PRJ-Projects List 28/09/2024

SNo Dept	Guide	USNs	Title	Status	Abstract(100words)
1 CSE	Prof. Deepthi M B	4VP19CS095 4VP20CS040 4VP20CS041 4VP20CS054	Machine Translation for Tulu	Functional	The project aims to create an efficient system for translating Tulu audio into Kannada in real-time, utilizing advanced deep learning methods such as convolutional neural networks (CNNs).The system offers a user-friendly interface for uploading Tulu audio files, which are promptly converted into written Kannada text and synthesized speech. Rigorous testing and validation ensure the system's accuracy and reliability. By incorporating their insights and expertise, the system can better capture the nuances of Tulu language and Kannada culture, resulting in more accurate and culturally relevant translations. Future iterations seek to expand translation capabilities to encompass multiple languages and introduce features for live translation, thereby fostering linguistic inclusivity and accessibility. By embracing diversity and collaboration, the project strives to become a catalyst for cross-cultural communication and understanding, transcending linguistic barriers for a more interconnected global community. By addressing these dimensions, the project aspires to create a translation system that not only bridges linguistic divides but also celebrates the richness and diversity of language and culture.

VVSangha's



# Vivekananda College of Engineering & Technology Affiliated to Visvesvaraya Technological University Approved by AICTE New Delhi & Govt of Karnataka



SNo Dept	Guide	USNs	Title	Status	Abstract(100words)
2 CSE	Prof.	4VP20CS001	Voice Controlled Wheelchair	Functional	In today's technological landscape, there is a growing
	PradeepKumar K	4VP20CS003	Using Raspberry Pi		emphasis on developing solutions to assist vulnerable
	G	4VP20CS046			populations, such as the elderly and disabled. One notable
		4VP20CS049			innovation is a Voice-Controlled Wheelchair System designed
					to enhance mobility and support for individuals with limited
					physical capabilities. This system utilizes a Raspberry Pi board
					as its core component, integrating features like voice
					recognition, object detection, and text-to-speech capabilities.
					By leveraging the Raspberry Pi and motor driver, the
					wheelchair can interpret voice commands and detect obstacles
					in its path, providing a user-friendly and efficient way to
					Navigate various environments. Experimental results
					demonstrate the effectiveness of the system in responding to
					voice commands, accurately navigating spaces, and offering
					essential assistance to users. This innovative technology
					represents a significant step forward in improving the
					independence and quality of life for elderly and disabled
					individuals, empowering them with enhanced mobility and
					support. This innovative approach underscores the
					transformative impact of technology in promoting inclusivity
					and improving the overall well-being of vulnerable population



#### List of Projects:2023-24

SNo	Dept	Guide	USNs	Title	Status	Abstract(100words)
3	CSE	Dr. Jeevitha B K	4VP20CS002 4VP20CS011 4VP20CS024 4VP20CS034	Eye sharp	innovative assistive hardware device that combines and earphone to allow people with vision impairing books, papers, and other textual materials with ease Sharp technology extracts text from computer scree ments, and real books by using sophisticated image algorithms. Text-to-speech technology is then used form the collected text into audio format, which is ly transmitted to the user through the built-in earph camera on the smartphone makes use of adaptive of high-resolution imaging capabilities to guarantee a recognition even in a variety of lighting situations styles and sizes. Furthermore, the Eye Sharp system easy-to-use interface that enables those with visual ments to effortlessly operate the gadget with simpl structions.	
4	CSE	Prof. Krishna Mohana A J	4VP20CS004 4VP20CS012 4VP20CS014 4VP20CS044	Interview Preparation Model Based On Deep Learning	Functional	In today,s rapidly advancing job market, effective preparation is paramount for candidates seeking to distinguish themselves. This project introduces an innovative interview preparation model driven by deep learning, aiming to address the multifaceted challenges applicants encounter. Leveraging cutting-edge technologies such as a resume tester, real-time speech analysis, and facial expression evaluation, the model offers tailored exercises and feedback to enhance candidates skills and confidence. By recognizing the importance of technical proficiency and interpersonal aptitude, the model provides a holistic assessment, refining both technical

Preparedby:Prof.RadhikaShettyDS

Checkedby:Prof.PramodKumarPM

HOD:

NehruNagar,Puttur-574203,DK,KarnatakaState-INDIA. Phone:+91-8251-235955,234555Fax:+91-8251-236444,Web:<u>www.vivekanandaedu.org</u>,E-Mail:<u>vcet\_puttur@yahoo.co.in</u>Page:3\_ 

 VVSangha's
 PRJ 

 Vivekananda College of Engineering & Technology
 Projects

 Affiliated to Visvesvaraya Technological University
 List

 Approved by AICTE New Delhi & Govt of Karnataka
 28/09/2024

	knowledge and communication abilities. This abstract
	encapsulates the projects ambition to revolutionize interview
	readiness through the integration of deep learning techniques,
	laying the foundation for a comprehensive examination of its
	methodology, implementation and outcomes in subsequent
	sections of the report.

SNo Dept	Guide	USNs	Title	Status	Abstract(100words)
5 CSE	Prof. Roopa G K	4VP20CS005	YouTube Comments Sentiment	Functional	YouTube has become a significant platform for
		4VP20CS042	Analysis		communication and expression, where people from all over
		4VP20CS050			the world can share their thoughts and opinions on various
					videos. These comments can provide a deep insight into what
					the viewer perceives and their feedback on the content. This
					allows content creators to understand the responses of
					viewers and make improvements to provide their audience
					with better quality and experience. This also holds
					immense potential for marketing companies to understand
					their client's expectations and sentiments from the videos.
					Also, it is useful for the general audience to know what other
					viewers have to say about the video and engage in
					discussions with each other. In the project, sentimental
					analysis will be performed on YouTube comments collected
					using the YouTube API.

#### List of Projects:2023-24

6 CSE	Dr. Lokesh M R	4VP20CS006	3D Point Cloud Processing using	Functional	The Remote sensing application play major role in real-world critical
		4VP20CS009	Panoramic image for		application projects. This project introduces a novel approach, titled
		4VP20CS016	Object detection		"3D Point-Cloud Processing Using Panoramic Images For Object
		4VP20CS026	5		Detection," aimed at enhancing the interpretability of laser point
					clouds through the integration of color information derived from
					panoramic images. Focusing on the context of Mobile Measurement
					Systems (MMS), where various digital cameras are utilized, the
					project addresses the challenges associated with processing
					panoramic images offering a 360-degreeview angle. The core
					objective is to develop a robust method for generating color point
					clouds by establishing a mathematical correspondence between
					panoramic images and laser point clouds. The collinear principle of
					three points guides the fusion process, involving the center of the
					Omnidirectional multi-camera system, the image point on the
					sphere, and the object point. Through comprehensive experimental
					validation, the project confirms the accuracy of the proposed
					algorithm and formulas, showcasing its effectiveness in generating
					color point clouds within MMS. This Project work contributes to the
					present development of 3D point-cloud processing, introducing a
					contemporary methodology for improved object detection through
					the fusion of panoramic images and laser point clouds.

Preparedby:Prof.RadhikaShettyDS

Checkedby:Prof.PramodKumarPM NehruNagar, Puttur-574203, DK, KarnatakaState-INDIA. Phone:+91-8251-235955,234555Fax:+91-8251-236444,Web:www.vivekanandaedu.org,E-Mail:vcet\_puttur@yahoo.co.inPage:5\_ HOD:





#### List of Projects:2023-24

SNo	Dept	Guide	USNs	Title	Status	Abstract(100words)
7	CSE	Prof. Thapaswini P S	4VP20CS007	Wild Animal Intrusion	Functional	This project proposes a wild animal intrusion detection system and
			4VP20CS010	Detection System and Repelling		repelling technology with real-time alerts that utilizes IoT and
			4VP20CS023	Technology with Real-Time		machine learning technologies. The system is designed to detect the
			4VP20CS032	Alerts using IoT&		presence of animals in an area and use an appropriate repellent
				Machine Learning		mechanism to deter them from entering the premises. The system
						comprises sensors that detect animal movement and send signals to a
						central processor that processes the data using machine learning
						algorithms. The algorithms are trained to identify specific animal
						patterns and behaviours, and trigger the repellent system
						accordingly. The repellent system utilizes non-lethal methods such
						as high-frequency sounds. The system is configurable and can be
						adapted to different types of animals, making it versatile and
						effective in various settings. The system is also designed to send
						alerts to the user's mobile device through android application in case
						of an intrusion, allowing for quick action and timely intervention.
						The proposed system can be used in residential areas, farms, whome
0	CSE	Dr. Labach M.D.	4100000000	Lin Reading to Taxt for Deef	Functional	Lin reading to taxt for deaf and dumb neeplo introduces of
0	CSE	Dr. Lokesn M R	4VP20CS008	and Dumb People	Functional	transformative solution aimed at enhancing communication for the
			4VF20CS028	and Dunio Feople		deaf and dumb community through the development of a Lin
			4 1 2003037			Reading to Text Conversion system Leveraging advanced computer
						vision techniques and deen learning algorithms, the system interprets
						and translates visual lip movements into real time contextually
						relevant text. Key functionalities include language support for
						diverse communication needs, adaptability to various lip shapes and
						accents, and a user-friendly interface accessible through wearable
						devices. The system prioritizes real-time processing, ensuring
						seamless and instantaneous conversion for natural and fluid
						communication. Extensive testing with diverse scenarios involving
						deaf and dumb individuals validates the system's accuracy and
						effectiveness. By addressing the unique challenges faced by this
Prep	paredby	Prof.RadhikaShettyDS		Che	ckedby:Pro	.PramodKumarPM HOD:

NehruNagar, Puttur-574203, DK, KarnatakaState-INDIA.

Phone:+91-8251-235955,234555Fax:+91-8251-236444,Web:www.vivekanandaedu.org,E-Mail:vcet\_puttur@yahoo.co.inPage:6\_

 VVSangha's
 PRJ 

 Vivekananda College of Engineering & Technology
 Projects

 Affiliated to Visvesvaraya Technological University
 List

 Approved by AICTE New Delhi & Govt of Karnataka
 28/09/2024

#### List of Projects:2023-24

	community, the Lip Reading to Text Conversion system stands as a
	promising assistive technology, breaking down communication
	barriers and fostering inclusivity for individuals with hearing and
	speech impairments. Future project work involves refining
	adaptability, expanding language support, and exploring additional
	modalities for comprehensive communication solutions.

SNo	Dept	Guide	USNs	Title	Status	Abstract(100words)
9	CSE	Prof. RadhikaShetty D	4VP20CS013	Sentiment Analysis In	Functional	Technology has revolutionized the traditional art form of
		S	4VP20CS015	Yakshagana		Yakshagana, influencing its dissemination, accessibility, and
			4VP20CS045	Lyrics		performance dynamics within cultural contexts. Yakshagana is
			4VP20CS055			deeply rooted in Karnataka's cultural landscape across fifteen
						districts, stands to enhance its preservation and reach through
						investments in technology. The identifying the raga and bhava is an
						important step in the Yakshagana Audio and is traditionally done by
						man power. Some people who are well known in the cultural field
						they can recoginize the raga and bhava. In order to understand the
						Yakshagana Audio, a project is designed to classify the raga and
						tala of different audio set. This project approach to sentiment
						analysis in Yakshagana audio using Convolutional Neural Networks
						(CNNs) and Random Forest Algorithm. By leveraging the power of
						CNNs in capturing spatial dependencies in data, we extract features
						from audio recordings of Yakshagana performances. We then
						employ these features to train a CNN model and Prediction done
						through Random Forest Algorithm capable of classifying the
						sentiment expressed in Yakshagana raga into predefined emotional
						categories. The proposed method offers a valuable tool for cultural
						researchers, performers, and enthusiasts to analyze and interpret the
						emotional content embedded within Yakshagana audio, thereby

Preparedby:Prof.RadhikaShettyDS

Checkedby:Prof.PramodKumarPM

HOD:

NehruNagar,Puttur-574203,DK,KarnatakaState-INDIA. Phone:+91-8251-235955,234555Fax:+91-8251-236444,Web:<u>www.vivekanandaedu.org</u>,E-Mail:<u>vcet\_puttur@yahoo.co.in</u>Page:7\_ VVSangha's



# Vivekananda College of Engineering & Technology

Affiliated to Visvesvaraya Technological University Approved by AICTE New Delhi & Govt of Karnataka

PRJ-Projects List 28/09/2024

		contributing to the preservation and appreciation of this unique art form.

SNo	Dept	Guide	USNs	Title Sta	tus	Abstract(100words)
10	CSE	Prof. Mohan A R	4VP20CS017	HSRP Number Plate Recognition Functi	ional	All vehicle owners must fix a High-Security Registration Plate
			4VP20CS031			(HSRP), under regulations of the Karnataka Transport Department
			4VP20CS048			and Ministry of Road Transport and Highways (MoRTH), because it
			4VP20CS052			is more secure than old registration plates and tamper-proof. The
						HSRP number plate recognition system represents a significant
						advancement in vehicle identification and tracking technology. It
						presents the development and implementation of a comprehensive
						system utilizing Streamlit for the user interface, Open CV for image
						processing and Easy OCR for number plate recognition. The user
						interface provides an intuitive platform for users to upload images
						containing vehicles with HSRP number plates and access
						recognition results and vehicle information. Open CV's image
						processing capabilities are leveraged to preprocess images,
						enhancing quality and isolating the number plate region for accurate
						recognition by Easy OCR. Through rigorous testing and
						experimentation, the system's performance is evaluated across
						various metrics, including functionality, accuracy, performance,
						usability, integration, and end-to-end operation. The results
						demonstrate the system's robustness, reliability and effectiveness in
						diverse scenarios and conditions. Continuous monitoring,
						maintenance, and optimization efforts ensure the system's ongoing
						performance and adaptability. Overall, the HSRP number plate
						recognition system offers a valuable solution for enhancing vehicle
						security, improving traffic management, and streamlining
						administrative processes.

N ENGINEERING AN		VVSangl	na's		PRJ-
	Vivekananda College of F			a & Technology	Projects
		Affiliated to Visvesvarava	Technologic	al University	List
रिकार्गि मही		Approved by ATCTE New De	elhi & Govt	of Karnataka	28/09/2022
		List of Project	s·2023-24		
11     CSE     Prof. Savithal	M 4VP20CS018 4VP20CS030 4VP20CS033 4VP20CS057	Visionary Streetlight Control	Functional	One of the most neglected sources of energy loss is generate too much light in areas where it is not re- waste has enormous economic and environmer addition, due to the conventional manual nature streetlights are frequently seen being turned ON dur OFF in the evening, which is regrettable even in century. This project introducesan Visionary Street I with integrated Accident Detection capabilities, desi- energy efficiency and safety concerns in urban Leveraging Internet of Things (IoT) technolog dynamically adjusts street light brightness base conditions and detects accidents in real-time. The pri- include maximizing energy savings through optimi operation and enhancing safety by promptly is responding to accidents. The system incorporat components including light sensors, IR sensors, a GS a buzzer, enabling comprehensive monitoring and of lighting infrastructure. Real-time accident detection through the integration of the You Only Look Once detection algorithm, facilitating swift response authorities or emergency services as necessary. R implementation demonstrate effective energy co improved safety outcomes, highlighting the po- technology for efficient and responsive urbar	streetlights that equired. Energy ital effects. In e of operation, ing the day and the twenty-first Lighting System gned to address environments. gy, the system ed on ambient imary objectives ized street light identifying and es a range of SM module, and control of street on is achieved (YOLO) object e and alerting essults from the onservation and otential of IoT

management.

PRJ-Projects List 28/09/2022

	,		T	List of Projects	<u>:2023-24</u>	
SNo	Dept	Guide	USNs	Title	Status	Abstract(100words)
12	CSE	Dr. Jeevitha B K	4VP20CS019 4VP20CS029 4VP20CS038	Elderly Care Companion	Functional	The project integrates various components, including smart sensors, artificial intelligence (AI), and human-computer interaction, to create a personalized and adaptable care companion for the elderly. The smart sensor network is deployed within the living space of the elderly individual to monitor activities of daily living, detect anomalies, and ensure a safe environment. Machine learning algorithms analyse the sensor data to identify patterns, predict potential health issues, and alert caregivers or emergency services when necessary. The AI-driven virtual companion serves as a personalized assistant, offering reminders for medication, appointments, and daily tasks. Natural language processing enables the companion to engage in conversations, providing companionship and mental stimulation for the elderly. The system is designed to learn and adapt to the unique preferences and routines of each individual, promoting a sense of familiarity and comfort. In addition to monitoring and assistance, the project incorporates features to encourage physical and cognitive activities. Interactive games, educational content, and exercise routines are integrated into the companion can also facilitate virtual social interactions, connecting the elderly with family members, friends, or other users of the system through video calls and messaging. The project emphasizes user-friendly interfaces and accessibility, taking into consideration the potential challengesfaced by elderly individuals, such aslimited technological familiarity or physical impairments.
13	CSE	Prof. Shrinidhi A	4VP20CS020 4VP20CS021 4VP20CS051 4VP20CS059	Speak Sure	Functional	There are growing implications surrounding generative AI in the speech domain that enable voice cloning and real-time voice conversion from one individual to another. This technology poses a significant ethical threat and could lead to breaches of privacy and misrepresentation, thus there is an urgent need for AI generated fake

Preparedby:Prof.RadhikaShettyDS

Checkedby:Prof.PramodKumarPM

HOD:

NehruNagar,Puttur-574203,DK,KarnatakaState-INDIA. Phone:+91-8251-235955,234555Fax:+91-8251-236444,Web:<u>www.vivekanandaedu.org</u>,E-Mail:<u>vcet\_puttur@yahoo.co.in</u>Page:10

IN ENGINEERING ALL	VVSangha's	PRJ-
	Vivekananda College of Engineering & Technology	Projects
	Affiliated to Visvesvarava Technological University	List
The arts wanted	Approved by AICTE New Delhi & Govt of Karnataka	28/09/2022
	List of Projects:2023-24	
	voice detection system. In response, this proje development of a robust fake voice detection sy Convolutional Neural Networks. The system air distinguish between authentic human voices and imitations, thereby mitigating risks associated wit attacks, impersonation, and misinformation. Key co proposed system include data collection, prepri- extraction, CNN model training, and evaluation comprehensive sets of acoustic features extracted fi including formant frequencies, spectral character model learns to discern subtle differences betwee voices. Through rigorous testing and evaluation, the the fake voice detection system is validated, c potential to enhance security, prevent fraud, and voice-based interactions across various domain contributes to the advancement of AI-driver safeguarding digital communication ecosystems a threats posed by AI-generated fake voices.	ect proposes the ystem leveraging ms to accurately d AI-synthesized th voice spoofing omponents of the occessing, feature n. By analyzing rom voice inputs ristics, the CNN en real and fake e effectiveness o demonstrating it maintain trust in ns. This projec n solutions fo against emerging

. . . . . . .

....

() T	-	~ • •		List of Projects	2023-24	
SNo	Dept	Guide	USNs	Title	Status	Abstract(100words)
14	CSE	Dr. Uma Pare	4VP20CS022	Healthcare monitoring for	Functional	In developing countries, most of the people live in the rural areas
			4VP20CS027	pregnant women using IoT		and medical systems are not amalgamated for sharing information.
			4VP20CS053	and machine learning		Mostly, pregnant women are unable to do their normal checkups at
			4VP20CS058			the early stages of pregnancy and this can lead to higher death
						counts in case of newborns and parents in the rural areas as well as
						in urban regions. Due to this situation, the women are facing an
						immense medical issues. In this project, The healthcare kit for
						pregnant women is a device that is designed to help pregnant women
						monitor their health and well-being. This kit is equipped with a
						variety of sensors that can track a woman's heart rate, temperature
						and other important metrics. It is to provide pregnant women with a
						convenient and easy way to track their health and identify any
						potential problems early on. By providing women with real-time
						data about their health, the kit can help them identify any potential
						problems early on and seek medical attention if needed.
15	CSE	Prof. Krishna Mohana	4VP20CS025	Alzheimer's Disease Detection	Functional	Diagnosis of Alzheimer's disease is commonly based on medical
		A J	4VP20CS035			observations and assessment of clinical signs, including the
			4VP20CS056			characteristics of a variety of motor symptoms. However, traditional
			4VP20CS039			diagnostic approaches may suffer from subjectively as they rely on
						the evaluation of movements that are sometimes subtle to human
						eyes and therefore difficult to classify, leading to possible
						misclassification. In the meantime, early motor symptoms of AD
						may be mild and can be caused many other conditions. Therefore,
						test symptoms are often overlooked, making diagnosis of AD at an
						early stage challenging. To address these difficulties and to refine
						the diagnosis and assessment procedures of AD, machine learning
						methods have been implemented for classification of AD and
						healthy controls or patients with similar clinical presentations. Thus,
						helping medical institutes in early detection of Alzheimer's disease.

				2023-24	
SNo Dep	t Guide	USNs	Title	Status	Abstract(100words)
16 CSE	Prof. Pradeep	4VP20CS036	Detection of Dental Cavity	Functional	Dental cavity detection is a crucial aspect of oral health
	Kumar K G	4VP20CS043			maintenance, aiming to identify and address tooth decay in its early
		4VP20CS047			stages to prevent further damage. Advances in dental technology
		4VP20CS060			have led to the development of innovative diagnostic tools and
					techniques for accurate and efficient cavity detection. Utilizing
					various imaging modalities such as digital radiography, laser
					fluorescence, and intraoral cameras, dental professionals can now
					detect cavities with enhanced precision. Moreover, computer-aided
					detection systems and artificial intelligence algorithms have been
					integrated into the diagnostic process, offering automated analysis of
					dental images and aiding in the early identification of cavities.
					Abstract highlights the significance of these advancements in dental
					cavity detection, emphasizing the potential for early intervention and
					improved patient outcomes in oral healthcare.

THE STREET OF TO

# VVSangha's Vivekananda College of Engineering & Technology Affiliated to Visvesvaraya Technological University Approved by AICTE New Delhi & Govt of Karnataka

			List of Projects	<u>:2023-24</u>		
<b>SNo Dept</b>	Guide	USNs	Title	Status	Abstract(100words)	
17 CSE	Prof. Pramod Kumar	4VP20CS061	Smart Dry Coconut Grading	Functional	Technological advancements can have powerful impact on the	
	P M	4VP20CS062	System		economic growth of agriculture in India. In the ever-evolving	
		4VP20CS075			landscape of agricultural technology, the demand for efficient and	
		4VP20CS082			intelligent systems to streamline processes continues to grow. This	
					project presents a novel approach to enhance the classification of dry	
					coconuts through the integration of Artificial Intelligence. The	
					proposed Smart Dry Coconut Classification System leverages	
					machine learning algorithms and computer vision techniques to	
					automate the sorting and grading of dry coconuts based on various	
					quality parameters. The system employs state-of-the-art deep	
					learning models to analyze visual features such as size, color,	
					texture, and shape of dry coconuts. A comprehensive dataset	
					comprising diverse samples is utilized for model training, ensuring	
					robust performance across different variations in coconut	
					characteristics. The implementation of advanced image processing	
					techniques allows for accurate feature extraction, enabling the AI	
					system to make precise classifications. This project contributes to	
					the advancement of agricultural technology by showcasing the	
					practical application of AI in the domain of dry coconut	
					classification. The proposed system not only addresses the	
					challenges associated with manual sorting but also presents a	
					scalable solution that can be adapted for various agricultural	
					products. The integration of AI into the agricultural sector holds the	
					potential to revolutionize traditional practices, leading to increased	
					productivity and sustainability in the production of dry coconuts.	

				List of Projects	<u>:2023-24</u>	
SNo	Dept	Guide	USNs	Title	Status	Abstract(100words)
18	CSE	Prof. Bharathi K	4VP20CS063 4VP20CS064 4VP20CS065 4VP20CS079	An IoT Based Smart Asthma Alerting System	Functional	The IoT-based smart asthma alerting system designed to monitor and alert asthma patients about environmental conditions that could trigger asthma attacks. Utilizing sensors to detect air quality, humidity, temperature, and particulate matter, the system continuously gathers data and analyzes it in real-time. When potentially harmful conditions are detected, such as high levels of pollutants or sudden changes in temperature or humidity, the system triggers alerts to notify asthma patients via their smartphones or wearable devices. By providing timely warnings, this system aims to empower asthma patients to take preventive measures, ultimately reducing the risk of asthma exacerbations and improving overall health outcomes. The IoT-based smart asthma alerting system employs a network of sensors strategically placed in indoor and outdoor environments frequented by asthma patients, such as homes, schools, and workplaces. These sensors communicate with a central hub or gateway, which processes the data and sends alerts to a dedicated mobile application installed on the users' smartphones or wearable devices.
19	CSE	Prof. Mohan A R	4VP20CS066 4VP20CS087 4VP20CS090 4VP20CS096	Object Detection with Audio Indication for Visually Impaired People	Functional	Our project aims to aid visually impaired individuals by providing real-time audio feedback for object detection. Using computer vision and audio processing technologies, we employ Convolutional Neural Networks for accurate recognition. Through a wearable device, carefully designed auditory cues convey essential information about detected objects, enhancing navigation and decision-making. This innovative integration of computer vision and audio indication fosters inclusivity, independence, and improved quality of life for the visually impaired. By revolutionizing their interaction with surroundings, our system promotes a more accessible and inclusive society.

 VVSangha's
 PRJ 

 Vivekananda College of Engineering & Technology
 Projects

 Affiliated to Visvesvaraya Technological University
 List

 Approved by AICTE New Delhi & Govt of Karnataka
 28/09/2022

				List of Projects	:2023-24	
SNo	Dept	Guide	USNs	Title	Status	Abstract(100words)
20	CSE	Prof. Pramod Kumar P	4VP20CS067	Hastha Samudrika	Functional	The project titled 'Hasthasamudrika' with the aim of implementing
		М	4VP20CS078			key concepts in deep learning and image processing was found to
			4VP20CS087			meet all objectives. Utmost care has been taken to see that the results
			4VP20CS098			obtained are true and the underlying procedures are implemented in
						true form. The aim of this project is to present a novel software
						based selection method that can be used by anyone to get predictions
						by scanning only the image of their hands. It provides a user-friendly
						way to select the lines they want to interpret for future predictions.
						Palmistry is the art of characterization and foretelling the future
						through the study of the palm, also known as palm reading, or
						chirology. With the help of palm lines and fingers one can know the
						characteristics as well as can foretell the future of a person. We have
						used as our basic and core algorithm for computing and predicting
						the result. The proposed method will provide a novel way to read
						lines in an affective budget friendly way.
	1	1		1	1	

				List of Projects	2023-24	
SNo	Dept	Guide	USNs	Title	Status	Abstract(100words)
21	CSE	Prof. Deepthi M B	4VP20CS068	Image Steganography and	Functional	A project with the goal of strengthening user credentials security
			4VP20CS084	Block chain based login		and privacy, which is frequently compromised by unauthorised
			4VP20CS092	credentials and stashing		individuals. The project suggests integrating block chain with
			4VP20CS109			specialised algorithms and steganography methods to securely store
						user credentials. The initiative intends to create a more secure
						method of storing sensitive data and preserving secrecy by utilising
						these strategies. The research essentially suggests a revolutionary
						strategy for safeguarding user passwords and other private data.
						More specifically, the initiative suggests encrypting user credentials
						using cutting-edge cryptographic techniques to make it very difficult
						for hackers to obtain the information. Steganography methods also
						make it possible for the data to be concealed from view, increasing
						security. The information will subsequently be kept on a block
						chain, which offers an unchangeable and impenetrable ledger to
						guarantee data integrity. By employing this strategy, the initiative
						hopes to give consumers a trustworthy and safe means to save their
						login information, lowering the possibility of unauthorised access
						and data breaches. Additionally, the application of block chain
						technology gives consumers ownership over their data and ensures
						that it cannot be accessed by third parties without their permission.

SOF ENGINEERING AND			VVSangl	na's		PRJ-			
		Vivekananda College of Engineering & Technology							
			Affiliated to Visvesvarava	J Fechnologia	cal University	List			
गी नामेन सन्दर्भ		-	Approved by AICTE New De	elhi & Govt	of Karnataka	28/09/2022			
			List of Projects	.2023-24					
22 CSE Prof. 7	Thapaswini P S	4VP20CS069 4VP20CS094 4VP20CS104 4VP21CS402	Exam Attendance Report Generator	Functional	The "Exam Attendance Report Generator" pr advanced deep learning and image processing automate attendance marking during examinations these technologies, the system accurately identif students' presence, thereby reducing the nee- intervention and minimizing errors. The implementar reliability and integrity of the attendance data, allow management of large student cohorts within examin project addresses the growing need for automate educational institutions, where the traditional mare attendance tracking are often time-consuming inaccuracies. With this project, administrators growprehensive platform for managing attendance re- track attendance trends, generate detailed reports, a time attendance status during examinations. Overall only streamlines attendance management but also overall efficiency	oject integrates techniques to s. By leveraging fies and records ed for manual ation ensures the ving for efficient hation halls. This ted solutions in hual methods of and prone to ain access to a ecords. They can nd monitor real- l, this project not so enhances the			

SNo Dept	Guide	USNs	Title	Status	Abstract(100words)
23 CSE	Prof. Bharathi K	4VP20CS070 4VP20CS074 4VP20CS089 4VP20CS111	Classification and Detection of Multi crop Diseases Using Machine Learning	Functional	Multi crop disease classification using Machine Learning is a project aimed at developing a system that can automatically classify diseases affecting multiple crops using Convolutional Neural Networks (CNNs). The project involves training a machine learning model on a large dataset of crop images to identify different types of diseases affecting crops such as Banana leaf, Betel leaf and Cocoa. The system will be designed to provide accurate and fast diagnosis of crop diseases, which will help farmers to take timely action to prevent the spread of diseases and reduce crop losses. The project is expected to have a significant impact on agricultural productivity and food security, particularly in developing countries where crop diseases are a major challenge. The use of Machine Learning CNN in this project will enable us to leverage the power of artificial intelligence to address one of the critical challenges facing agriculture today.

PRJ-Projects List 28/09/2022

			List of Projects	<u>5:2023-24</u>	
SNo Dep	t Guide	USNs	Title	Status	Abstract(100words)
24 CSE	Prof. Roopa G K	4VP20CS071 4VP20CS077 4VP20CS093 4VP20CS106	Asana Vision	Functional	Human pose estimation is very difficult in computer vision that has exposed numerous challenges in the past. Examination of human pose is favorable in numerous fields like video surveillance, bio- metrics, assistance, at-home health monitoring etc. Our fast moving lives these days, people generally prefer exercising at home but felt the need of a trainer to estimate their form. As these resources are not always available, human pose recognition can be used to build a self-instruction exercise system that people realize to learn and practice exercises precisely by themselves. This project set down the beginner for building such a system by discussing numerous machine learning and deep learning approaches to accurately analyze yoga poses on recorded videos and live webcam feed.
25 CSE	Prof. Radhika Shetty D S	4VP20CS072 4VP20CS076 4VP20CS080 4VP20CS107	Cashew Kernel Classification System	Functional	The cashew kernel classification system represents a cutting-edge solution for revolutionizing the cashew processing industry. Through advanced image processing and deep learning techniques, it streamlines the categorization process based on various quality parameters. This innovation significantly reduces sorting time and increases productivity while addressing drawbacks of traditional grading machines, such as the risk of damaging cashew kernels during sorting. By integrating modern technology, the system not only enhances efficiency and accuracy but also elevates product quality and market competitiveness, marking a significant advancement for the cashew industry. Traditional cashew grading machines face challenges, particularly the risk of damaging cashew kernels during sorting due to rotating mechanisms like sorting drums. This can lead to lower-quality or unsellable cashews. However, the cashew kernel classification system overcomes these issues by employing high-resolution imaging and deep learning

Preparedby:Prof.RadhikaShettyDS

Checkedby:Prof.PramodKumarPM

HOD:

NehruNagar,Puttur-574203,DK,KarnatakaState-INDIA. Phone:+91-8251-235955,234555Fax:+91-8251-236444,Web:<u>www.vivekanandaedu.org</u>,E-Mail:<u>vcet\_puttur@yahoo.co.in</u>Page:20

S OF ENGINEERING AND	VVSangha's							
AND		Vivekananda College of Engineering & Technology						
	Affiliated to Visvesvaraya Technological University							
नीरं तानेन सहा हाक			Approved by AICTE New De	elhi & Govt of Karnataka	28/09/2022			
L			List of Projects	:2023-24				
				algorithms to precisely categorize kernels b	ased on shape and size.			
				By automating the grading process, it b	oosts productivity and			
				ensures consistent quality, marking a pivo	al evolution in cashew			
				processing methods.				

List of Projects:2023-24					
SNo Dept	Guide	USNs	Title	Status	Abstract(100words)
26 CSE	Prof. Swapnalaxmi K	4VP20CS073	Mobile Application used to	Functional	Emergency medical services (EMS) play a vital role in saving lives
		4VP20CS088	Detect Nearby Ambulance		during critical situations. However, delays in response times caused
		4VP20CS108			by inefficiencies in ambulance dispatching systems can have a
		4VP20CS110			significant impact on patient outcomes. To tackle this issue, we
					present a comprehensive automated system for detecting ambulances
					in real time. This system consists of two applications: a User
					Application and a Driver Application. The former allows users to
					request ambulance services by providing their location.
					Simultaneously, the latter enables ambulance drivers to indicate their
					availability and respond to incoming requests. To efficiently locate
					nearby ambulances and prioritize their allocation, app utilizes
					Haversine's algorithm. This system facilitates direct communication
					between users and drivers to ensure prompt assistance during
					emergencies. By harnessing real-time data and advanced algorithms,
					our system aims to improve the effectiveness of ambulance
					dispatching.



SNo	Dept	Guide	USNs	Title	Status	Abstract(100words)
27	CSE	Prof.	4VP20CS081	Classification of Headache	Functional	Headache disorders are a prevalent health concern affecting a
		SwapnalaxmiK	4VP20CS101	Disorder		significant portion of the global population. Accurate diagnosis and
			4VP21CS401			classification of headache disorders are crucial for effective
			4VP21CS403			treatment and management. In this study, we propose a machine
						learning based approach for the automated classification of headache
						disorders. Our methodology involves the collection of diverse
						datasets comprising clinical features, symptom descriptions, patient
						demographics, and relevant medical history. Preprocessing
						techniques are applied to clean and standardize the data, followed by
						feature extraction to identify key patterns and characteristics. Several
						machine learning algorithms including Support Vector Machines
						(SVM), Random Forest, and Gradient Boosting are employed for
						classification tasks. Preliminary results demonstrate promising
						classification accuracy, indicating the potential of machine learning
						models in accurately categorizing headache disorders. The proposed
						approach holds the promise of aiding healthcare professionals in
						timely and accurate diagnosis, thereby facilitating better patient care
						and treatment outcomes. Further refinement and validation of the
						model with larger and more diverse datasets are recommended to
						enhance its robustness and generalizability.

VVSangha's Vivekananda College of Engineering & Technology

Affiliated to Visvesvaraya Technological University

Approved by AICTE New Delhi & Govt of Karnataka

#### PRJ-Projects List 28/09/2022

#### List of Projects:2023-24

SNo Dept	Guide	USNs	Title	Status	Abstract(100words)
28 CSE	Prof. Savitha M	4VP20CS083 4VP20CS091 4VP20CS100 4VP21CS400	Chicken Disease Classification Based on Feces	Functional	The poultry sector is facing significant challenges due to the spread of diseases such as Coccidiosis, Salmonella, and Newcastle, which can have a significant impact on production. Traditional farming practices and a lack of reliable information and proper methods of farming have contributed to the spread of these diseases. Poultry farmers rely on experts to diagnose and detect diseases, but access to experts is limited due to the shortage of extension officers. Artificial intelligence and machine learning tools can help semi-automate the diagnostics process for the most common diseases in chickens. This study proposes a solution for predicting diseases in chickens using chicken fecal images, and deep Convolutional Neural Networks (CNN). The proposed CNN model can classify healthy and diseased chicken fecal images as Coccidiosis, Salmonella, Newcastle, or healthy. Also it gives some information about it.
29 CSE	Dr. Uma Pare	4VP20CS085 4VP20CS099 4VP20CS102 4VP20CS105	Gastrointestinal Tract Disease Detection Using Transfer Learning	Functional	This project proposes a method for identifying and classifying gastrointestinal tract diseases from endoscopy images using transfer learning with the MobileNetV2 pre-trained convolutional neural network model. By fine-tuning MobileNetV2 on a dataset consisting of images representing ulcerative colitis, esophagitis, polyps, and normal conditions, the method aims to overcome computational constraints while achieving high accuracy in disease classification. Through a comprehensive approach involving data preprocessing, model selection, training, and evaluation, the proposed method demonstrates promising results in accurately distinguishing between different disease types. The deployment of the trained model holds potential for enhancing diagnostic capabilities in healthcare, potentially reducing the workload on healthcare professionals and

Preparedby:Prof.RadhikaShettyDS

Checkedby:Prof.PramodKumarPM

HOD:

NehruNagar,Puttur-574203,DK,KarnatakaState-INDIA. Phone:+91-8251-235955,234555Fax:+91-8251-236444,Web:<u>www.vivekanandaedu.org</u>,E-Mail:<u>vcet\_puttur@yahoo.co.in</u>Page:24

				List of Project	ts:2023-2	4
						improving patient outcomes
30	CSE	Prof. Shrinidhi A	4VP20CS095 4VP20CS097 4VP20CS103 4VP21CS404	Self Driving Car System Using Raspberry pi	Functional	Self-Driving cars are a sign of modern and advanced technology implementation for human safety and security. The evolution of artificial intelligence has served as the catalyst in the field of technology. The model can sense the environment, navigating, and fulfilling human transportation capabilities without any human input. The model is a big step in advancing future technology. The model contains the idea of developing an automated car which can be driven from anywhere using the internet over a secured server. Model will also have limited automation features like traffic light detection, obstacle avoidance system and lane detection system so that it can drive itself safely in case of connectivity failure. The main goal here is to minimize the risk of human life and ensure the highest safety during driving. At the same time the car will ensure comfort and convenience for the controller. A miniature car including the above features has been developed which showed optimum performance in a simulated environment. The Raspberry Pi was mainly used for the Computer Vision algorithms .The proposed system is very cheap and very efficient in terms of automation. The model explains Road Lane detection, Traffic sign and signal detection, Vehicle and Object detection using Open CV, python and Raspbian OS. Keywords: Lane detection, Object detection, Traffic sign, Signal detection, AI and ML, Image processing.