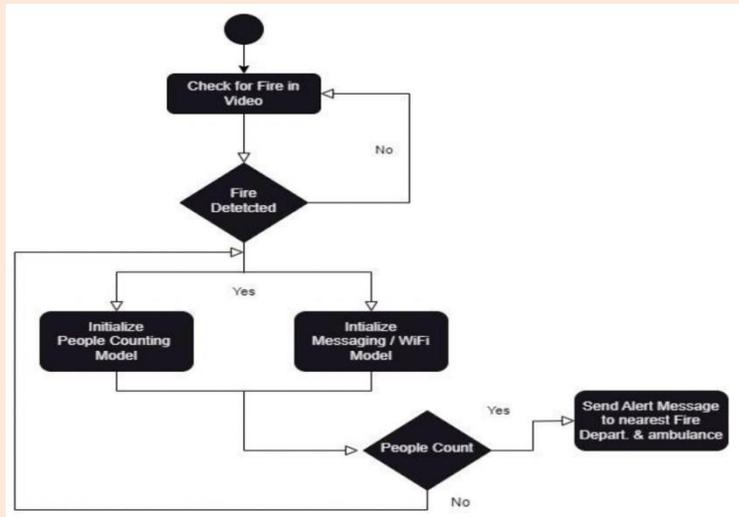
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2. Conclusion:

The project offers a comprehensive solution for fire detection and people counting, addressing safety and security concerns in crowded public spaces. Its real-world applications extend to disaster management, industrial safety, and IoT integration, with the potential for adaptive learning and ethical considerations. The project's adaptability and customization make it a valuable tool in enhancing public safety and security across diverse environments.

Future Scope:

Cloud-Based Solutions: Integration with cloud computing platforms for scalable data storage, analysis, and remote access, facilitating more comprehensive monitoring of multiple sites. **Augmented Reality (AR) Integration:** Augmented reality applications for real-time visualization of crowd movement and emergency response coordination.

Public Safety and Security: The project's real-time fire detection and people counting capabilities can be integrated into smart cities and public spaces to enhance safety and security, making it valuable for large gatherings, transportation hubs, and more.

Customization for Different Environments: The system's adaptability can be harnessed for various environments, from urban settings to remote areas, with customization to suit specific needs.

Group members:

- Bhushan Kadam
- Gautam Patil
- Vaishnavi Patil
- Vedika Gujalwar

Guide Name: Dr.K.S.Wagh

Project Sponsored By: Bright Infotech

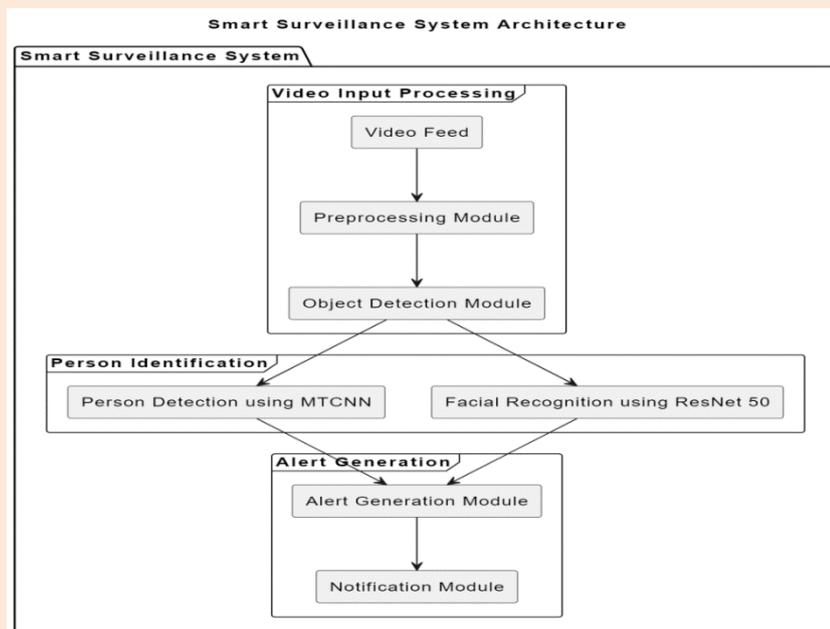


3.Title: *Guardians Watch: Smart Surveillance System with Location Tracking*

Introduction

In an era characterized by rapid technological advancements and an increasing emphasis on safety and security, the integration of machine learning, video analysis, and location tracking has paved the way for innovative solutions in surveillance systems. “Guardians Watch” emerges as a visionary project aimed at revolutionizing conventional surveillance approaches by harnessing the capabilities of modern technologies. Traditional surveillance systems often fall short in providing comprehensive insights and timely alerts in dynamic environments. As a response to these limitations, “Guardians Watch” envisions a holistic approach that combines real-time video analysis with location tracking, enabling a proactive and precise security framework. By fusing these technologies, the project aims to enhance situational awareness, accelerate threat detection, and optimize resource allocation. The core of “Guardians Watch” lies in its utilization of cutting-edge machine learning algorithms. These algorithms, based on deep learning models, empower the system to autonomously identify and track objects, people, and potential threats within live video feeds. In addition to video analysis, the project integrates location tracking, a feature that substantially augments the system’s capabilities. Through indoor positioning systems, accurate real-time location data facilitates efficient tracking of individuals or objects, even across different camera views. This fusion of video analysis and location tracking establishes a comprehensive understanding of events as they unfold.

System Architecture diagram with explanation





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KeyFeatures:

- **Advanced face detection:** The system uses the MTCNN algorithm for accurate and efficient face detection in input video streams. MTCNN uses a multi-level convolutional neural network to detect facial regions, which ensures robust detection even in challenging lighting conditions and various positions.
- **Facial Feature Extraction:** After face detection, our system uses ResNet50, a state-of-the-art deep neural network architecture, to extract high-value features from facial images. ResNet50 is known for its ability to capture discriminative features with remarkable accuracy, allowing accurate identification of individuals.
- **Classification:** After feature extraction, the system uses a classification layer to classify detected faces into predefined categories. Using the power of deep learning, our system can accurately identify known individuals and distinguish them from unknown subjects.
- **Scalability and Efficiency:** Our proposed system is designed to be highly scalable and efficient, allowing seamless integration into existing surveillance infrastructure. It can process large amounts of video data in real time, making it suitable for deployment in various environments such as airports, commercial enterprises and public spaces.
- **Adaptive Learning:** To improve performance over time, our system includes adaptive learning mechanisms that constantly update and refine the underlying models based on new data. This adaptive approach ensures that the system remains robust and effective in dynamic environments with evolving facial characteristics.

Conclusion

In summary, the creation and deployment of a sophisticated human monitoring system that incorporates facial recognition algorithms marks a noteworthy progression in the domains of security, access management, and other related fields spanning numerous sectors. This technology allows for the tracking and analysis of people's movements and actions, as well as real-time monitoring and automated alarm production. Even though improved security, productivity, and data insights have many benefits, it is crucial to handle the drawbacks—such as privacy issues, inconsistent accuracy, and legal issues with responsible use and ethical considerations.

Future scope

1. Advancements in machine learning and deep learning techniques will likely lead to improved accuracy.



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2. The development of privacy-preserving techniques.
3. Combining face recognition with other biometric modalities, such as iris or fingerprint recognition.

Group members:

- Ishan Mankar
- Amogh Gojamgunde
- Niraj Bondarde
- Harshada Gaikwad

Guide name: Neha Patil

Project sponsored by: Vishwaguru Infotech Pvt Ltd

Title: *AI –Drive Automated Parking System With Identification*

Introduction:

In light of the prevailing challenges associated with parking management in several metropolitan areas, there arises a pressing need for a sophisticated automated system aimed at not only efficiently managing parking but also reducing the reliance on manual labor.

This project endeavors to develop a comprehensive parking management system, integrating advanced features to optimize the parking process. These pioneering systems, incorporating state-of-the-art cameras and harnessing cutting-edge technologies such as machine learning and deep neural networks, present a holistic approach to parking management.

The application will harness Advanced Number Plate Recognition (ANPR) technology to accurately identify vehicles, encompassing non-standard and decorative number plates. It will systematically register vehicles in a centralized database, complete with timestamp records, offer recommendations for available parking spaces, and facilitate the allocation of parking spots upon vehicle entry.

Fundamental functionalities of the application include ANPR-based vehicle registration, detection of vacant spaces, and recommendation through YOLO v8 object detection, alongside diverse payment processing options such as QR code (including UPI, card payments, and other digital wallets), cash, and RazorPay UPI. Comprehensive receipts will be generated for all transactions conducted.

Through the integration of these advanced features and algorithms, the parking management application will furnish a user-friendly and secure platform for vehicle owners, enabling them to effortlessly locate parking spaces, conduct seamless transactions, and access essential services while ensuring the safety and surveillance of the parking premises.

In order to guarantee practical utility, a dedicated web application has been meticulously crafted. This platform empowers parking owners to visualize real-time data collected by the parking management system, enabling them to gain insights into their sales metrics, while simultaneously providing users with timely notifications regarding parking space availability.



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Proposed System:

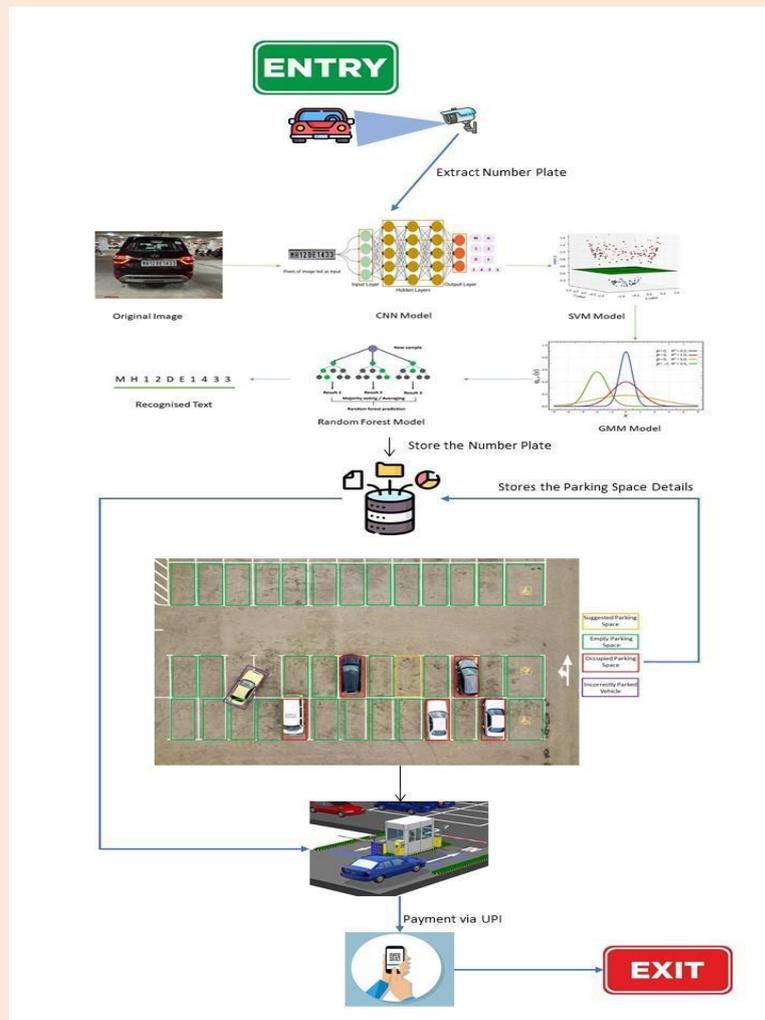


Fig 1. System Architecture Diagram

As shown in the figure below, the system functions seamlessly, commencing with user authentication and registration. After a successful login, users have the convenience of adding funds to their PayWallet for streamlined payments. When reserving parking spaces, users can rely on the system to validate bookings and deduct charges from their PayWallet. Smooth entry is ensured through license plate scanning, followed by the system's verification of plate registration status.

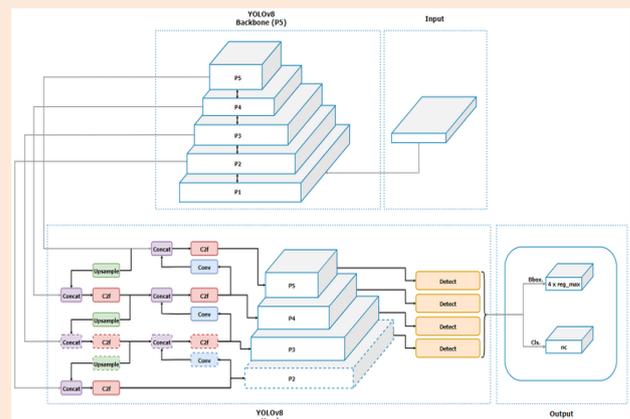
Unregistered plates prompt users to input vehicle details, which the system securely stores post-verification. For registered plates, available parking spaces are suggested by the system. It actively monitors for incorrect parking positions, promptly notifying both users and administrators upon detection.



Correctly positioned parking prompts precise fee calculation, considering entry and exit times. Simplifying transactions, the system generates QR codes, culminating in the issuance of comprehensive digital receipts. The proposed system model is depicted in figure 1.

Key features include:

- 1. User Authentication and Registration:** The system initiates with user authentication and registration processes, ensuring secure access to the platform.
- 2. PayWallet Integration:** Upon successful login, users can conveniently add funds to their PayWallet for streamlined payments, enhancing transaction efficiency.
- 3. Parking Space Reservation:** Users can reserve parking spaces through the system, which validates bookings and deducts charges directly from their PayWallet, ensuring smooth transaction processing.
- 4. License Plate Scanning:** Smooth entry is facilitated through license plate scanning, with the system verifying plate registration status to ensure compliance.
- 5. Vehicle Details Input:** Unregistered plates prompt users to input vehicle details, securely stored post-verification, enhancing data integrity and security.
- 6. Parking Space Suggestions:** For registered plates, the system suggests available parking spaces, optimizing parking space utilization and user convenience.
- 7. Incorrect Parking Monitoring:** The system actively monitors for incorrect parking positions, promptly notifying both users and administrators upon detection, ensuring adherence to parking regulations.
- 8. Fee Calculation:** Correctly positioned parking prompts precise fee calculation, considering entry and exit times, facilitating transparent and fair pricing.
- 9. QR Code Generation:** Simplifying transactions, the system generates QR codes for seamless payment processing, enhancing user convenience and accessibility.
- 10. Digital Receipt Issuance:** Upon completion of transactions, comprehensive digital receipts are issued, providing users with detailed records of their parking activities.



Conclusion:

In this integrated approach, we are implementing a parking management system that makes use of ANPR to recognize all plate types, register vehicles upon entry, provide real-time parking recommendations, enable advance parking reservations, assign parking spaces post-entry, facilitate various payment methods, and generate comprehensive receipts. This approach aims to enhance parking management by harnessing ANPR technology, optimizing space allocation, simplifying payment processes, and offering the convenience of advance reservations.

Future Scope:

Looking ahead, A user-friendly map feature will provide step-by-step directions, guiding users back to their parked cars seamlessly. In addition, an information center section will be seamlessly integrated to offer comprehensive insights into nearby service hubs, encompassing petrol pumps, EV charging stations, garages, and car wash facilities, enhancing the overall user experience. Future implementation will consist of algorithms to detect unusual group activities, such as fights or violent behavior, The system will alert the relevant authorities in real-time for prompt action. Additionally, it will detect individual activities like damaging a parked car or theft attempts and trigger appropriate alerts. Fire detection algorithms will also be integrated to identify potential fire hazards and respond quickly using .

Our forward-looking will introduce additional features to enrich user experience by introducing the option to reserve parking spaces in advance through the app, making it convenient for special events or high-demand periods. Rental parking spaces will also be available for overnight parking or monthly subscriptions, providing flexibility for long-term parking needs. With its foundation in ANPR technology and multifaceted features, it sets forth new benchmarks in the dynamic smart parking industry. We user-centric, and secure aspects that make our parking management system a pioneering solution for the modern urban environment.

Group Members:

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- Hardik Kotangale
- Rahul Rajpurohit
- Atharva Tirkhunde

Guide Name: Dr.K.S.Wagh

Project sponsored by: Bright Infotech



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Title: *E- Voting System using Blockchain*

Introduction:

The convergence of blockchain technology and electronic voting systems has led to the emergence of innovative and secure methods for conducting transparent and tamper-resistant elections. The proposed system delves into the design and implementation of an E-voting system utilizing the robustness of blockchain technology, with a specific focus on the utilization of the SHA-256 algorithm for enhanced security. The proposed E-voting system utilizes blockchain's characteristics to tackle key issues found in traditional voting systems like voter anonymity, ballot integrity, and the ability to verify votes. Cryptographic techniques are employed, and the SHA-256 algorithm is crucial in maintaining the immutability and integrity of data within the blockchain. This, in turn, ensures the legitimacy of cast votes and the overall integrity of the election process. It establishes a self-governing environment through the application of blockchain's consensus mechanisms, specifically Proof of Work (PoW). This autonomy allows participants to confidently engage in the electoral process without reliance on central authorities. The inherent transparency of the blockchain ensures that each vote is publicly accessible while maintaining the privacy of individual voters through cryptographic techniques. Additionally, the inclusion of smart contracts enhances automation and precision in the electronic voting process by executing predefined rules and protocols and eliminating the need for intermediaries, reducing the risk of human error and manipulation, streamlining the voting procedure, ensuring consistency, and improving the accessibility of the electoral system.

System Architecture:

The E-voting system integrates blockchain technology to ensure a secure and transparent voting process. Initially, the system requires voters and candidates to register, during which personal information such as name, identification, and contact details are collected. This phase also involves the generation of RSA key pairs, with the public key being stored in the system's database and the private key retained by the participant. Once registration is complete, identity verification is carried out through a challenge-response mechanism using the stored public keys. Participants prove their identity by decrypting a challenge encrypted with their public key using their private key. Successful decryption and response submission confirm the participant's identity. The core of the system lies in its smart contracts, which encapsulate the voting logic. These contracts verify voter eligibility based on criteria like citizenship, age, and registration status. They enable secure voting, prevent double voting, and ensure the confidentiality and anonymity of each vote. Election setup is another critical step, where smart contracts define the election's parameters, such as type, date, and eligible participants, with all details recorded on the blockchain. During the voting process, voters encrypt their votes using RSA encryption and



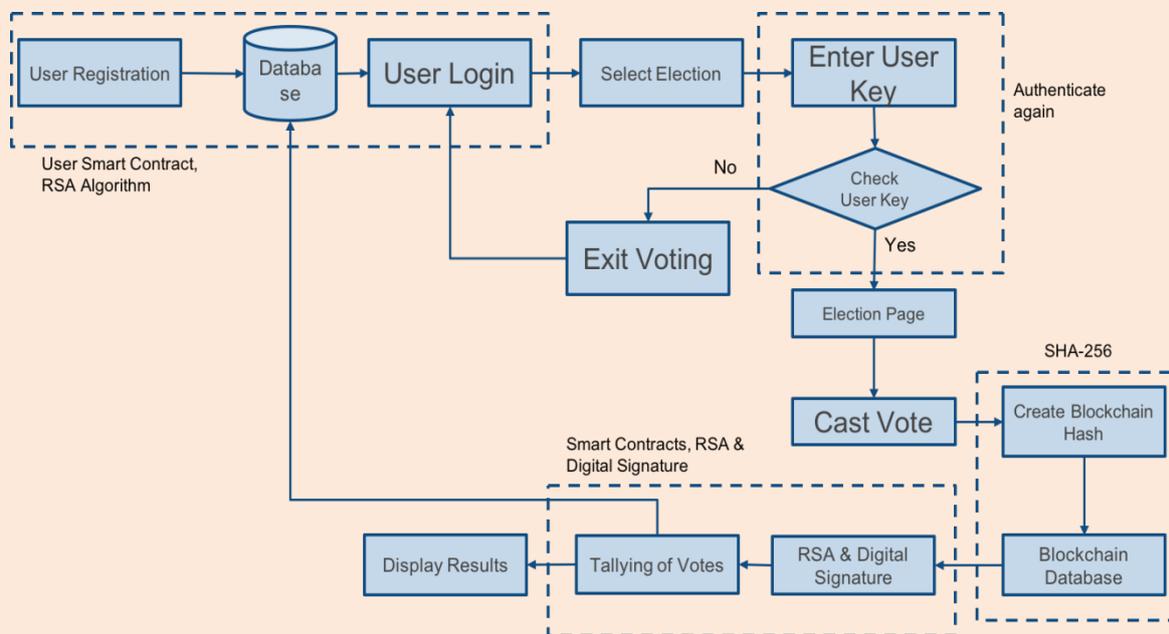
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attach a digital signature created with their private key. This combination of encryption and digital signatures maintains the confidentiality and integrity of the vote. Finally, the vote tallying module comes into play. The system verifies the digital signatures to authenticate each vote. Authorized parties then decrypt the votes, and smart contracts automatically tally them. The results are published and recorded on the blockchain, concluding the process with a secure, accurate, and tamper-proof election. The e-voting system project holds vast potential for the future. It can evolve by incorporating advanced Blockchain technologies, biometric authentication, making it more secure and accessible. Research into global adoption, quantum computing resilience, and improved accessibility features will broaden its impact. Public awareness campaigns, legal compliance, and public-private partnerships are vital for its success. In the coming years, the e-voting system project can evolve to embrace cutting-edge innovations. Enhanced user experiences, seamless integrations with emerging technologies, and adaptive security measures will be key focuses. The continuous pursuit of transparency, accessibility, and adaptability will position the project to be a cornerstone in the ongoing transformation of digital democracy and secure voting practices.



Conclusion:

The E-Voting system project is a great advancement, integrating Blockchain's distributed ledger technology with advanced cryptographic algorithms like SHA-256 and RSA to ensure the integrity and security of the voting process. The system's architecture is designed for



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simplicity and ease of use, encouraging widespread adoption and participation. By addressing the limitations of conventional voting systems, it offers a solution that is not only secure and transparent but also readily accessible to voters. The implementation of a custom blockchain, provides a robust platform that can handle large volumes of data while maintaining quick transaction times. This innovative approach to voting paves the way for a future where democratic processes are more inclusive, efficient, and resilient against fraud, making it a pivotal development in the evolution of electoral systems.

Future Works:

The e-voting system project holds vast potential for the future. It can evolve by incorporating advanced Blockchain technologies, biometric authentication, making it more secure and accessible. Research into global adoption, quantum computing resilience, and improved accessibility features will broaden its impact. Public awareness campaigns, legal compliance, and public-private partnerships are vital for its success. In the coming years, the e-voting system project can evolve to embrace cutting-edge innovations. Enhanced user experiences, seamless integrations with emerging technologies, and adaptive security measures will be key focuses. The continuous pursuit of transparency, accessibility, and adaptability will position the project to be a cornerstone in the ongoing transformation of digital democracy and secure voting practices.

Group Members

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Guide Name: Mrs. Archana Said.

Project Sponsored By: Map Solutions Pvt. Ltd.

Title: *Neuroscan Parkinson Detection Using Voice, Handwriting and Gait Dataset*

Introduction:

With many benefits and the potential to significantly improve people's health and wellness, the Parkinson's Disease Detection Web Application is a promising and cutting-edge method for the early diagnosis of Parkinson's disease. With the help of this ground breaking app, users can easily and non-invasively determine their risk of developing Parkinson's disease, increasing their sense of awareness and control. Through the combination of spiral drawing , voice sample analysis and gait dataset ,the application enhances diagnostic accuracy, providing a more comprehensive assessment of disease risk. Users are presented with clear and understandable prediction results, enabling them to make informed healthcare decisions. The user-friendly interface ensures accessibility for individuals with varying technical abilities, promoting inclusivity. However, it is essential to recognize the limitations and dependencies of the application. Data quality, ethical data usage, and privacy concerns should be carefully addressed. The application should not replace clinical diagnosis but rather serve as a supplementary tool for early detection and self-assessment .The potential applications of this tool are vast, spanning from individual self-assessment to healthcare support, research, telemedicine, public health initiatives, and more. It can contribute to raising awareness, advancing research, and promoting ethical data usage in healthcare. To sum up, the Parkinson's Disease Detection Web Application exemplifies the spirit of technological innovation in healthcare with the goal of improving early detection and enabling people to take proactive measures towards improved health. Notwithstanding its drawbacks and difficulties, it is a useful addition to the field of Parkinson's disease assessment and study because of its potential advantages for early detection, user involvement, and public health

System Architecture:

The proposed Parkinson's disease detection system comprises a user-friendly web interface allowing seamless data upload and result presentation, ensuring accessibility across user demographics. By amalgamating handwriting, voice, and gait data analyses, the system employs convolutional neural networks (CNN) for nuanced handwriting assessment, machine learning models for precise voice analysis, and support vector machine (SVM) classifiers for comprehensive gait examination. Emphasizing heuristic principles, the interface prioritizes simplicity and effectiveness, aiming to provide accurate diagnosis and monitoring capabilities. Ultimately, the system endeavors to enhance patient care and satisfaction by offering reliable and accessible Parkinson's disease detection.



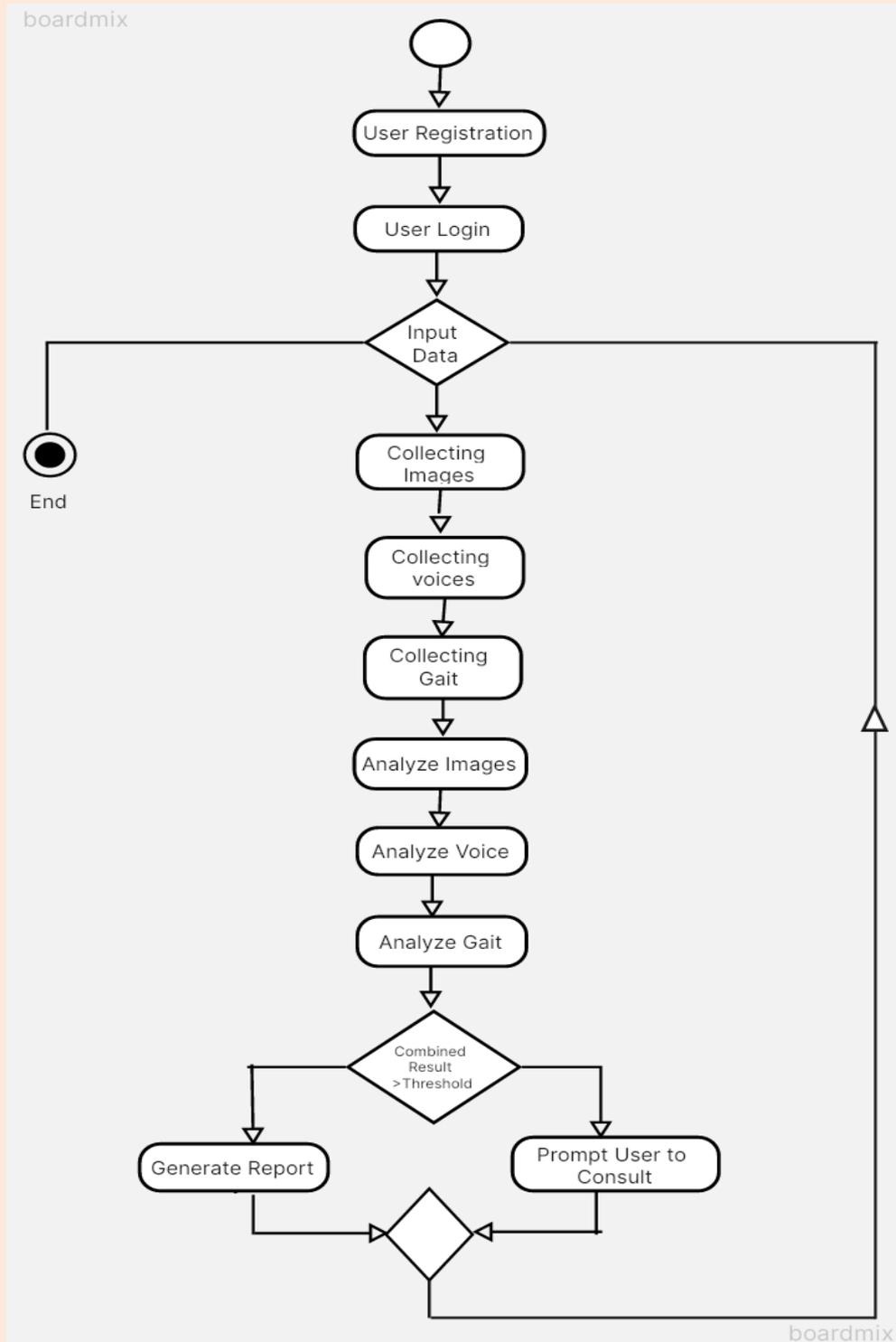
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Conclusion:

With many benefits and the potential to significantly improve people's health and well-being, the Parkinson's Disease Detection Web Application is a promising and cutting-edge method for the early diagnosis of Parkinson's disease. With the use of this innovative software, users may easily and non-invasively determine their risk of developing Parkinson's disease, increasing their sense of awareness and control. Through the combination of spiral drawing and voice sample analysis, the application enhances diagnostic accuracy, providing a more comprehensive assessment of disease risk. Users are presented with clear and understandable prediction results, enabling them to make informed healthcare decisions. The user-friendly interface ensures accessibility for individuals with varying technical abilities, promoting inclusivity. However, it is essential to recognize the limitations and dependencies of the application. Data quality, ethical data usage, and privacy concerns should be carefully addressed. The application should not replace clinical diagnosis but rather serve as a supplementary tool for early detection and self-assessment. The potential applications of this tool are vast, spanning from individual self-assessment to healthcare support, research, telemedicine, public health initiatives, and more. It can contribute to raising awareness, advancing research, and promoting ethical data usage in healthcare. To sum up, the Parkinson's Disease Detection Web Application exemplifies the spirit of technological innovation in healthcare with the goal of improving early detection and enabling people to take proactive measures towards improved health. It is a useful addition to the field of Parkinson's disease assessment and study, despite its limitations and difficulties. These advantages may include early diagnosis, user engagement, and public health.

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